

Winning Stomachs and Minds: Ethnic Restaurants and Anti-Immigrant Sentiment in the US*

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Abstract

This paper examines how ethnic restaurants influence mainstream sentiment towards immigrant groups. Leveraging one of the first restaurant booms in the US, the ‘chop suey craze’ of the early twentieth century, we investigate how the spread of Chinese restaurants impacted local attitudes towards Chinese immigrants during a period of intense anti-Chinese sentiment. Using historical press data to measure local sentiment and exploiting variation in the timing of Chinese restaurant openings, we find restaurants had a large and persistent positive effect on attitudes towards Chinese immigrants. The opening of Chinese laundries, on the other hand, had no significant impact on local sentiment, despite similar interaction and labor market competition with the US-born community as restaurants. We instead provide evidence in favor of a ‘cultural bridging’ mechanism whereby restaurants helped to reduce the socio-cultural distance of the Chinese-American community.

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1 Introduction

Ethnic restaurants are a central part of immigrant communities in the US, providing a path to business ownership and a means of expressing cultural values. These restaurants dominate the American culinary landscape, with immigrants owning 37% of small restaurants in the US despite constituting only 14% of the population (Gotliboy 2022). The quintessential example of this phenomenon is the Chinese restaurant, with more Chinese restaurants in the US today than McDonalds, Burger Kings, Wendy’s, and KFCs combined (Rude 2016). However, despite representing one of the most prominent forms of interaction and cultural exchange with the native-born population, the impact of ethnic restaurants on local attitudes towards immigrant groups remains poorly understood.

In this paper, we analyze the impact of the ‘chop suey craze’, the rapid spread of Chinese restaurants in the United States in the early twentieth century, on local anti-Chinese sentiment. The Chinese-American community faced intense discrimination throughout the nineteenth century, culminating in the Chinese Exclusion Act of 1882, effectively prohibiting Chinese immigration and leaving it the only immigrant group at the time unable to freely migrate to the US. A turning point came in 1896 with the American tour of celebrated Chinese statesman Li Hongzhang, known as the “Bismarck of the East”, sparking an interest in Chinese culture that led to the ‘chop suey craze’, beginning around 1900.¹ The dish quickly gained popularity as an inexpensive, tasty and ‘exotic’ meal, resulting in a rapid proliferation of Chinese restaurants across the country. Between 1900 and 1930, the number of counties with a Chinese restaurant quadrupled and restaurants became the largest employer of Chinese immigrants, representing over a quarter of the Chinese workforce.

Figure 1 summarizes the main findings of the paper, illustrating the evolution of anti-Chinese sentiment in the media and the proliferation of Chinese restaurant across US counties between 1870 and 1940. We measure anti-Chinese sentiment as the normalized usage of Chinese-specific derogatory terms in newspapers, drawing from the *Newspapers.com* archive, covering approximately 200 million pages from 15,000 local newspapers in 2,500 counties for the period 1870 to 1940.² We measure the county-level spread of Chinese restaurants using full-count population censuses, using Chinese individuals recorded as working in the restaurant industry as a proxy for Chinese restaurants.³ The figure demonstrates a clear shift in both anti-Chinese sentiment and

1. 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”.

2. We also consider a more sophisticated sentiment analysis based on the positive/negative framing used when discussing Chinese immigrants, derived from Card et al. (2022). As this measure requires a full text corpus, the *American Stories* dataset from Dell et al. (2023) is used, which provides sufficient data quality, but with substantially lower coverage of counties and years.

3. This measure provides universal coverage and we show aligns very closely with press mentions of chop suey.

Chinese restaurant proliferation with the onset of the ‘chop suey craze’ in 1900. Chinese restaurant coverage increases sharply before tapering off after 1920, while anti-Chinese sentiment decreases sharply before similarly tapering off after 1920.

The key empirical challenge to assigning a causal interpretation to these trends is that restaurant openings may be endogenous to local attitudes towards Chinese immigrants. This endogeneity 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. To address this, we employ a staggered difference-in-differences strategy that leverages variation in the timing of restaurant openings across counties. County and time fixed effects effectively control for time-invariant county characteristics and nationwide shocks to anti-Chinese sentiment. We further control for both extensive and intensive measures of Chinese population to isolate the restaurant effect from the effect of the dispersing Chinese population. A pre-trends analysis shows 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 find no relationship between pre-exclusion anti-Chinese sentiment and the timing of restaurant openings.

We find that the opening of Chinese restaurants led to a large reduction in anti-Chinese sentiment, with a 33-40% decrease in the use of 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 dynamic analysis shows that 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. We further find that the discussion of Chinese immigrants is framed using more positive themes (such as culture, family and contribution) and less negative themes (such as threat, deficiency and crime) after the opening of a Chinese restaurant. The main results are robust to alternative empirical specifications, measures of anti-Chinese sentiment, treatment definitions and samples, as well as controlling for a variety of media, demographic and market access controls. We also find no effect of a Chinese restaurant opening on local attitudes towards other immigrant groups.

We further address concerns to validity with a placebo analysis using the spread of Chinese laundries. Laundries share many similarities with restaurants for Chinese-Americans during this period. Laundries also represented an accessible path to business ownership servicing a predominantly white clientele and, like cooking, washing clothes was seen as ‘women’s work’ and

While it is possible Chinese immigrants were working in non-Chinese eating establishments, it is likely a negligible amount given the lack of alternative restaurants during this period (Lobel 2016), and the fact that most Chinese restaurant workers were tied to a Chinese-owned restaurant as a condition of their exemption from the Chinese Exclusion Act (E. Lee 2006).

degrading, resulting in little US-born competition (Wang 2004).⁴ Chinese laundries spread rapidly after the Chinese Exclusion Act and were the largest employer of Chinese immigrants prior to the restaurant boom, similarly representing roughly a quarter of Chinese workers at their peak. However, we find that the opening of Chinese laundries had no meaningful effect on anti-Chinese sentiment at either the extensive and intensive margin. Similarly, controlling for laundries has no impact on the restaurant effect estimates. These findings effectively rule out any potential confounding factors surrounding the opening of Chinese restaurants that would equally affect the opening of Chinese laundries.

The null results for Chinese laundry openings also help to disentangle potential mechanisms. One potential channel is the reduction in labor market competition, given the near complete lack of US-born workers in the restaurant industry. The widespread belief that Chinese workers stole jobs and depressed wages was a significant source of tension and the primary justification for the Chinese Exclusion Act (Lew-Williams 2018). However, given that laundry industry also lacked any US-born workers, the null results for laundry openings do not support the competition channel. We explicitly test for the labor market competition mechanism by constructing a time-varying, county-specific measure of Chinese competition.⁵ While anti-Chinese sentiment is higher in counties with more Chinese competition, competition does not explain within-county changes in sentiment, nor does controlling for competition in the main regression affect the restaurant effect estimates. The results for laundries would also seemingly rule out mechanisms related to small business ownership or increased contact with the US-born community through the service industry.⁶

Instead, we argue the defining difference between restaurants and laundries that can explain the disparate results is cultural: restaurants involve a cultural exchange while laundries do not. We examine what we term a ‘cultural bridging’ effect: restaurants introduce and familiarize consumers with Chinese food and culture, thereby reducing the socio-cultural distance from the Chinese-American community. In support of this mechanism, we approximate changes in this distance based on the use of dehumanizing language when discussing Chinese immigrants, and find restaurant openings lead to a large decrease in socio-cultural distance. We further use a large corpus of American cookbooks to examine changes in culinary culture, and find the spread of restaurants aligns closely with increased use of Chinese ingredients in American cooking. This suggests that the ‘cultural bridging’ effect does not just impact perceived distance, but actually brings both cultures closer together through American culture incorporating Chinese elements.

4. Only 0.2% of the white, native-born, working-age population worked in laundries in 1920, compared to 0.3% for restaurants.

5. This measure is calculated by taking the proportion of workers in their occupation/industry pair that are Chinese for each US-born working-age male, and averaging this at the county/decade-level.

6. While it could be argued restaurants involve longer contact than laundries, the absence of any meaningful effect on Chinese sentiment from laundries suggests that simply the quantity of contact is not sufficient to impact attitudes in this case.

Finally, we examine the effect of Chinese restaurants on assimilation and social tolerance of the Chinese-American community. We find that after the opening of a restaurant, Chinese immigrants were significantly more likely to Americanize their names, and slightly more likely to learn English, suggesting increased assimilation effort. Although relatively rare (and illegal in many states), marriages between Chinese and white Americans also increased after a restaurant opening. Since intermarriage reflects both choice and constraint for Chinese immigrants, this likely reflects a degree of increased mainstream tolerance towards Chinese-Americans. While we cannot entirely rule out self-selection of more assimilated Chinese immigrants into counties with Chinese restaurants, we find that the aggregate national trends of Chinese assimilation outcomes align closely with Chinese restaurant proliferation.

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 and Scheepers 2010). Several factors have been identified in the context of racial prejudice in the U.S., including the arrival of new minorities (Fouka and Tabellini 2021; Fouka, Mazumder, and Tabellini 2022), media propaganda (Ottinger and Posch 2022; Ang 2023), wartime hysteria (Moser 2012; Fouka 2019; Ferrara and Fishback 2024), demographic shifts (Cikara, Fouka, and Tabellini 2022), as well as migration-driven shifts in local cuisine and music (Bazzi et al. 2023). Our paper is the first to examine the role of ethnic restaurants in improving mainstream sentiment.

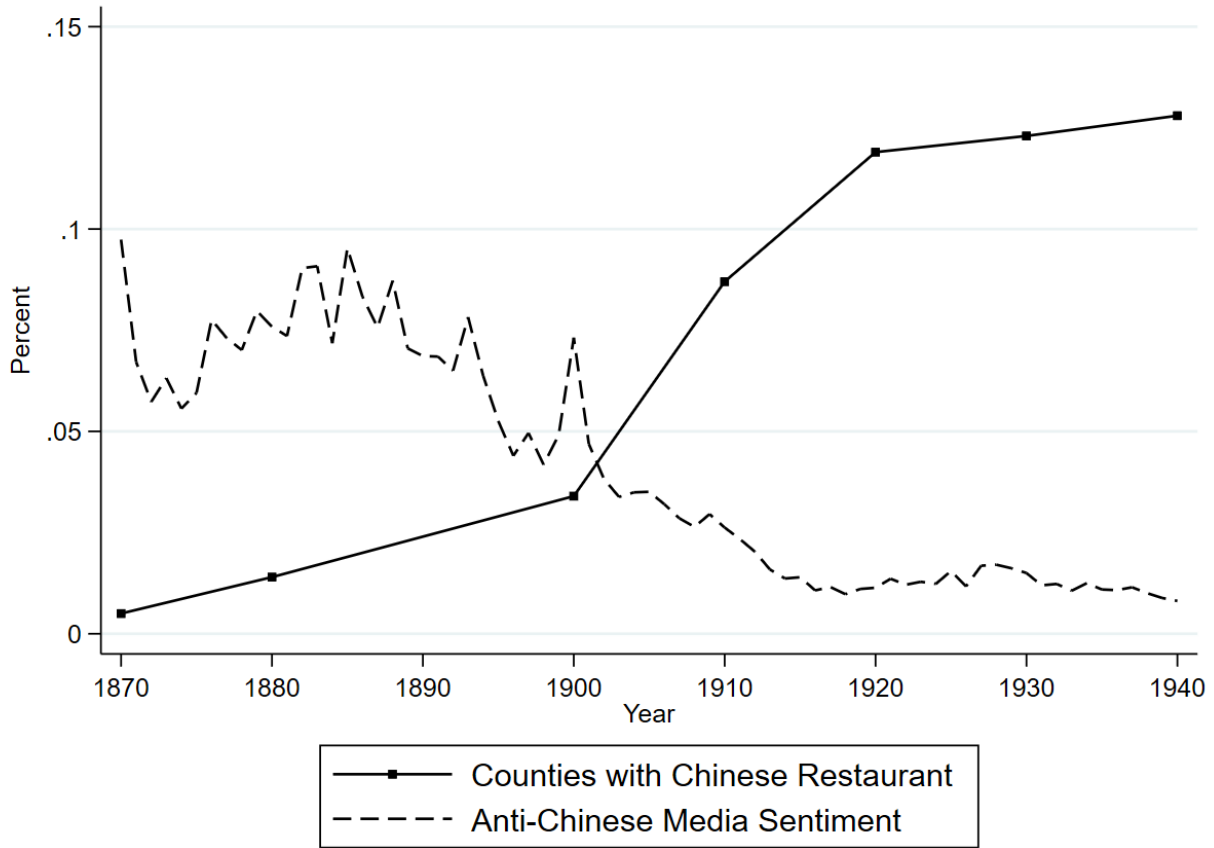
Our findings relate to contact hypothesis, as first proposed by Allport, Clark, and Pettigrew (1954), which suggests hostility can be influenced by intergroup contact under certain circumstances. While the laundry results do not support the contact hypothesis effect through simply commercial interactions with the US-born 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 and Pascali 2019; Bonacich 2019). Finally, the paper also broadly contributes to the effects of and responses to the Chinese Exclusion Act of 1882, including Chinese-American human capital and assimilation (Chen 2015; Chen and Xie 2024), native-born labor market outcomes (Hoi 2023) and regional economic growth (Long et al. 2024).

2 Historical Background

2.1 Chinese Immigration and Anti-Chinese Sentiment in the US

Beginning with the California Gold Rush in 1848, roughly 300,000 Chinese migrants entered the United States between 1848 and 1882, settling mainly in the West. They were overwhelmingly low-skilled male migrants working in mining, railroads, agriculture and manufacturing (Daniels

Figure 1: Anti-Chinese Sentiment and Chinese Restaurants

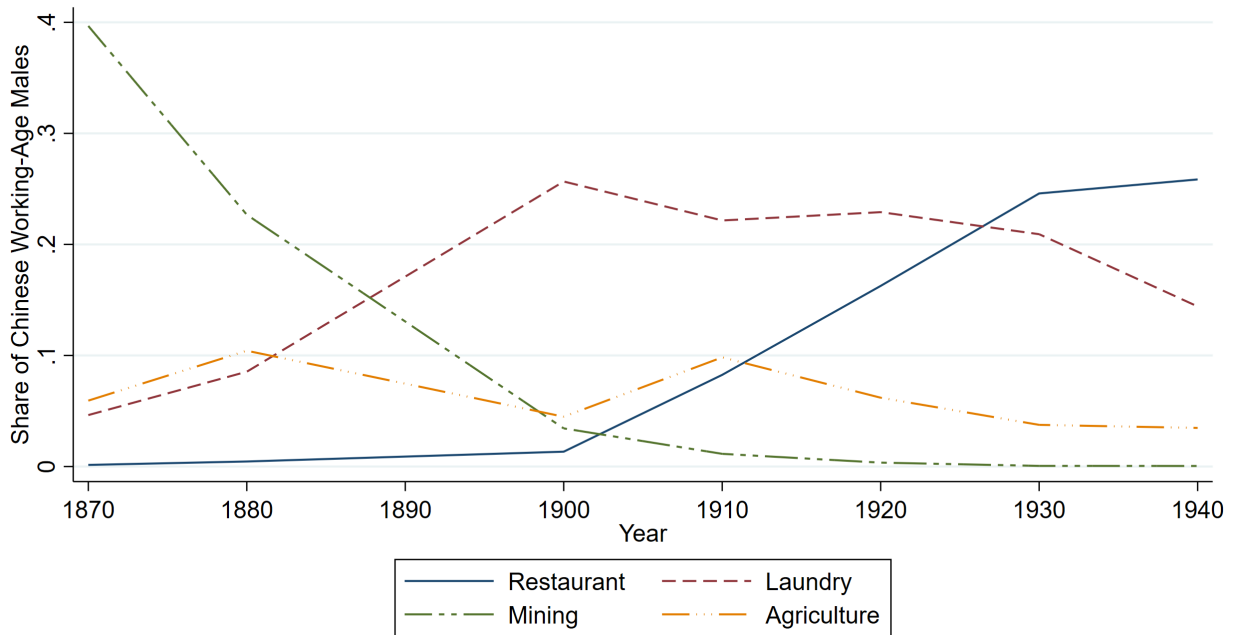


Notes: The figure reports the percent of counties with a Chinese restaurant and the number of newspaper pages containing Chinese discriminatory language normalized by the number of pages containing the neutral word ‘Monday’. A county is considered to have a Chinese restaurant if it contains more than five Chinese restaurant workers, as measured by the Census (the 1890 Census was destroyed in a fire). Chinese discriminatory language is defined as the use of ‘Coolie’, ‘Chinaman’ or ‘Celestial’.

2002). In response to increasing hostility towards Chinese migrants and the widespread belief that they stole jobs and depressed wages, the Chinese Exclusion Act was passed in 1882, America’s first major immigration restriction (Chen and Xie 2024; Lew-Williams 2018). The Act prohibited the entry of Chinese laborers and their families, with a small number of exemptions for merchants, diplomats and students. This exclusion would effectively remain in place until 1965. The Act also triggered the “Driving-Out” period, where Americans violently harassed, and in some cases killed, Chinese immigrants to force them out of industries and communities (Pfaelzer 2008).

In response to this hostility, many Chinese immigrants left the country after 1882, while those who remained increasingly moved into other parts of the US (as shown in Appendix Figure A1) and into self-employment. Laundries was initially the dominant niche for Chinese immigrants, requiring limited capital and English, and facing minimal competition as laundry work was stigmatized as

Figure 2: Chinese Sectoral Employment (1870–1940)



Notes: The figure reports the proportion of the Chinese-born male working-age population employed in the given sector in each Census.

“women’s work” (Wang 2004). This sectoral shift is clearly illustrated in Figure 2, which reports the sectoral employment of Chinese immigrants between 1870 and 1940. Between 1870 and 1900, there was a sharp collapse in mining employment and a rapid increase in laundry employment, which employed a quarter of all Chinese by 1900. While still a dominant employer, the popularity of Chinese laundries would slowly decline over the twentieth century due to the growing popularity of restaurants and falling demand with the introduction of commercial electric washing machines in 1907.

2.2 The ‘Chop Suey Craze’ and Chinese Restaurants

In the nineteenth century, restaurants primarily served upper-class patrons; for the majority of Americans the only public dining option was in drinking establishments such as taverns (Lobel 2016). Ethnic restaurants did exist, but these were typically located in enclaves servicing predominantly co-ethnics. The ‘chop suey craze’ traces its origins to the 1896 American tour of Chinese statesman Li Hongzhang. Li was a celebrated figure at the time as a pro-Western diplomat for the Qing dynasty, known as the “Bismarck of the East”, and his visit created a media sensation and sparked an interest in Chinese culture in the US. The craze first caught hold in Bohemian culture in New York City, with ‘chop suey parlors’ providing inexpensive exoticism for adventurous

culinary tourists (Gabaccia 2000). Despite initial reservations due to the racial trope that Chinese ate rats and dogs, the dish’s popularity eventually spread to mainstream audiences. With decades of experience and established systems to set up and run service businesses, the Chinese-American community was well-positioned to take advantage of the new craze (Carter 2011). The ‘chop suey craze’ created a rapid increase in both the scope and intensity of Chinese restaurants across America. Manhattan alone went from having 11 Chinese restaurants in 1898 (Beck 1898) to over 200 by 1918 (H. R. Lee 2022). Figure 2 also illustrates this trend, where restaurants went from employing about 1% of Chinese in 1900 to 25% by 1930.

The restricted status of Chinese immigrants actually helped fuel the restaurant boom through the merchant class exemption to the Chinese Exclusion Act. ‘Merchant’ was not an established profession, but rather a legal category invented by American policymakers to restrict Chinese wage workers while still encouraging Chinese business owners to immigrate (H. R. Lee 2022). Although difficult, it was possible to obtain merchant status through restaurant ownership. For Chinese workers already in the United States, this loophole solved a dilemma created by exclusion: they could travel back to China or bring family members to the United States with the assurance that they would be allowed to re-enter. Chinese migrants would pool assets, form partnerships, sell shares to friends and relatives, and rotate the formal managerial role, creating a succession of partners that could each qualify for merchant status and sustaining the expansion of Chinese restaurants (Lee, Gao, and Tahir 2022).

3 Data

3.1 US Population Census Data

For measuring the proliferation of restaurants and other controls, we use full-count U.S. Population Censuses from 1870 to 1930, provided by (Ruggles et al. 2021).⁷ The Census provides data on place of birth as well as detailed occupation and industry codes.⁸ Census data is also used for county-level characteristics such as population, foreign-born composition, industrial composition, urban/rural classification, and average income.⁹ We also use the Census for the measure of Chinese labor market competition. We calculate the county-level Chinese labor market competition as the Chinese-born proportion of the workforce that the average white, US-born, working-age male has within their occupation/industry pair.

7. This excludes the 1890 Census, which was destroyed in a fire in 1921.

8. The Census provides over 300 occupation codes and over 150 industry/sub-industry codes.

9. As income was not recorded until the 1940 Census, incomes are proxied by occupational income scores, defined as the median income within occupational codes in the 1950 Census, a measure commonly used as an income proxy in the literature (Abramitzky, Boustán, and Eriksson 2012; Biavaschi, Giuliatti, and Siddique 2017; Ward 2020).

Chinese restaurants are proxied by Chinese restaurant workers in the Census, defined as Chinese-born individuals employed in the industry defined as ‘eating and drinking places’ (or ‘laundrying, cleaning, and dyeing services’ in the case of Chinese laundries).¹⁰ While the Census-based measure of Chinese restaurants has the advantage of universal coverage, the main drawback is that these restaurant workers may not necessarily have been working in Chinese restaurants, or that the restaurants are servicing mainly Chinese immigrants. The historical evidence suggests that Chinese restaurant workers during this period were predominantly working in Chinese restaurants catering to white diners (E. Lee 2006; Lobel 2016). However, we validate the measure using media mentions of ‘chop suey’ and ‘chow mein’.¹¹ We find the two measures to be highly correlated, suggesting the restaurant workers measure is strongly related to mainstream awareness and interest in Chinese food. We also consider a robustness check that proxies Chinese restaurant by a mention of ‘chop suey’ or ‘chow mein’ in the media rather than by Census occupation (henceforth referred to as the media treatment definition).

Another potential issue is that Census occupations are recorded by place of residence rather than place of work, which can generate spurious restaurant counts in counties without an actual establishment. To address this, we define a county as having a Chinese restaurant if it records at least five Chinese-born restaurant workers. Chinese restaurants during this period employed on average nine Chinese workers (H. R. Lee 2013), making five workers a relatively conservative threshold. However, we show that our results are robust to using a one worker threshold.

3.2 Historical Press Data

Our main historical press dataset comes from *Newspapers.com*, the most extensive historical press dataset in the US covering approximately 200 million pages from 15,000 local newspapers across over 1,800 counties in all US states from 1870 to 1940.¹² Newspapers during this period were by far the dominant source of news and were highly localized in their circulation (Ottinger and Posch 2022).¹³ To measure anti-Chinese sentiment, we count pages containing three historically salient and widely used derogatory labels in U.S. discourse at the time. We began from historian-compiled lists of negative terminology and stereotypes and then prioritized terms that specifically

10. City directories do provide direct data on restaurant and laundry establishments. However, the directories have very limited temporal and spatial coverage, vary in methodology between cities, and typically did not record owner ethnicity or type of establishment, thus making them unsuitable for this analysis.

11. Chow mein is a variation of chop suey with noodles instead of rice. The dish rapidly grew in popularity alongside chop suey, with most establishments serving both dishes. The terms were often used interchangeably in the media and by non-Chinese patrons.

12. We began collecting data from *Newspapers.com* on 16 July 2024. Because the platform is continuously updated, the coverage reported here reflects what was available at the time of collection.

13. Our measure captures the *supply of press discourse* rather than realized readership: *Newspapers.com* does not provide reliable title–year circulation or audience reach.

target Chinese people, are well attested in the period, and have low ambiguity. To avoid false positives and over-inclusion, we exclude broader Asian or cross-national labels (e.g., “Oriental,” “Mongolian”) and terms that frequently refer to non-Chinese nationalities. As a screening step, we used Google Books Ngram to compare the prevalence of candidate terms during 1870–1940 and select the most relevant ones (we treat this evidence as suggestive only and validate prevalence directly in our newspaper corpus). These criteria lead us to three terms, namely *Chinaman*, *Celestial*, and *Coolie*.¹⁴ We aggregate counts to the county decade level and normalize them with the counts of the neutral word *Monday*.¹⁵ This approach follows established practice in the historical newspaper literature, which recommends using common and ideologically neutral words like *Monday* or *rain* to adjust for variation in archive density and digitization quality across time and space.¹⁶ We also construct a normalized derogatory count for other major immigrant groups.¹⁷ Table 1 reports the summary statistics from the Census and historical press variables for the counties in the main sample.

As the *Newspaper.com* dataset is only searchable and does not provide the full text corpus, we complement the analysis with the *American Stories* corpus from Dell et al. (2023). This dataset provides a high quality corpus that allows for more sophisticated sentiment analysis at the county-level. However, the limitation of this dataset is a substantially smaller spatial and temporal coverage, with data for less than 200 counties and significantly limited data before 1880 and after 1920. To obtain a richer picture of local sentiment towards Chinese-Americans, we apply this dataset to an analysis of the framing used when Chinese immigrants are discussed in the media. This is based on the frame dictionary developed by Card et al. (2022), which identifies recurring language frames (underlying conceptual structures) that shape how immigrants are discussed in political discourse, derived from congressional speeches. We analyze six distinct frames: threat, crime, culture, family, contribution, and deficiency. We examine these frames individually as well as construct a summary positive vs. negative measure.¹⁸ Furthermore, we utilize the extent of dehumanizing language (also derived from Card et al. (2022)) used when discussing Chinese immigrants as a measure social

14. The term “Chinaman” was widely used during this period as a racial slur against Chinese individuals, emphasizing inferiority. The term “Celestial”, originating from the name “Celestial Empire” for China, emphasized exoticism and highlighted Chinese immigrants as outsiders. The term “coolie” originally referred to indentured Chinese laborers in the U.S., but continued to be used as a racial slur long after the abolition of the ‘coolie’ system in 1862 (Gamsa 2017). For more detailed discussions and classifications of these terms, see Wegars (2020).

15. To ensure a large enough sample for reliability of the press measure, we drop observations where less than 50 total articles were recorded in across all newspapers in a county over the decade. We consider both unbalanced and balanced panel samples (i.e. sufficient articles in every decade between 1870 and 1940) in the analysis.

16. This normalization method is based on the approach described in Beach and Hanlon (2023) and Ottinger and Posch (2022), who argue that words like “Monday” appear with relatively stable frequency across newspaper issues, even when a paper is not published on Mondays.

17. We track derogatory terms for Italian (*dago*, *wop*), German (*hun*), Irish (*mick*, *paddy*, *bog*) and Jewish immigrant (*kike*, *sheeny*), as well as an aggregate count of all these terms.

18. For this, we consider threat, crime and deficiency as negative, and culture, contribution and family as positive.

distance from the native-born population (see Appendix B for a full discussion of the methodology).

4 Empirical Strategy

4.1 Estimating the Effect of Chinese Restaurant Openings

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

$$y_{it} = \alpha_i + \delta_t + \beta_1 Restaurant_{it} + \mathbf{X}'_{it}\gamma + \epsilon_{it} \quad (1)$$

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 Census decade t had five or more Chinese restaurant workers. Therefore, β_1 is the coefficient of interest representing the difference in Chinese discrimination counts after 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, log Chinese population, log total population and a binary variable equal to one if the county has any Chinese immigrants. We control for both intensive and extensive measures of the Chinese community (i.e. population and a binary equal to one if any Chinese reside in the county) to account for differences in the arrival and the overall size of the Chinese community on anti-Chinese sentiment, both of which have been shown to be important (Fouka, Mazumder, and Tabellini 2022; Cikara, Fouka, and Tabellini 2022). Standard errors are clustered at the county level.

The identifying variation is the timing of restaurant openings with the key identifying assumption that trends in Chinese discrimination usage would not have diverged between counties with different opening timings in the absence of the restaurant. Figure 3 maps counties by first Chinese restaurant to illustrate the distribution of different treatment groups (the equivalent for Chinese laundries can be found in Appendix Figure A2). Our preferred specification includes only counties that recorded Chinese restaurants after the start of the craze and before the onset of WWII (i.e. with the first restaurant recorded in the 1900-1930 Censuses, thus excluding the light and dark gray counties in Figure 3). The exclusion of counties without a Chinese restaurant by 1930 (92% of all counties) ensures comparisons with not-yet treated counties rather than never treated counties, which are differ markedly in baseline characteristics making parallel trends in anti-Chinese sentiment unlikely to hold.¹⁹ For the nineteen counties with Chinese restaurants prior to 1900 (henceforth referred to as always treated counties), the treatment variable is complicated by the fact that Chinese restaurants prior to 1900 catered almost exclusively to other Chinese immigrants. These restrictions leave 244

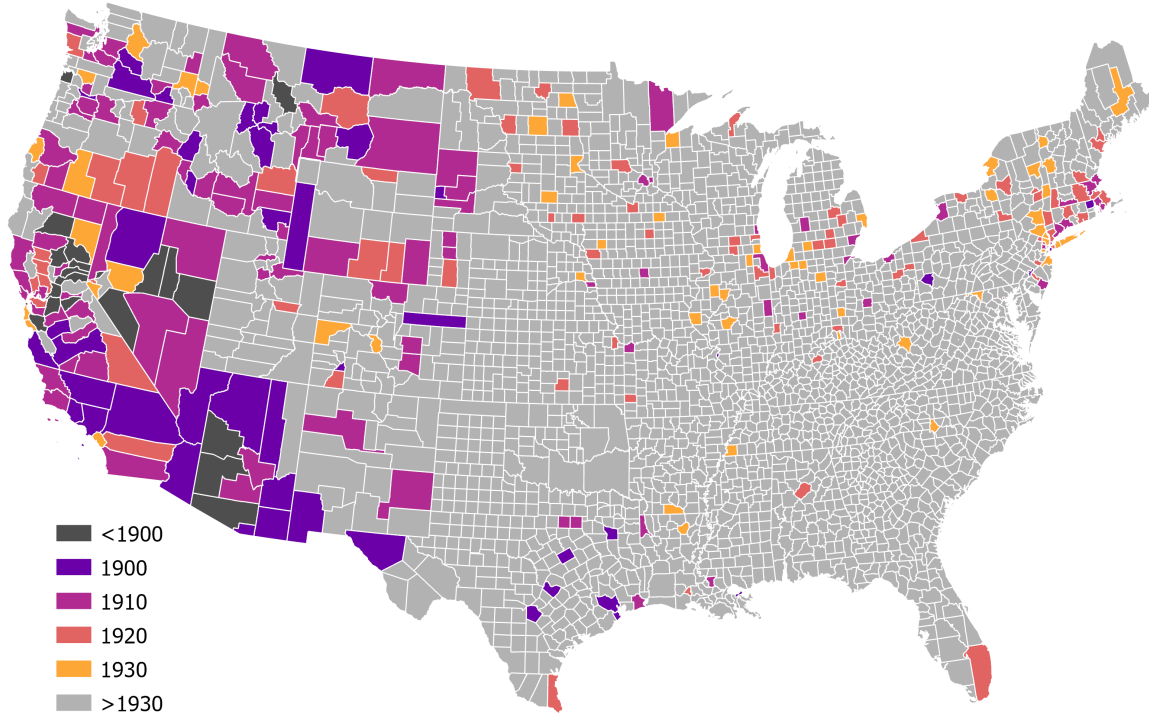
19. This is evident in Table 2, where never treated counties are distinctly more rural, poorer and less educated with substantially fewer Chinese and other foreign-born individuals.

Table 1: Summary Statistics (1870-1940)

	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 ($\times 1000$)	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
Immigrant Discriminatory Count	0.034	0.140	0	3.774
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 reports summary statistics for the 244 counties used in the main analysis over the period 1870–1940. *Chinese Discriminatory Count* is the number of newspaper articles from newspapers.com that contain any of the slurs “coolie”, “Chinaman”, or “Celestial”, normalised. *Total Articles (000s)* is the total number of articles collected from *Newspapers.com* in each year, aggregated to the decade level and expressed in thousands. *Yr First Restaurant* is the first census year in which the county records at least five Chinese restaurant workers. *Restaurant per Capita* ($\times 1000$) is the number of Chinese restaurant workers as a proportion of county population. *Chinese Share* is the share of Chinese-born individuals in the county population, and *Chinese Presence* is an indicator equal to one if the county has at least one Chinese resident. *Immigrant Share* is the share of foreign-born individuals in the county. *Immigrant Discriminatory Count* is the number of newspaper articles containing discriminatory terms referring to non-Chinese immigrant groups (Greeks, Irish, Italians, Jews, and Germans), normalised. *Population (000s)* is the county population from the decennial U.S. Census, expressed in thousands. *Urban* is an indicator equal to one if more than half of the county’s population resides in urban areas. *Income Score* is the median annual income within each Census occupation code in 1950, mapped to workers in each county. *Literacy* is an indicator equal to one if the individual is reported as being able to read and write.

Figure 3: Counties by First Recorded Chinese Restaurant



Notes: The figure maps U.S. counties with 1900 boundaries, color-coded by the first Census year in which more than five Chinese restaurant workers were recorded. The dark and light gray counties are excluded from the main analysis.

counties in the preferred sample, however analysis including always and never treated counties (a total of 1,836 counties) is still reported in the main results.²⁰

Table 2 examines treatment balance by reporting the 1880 covariates of counties grouped by the timing of their treatment (i.e. by first Census with a restaurant). Columns 1-4 are those used in the preferred sample, while Column 5 is the never treated group. The most common opening decade in the main sample is 1910, but with a fairly even spread of counties across each of the main treatment groups. The first notable feature is that early-entry (Column 1) and late-entry counties (Column 4) are distinct in many of the categories. Therefore, we consider robustness checks that drop early and late-entry counties respectively. Column 6 reports the coefficient estimates of regressing each covariate on year of first restaurant opening within the main sample. Looking to the standardized coefficients in square brackets, the 1880 Chinese community at the intensive and extensive margins (i.e population share and binary presence) are unsurprisingly the largest predictors of restaurant opening timing. 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

20. The analysis of Chinese laundries uses similar sample restrictions, but includes laundries opened prior to 1900, since laundries essentially always catered to a non-Chinese clientele.

income). However, this is a reflection of the fact that earlier and larger Chinese communities in 1880 generally attracted more negative attitudes. Once Chinese share and Chinese presence in 1880 are controlled for, the 1880 Chinese discrimination count no longer significantly predicts opening timing. Furthermore, discrimination towards other immigrant groups does not significantly vary with restaurant timing.

To validate 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. We further use a placebo analysis that repeats the main empirical strategy, but using Chinese laundry openings. Since most of the features of the two businesses are similar, comparing the results between restaurants and laundries can help to rule out threats to validity. Finally, we consider a variety of demographic and market access controls, state by decade fixed effects, controls for any Chinese press mentions, as well as an additional placebo test of derogatory language towards other immigrant groups (see Section 5.3).

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 use the preferred specification without and with a balanced panel. The estimates are negative, highly significant, and large in magnitude, equivalent to a 33-40% decrease in Chinese discrimination relative to the mean, or 0.18-0.28 standard deviations. Columns 3 and 4 included counties receiving a Chinese restaurant before 1900 or after 1930 (i.e. always/never treated), and show that the exclusion of these counties does not meaningfully change the results. 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 4 plots the event study around the restaurant opening using the main specification under a balanced panel (i.e. reflecting the estimation in Column 2 of Table 3). We find no evidence of pre-trends in Chinese discrimination. After opening, there is a highly significant but gradual decline in anti-Chinese sentiment. This gradual rather than sharp effect is reassuring that this is not being driven by a large contemporaneous shock. Instead, it is consistent with 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 that few counties record observations forty years before/after opening.

Table 2: Pre-Treatment Balance by Restaurant Timing

	First Census with a Restaurant					Predict
	1900 (1)	1910 (2)	1920 (3)	1930 (4)	>1930 (5)	Treat. Year (6)
Chinese Discrim. Count	0.108 (0.204)	0.074 (0.048)	0.080 (0.074)	0.063 (0.024)	0.082 (0.042)	-11.014** [-0.195]
Chinese Share	0.018 (0.038)	0.010 (0.039)	0.004 (0.019)	0.002 (0.006)	0.001 (0.006)	-61.622*** [-0.236]
Chinese Presence	0.873 (0.335)	0.630 (0.486)	0.488 (0.506)	0.378 (0.492)	0.087 (0.282)	-10.439*** [-0.449]
Immigrant Discrim. Count	0.020 (0.029)	0.032 (0.067)	0.022 (0.028)	0.022 (0.037)	0.028 (0.071)	3.745 [0.020]
Immigrant Share	0.218 (0.140)	0.195 (0.124)	0.178 (0.135)	0.174 (0.155)	0.085 (0.118)	-8.760 [-0.118]
Population (000s)	69.947 (152.195)	51.295 (59.176)	35.544 (31.360)	49.211 (52.953)	18.360 (13.433)	0.011** [-0.160]
Urban	0.318 (0.361)	0.287 (0.270)	0.248 (0.233)	0.267 (0.201)	0.061 (0.126)	-1.994 [-0.064]
Income Score	8.818 (3.145)	7.512 (2.015)	7.257 (2.826)	6.831 (1.342)	5.669 (2.076)	-0.752** [-0.201]
Literacy	0.640 (0.193)	0.663 (0.171)	0.651 (0.177)	0.678 (0.121)	0.564 (0.179)	5.853 [0.084]
N	71	81	43	37	899	

The table compares 1880 baselines statistics of counties grouped by treatment timing (i.e. the first Census with a recorded Chinese restaurant) with standard errors in parentheses. Column 6 regresses the variable on year of restaurant opening, with standardized coefficients in square brackets. *Chinese Discriminatory Count* is the number of newspaper articles from newspapers.com that contain any of the slurs “coolie”, “Chinaman”, or “Celestial”, normalised. *Chinese Share* is the share of Chinese-born individuals in the county population, and *Chinese Presence* is an indicator equal to one if the county has at least one Chinese resident. *Immigrant Discriminatory Count* is the number of newspaper articles containing discriminatory terms referring to non-Chinese immigrant groups (Greeks, Irish, Italians, Jews, and Germans), normalised. *Immigrant Share* is the share of foreign-born individuals in the county. *Population (000s)* is the county population from the decennial U.S. Census, expressed in thousands. *Urban* is an indicator equal to one if more than half of the county’s population resides in urban areas. *Income Score* is the median annual income within each Census occupation code in 1950, mapped to workers in each county. *Literacy* is an indicator equal to one if the individual is reported as being able to read and write.

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

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	-0.014*** (0.006)	-0.019** (0.008)	-0.013** (0.006)	-0.014** (0.007)	-5.583*** (1.689)	-9.936** (3.900)
Mean of D.V.	0.043	0.047	0.041	0.044	0.043	0.047
N of Obs.	1,147	624	7,458	2,940	1,147	624
N of Counties	244	104	1,836	490	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
Never/Always Treated			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 3-4 include always and never treated counties. Columns 2, 4 & 6 use a balanced panel, which excludes counties that do not have sufficient total article counts in every period. Standard errors clustered at the county level in parentheses.

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

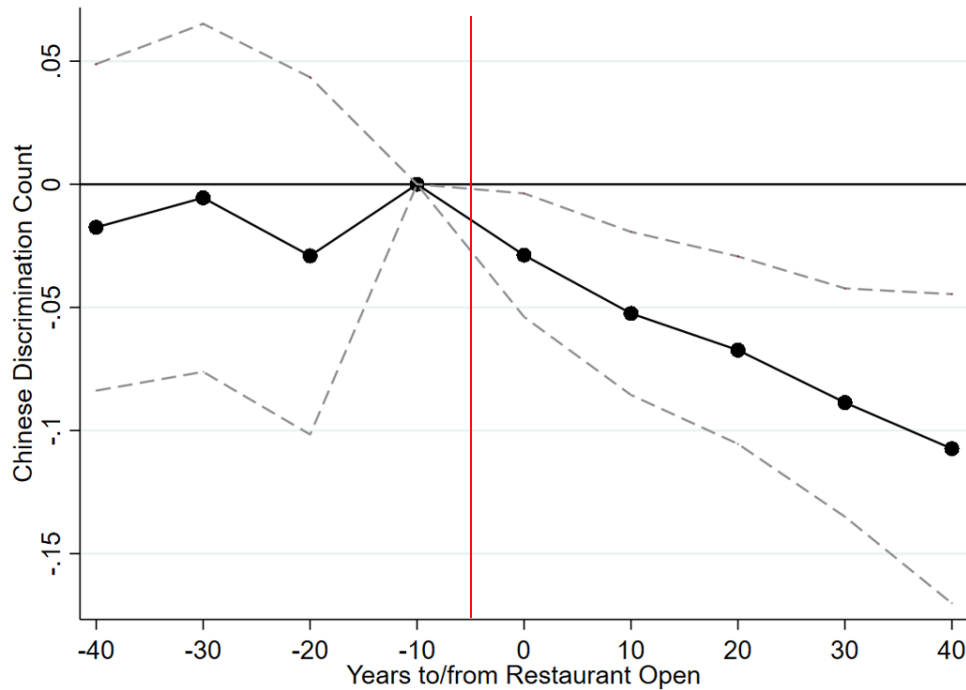
Appendix Table A1 reports the results on the positive/negative framing of Chinese immigrants. While the estimates are noisy given the small sample size, the direction of the effects correspond with the results: positive framing of Chinese immigrants increased and negative framing decreased in response to Chinese restaurants, both at the intensive and extensive margins. The effect sizes are fairly large in magnitude as well, with the positive/negative framing ratio increasing roughly 50% relative to the mean after a restaurant opening. Appendix Table A2 reports the results for the individual language frames, and suggest this shift is driven by the increase in cultural framing and the decrease in criminal framing.²¹ While limited data coverage makes it difficult to draw strong conclusions, the results suggest the presence of Chinese restaurants influenced broader patterns of discourse rather than merely reducing the use of overtly derogatory terms.

5.2 Heterogeneity Analysis

We first analyze how the Chinese restaurant effect differed by dominant industrial sector in the county. Given the Chinese concentration in particular sectors prior to the restaurant boom, there may be significant differences how the population responded to Chinese restaurant openings based on the industrial composition of the county. Figure 5 reports the treatment effect between counties with different major sectors in 1880, defined as the top quartile of county-level employment share in that sector. While the estimates are negative across all sectors, there is substantial heterogeneity

21. The decline in criminal frame reflects the fact that Chinese businesses prior to the restaurant boom had a reputation for criminality, particularly opium, gambling and prostitution.

Figure 4: Chinese Restaurant Opening Event Study



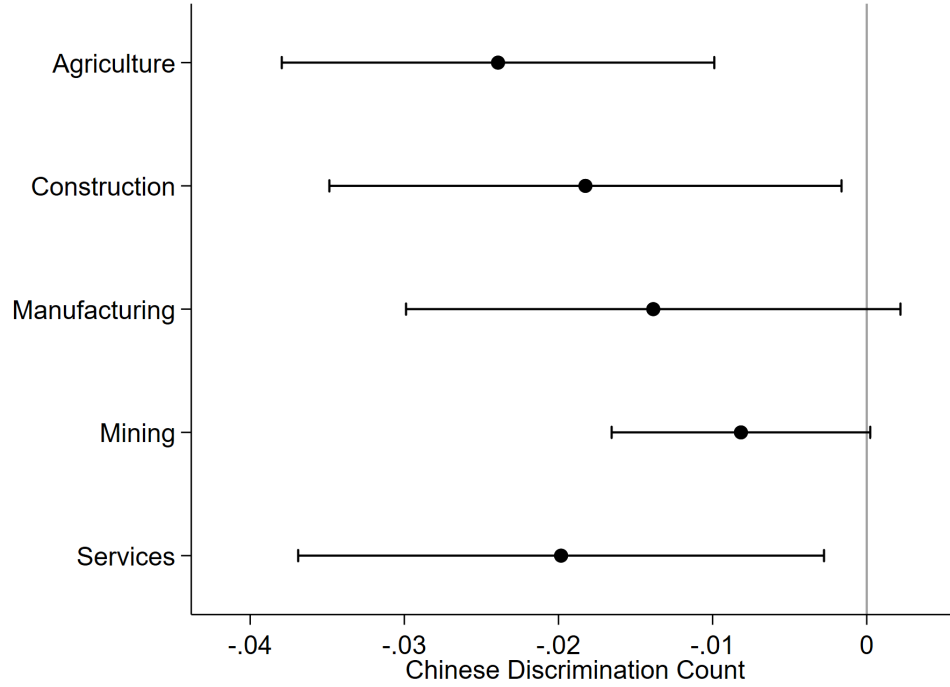
Notes: This graph reports the estimated differences in the Chinese Discrimination Count relative to the Census period prior to a Chinese restaurant opening. The estimates use the main equation with two-way fixed effects and a balanced panel excluding always and never treated counties. Since the zero observation represents the first Census with a recorded restaurant, the actual opening timing (indicated by the vertical red line) lies sometime between the two Censuses. The grey dashed line indicates the 95% confidence interval, clustered at the county-level.

in the magnitudes. Most notably, mining counties have a much smaller effect size than other sectors or the baseline estimate. With much of the violence towards Chinese immigrants occurring in mining communities (such as the Rock Springs and Hell’s Canyon massacres), these findings suggest that restaurants had a relatively muted effect in counties with intense pre-existing hostility towards Chinese immigrants.

Table 4 reports heterogeneity by other baseline characteristics. The main effects are slightly larger in counties with higher baseline Chinese and immigrant shares, as well as in urban and low-income counties. However, the most substantial heterogeneity is in geographic region, where most of the treatment effect is driven by Western counties.²² Overall, while the results in Figure 5 and Table 4 indicate some heterogeneity, the effect of Chinese restaurants is remarkably consistent in reducing anti-Chinese sentiment, with every single industry and sub-group recording a negative estimate.

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

Figure 5: Chinese Restaurant Effects by Major Sector



Notes: The figure reports the effect of a Chinese restaurant opening on the Chinese Discrimination Count by county's industry composition. All estimates use the main estimating equation and the preferred sample (unbalanced, but excluded always/never treated). Each group includes only counties in the top quartile of county-level employment share in the respective sector in 1880. The estimate ranges represent 90% confidence intervals with standard errors clustered at the county level.

5.3 Summary of Robustness Checks

We examine the robustness of the main estimates to various sub-samples, controls and specifications. Table A3 tests for different empirical specifications and treatment definitions. The estimate using the staggered treatment design proposed by De Chaisemartin and d'Haultfoeuille (2020) is larger in magnitude but noisier than the baseline, as the approach only includes observations when switching treatment status. Column 3 includes state by decade fixed effects, and show that the estimates remain significantly negative despite the relatively limited within-state variation available, but smaller in magnitude. Column 4 accounts for spatially correlated errors as per Colella et al. (2019), with no meaningful difference. Columns 5-7 report the results using variations of the Chinese restaurant opening measure: if a county ever recorded five Chinese restaurant worker (not allowing treatment to 'switch off'), if it recorded just a single Chinese worker (rather than the five threshold used in the main analysis), and if there is a mention in the county newspaper of 'chop suey' or 'chow mein'. The estimates are consistently negative and statistically significant, with the exception of the media treatment definition, which is not statistically significant despite being much larger in magnitude.

Table 4: Heterogeneity of Restaurant Treatment Effect by 1880 Characteristics

	Chinese Discrimination Count					
	(1)	(2)	(3)	(4)	(5)	(6)
Restaurant	−0.014*** (0.006)	−0.012*** (0.004)	−0.014*** (0.004)	−0.009*** (0.002)	−0.005 (0.006)	−0.009*** (0.002)
Rest. × Chin. Share		−0.280 (0.178)				
Rest. × Immig. Share			−0.034* (0.019)			
Rest. × Urban				−0.036 (0.027)		
Rest. × West					−0.025* (0.014)	
Rest. × Low Income						−0.007 (0.004)
N of Obs.	1,147	1,147	1,147	1,147	1,147	1,147
N of Counties	244	244	244	244	244	244
County FE	Y	Y	Y	Y	Y	Y
Decade FE	Y	Y	Y	Y	Y	Y
County Controls	Y	Y	Y	Y	Y	Y

The table reports the heterogeneity in the effect of Chinese restaurant openings on the Chinese Discrimination Count. *Restaurant/Rest.* is a binary variable equal to one when the county has over 5 Chinese restaurant workers. All the interaction variables are fixed at the 1880 level. *Chin. Share* and *Immig. Share* refer to the Chinese-born and non-Chinese foreign-born share of the county's population respectively, re-centered to be mean zero. *Urban* is a binary equal one if more than 50% of the county's population record urban residence. *West* is a binary equal to one if the county is in Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington or Wyoming. *Low Income* is a binary equal to one if the county is in the bottom quintile of average occupational income score. All estimates use the main estimating equation and the preferred sample (unbalanced, but excluded always/never treated). Standard errors clustered at the county level in parentheses.

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

However, this is consistent with the media treatment definition being a far less direct measure of Chinese restaurant presence and likely subject to omitted variable bias.

Appendix Table A4 reports the estimates with alternative samples. The results are highly robust to dropping the earliest and latest treated counties, observations in the 1870 decade, and partially treated observations (i.e. the decade prior to the first Census recording a restaurant). Appendix Table A5 show the results are also highly robust to various of media, demographic and market access variables, including normalized counts of mentions of Chinese immigration, pre-treatment anti-Chinese sentiment, non-Chinese foreign share, Japanese share specifically, African-American share, and railway connectivity. Only controlling for any Chinese media mention has a meaningful effect on the main estimate, reducing the magnitude of the effect, although remaining negative and statistically significant. This suggests the effect of the restaurant may be partially driven by Chinese immigrants being less discussed. However, we view this as part of the effect rather than a confounding variable, because, as the results show, greater hostility is associated with greater

discussion in the media.

Finally, Appendix Table A6 reports the results of the placebo test of Chinese restaurant openings on attitudes towards non-Chinese immigrant groups. This applies main empirical framework to derogatory terms for German, Irish, Italian, Jewish and a combined measure. The dependent variable means show the slur terms for the other groups are far less used in the media than Chinese slurs, particularly for Italian and Jewish immigrants. Nevertheless, the estimates are all very close to zero, statistically insignificant and overall slightly positive rather than negative. The findings suggest that Chinese restaurant openings and the reduction in Chinese hostility were not related to a broader easing of anti-immigrant sentiment.

5.4 The Effect of Chinese Laundries on Anti-Chinese Sentiment

Table 5 reports the same specifications as Table 3, but analyzing the effect of laundry openings rather than restaurants. The results across all binary treatment specifications show no measurable impact of Chinese laundry openings on anti-Chinese sentiment. The per capita estimates in Columns 5 and 6 suggest that, if anything, there may have even been a slight increase in anti-Chinese sentiment with larger concentrations of Chinese laundries. Furthermore, Table 6 report the results including both restaurant and laundry opening treatment variables, and show laundry openings have no discernible impact on the restaurant opening estimates. Overall, the findings on Chinese laundries help to strengthen the validity of the main results by effectively ruling out any confounding factors that would equally affect Chinese laundries.

5.5 The Effect of Chinese Restaurants on Assimilation and Tolerance Outcomes

Appendix Table A7 reports the effects of restaurant openings on assimilation outcomes in the Chinese-American community using the main empirical specification. Column 1 reports the effect of restaurants on English proficiency. We find slightly positive, but insignificant effects, with a 3% increase in the probability of speaking English in the Chinese-American community after the opening of a restaurant. Column 2 reports the effect on name Americanization, finding that Chinese immigrants adopt significantly more American names after the opening of a restaurant.²³ The sample size for Column 2 shrinks considerably because first names are restricted to 1% Census samples rather than full-count Census samples. Columns 3 and 4 report the effect of restaurants on the probability that a marriage of a Chinese immigrant is to a white, native-born individual or any

23. We define name ‘Americanness’ as the probability that a given name belongs to a white, US-born individual. While child naming is also a common measure of assimilation, there were simply too few children born to Chinese parents during this period, with the male-to-female ratio of the Chinese-American community during this period roughly 20 to 1.

Table 5: 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	0.008 (0.007)	−0.001 (0.002)	0.006 (0.005)	−0.000 (0.002)	1.402 (1.338)	0.750 (2.118)
Mean of D.V.	0.043	0.042	0.041	0.044	0.043	0.042
N of Obs.	1,550	840	7,458	2,940	1,550	840
N of Counties	324	140	1,836	490	324	140
County FE	Y	Y	Y	Y	Y	Y
Decade FE	Y	Y	Y	Y	Y	Y
County Controls	Y	Y	Y	Y	Y	Y
Never/Always Treated			Y	Y		
Balanced Panel		Y		Y		Y

The table reports the effect of Chinese laundry openings on the Chinese Discrimination Count (slur-based press measure: number of newspaper pages in a county-year containing any of *Chinaman/Chinamen*, *Celestial(s)*, or *coolie*). *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 laundry workers per capita in Columns 5 & 6. Columns 3 & 4 include always and never treated counties. Columns 2, 4 & 6 exclude counties that do not have sufficient total article counts in every period. Clustered standard errors in parentheses.

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

non-Chinese individual respectively. Marriages of Chinese immigrants in the US were relatively rare and anti-miscegenation laws outlawed white/Asian intermarriage in the South as well as much of the West, reducing the power of the analysis. However, we do find a positive, but insignificant effect on intermarriage rates, with a 3% and 5% increase in the probability of marriage with a white, US-born individual and non-Chinese individual, respectively.

6 Mechanisms

6.1 Labor Market Competition

This section examines the extent to which the main results are driven the reduction in labor market competition with US-born workers caused by the move out of high-competition industries into the low-competition restaurant industry. Given that laundries had similar levels of US-born labor market competition than restaurants, 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 competition mechanism using the measure of labor market competition and laundry openings in Table 6. Column 1 shows greater competition is linked to higher anti-Chinese sentiment, as would be expected. However, the effect disappears once Chinese presence and share are controlled for in Column 2. Similarly, including competition in

Table 6: Labor Market Competition and Anti-Chinese Sentiment

	Chinese Discrimination Count					
	(1)	(2)	(3)	(4)	(5)	(6)
Restaurant			-0.014*** (0.004)	-0.019** (0.008)	-0.013*** (0.004)	-0.019** (0.008)
Competition	0.003** (0.001)	0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)		
Laundry					0.009 (0.008)	0.000 (0.005)
Mean of D.V.	0.047	0.047	0.043	0.047	0.043	0.047
N	624	624	1,147	624	1,146	624
N. of Counties	104	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
Balanced Panel	Y	Y		Y		Y

The table reports the effect of Chinese restaurant openings and labor market competition on the Chinese Discrimination Count. *Restaurant* is the treatment variable that is equal to one when the county has over 5 Chinese restaurant workers. *Competition* is the proportion of US-born county population working in an occupation/industry pair with significant Chinese competition. *Laundry* is a binary variable equal to one when the county has over 5 Chinese laundry workers. Columns 1, 2, 4 & 6 exclude counties that do not have sufficient total article counts in every period. Standard errors clustered at the county level in parentheses.

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

the main regression in Columns 3-4 does not affect the main results, nor does laundry openings in Columns 5-6, consistent with the results in Table 5. Overall, there is no evidence to suggest that labor market competition played any meaningful role in the improving Chinese sentiment during this period.

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 socio-cultural distance between Chinese immigrant and the US-born population. In support of this mechanism, we first analyze changes in the use of dehumanizing language when discussing Chinese immigrants as a measure of perceived socio-cultural distance. The results are reported in Table 7, with Columns 1 & 2 using the full sample, and Columns 3 & 4 dropping the 1870 and 1930 due to the limited observations for these years. As with the sentiment framing analysis, the estimates are noisy given the limited data coverage. Nevertheless, the results are significantly negative and large in magnitude, with a 22-25% decrease in dehumanizing language

Table 7: Effect of Chinese Restaurants on Socio-Cultural Distance

	Chinese Dehumanization Count			
	Binary (1870-1930) (1)	Per Capita (1870-1930) (2)	Binary (1880-1920) (3)	Per Capita (1880-1920) (4)
Restaurant	-0.063* (0.037)	-20.983** (10.055)	-0.071* (0.040)	-16.078** (7.485)
Mean of D.V.	0.288	0.288	0.286	0.286
N of Obs.	249	249	219	219
N of Counties	136	136	127	127
County FE	Y	Y	Y	Y
Decade FE	Y	Y	Y	Y
County Controls	Y	Y	Y	Y

The table reports the effect of Chinese restaurant openings on the Chinese Dehumanization Count. *Restaurant* is the treatment variable is a binary variable equal to one when the county has over 5 Chinese restaurant workers. All regressions use the main estimating equation, with a restricted sample (only 1880-1920) for Columns 3 & 4. Standard errors clustered at the county level in parentheses.

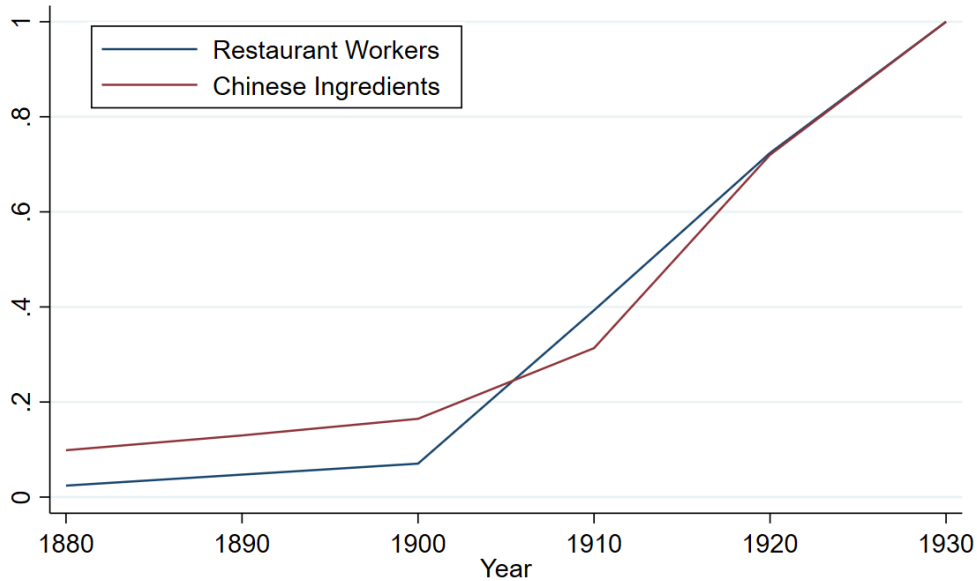
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

usage after a restaurant opening.

Furthermore, we analyze the impact of the Chinese restaurant boom on American culinary culture with a text analysis of American cookbooks. Analogous cuisine-based cultural spillovers have been documented in other U.S. contexts (Bazzi et al. 2023). We use a corpus of 215 cookbooks published in the U.S. between 1870 and 1940 obtained from Lecci (2025), and examine the intensity of ingredients traditional to Chinese cuisine.²⁴ While only descriptive, national-level evidence, the cookbook analysis provides insight into the evolution of American culinary culture during the Chinese restaurant boom. The results are shown in Figure 6 and show the use of Chinese ingredients in American cooking aligns very closely with the spread of Chinese restaurants. The growth in Chinese ingredient usage lagged behind restaurant growth in the early stages of the ‘chop suey craze’, but grew rapidly after 1910 during the height of the craze. These findings highlight the fact that the ‘cultural bridging’ effect may not have simply been a change in perceptions, but that American culture incorporated Chinese-American elements, shifting the two cultures closer together.

24. Specifically, we examine mentions of soy sauce, rice wine, sesame oil, bean paste, five-spice, dried mushrooms, shiitake, rice vinegar, chow mein, and chop suey, normalized by mentions of salt. We use salt as a normalizing ingredient because it is a culturally neutral and near-universal component of savory recipes. While some of these ingredients, such as soy sauce, may act as substitutes for salt, salt remains broadly representative of general seasoning and serves as a practical proxy for recipe completeness and density across time and cuisines.

Figure 6: Chinese Restaurants and Ingredients (Index to 1930)



Notes: Restaurant workers refers to the number of Chinese working-age men employed in the restaurant industry. Chinese ingredients refers to the number of times Chinese ingredients are mentioned in American cookbooks, normalized by mentions of ‘salt’. All values are indexed to 1930.

7 Conclusion

The ‘chop suey craze’ of the early twentieth century was America’s first mainstream restaurant boom and transformed the culinary landscape in the US. However, this restaurant boom was not driven by a broadly accepted group in the US, but instead by a community that faced significant discrimination and hostility. In this paper, we exploit the staggered spread of Chinese restaurants across U.S. counties to study how this boom affected local attitudes towards Chinese immigrants. Our main result is that Chinese restaurant openings led to a large and persistent reduction in anti-Chinese sentiment. Using newspaper text, we find that the arrival of a restaurant reduced the use of Chinese slurs by roughly one third relative to the mean, and led to more positive framing of Chinese migrants in the media. 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 find support in favor of 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.

Taken together, our findings highlight the role of ethnic restaurants as more than a entrepreneurial outlet or labor-market niche. We show that they change everyday economic interactions and shift how a stigmatized minority is perceived, even in an environment of intense hostility and formal exclusion. Ethnic restaurants act as a channel through which a minority group can “win

stomachs and minds” by making their culture more familiar and palatable (literally), and, ultimately, contribute to a gradual erosion of hostility.

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Appendices

A Additional Figures and Tables

Figure A1: Chinese Immigrant County Distribution (1870-1900)

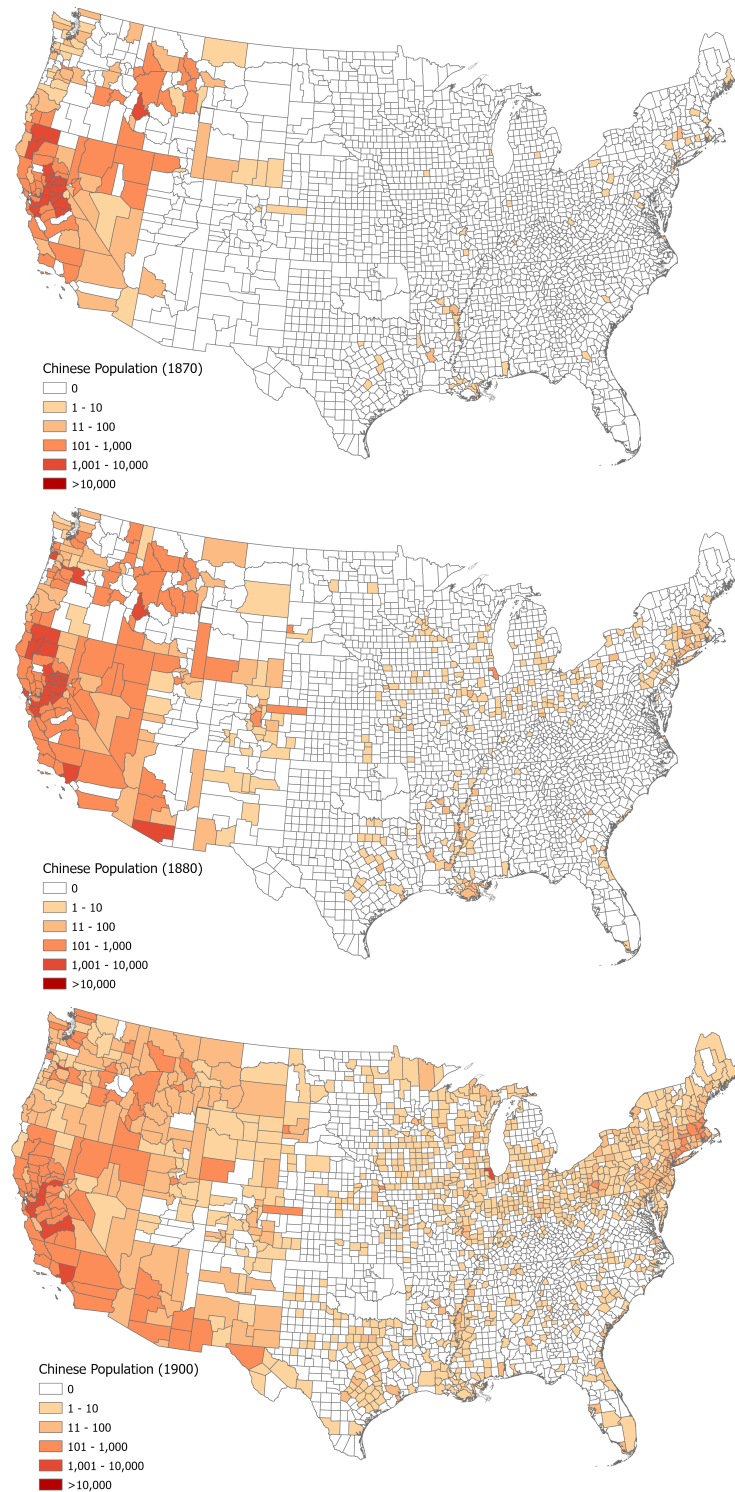
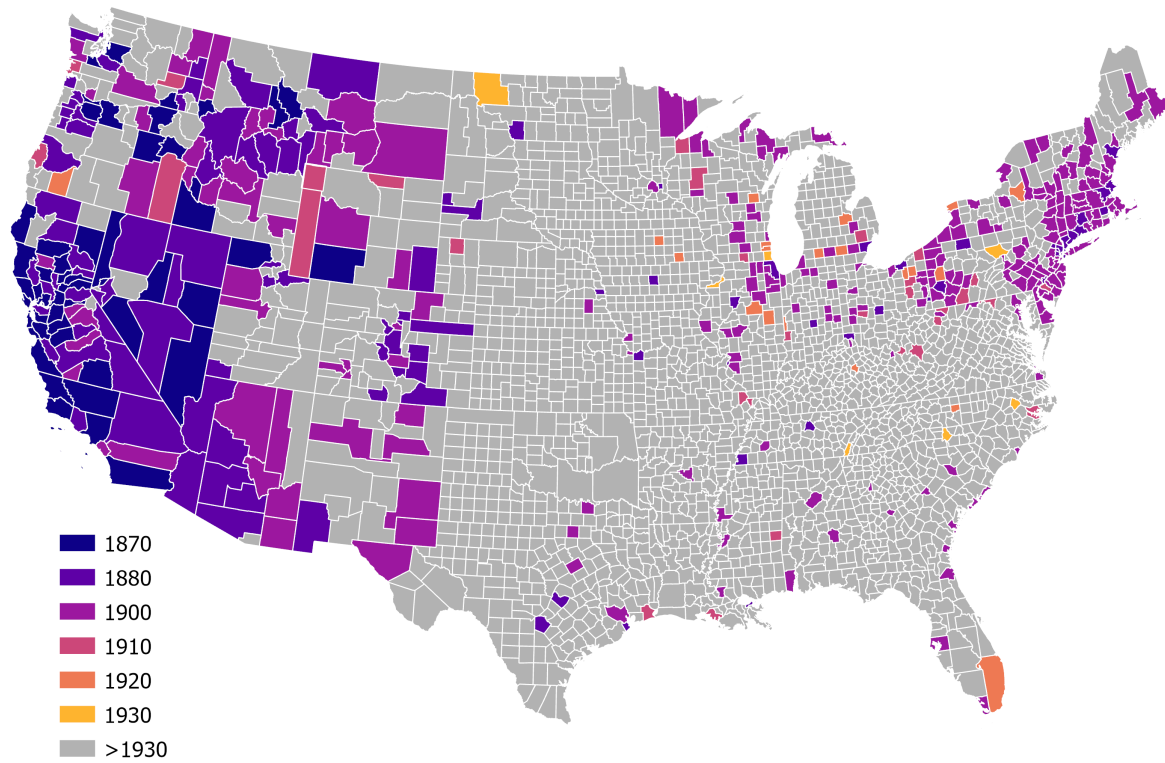


Figure A2: Counties by First Recorded Chinese Laundry



Notes: The figure maps U.S. counties with 1900 boundaries, color-coded by the first Census year in which more than five Chinese laundry workers were recorded. The light gray counties are excluded from the main analysis.

Table A1: Effect of Chinese Restaurants on Media Framing of Chinese Immigrants

	Binary Treatment			Per Capita Treatment		
	Positive (1)	Negative (2)	Pos./Neg. (3)	Positive (4)	Negative (5)	Pos./Neg. (6)
Restaurant	0.046 (0.028)	-0.015 (0.035)	1.058 (0.753)	9.982 (8.439)	-9.802 (12.219)	172.501 (117.146)
Mean of D.V.	0.286	0.154	1.905	0.286	0.154	1.905
N of Obs.	249	249	249	249	249	249
N of Counties	136	136	136	136	136	136
County FE	Y	Y	Y	Y	Y	Y
Decade FE	Y	Y	Y	Y	Y	Y
County Controls	Y	Y	Y	Y	Y	Y

The table reports the effect of Chinese restaurant openings on the framing of Chinese immigrants in the media (Media Framing index constructed with the immigration frame lexicon of Card et al., 2022. (Media Framing index constructed with the immigration framing lexicon of Card et al., 2022; see Appendix Section B). The dependent variable in Columns 1 and 3 are the normalized counts of positive article frames (culture, family, contribution), negative article frames (threat, deficient, crime) in Columns 2 and 4, and the ratio of raw positive/negative frame counts in Columns 3 and 6. *Restaurant* is the treatment variable that in Columns 1-3 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 4-6. The sample is an unbalanced panel including always/never treated. Standard errors clustered at the county level in parentheses.

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

Table A2: Effect of Chinese Restaurants on Specific Chinese Frames

	Culture (1)	Family (2)	Contribution (3)	Threat (4)	Deficient (5)	Crime (6)
Restaurant	0.039 (0.024)	0.011 (0.037)	-0.015 (0.029)	0.023 (0.020)	-0.013 (0.021)	-0.053 (0.035)
Mean of D.V.	0.105	0.285	0.068	0.043	0.040	0.092
N of Obs.	249	249	249	249	249	249
N of Counties	136	136	136	136	136	136
County FE	Y	Y	Y	Y	Y	Y
Decade FE	Y	Y	Y	Y	Y	Y
County Controls	Y	Y	Y	Y	Y	Y

The table reports the effect of Chinese restaurant openings on the different frames used when discussing Chinese immigrants in the media. The dependent variable is the normalized count of articles using the listed frame. *Restaurant* is the treatment variable is a binary variable equal to one when the county has over 5 Chinese restaurant workers. The sample is an unbalanced panel including always/never treated. Standard errors clustered at the county level in parentheses.

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

Table A3: Robustness Checks: Alternative Specifications and Treatment Definitions

	Chinese Discrimination Count						
	Baseline Specification (1)	de Chaisemartin & D'Haultfoeuille (2)	State x Decade Fixed Effects (3)	Spatial SEs (4)	Ever Treated (5)	Sharp Treat Definition (6)	Media Treat Definition (7)
Restaurant	−0.014*** (0.004)	−0.020* (0.012)	−0.005* (0.003)	−0.014*** (0.004)	−0.017** (0.007)	−0.008*** (0.002)	−0.029 (0.018)
Mean of D.V.	0.043	0.043	0.043	0.043	0.043	0.038	0.043
N	1,147	421	1,147	1,132	1,147	1,670	1,147
N. of Counties	244	176	244	241	244	372	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 specifications. *Restaurant* is the binary treatment variable equal to one when the county has over 5 Chinese restaurant workers in Columns 1-4. In Column 5 the treatment variable is equal to one if a county ever had over 5 Chinese restaurant workers. In Column 6 it is equal to one if there is a single Chinese restaurant worker. Column 7 uses the media treatment definition equal to one if there is a press mention of 'chop suey' or 'chow mein' in the county. Column 1 uses the baseline specification as in Table 3. Columns 2 uses the staggered difference-in-differences design proposed by De Chaisemartin and d'Haultfoeuille (2020). All regressions use the main two-way fixed effects specification with the preferred sample (including unbalanced counties, but dropping always/never treated). Standard errors clustered at the county-level in parentheses, with the exception of Column 4 that uses spatially correlated errors with a 200km cutoff, as proposed by Colella et al. (2019).

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

Table A4: Robustness Checks: Alternative Samples

	Chinese Discrimination Count				
	Baseline Specification (1)	Drop Early Entries (2)	Drop Late Entries (3)	Drop 1870 (4)	Drop Partial Treated (5)
Restaurant	−0.014*** (0.004)	−0.011*** (0.002)	−0.013*** (0.005)	−0.013*** (0.005)	−0.008*** (0.002)
Mean of D.V.	0.043	0.040	0.046	0.038	0.043
N	1,147	945	963	1,030	937
N. of Counties	244	202	206	244	244
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 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 the decade of restaurant opening. 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 A5: Robustness Checks: Additional Controls

	Chinese Discrimination Count						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Restaurant	-0.014*** (0.004)	-0.007** (0.003)	-0.014*** (0.004)	-0.013*** (0.005)	-0.014*** (0.004)	-0.014*** (0.004)	-0.007** (0.003)
Chinese Mentions		3.494** (1.639)					3.524** (1.654)
Immigrant Share			-0.015 (0.017)				0.012 (0.022)
Japanese Share				0.036* (0.021)			0.029 (0.025)
African-Amer. Share					0.029 (0.112)		0.061 (0.106)
Railway						-0.003 (0.018)	0.002 (0.020)
N of Obs.	1,147	1,147	1,147	1,147	1,147	1,147	1,147
N of Counties	244	244	244	244	244	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 effect of Chinese restaurant openings on the Chinese Discrimination Count to various controls. *Restaurant* is a binary variable equal to one when the county has over 5 Chinese restaurant workers. *Chinese Mentions* are the normalized counts of Chinese immigration/immigrants generally. *Immigrant Share*, *Japanese Share* and *African-Amer. Share* refer to the non-Chinese foreign-born share, Japanese share and African American share of the county's population respectively. *Railway* is a binary equal one if the county was connected to a railway at time t . All regressions use the main estimating equation with the preferred sample (unbalanced panel dropping always/never treated). Standard errors clustered at the county level in parentheses.

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

Table A6: Immigrant Group Placebo Check

	Discrimination Count				
	German (1)	Irish (2)	Italian (3)	Jewish (4)	Combined (5)
Restaurant	-0.003 (0.003)	0.009 (0.010)	0.001 (0.000)	0.000 (0.000)	0.007 (0.010)
Mean of D.V.	0.011	0.022	0.001	0.000	0.034
N	1,147	1,147	1,147	1,147	1,147
N. of Counties	244	244	244	244	244
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 discrimination count of different immigrant groups. Column 5 uses normalized counts of German, Irish, Italian and Jewish slurs combined. *Restaurant* is the binary treatment variable equal to one when the county has over 5 Chinese restaurant workers. 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 A7: Chinese-American Assimilation Outcomes

	Speak English (1)	Name Americanization (2)	Intermarriage (White) (3)	Intermarriage (Non-Chinese) (4)
Restaurant	0.020 (0.015)	0.145** (0.010)	0.010 (0.041)	0.019 (0.040)
Mean of D.V.	0.616	0.297	0.370	0.405
N	1,032	127	655	655
N. of Counties	244	75	210	210
County FE	Y	Y	Y	Y
Decade FE	Y	Y	Y	Y
County Controls	Y	Y	Y	Y

The table reports the effect of Chinese restaurant openings on the average assimilation outcomes of Chinese-Americans within the county. The dependent variable in Column 1 is the proportion of Chinese who speak English. In Column 2, it is the average ‘Americanness’ of their first name, defined as the probability that someone else with that first name is a white, native-born American. In Column 3, it is the proportion of married Chinese who have a white spouse, while in Column 4 it is the proportion with any non-Chinese spouse. *Restaurant* is the binary treatment variable equal to one when the county has over 5 Chinese restaurant workers. All regressions use the main two-way fixed effects specification with county controls and an unbalanced panel. Clustered standard errors in parentheses.

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

B Sentiment Framing Text Analysis

This section details the methodology for the framing and dehumanization analyses. We use the *American Stories* corpus from Dell et al. (2023), restricted to the years 1870–1939. The dataset structures full text into articles and provides publication date and county of publication. Our analysis proceeds in two stages. In the first stage, we identify articles likely to reference Chinese individuals. To do this, we define a list of group-specific anchor phrases—terms and expressions historically used to refer to Chinese immigrants. These include neutral references such as *chinese immigrants*, *chinese laborers* and *chinese community*, as well as derogatory terms such as *Chinamen* and *coolie*. Each article is tokenized, and a sliding window search is performed to detect the presence of these anchor phrases. Articles containing at least one anchor are retained for subsequent analysis.

In the second stage, we assess whether these articles contain phrases within semantic categories, or frames. We implement the frame lexicon from Card et al. (2022), developed from congressional speeches about immigration from this period. We consider positive frames (namely culture, family and contribution), negative frames (threat, deficient and crime). See Table B8 for a full list of the anchor terms and frame terms used in the analysis. Within the identified articles, we scan a ten token window around the anchor for any word from the frame lexicons. This proximity-based approach reflects the assumption that framing language is most likely to occur adjacent to references to the target group. If one or more frame terms are found within this window, the article is classified as related to that particular frame type. Frame categories are not mutually exclusive; an article may be tagged with multiple frame types if applicable. We normalize the frame counts with articles containing the neutral *Monday*, as well as considering a positive/negative frame ratio. The same approach is used to measure the extent of dehumanizing language used towards Chinese immigrants (also derived from Card et al. (2022), with Table B8 reported the dehumanization terms used).

Table B8: Anchor and Frame Lexicons

Frame	Terms
Anchor	chinese immigrant(s), chinese immigration, chinese migrant(s), chinese migration, chinese laborer(s), chinese question, chinaman, coolie(s), celestial(s), chinee
Contribution	ability, attract, build, contribute, contribution, desirable, enlist, enrich, friendly, gain, genuine, hardworking, hero, highskilled, industrious, lawabide, loyal, patent, qualified, selfsufficiency, sturdy, veteran, worthy
Crime	absconder, apprehend, arrest, bootlegger, capture, convict, criminal, criminalize, detain, detainee, felon, fugitive, gang, illegal, imprison, imprisonment, incarcerate, incarceration, inmate, jail, noncriminal, offense, parole, prosecute, prosecution, smuggle, smuggler, smuggling, steal, unlawful, violent
Culture	americanization, assimilate, assimilation, background, christian, citizenship, culture, diverse, diversity, ethnic, flag, foreigner, heritage, integrate, integration, language, nation, race, society, tradition
Deficient	cheap, diseased, drunk, ignorant, illiteracy, illiterate, insane, objectionable, slacker, undesirable, unfit, unskilled
Family	ancestor, boy, child, daughter, descendant, descendent, family, familybased, familysponsored, generation, girl, grandchild, granddaughter, grandparent, grandson, household, husband, kid, marriage, marry, neighbor, neighborhood, orphan, parent, relative, son, spouse, wife
Threat	anarchist, apprehension, attack, belligerent, blame, combatant, danger, dangerous, diseased, enemy, horde, infect, invasion, overrun, problem, terrorist, threaten
Dehumanization	animal, animals, beast, beasts, brute, cattle, cow, cows, dog, dogs, herd, herds, hog, horse, horses, livestock, pig, pigs, sheep, thing, things, object, objects, cargo, goods, merchandise, item, items, commodities, packages, products, baggage, shipment, shipments, stuff, material, disease, diseases, virus, viruses, infection, infections, illness, illnesses, flood, flooding, floods, ocean, oceans, river, rivers, stream, tide, tides, water, waters, wave, waves, machine, machines, machinery, equipment, apparatus, appliances, hardware, engine, engines, tool, tools, device, devices, rat, rats, worm, worms, bug, bugs, parasite

Note: The word lists are taken from Card et al. (2022). Hyphens between words are dropped, hence terms like ‘familybased’.