

# Immigration and incarceration in the US: 1870-2020

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## [PRELIMINARY AND INCOMPLETE]

### 1. Introduction

In 2015, then-presidential candidate Donald Trump said in his campaign launch speech that Mexican immigrants are “bringing drugs, they’re bringing crime, they’re rapists.” Such accusations, however, are not new in American history. Anti-immigrant politicians have always associated immigrants with crime. In 1891, Senator Henry Cabot Lodge, one of the architects of immigration restrictions in the early twentieth century, warned that some Italian immigrants were “members of the Mafia, a secret society bound by the most rigid oaths and using murder as a means of maintaining its discipline and carrying out its decrees.” Have immigrants ever been more likely to commit crime than the US born? Are immigrants today more likely to commit crime than past immigrants? Answering these questions is challenging because they require consistent data on crime spanning US history and containing information about an offender’s place of birth.

This paper provides the first nationally representative series of immigrant-native incarceration gaps between 1870 and the present day. For the 1870-1940 period, we use newly assembled data on the *universe* of incarcerated men in the United States from the full-count population Censuses. Using the full-count Census is crucial for studying incarceration during this period, particularly for subpopulations such as the foreign-born, given the relatively low incarceration rates in this time period and the small sizes of Census subsamples that were available prior to the release of the full-count data.<sup>1</sup> For the 1950-2020 period, we use nationally representative samples of the decennial Census and the American Community Survey.

We find that immigrants have almost never been more likely to be incarcerated than white US-born men. Specifically, prior to 1960, immigrants’ incarceration rates were virtually identical to the incarceration rates of white US-born individuals. However, starting in 1960, immigrants have become *less* likely to be incarcerated than US-born whites. Immigrants today are 40% less likely to be incarcerated than white US-born men, and 60% less likely to be incarcerated relative to the broader US-born population that includes non-whites.

Furthermore, we find that the relative decline of immigrant incarceration rates has occurred among immigrants from all major sending countries. Immigrants from groups with historically similar incarceration rates, such as Europeans, have become less likely to be incarcerated relative to white US-born men. Immigrants from countries that historically had higher incarceration rates than the US-born have either fully reversed the gap (the Chinese) or significantly reduced the gap (the Mexicans and Central Americans).

Interestingly, while in the raw data Mexican and Central American immigrants remain slightly more likely to be incarcerated than US-born whites, they have *lower* rates of incarceration once we control for education. These immigrant groups are more likely to be high school dropouts, and high school dropouts are more likely to be incarcerated. But Mexican and Central American immigrants who dropped out of high

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<sup>1</sup> For instance, the 1% sample of the 1880 Census only contains 76 incarcerated immigrants.

school are significantly less likely to be incarcerated than US-born white men who dropped out of high school.

We next explore the reasons behind the relative decline in immigrant incarceration rates since 1960. We begin by ruling out four potential explanations. First, the relative decline cannot be explained by changes in the country-of-origin mix of modern-day immigrants; if anything, the country-of-origin mix has shifted toward immigrants from countries with historically higher incarceration rates. Second, the widening of the immigrant incarceration advantage is not driven by changes in the locations in which immigrants choose to live within the United States; we find a similar immigrant advantage when comparing immigrants and natives who live in the same state. Third, we cannot explain the widening of the immigrant incarceration advantage with changes in migrants' observable characteristics, namely, their age distribution, marital patterns, or levels of education. If anything, immigrants' observable characteristics – in particular their lower relative levels of education – would predict that they should have higher incarceration rates than they actually do. Fourth, the immigrant advantage is not mechanically driven by immigrant offenders being more likely to be deported (and hence not be observed in our data) in the more recent period: we find a widening of the immigrant incarceration advantage even among immigrants who are US citizens and thus cannot be deported. Moreover, the immigrant incarceration advantage emerges decades prior to the rise in deportations.

We argue that the “double penalty” of prison time and potential deportation could rationalize part of the modern-day immigrant incarceration advantage. Specifically, immigrants who are charged or convicted with a crime do not just face a punishment through the criminal justice system, but they can also be deported from the United States, and the likelihood of deportation has increased significantly in the past thirty years. To put it differently, non-citizen immigrants now face a higher expected cost to committing criminal offenses and may thus be deterred from engaging in crime (Becker 1968), thus explaining the immigrant-native gap. To illustrate this possibility, we compare immigrants with the same age education, country of origin, and state of residence, but who differ in their citizenship status; We find that non-citizens (who are subject to deportation risk) are less likely to be incarcerated than similar immigrants who are US citizens. Moreover, we show that the incarceration gaps between citizen and non-citizen immigrants were not present historically when deportation probabilities were very low.

Finally, motivated by the fact that the immigrant incarceration advantage over US-born whites is mainly present for men with less than a high school education, we consider the potential role of the declining labor market prospects of less educated white US-born men (Binder and Bound 2019). We find that in both 1940 and 1950, US-born and immigrant men with low levels of education were equally likely to work. However, starting in 1960 – the same decade in which the incarceration gap widened – less-educated immigrants become *more* likely to be employed and in the labor force than their US-born counterparts. These patterns suggest that one factor explaining the modern-day immigrant incarceration advantage is that less-educated white US-born men may be engaging in more criminality than immigrants because of worse employment opportunities.

**Related literature.** First, by constructing the first nationally representative long-run series of immigrant-native incarceration gaps in the United States since 1870 and until present day, our paper contributes to the literature on immigration and incarceration in the United States.<sup>2</sup> Compiling this series allows us to take a longer-term perspective than those in existing studies and consider which factors—some more recent, like the increase in deportations, and some less recent like the worsening of employment prospects for US-born men—may help explain the widening of the incarceration gap. Moehling and Morrison Piehl (2009) and

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<sup>2</sup> Fasani et al. (2019) provide a comprehensive account of the types of policies that the U.S. federal government enacted to prevent immigrants who had engaged in crime from entering the country as well as to deter immigrants from committing crimes upon arrival.

Moehling and Morrison Piehl (2014) use data from the 1904, 1910, 1923, and 1930 “prison censuses as well as full-count Census samples to study a sample of individuals incarcerated in state prisons in eight states from 1900 to 1930: Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, Illinois, Michigan, and California. Consistent with our data on the universe of incarcerated individuals in all prisons and jails before 1940, both of these papers find that, in the 1900 to 1930 period, immigrant incarceration rates were similar, if not slightly lower, than the incarceration rates of their US-born counterparts.<sup>3</sup> For a more recent period, Butcher and Morrison Piehl (2007) uses Census subsamples from 1980 to 2000 to compare the incarceration propensities of immigrants to those of all US-born men. They find that, by 2000, the incarceration rates of immigrants had declined in relative terms compared to the 1980s. For ease of comparison, we plot the incarceration rates of immigrants and of US-born men from the latter two papers in Appendix Figure A1.<sup>4</sup> Our newly constructed data and long-term perspective allows us break up the gaps by country of origin, to document that the gaps emerge prior to 1980, and to consider a variety of potential explanations for the widening of the immigrant-native incarceration.

Second, this paper is also related to a literature studying the effect of immigration enforcement policies on public safety (Hines and Peri 2019, Miles and Cox 2014, Treyger et al. 2014).<sup>5</sup> These studies explore the effect of recent immigration enforcement policies—namely, the Secure Communities program, which increased the number of immigrant detentions and deportations—and find that the implementation of this program did not alter overall crime rates. Our analysis complements these studies by considering how the increased threat of deportation, through programs like Secure Communities, may have served as an important explanation behind the widening of the immigrant-native incarceration gap.

Finally, our study contributes to the broader literature studying immigrant assimilation in the US through the lens of labor market outcomes, intergenerational mobility, and cultural assimilation, as well as showing how such outcomes have evolved in the past 150 years (Abramitzky et al. 2014, 2017, 2020, 2021, Collins and Zimran 2022, Ward 2021). We contribute to this literature by providing evidence on a different, yet very relevant dimension of assimilation: immigrants’ criminality.

## 2. Data and Methods

In this section, we briefly detail the data sources, sample, and variables utilized throughout the paper. For all other details, we refer to reader to the Online Appendix.

**Sources.** For the 1870 to 1940 period, we use the full-count Census (Ruggles et al. 2021). These data enable us to observe the universe of prisoners in the United States every ten years (with the exception of 1890, as there are no surviving individual-level records for this Census). Incarceration is a relatively rare occurrence, so access to the full-count Census in this historical period allows us to more accurately estimate incarceration rates for all immigrants as well as for immigrant subgroups. The 1940 Census is the last Census for which the full-count data are currently available. Hence, for the 1950 to 2000 period, we use the

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<sup>3</sup> Moehling and Morrison Piehl (2009) find that foreign-born individuals are more likely to be incarcerated for minor offenses, but the gap narrows significantly once they restrict their focus to serious crimes. We use our methodology to compute incarceration rates for foreign-born and US-born individuals in the eight states included in these studies and tend to find different levels, although similar time trends, of incarceration rates for both groups. However, similar to those studies we find that the immigrant-native incarceration gap is close to zero in this time period.

<sup>4</sup> Using arrest records from Texas between 2012-2018, Light et al. (2020) find consistent evidence that both unauthorized and legal immigrants are substantially less likely to be arrested than US-born citizens for violent, property, and drug violations.

<sup>5</sup> This paper is also related to a number of studies in economics, sociology, and criminology that consider how changes in the number of immigrants in a local area affect overall crime rates (see e.g., Bell et al. 2013, Bianchi et al. 2012, Butcher and Piehl 1998, Chalfin 2014, as well as Buonanno et al. 2022 cites therein).

largest available sample in each decade accessed via IPUMS (Ruggles et al. 2022). Finally, for the most recent years, we use data from the American Community Survey (either the annual versions or the 2008-2012 and 2015-2019 five-year samples to represent 2010 and 2020, respectively).

**Sample Selection.** Our baseline sample focuses on men and compares immigrants (i.e., those born outside of the United States) to US-born *white* men.<sup>6</sup> We focus on white men for two reasons: First, immigrants to the US are predominantly white (especially in the historical time period). Second, there are well-documented differences in incarceration gaps by race (Neal and Rick 2016; Western and Pettit 2010). Including Black Americans in the sample leads to larger immigrant-native incarceration gaps (i.e., a change in *levels*), but it does not affect the overall *trends* (a smaller incarceration gap historically, a larger incarceration gap today).

**Measuring Incarceration.** For data spanning 1950 to 1990, an individual is classified as being incarcerated if he lives in a group quarter type that was coded by IPUMS as a “correctional institution.” For the 1870-1940 full-count data, we refine this measure using information in the original strings of the “group quarters”, “occupation”, and “relationship to household head” variables (see Online Appendix Figure 2 for a census schedule example). We do so because the original coding of group quarter types by IPUMS in the full-count Census undercounts the actual number of prisoners in the data (for instance, some individuals whose occupation is listed as “prisoner” are not classified as living in a correctional institutional; see Eriksson, 2020 for a discussion). We include more detail on how we implemented these classifications in the Online Appendix. We emphasize, however, that our results are similar if we simply use the IPUMS group quarters type variable for the full-count data.

Starting in 1990, we observe whether individuals are institutionalized, but we do not observe the type of institution in which they are residing (for instance, we do not know if someone is in a correctional institution or in a nursing facility). Acknowledging this limitation, throughout the analysis we restrict the sample to men ages 18-40 at the time of the Census. Among men in this group, institutionalization is a close proxy of incarceration (for example, among those institutionalized in 2000 and 2019, 90% and 96% were incarcerated, respectively).<sup>7</sup> Our results are nevertheless similar if we focus on other age groups (for instance, those 18-30 or those 18-50). Table A1 shows the sample sizes of incarcerated and all individuals in each of our sample years, by nativity status.

**Advantages and Disadvantages of Using Incarceration to Compare Migrants’ and Natives’ Criminality.** Ideally, to perform this comparison we would want to use a measure reflecting whether an individual has committed a crime. Unfortunately, such data are not available because many crimes are not reported and most offenders are not arrested. Instead, we rely on incarceration as our proxy of criminal activity.

The main advantage of using incarceration as a proxy for criminal behavior is that we have nationally representative data on this outcome starting in the 19<sup>th</sup> century. Importantly, these data include information on birthplace, thus allowing us to compile a long-run and nationally representative series of immigrant-native incarceration gaps. An alternative approach to measuring criminality would be to use arrest data, but these data typically do not include information on country of birth. Moreover, these data are collected at the local level, thus making it impossible to build long-run, nationally representative series of immigrant-native gaps. Finally, arrest data typically include individuals arrested for relatively minor offenses (e.g., parole violations) and they may be more subject to the bias or discretion of law enforcement officials (see

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<sup>6</sup> We focus on men because men constitute the vast majority of the incarcerated population both today and in the past (Freeman 1999). We show that our takeaways are unchanged if we include women in the analysis.

<sup>7</sup> Authors’ calculations using the 2000 Census Summary File 1 API and the 2019 ACS Table S2603.

Lang and Kahn-Lang Spitzer 2020 for a review of bias in the criminal justice system). Because incarceration typically relies on obtaining a criminal conviction, it may be a better proxy for serious criminal offending.

The main concern with using incarceration rates to study immigrant-native differences in criminality is that for a given level of underlying crime, immigrants' incarceration probabilities might differ from those of the US-born for a variety of reasons. First, immigrants who committed crimes might have been deported and hence would not be present in Census data. The exclusion of these individuals might thus overstate immigrants' advantage in the more recent period. We discuss the possible biases arising from this possibility after presenting the main results, but our main conclusion is that this explanation is very unlikely to be driving the widening of the incarceration gap that we document. In particular, we find a similar widening when we restrict the comparison to *citizen* immigrants (who cannot be deported) and the immigrant advantage in incarceration appears decades prior to the rise in deportations. If anything, we find that the rise in immigrant detentions for low-level or civil offenses may be overstating immigrants' incarceration rates.

Second, one concern may be that incarceration rates reflect policies and biases in the criminal justice system that affect immigrant and US-born men differentially. Nevertheless, prior studies show that if anything, the modern-day criminal justice system is biased *against* Hispanic individuals (see e.g., Goncalves and Mello 2021, Tuttle 2021), which would tend to overstate immigrants' incarceration rates today. To the extent that criminal justice policies have not become *less* biased toward immigrants relative to the US-born over time, it is unlikely that these policies can explain the widening of the incarceration gap.

### **The Evolution of the Immigrant-Native Incarceration Gap from 1870 through 2020**

Panel (a) in Figure 1 shows the incarceration rates of immigrants and of US-born whites from 1870 through 2020. The figure shows that immigrants have almost never been more likely to be incarcerated than white US-born men. Immigrants had similar or lower incarceration rates than the US-born in the historical time period but are *less* likely to be incarcerated today. Specifically, prior to 1960 immigrants and US-born whites had very similar incarceration rates. Before 1920, both immigrants and natives had incarceration rates that oscillated between 0.2 and 0.4%. Between 1920 and 1930, the incarceration rates nearly doubled (rising to around 0.6%), but they rose slightly more rapidly for the US-born, so that immigrants began to have lower likelihoods of being incarcerated. The immigrant-native gap began to widen in 1960, as immigrants' incarceration rate dipped to around 0.3%, whereas the incarceration rate of the US-born remained closer to 0.5-0.6% (implying that immigrants were 40% less likely to be incarcerated than white US-born men). After 1980, incarceration rates dramatically rose for both immigrants and natives, but the gap remained relatively constant (with a difference in the incarceration rate of around 0.2 percentage points, indicating that immigrants were 15-40% less likely to be incarcerated).<sup>8</sup> Appendix Figure A3 shows that the immigrant advantage is even more pronounced when we compare immigrants to all US-born men (not just white men). The magnitude of the gaps is larger in size (immigrants were 60% less likely to be incarcerated) given Black Americans' higher incarceration rates, but the overall trends in the immigrant-native gap are unchanged.

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<sup>8</sup> The immigrant-native incarceration gap is significantly larger in the year 2000 because immigrants' incarceration rate drops to 0.7%, while that of the US-born continues to rise up to almost 2%. In particular, the incarceration rate of immigrants seems to decline in this year in part due to the dramatic increase in the number of immigrants between 1990 and 2000, thus substantially increasing the denominator of their incarceration rate.

Next, panels (b)-(f) compare the incarceration rates of the US-born to those of immigrants from different country-of-origin groups. Here, we split immigrants into five mutually exclusive groups: immigrants hailing from the North and the West of Europe (the “old immigrant stock” historically), those coming from the South or the East of Europe (often referred to as the “new” immigrants historically), as well as immigrants from China, those from Mexico and Central America, and immigrants from the “rest of the world” (i.e., those not included in the previous four groups).<sup>9</sup>

The figure shows that the relative decline in immigrants’ incarceration rates has occurred among immigrants from all major country-of-origin groups. Immigrants from groups with historically similar incarceration rates (such as the “old” and “new” Europeans as well as those from the “rest of the world”) have become less likely to be incarcerated relative to white US-born men. Immigrants from countries that historically had higher incarceration than the US-born have either fully reversed the gap (i.e., the Chinese) or significantly reduced the gap (i.e., the Mexicans and Central Americans). Appendix Figure A3 again shows a similar pattern when comparing immigrants to all US-born men rather than to just whites.

In the Online Appendix, we show that the finding that immigrants had similar or lower incarceration rates than the US-born in the historical time period but are *less* likely to be incarcerated today are robust to: (1) alternative measures of incarceration in the historical period (Online Appendix Figure A4); (2) changing the age restriction in the sample (using 18-30 or 18-50 rather than 18-40) (Online Appendix Figure A5); and (3) using alternative sample definitions (for example, including women or incorporating Black Americans in the analysis rather than simply comparing immigrant men to US-born white men) (Online Appendix Figures A6 and A7). Online Appendix Figure A8 also shows native-immigrant incarceration gaps in the historical time period using sub-samples of the Census (as opposed to the full-count data), illustrating the importance of using the *universe* of inmates to estimate incarceration gaps (in particular, the figure shows that incarceration gaps can be noisy and even be the wrong sign in certain years for subgroups of immigrants).<sup>10</sup>

### 3. Mechanisms

#### a. Growing Gap Because of Changes in Immigrant Characteristics

***Changes in Sending Countries.*** The widening of the overall immigrant incarceration gap is not driven by immigrants increasingly coming from countries or regions with lower incarceration rates. Indeed, Appendix Figure A10 shows that immigrants today are more likely to come from Mexico and Central America as well as from the “rest of the world”, and both of these groups have comparable or even higher incarceration rates than the Europeans immigrants which were the majority of immigrants in the past. Appendix Figure A11 plots what the incarceration rate would be today if the country-of-origin mix had not changed since 1940 (i.e., allowing each group’s incarceration rate to evolve, but holding their share of the population fixed at 1940 levels). This figure makes clear that the immigrant incarceration rate would be lower than it actually is, and thus the immigrant-native gap would be even larger today.

***Changes in Migrants’ Own Characteristics.*** Figure 1 shows immigrant-native incarceration gaps without adjusting for any observable differences between immigrants and the US-born. However, if the demographics and other observable characteristics of immigrants such as their education or race are

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<sup>9</sup> Prior to 1950, immigrants from the “rest of the world” constituted 10-13% of all immigrants and came primarily from Canada, Japan, and the West Indies. In the modern time period, immigrants in this group constitute 40-45% of all immigrants and come from the West Indies and from other countries in South America and Asia.

<sup>10</sup> [footnote here discussing the appendix figure that breaks up Mexicans/Central Americans Chinese by prison vs. jail] Figure A9

changing over time, then these differences could explain why immigrants are less likely to be incarcerated today than white US-born men.

To consider this possibility, Figure 2 compares the incarceration propensities of observationally similar immigrants and natives. To do so, we estimate (separately for each census year):

$$(1) \quad \text{Incarcerated}_{it} = \alpha + \beta_t \text{Immigrant}_{it} + X_{it} + \epsilon_{it}$$

where  $\text{Incarcerated}_{it}$  is an indicator variable that takes a value of one if individual  $i$  was incarcerated at the time of the census  $t$ , and  $\text{Immigrant}_{it}$  is an indicator variable equal to one for foreign-born individuals. The term  $X_{it}$  reflects a set of individual-level controls: age fixed effects, marital status fixed effects, and education fixed effects (literacy prior to 1940 and years of schooling from 1940 onward).

Panel (a) in Figure 2 plots the values of  $\beta_t$  in each year, showing how the immigrant-native incarceration gap changes as we sequentially include the set of control variables in equation (1). Here, a negative estimate implies that immigrants are *less* likely to be incarcerated relative to observationally similar white US-born men. This figure shows that adjusting for the age distribution or marital status of individuals generally leaves estimated gaps unchanged. However, the inclusion of education fixed effects significantly *widens* the incarceration gap (this fact was also noted by Butcher and Morrison Piehl (2007) for the 1980-2000 period). Overall, the main takeaway – that immigrants had similar incarceration rates in the historical period and are less likely to be incarcerated today – is even more pronounced once we adjust for baseline observable differences between immigrants and natives.

Panels (b)-(f) display analogous estimates separating immigrants into the five previously defined country-of-origin groups. For all groups except for Mexicans and Central Americans, including individual-level characteristics tends to *narrow* the incarceration gap. This narrowing is often driven by the inclusion of education, as immigrants from these groups are on average more educated than the US-born (and there is a negative association between education and incarceration probabilities). By contrast, including education significantly *widens* the gap for Mexicans and Central Americans — a group with lower levels of educational attainment than the US-born. Indeed, once we control for education, Mexicans and Central Americans are significantly less likely to be incarcerated than US-born whites. Appendix Figure A12 presents the values of  $\beta_t$  when immigrants are compared to all US-born (regardless of race) and also finds that the immigrant-native incarceration gap significantly *widens* once we account for differences in individual-level characteristics.

***Changes in Migrants' Location Choices.*** Next, we consider whether migrants' location choices could explain the widening of this gap (in other words, whether migrants in the modern time period sort into areas of the country where incarceration probabilities are relatively lower). Immigrants tend to be more responsive to economic shocks in their migration decisions than the US-born (see, for instance, Cadena and Kovak 2016 and Basso and Peri 2020), and hence might have decided to reside in places with better economic opportunities or lower incarceration rates. To assess this possibility, Appendix Figure A13 adds state-of-residence fixed effects to the baseline set of individual-level characteristics considered in equation (1).<sup>11</sup> We find limited support for this explanation: immigrants are still less likely to be incarcerated when

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<sup>11</sup> We do not include more granular variables denoting residence because the location of the individual in the Census data (e.g., county) corresponds to the location of the correctional facility, rather than their location of residence.

compared to white US-born men in their same state of residence. If anything, the incarceration gaps become slightly *larger* in 1990 and 2000 once we include state fixed effects.<sup>12</sup>

**Growth in Recent Arrivals.** Finally, a potential explanation for the widening incarceration gap is that a substantial share of immigrants in recent decades may be recent arrivals, and this group has not yet had enough time in the United States to commit a crime or be incarcerated for an offense. To consider this possibility, Appendix Figure 14 plots the evolution of the immigrant-native incarceration gap restricting the sample of immigrants based on their time since arrival to the United States. We see that the gap emerges even when we restrict our attention to immigrants who have been in the country for at least five or at least ten years, suggesting that the growing number of recent arrivals cannot explain the widening of the gap in the modern time period.

Overall, we conclude that changes in migrants' observable characteristics or location choices cannot explain the widening of the incarceration gap. If anything, once we control for these characteristics, the difference between immigrants and the US-born becomes even more stark.

## b. Growing Gap Because of Changes in Immigration Policies

Non-citizen migrants face a “double penalty” when they commit crime in that they not only can expect to serve the punishment through the criminal justice system, but they can also be detained and deported by immigration authorities. This threat of deportation has increased in recent decades, largely as a result of partnerships between local and federal law enforcement officials (the 287(g) and Secure Communities programs) and the creation of the Immigration and Customs Enforcement (ICE) agency. Indeed, the number of immigrants deported began rising in the 1990s and reached record-high numbers around 2010 (for broader context, the first panel of Figure 3 displays the number of removals between 1892 and 2018 using immigration statistics from the Department of Homeland Security).

**Changes in “Double Penalty.”** Given this higher expected cost of committing a crime, standard models of the economics of crime (Becker 1968) would predict that the incarceration gap between non-citizens and the US-born would now be *larger* than the gap between citizen immigrants and the US-born. Moreover, because non-citizens account for a sizable share of the immigrant population (about 65% in recent years; authors' calculations based on Ruggles et al. 2021), this group's lower propensity to commit crimes might account for the widening of the overall immigrant-native incarceration gap. To assess this possibility, we compare the incarceration rates of citizen and non-citizen immigrants with similar observable characteristics (same age, marital status, state, and education). For each year, we estimate:

$$(2) \quad \text{Incarcerated}_{it} = \alpha + \beta_t \text{Immigrant}_{it} + \delta_t \text{Immigrant}_{it} \times \text{Noncitizen}_{it} + X_{it} + \epsilon_{it}$$

Figure 3 displays the results, plotting the immigrant-native gap for citizens ( $\beta_t$ ) against the immigrant-native gap for noncitizens ( $\beta_t + \delta_t$ ). Despite having similar gaps with the US-born in the historical time period, non-citizen immigrants today have larger negative gaps with the US-born than do citizen immigrants with similar observable characteristics. The evolution of these gaps is also consistent with the “double

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<sup>12</sup> This exercise assumes that the state in which an individual resides is the same state in which the individual is incarcerated. This assumption may not be true for those incarcerated for federal offenses because individuals might be sent to federal prisons far from their place of residence. Nevertheless, the share of inmates in federal prisons is generally small. In 1990 and 2000, between 5-7% of all incarcerated individuals were in federal prison (Beck and Harrison 2001).



penalty” explanation, as we see the largest differences between citizens and non-citizens emerge in the period in which deportations began to increase (the post-1980 period).

The difference between citizens and non-citizens may be surprising given growing evidence suggesting that there is positive selection into citizenship on the basis of earnings potential (namely, that individuals who become citizens have higher earnings potential than those who do not have citizenship, even after adjusting for differences in observable characteristics; see, for instance, Cascardi et al. 2022). Moreover, as we discuss in more detail below, rates of institutionalization among non-citizens may overestimate their degree of criminal activity, as some of these individuals might be detained in immigration facilities without a criminal conviction.

Finally, we note that the incarceration gap between *citizen* immigrants and white US-born men has also widened in recent decades, implying that the “double penalty” explanation cannot fully account for the widening gap.<sup>13</sup>

***Mechanical Decline in Immigrants’ Incarceration due to Increases in Deportations.*** If immigrants who commit crimes are simply deported to their countries of origin, then we would find that immigrants are less likely to be incarcerated even if they committed more crimes than the US-born prior to deportation. There are various reasons why an increase in deportations is likely not driving the emergence of the immigrant-native gap.

First, as noted in the previous subsection, we find that *citizen* immigrants (who cannot be deported) are also less likely to be incarcerated relative to the US-born in the modern period compared to the past. Second, the difference in incarceration rates between immigrants and US-born men began in the mid-20<sup>th</sup> century, a time period during which deportations were not on the rise. Furthermore, more than 90% of individuals who are deported are Mexican and Central American (Watson and Thompson 2022). Yet, as shown in Figures 1 and 2, the immigrant-native incarceration gap has widened for immigrants from all regions (including those outside of Mexico and Central America), suggesting that the rise in deportations cannot mechanically account for these patterns.<sup>14</sup>

It is also not clear ex-ante that deportations would lead to *lower* observed incarceration rates. First, immigrants who have committed a serious crime are typically deported *after* serving their sentence and they may not have access to benefits that tend to shorten prison stays for citizens (such as early releases). Second, immigrants who are detained while awaiting immigration proceedings would also show up as incarcerated (even if they have not been convicted of a criminal offense or are only there for an immigration violation). Indeed, Appendix Figure A15 shows that if we exclude the geographic areas with ICE facilities from the sample – i.e., the 17 Public Use Microdata Areas (PUMAs) – then the raw immigrant-native gap (i.e., the gap that does not account for individual-level control variables) between Mexican and Central Americans and white US-born men shrinks in magnitude, so that this group is no longer *more* likely to be

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<sup>13</sup> Citizen immigrants might be indirectly affected by the double penalty to the extent that they have family members or friends who are subject to deportation risk. Alsan and Yang (2019) report that among low-educated Hispanic citizens, roughly 18% live in mixed-status households (i.e., households that have members with different citizenship statuses).

<sup>14</sup> The same logic applies to rule out the possibility that the widening gap is explained by immigrants simply reporting fewer crimes to law enforcement due to increased fear of deportation. The decrease is present among citizen immigrants and across all immigrant groups.

incarcerated that white US-born men for most years between 2005 and 2019.<sup>15</sup> These patterns suggest that if anything, immigrant detentions are overstating the degree to which immigrants, especially Mexicans and Central Americans, engage in serious criminal behavior.

### c. Growing Gap Because of Differences in Criminality of Low-Educated Men

We next consider whether the widening of the immigrant-native incarceration gap might be stemming from changes in other policies or structural forces that differentially affect the criminality, and thus the incarceration propensities, of immigrants and the US-born. This alternative focus is motivated by the fact that the widening of the gap in the second half of the 20<sup>th</sup> century seems to be driven by the incarceration rate of US-born men *rising faster* than that of immigrants (see Figure 1).

To gain insight into which group of US-born and immigrant men are driving the changes in the incarceration gap, Figure 4 shows the incarceration rates by men's educational attainment. This figure illustrates that the widening of the immigrant-native incarceration rate in the modern time period is largely driven by changes in the incarceration rates of men with lower-levels of education. Prior to 1960, the incarceration gaps were close to zero for all groups. Then, between 1960 and 1980, the immigrant-native gap for men without a high school degree emerges,<sup>16</sup> while the gaps for the more educated groups remain close to zero. The gap for low-educated men continued to widen after 1980: the incarceration rates of white US-born men soar from 2% to 7% (those of their immigrant counterparts also rise, but only from 1% to 3%). Between 2000 and 2020, a gap also emerges for more educated men, albeit of significantly smaller magnitude.

The relatively higher incarceration rates of low-educated white US-born men starting in 1960 imply that this group was likely more prone to commit offenses than immigrants.<sup>17</sup> We now discuss two possibilities for why low-educated white US-born men may be relatively more likely to engage in criminal activity than immigrants:

***Changes in Low-Educated Migrants' Relative Economic Success.*** The labor market outcomes of lower-educated men worsened substantially starting in the second half of the 20<sup>th</sup> century (Binder and Bound 2019), particularly for the US-born. If these worse employment prospects translate to higher rates of criminal activity, they might help explain why we see a widening in the incarceration gap.

Figure 5 shows that, among men without a high school degree, immigrants are more likely to be employed and in the labor force. Importantly, this gap seems to have started widening in 1960 and continued through today. Indeed, immigrants today are 25 percentage points more likely to be employed, whereas this gap was 2 percentage points in 1960-1970 and essentially zero in 1940-1950. The trends in the employment and labor force participation gaps—which exactly mirror the trends in the incarceration gaps—thus suggest

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<sup>15</sup> Excluding these PUMAs did not change the immigrant-native gap in the years prior to the creation of the ICE agency. This figure thus suggests that the change in the immigrant-native gap starting in 2005 after excluding these areas is indeed driven by not counting immigrants in these facilities as incarcerated.

<sup>16</sup> The emergence in the incarceration gap coincides in timing with the rise in criminal activity between 1950 and 1980 (Donohue 1997).

<sup>17</sup> The main contributor to the growth in incarceration rates was not increases in crime, but rather harsher sentencing policies (Neal and Rick 2016, Raphael and Stoll 2013). We therefore are careful to not interpret changes in incarceration rates as reflecting changes in underlying criminal behavior. Instead, we simply note that if we assume that both immigrants and non-immigrants face harsher sentencing policies, then the difference in incarceration rates implies that immigrants were *less* likely to engage in criminal activity than were white US-born men.

that at least part of the growth in the immigrant-native incarceration gap may be coming from the declining labor market opportunities of lower-educated US-born men.<sup>18</sup>

To further explore the potential role of declining employment opportunities in explaining the widening of the immigrant-native gap, Appendix Figure 16 calculates the state-level decadal change in the employment rate of lower-educated men starting with 1960. We then plot these changes in employment rates against the changes in the immigrant-native incarceration gap for the same population. These figures suggest that starting in 1980, the immigrant-native incarceration gap seems to grow more rapidly in places in which the employment prospects of lower-educated US-born white men were declining.

***Different Propensities to Commit Crimes due to Unobserved Characteristics.*** The second possibility that we discuss is that, despite having similarly low education levels, immigrant and US-born men without a high school degree might differ in other (unobservable) characteristics associated with the probability to commit crimes such as higher risk aversion, lower discount rates, or better impulse control (Gruber 2001). In particular, recent immigrants from developing countries without a high school degree are still relatively educated compared to stayers from their same country of origin (that is, they have a higher “contextual” educational attainment, see Feliciano and Lanuza 2017). In contrast, US-born men without a high school education are the least educated among US-born men. Hence, despite having similarly low levels of educational attainment, white US-born men may be more likely to engage in criminal activity than similarly educated immigrant men in recent decades, thus contributing to the gap in incarceration rates among this low-educated group.

In the same vein, we consider the potential role of the increase in drug-related crime in explaining the widening of the native-immigrant gap. In particular, if white US-born men are more likely to commit drug-related offenses and are thus more likely to be incarcerated for these offenses than immigrants, then this difference could explain the widening. To consider this possibility, we first calculate state-level changes in the incarceration rate of individuals convicted of drug-related offenses between 1990 and 2000 using data from the National Corrections Reporting Program. Online Appendix Figure A17 plots these changes at the state-level against changes in the immigrant-native gap in that same state during this period. If drug-related incarcerations were driving the increase, then we should find that the immigrant-native gaps are larger in states that experience large increases in drug-related incarcerations. This figure shows that, at that least when looking at state-level correlations, this does seem to be the case.<sup>19</sup>

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<sup>18</sup> We are careful to not view this relationship as definitively causal given the potential for reverse causality. In other words, it may be the case that lower-educated men have lower employment prospects *because* of incarceration (given that criminal records can be major barriers to employment; see, e.g., Dobbie et al. 2018 and Agan and Starr 2018). Yet, the worsening of employment prospects for men with less than a high school education (already in decline in the 1960s; Binder and Bound 2019) preceded the large increase in incarceration (which began after 1970), suggesting that worse employment prospects cannot be fully explained by increases in incarceration. Interestingly, the figure also shows that, conditional on employment, the *income gap* between lower-educated immigrants and natives has widened such that immigrants today earn *less* than white US-born men in relative terms (this figure plots the estimates of an analogous version of equation 1 in which the sample is restricted to lower-educated men and the dependent variable is the log of income).

<sup>19</sup> Drug-related offenses not being the main driver behind the widening immigrant-native incarceration gap is consistent with Pfaff (2017), which argues that while the share of drug-related admissions did increase after 1980, the large growth in the incarceration rate was not driven by drug-related offenses, but rather violent crimes.

#### **d. Conclusions**

We provide the first nationally representative series of immigrant-native incarceration gaps since 1870 until present day. We begin by documenting three main facts: First, immigrants have had similar or lower incarceration rates than the US born in the historical time period (1870-1940). Second, since 1960, there has been a widening in the immigrant-native incarceration gap, with recent waves of immigrants being 40% less likely to be incarcerated than US-born white men. Third, the relative decline in incarceration has taken place for immigrants from all major countries of origin.

Why has the immigrant-native incarceration gap widened? We show that one likely explanation is related to the “double penalty” that some immigrants face in the US. The sharp increase in deportations that took place since 1980 can rationalize why non-citizen immigrants have become particularly unlikely to be incarcerated. We also find suggestive evidence that worsening labor market prospects for US-born white men may contribute to the widening of the immigrant-native incarceration gap in the second half of the twentieth century.

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## **Additional detail on data sources**

### **Census and ACS data**

We combine the full-count decennial censuses between 1870 and 1940 (excluding 1890) with the largest available subsample of each census between 1950 and 2000 and the American Community Survey for the more recent period. We recover the full-count decennial censuses from the IPUMS datasets in the NBER server and the census subsamples and the ACS from the IPUMS website. In particular, we use the following:

- 1870, 1880, 1900, 1910, 1920, 1930, and 1940 full-count decennial censuses including 100% of the US population
- 1950 1% weighted sample
- 1960 5% unweighted (flat) sample
- 1970 1% FORM 1 unweighted state, metro and neighborhood samples. Form 1 compiles a set of variables that were asked to 5% of the population, which is included in these samples
- 1980 5% unweighted (flat) state sample
- 1990 5% weighted state sample
- 2000 5% weighted state sample
- 2005-2019 annual ACS weighted sample corresponding to 1% of the population in each year
- 2008-2012 5-year ACS weighted sample corresponding to 5% of the population
- 2015-2019 5-year ACS weighted sample corresponding to 5% of the population

We also collect historical subsamples from IPUMS for robustness exercises:

- 1870 1% unweighted (flat) sample
- 1880 10% weighted sample
- 1900 5% unweighted (flat) sample
- 1910 1% unweighted (flat) sample
- 1920 1% unweighted (flat) sample
- 1930 5% unweighted (flat) sample
- 1940 1% weighted sample

We use annual ACS samples to plot incarceration levels and 5-year samples to estimate the difference in incarceration between immigrants and the US-born. Our baseline results restrict the sample to men aged 18-40. Given the small sample size, we exclude 1950 from results by country group. We weight our analysis using the person weights provided by IPUMS.

### **US-born, immigrants and country groups**

We define immigrants as individuals who were not born in any US state or outlying U.S. area or territory. We also exclude from this definition individuals who were born abroad to American parents, who are coded as born “Abroad” by IPUMS. The US-born includes every individual not coded as an immigrant under this definition.

We define the following five countries-of-origin groups for immigrants:



- “Old Europeans”: 17 countries that belong to Northern and Western Europe, United Kingdom, and Ireland
- “New Europeans”: 22 countries that belong to Southern Europe, Central/Eastern Europe, Baltics, and USSR/Russia
- Chinese
- Mexican and Central Americans
- Rest of the World: Other countries from Asia, Africa, Oceania, Caribbean and South America. See Table A2 for the most common rest of the world countries between 1880 and 2019.

## Measuring Incarceration

### *Full-count censuses*

Incarceration can be constructed using the group quarter and group quarter type variables from the census. Prisoners are defined as those who belong to institutional and other group quarters and whose group quarter type corresponds to correctional institutions (we define this as the GQ measure). Correctional institutions include federal and state correctional facilities, prisons, penitentiaries, military prisons, local correctional facilities, jails, school juvenile delinquents, reformatory, camp or chain gangs, house of correction. However, these variables were not consistently coded to identify prisoners in the full count census data (see Eriksson 2020 for a discussion). Common issues with these variables involve individuals who were not incarcerated but were counted as so, people that were actually incarcerated but appeared in households, people that lived in prisons but were not incarcerated (such as prison guards), and inmates, who could be incarcerated but also in nursing homes, among other group quarters.

To account for these issues, we construct our preferred incarceration measure for the full count census data following this procedure:

1. Retrieve “group quarter”, “relate” and “occupation” variables and strings.
2. Identify prisoners under the relate string with the following words and their spelling variations: “Prisoner”, “Convict”, “Jail”. We also identify individuals whose “relate” string variable combines one of these words with the word “Inmate”. Then, we exclude individuals whose “relate” string variable conveys a relationship to a “Prisoner”, “Convict” or “Jail”, such as “Daughter”, “Son”, as well as “Guard”, “Jailer”, “Chief”, etc. (we define this as the RELATE measure)
3. We looked for individuals whose “relate” string variable had a missing, “X” or “\*” value. We define them as prisoners if their “group quarter” string variable contained the words “Prison”, “Jail”, “Penitentiary”, “Reformatory”, etc. For individuals with a “relate” string variable of “Inmate” as a single word or classified as institutional inmates by the “relate” variable, we assign them as prisoners using the GQ measure rule.
4. We follow the steps on (2) to identify prisoners using the “occupation” string variable. We then apply the steps on (3) for individuals who had a missing, “No Occupation”, “No” or a related value.
5. We define an individual as incarcerated if they are classified as such using the relate (2), relate missing/inmate (3), occupation (4), or occupation missing/inmate rules.

The 1870 census does not include the “relate” string variable. We classify individuals as incarcerated in this year using the “occupational” string variable ((3) and (4)), the “relate” variable code for institutional inmates, or the GQ measure.

The 1910 census does not identify group quarter types. In this case, we rely on our preferred measure to classify prisoners based on relate or occupation strings that clearly identify individuals as prisoners (as in steps 2 and 4). However, due to the lack of the group quarter variable, we are unable to assign individuals

classified as inmates (both under their relation to household head or occupation) into adult correctional institutions (as in step 3). For this reason, we do not count “inmates” as incarcerated.

#### *Census subsamples and ACS*

Between 1870 and 1980, we define prisoners as those who belong to institutional and other group quarters and whose group quarter type corresponds to correctional institutions (GQ measure). For 1910, group quarter types were imputed by IPUMS. Between 1990 and 2019, group quarter types only allow us to identify institutionalized individuals, but not those who belong to adult correctional institutions. In this case, we define prisoners as those who belong to institutional group quarters and appear coded as institutional inmates by the “relate” variable.

#### **Other variable definitions**

##### *Education*

We use the “education” variable in each sample to assign individuals into three educational groups: No high school (No schooling up to grade 11), high school only (grade 12), and any college (1 or more years of college). These groups comprise the educational fixed effects used in our analysis. This variable is defined for the 1940 census onward.

##### *Marital status*

We use the “marital status” variable in each sample to assign individuals to three marital status groups: Married (married, spouse present/absent), separated/divorced/widowed, and never married/single. These groups comprise the marital status fixed effects used in our analysis. This variable is defined for every year.

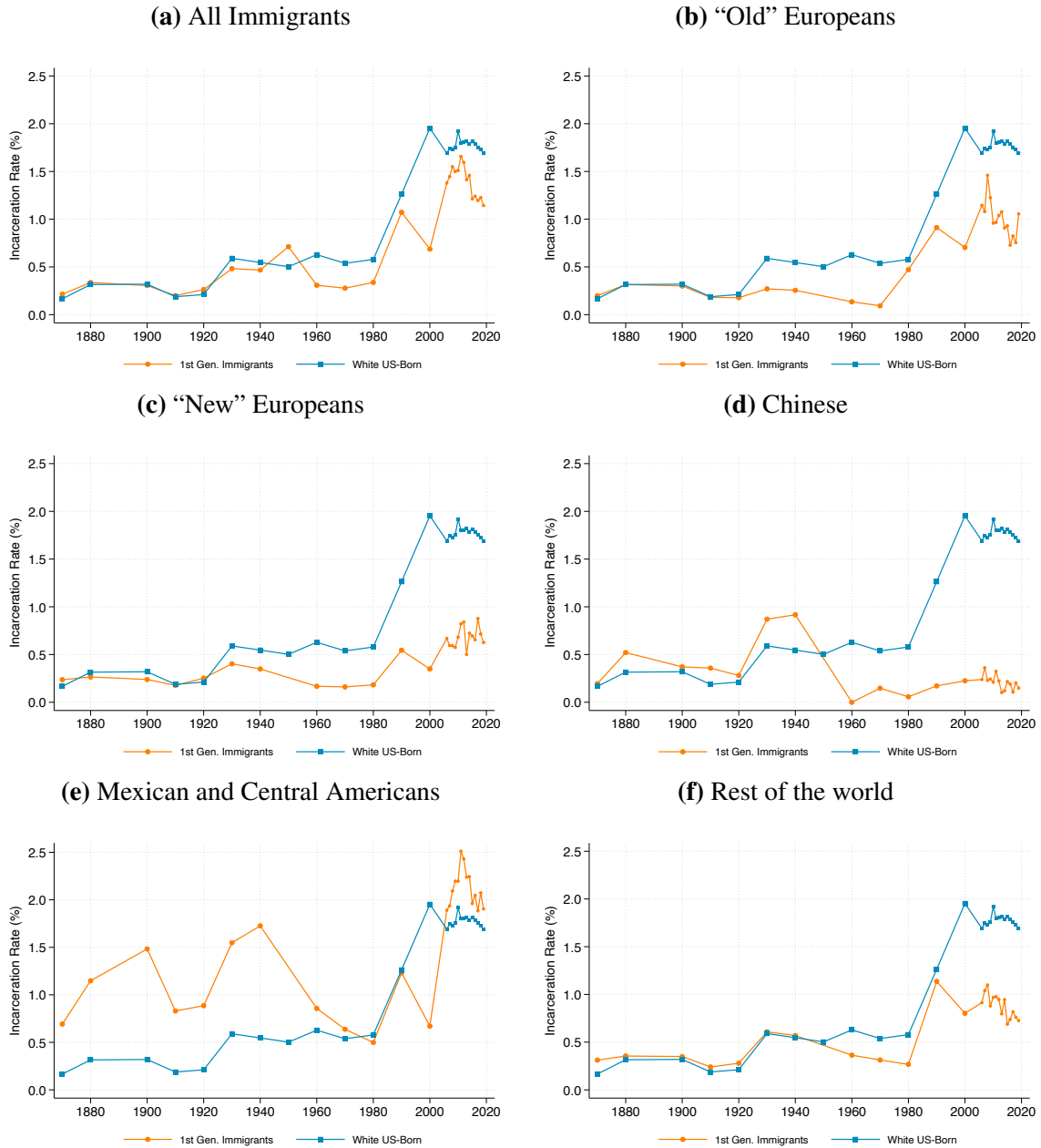
##### *Citizenship status*

We identify citizens as individuals in any US state or outlying U.S. area or territory, as well as individuals born abroad of American parents and naturalized citizens. This variable was not defined in 1880 and 1960. In 1870, 1900 and 1910 citizenship was defined for non-citizen men at birth aged more than 21. From 1920 onwards, it was defined for all foreign-born persons.

##### *ICE Facilities and Pumas*

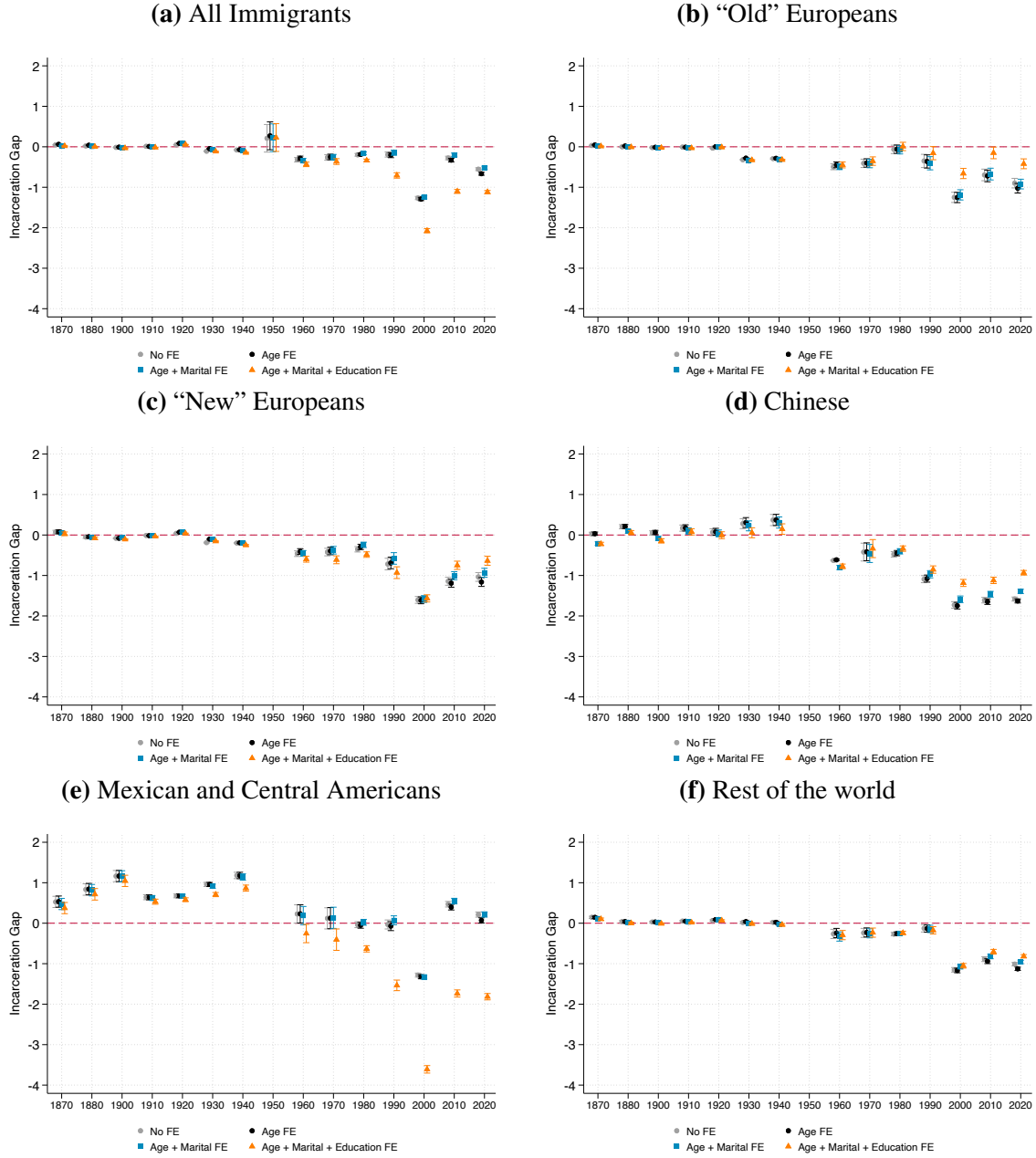
We identify 18 Immigration and Customs Enforcement (ICE) contract detention facilities and service processing centers from the list provided in the 2022 ICE Detentions Statistics Appendix found in <https://www.ice.gov/detain/detention-management>. We geolocate these facilities, identify their counties, and assign them to their corresponding time varying PUMA in their 1990, 2000 and 2010 versions using the county to PUMA crosswalk geographic correspondence engine provided by the Missouri Census Data Center.

**Figure 1: Incarceration Rates of Immigrants and White US-born Men (1870-2019)**



*Notes:* Each of the panels in this figure shows incarceration rates for immigrants and white US-born men between 1870 and 2019. Data are restricted to males aged 18-40. Data spanning 1870 to 1940 are from the full-count decennial Censuses. Data spanning 1950 to 2000 are from the largest available sub-sample from each corresponding decennial Census. Data from 2005 onward are from the annual American Community Survey (ACS). Panel (a) compares white US-born men to all immigrants. Panels (b)-(f) compares white US-born men to immigrants from a particular country-of-origin group, as indicated by the title. “Old Europeans” are immigrants from countries in the North and West of Europe. “New Europeans” are immigrants from countries in Eastern and Southern Europe. The “Rest of the world” category includes immigrants from countries not included in panels (b)-(f). For more details, see the Online Appendix.

**Figure 2:** Difference in Incarceration Rates of Immigrants and White US-born Men, Adjusting for Individual-Level Characteristics (1870-2019)

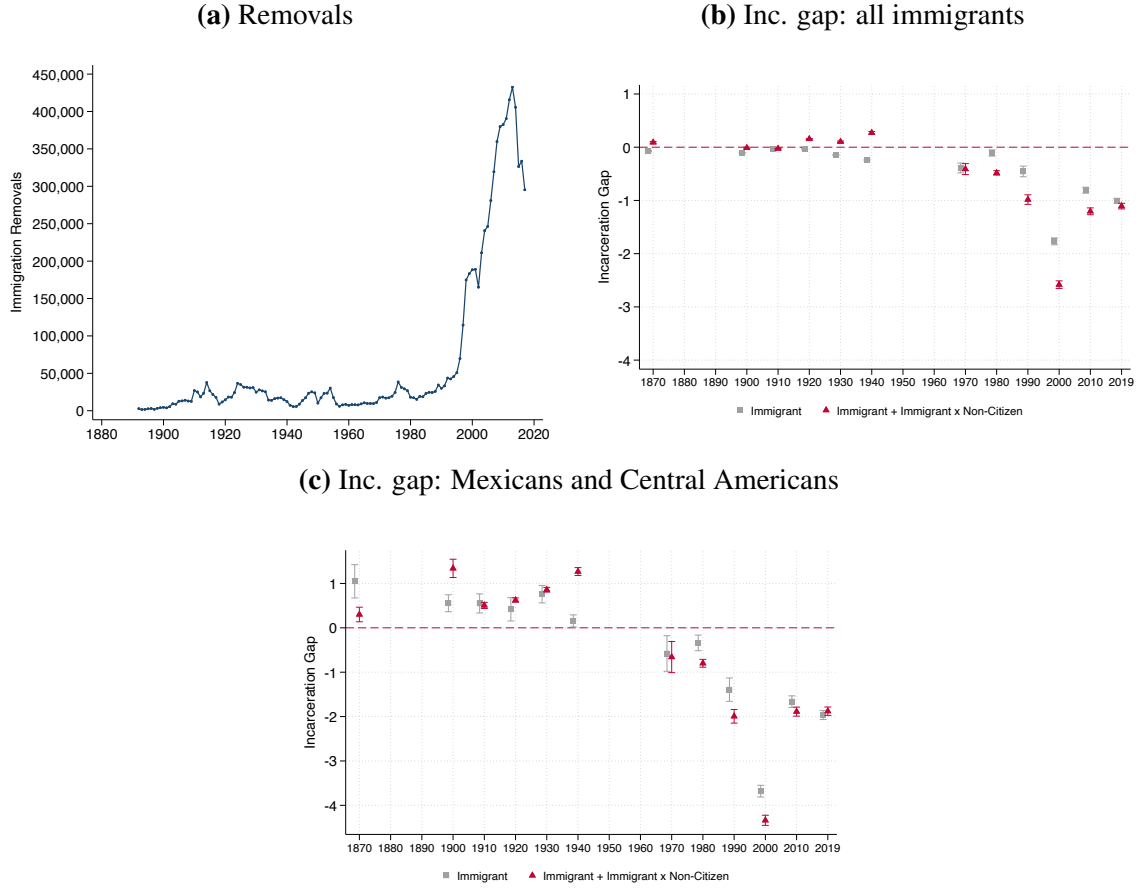


*Notes:* Each panel in this figure presents the estimated values of  $\beta$  in the following regression (estimated separately by Census year):

$$Incarcerated_{it} = \beta_{it} Immigrant_{it} + \gamma X_{it} + \epsilon_{it}$$

where *Incarcerated* is an indicator that takes a value of one if an individual *i* in census year *t* is incarcerated and *Immigrant* is an indicator that takes a value of one if an individual is foreign born. The vector  $X_{it}$  include age, marital status, and education (measured as literacy before 1940 and educational attainment after) fixed effects. Data are restricted to males aged 18-40. Data spanning 1870 to 1940 are from the full count decennial censuses. Data spanning 1950 to 2000 are from the largest available sub-sample from each corresponding decennial census. Data from 2005 onward are from the annual American Community Survey. Panel (a) compares white US-born men to all immigrants. Panels (b)-(f) compares white US-born men to immigrants from a particular country-of-origin group. See notes to Figure 1 as well as the Online Appendix for a definition of each country-of-origin group.

**Figure 3: Differences in Incarceration Between Immigrants and White US-born Men (1870-2019), by Citizenship Status**

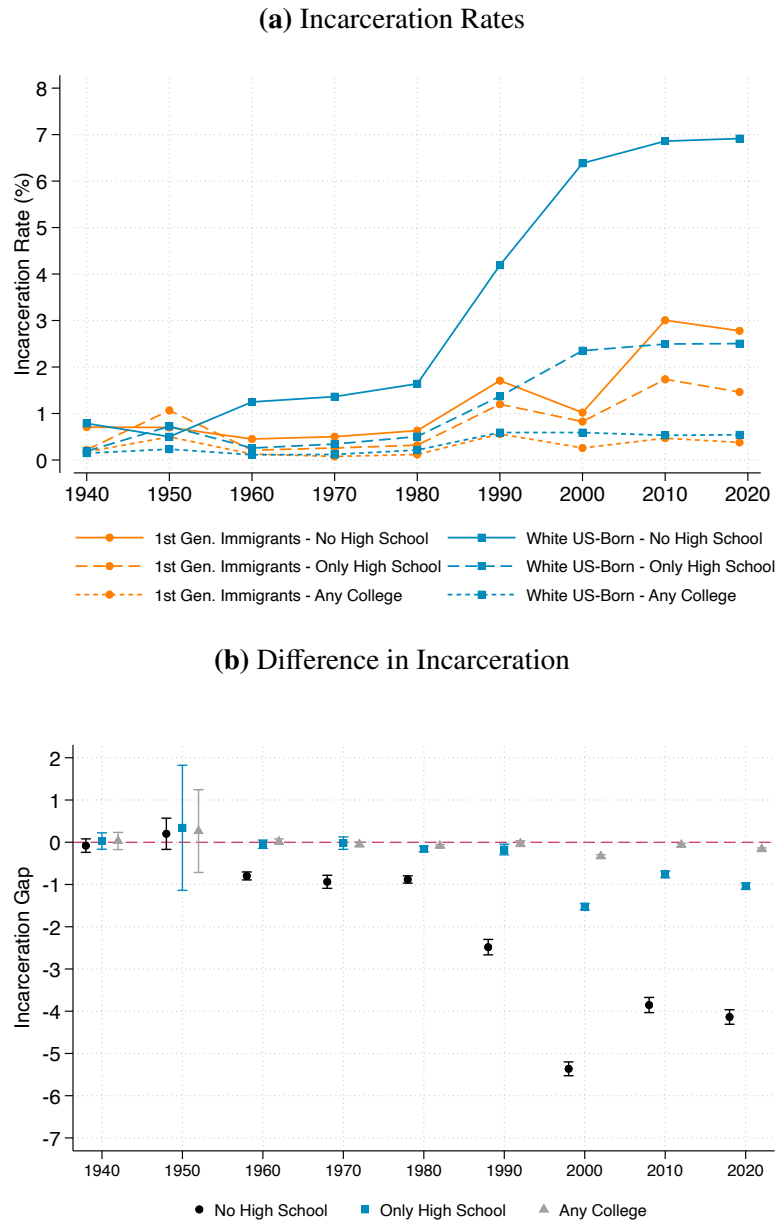


*Notes:* Panel (a) shows the annual number of removals of inadmissible or deportable individuals between 1892 and 2018, using data from the 2018 Yearbook of Immigration Statistics of the Department of Homeland Security. Panels (b) and (c) in this figure present the estimated values of  $\beta$  and  $\beta + \psi$  in the following regression (estimated separately by Census year):

$$Incarcerated_{it} = \alpha_t + \beta_t Immigrant_{it} + \psi_t Immigrant \times Non-Citizen_{it} + \gamma X_{it} + \epsilon_{it}$$

where *Incarcerated* is an indicator that takes a value of one if an individual *i* in Census year *t* is incarcerated, *Immigrant* is an indicator that takes a value of one if an individual is foreign-born, and *Citizen* is an indicator that takes a value of one if an individual is a citizen (this variable is always one for the US-born). The vector  $X_{it}$  include age, state, marital status, and education (after 1940) fixed effects. Data from 1880 and 1940-1960 are omitted because the Census did not include a citizenship question in those years. Data are restricted to males aged 18-40. Data spanning 1870 to 1940 are from the full-count decennial Censuses. Data spanning 1950 to 2000 are from the largest available sub-sample from each corresponding decennial census. Data from 2005 onward are from the annual American Community Survey. Panel (b) compares white US-born men to all immigrants. Panel (c) compares white US-born men to immigrants from Mexico and Central America.

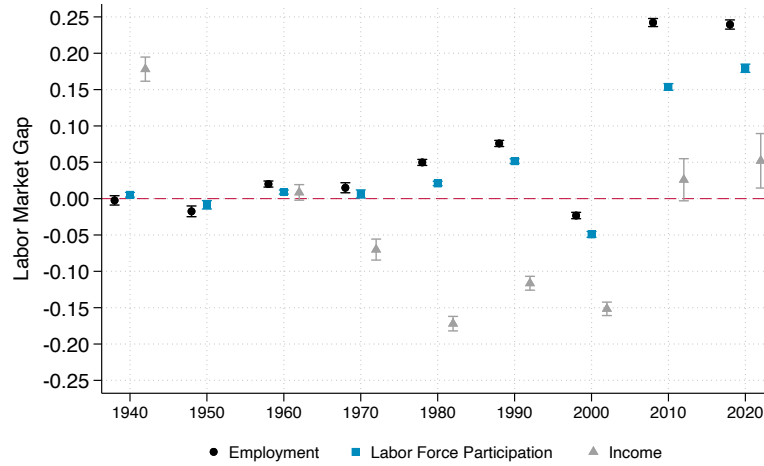
**Figure 4: Incarceration Gap Between Immigrants and White US-Born Men, By Educational Attainment**



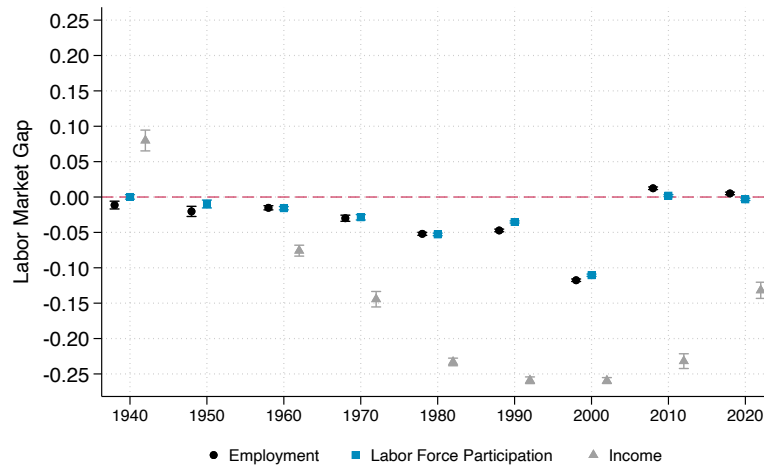
*Notes:* Panel (a) shows incarceration rates for immigrants and white US-born men between 1940 and 2020 by educational attainment. No High School indicates 11 or less years of schooling. High School indicates exactly 12 years of schooling. Any College indicates one or more years of college. Panel (b) plots the immigrant-native incarceration gap between 1940 and 2020, varying the educational attainment of each sample.

**Figure 5: Labor Market Gaps Between Immigrants and White US-Born Men, By Educational Attainment**

**(a) No High School**



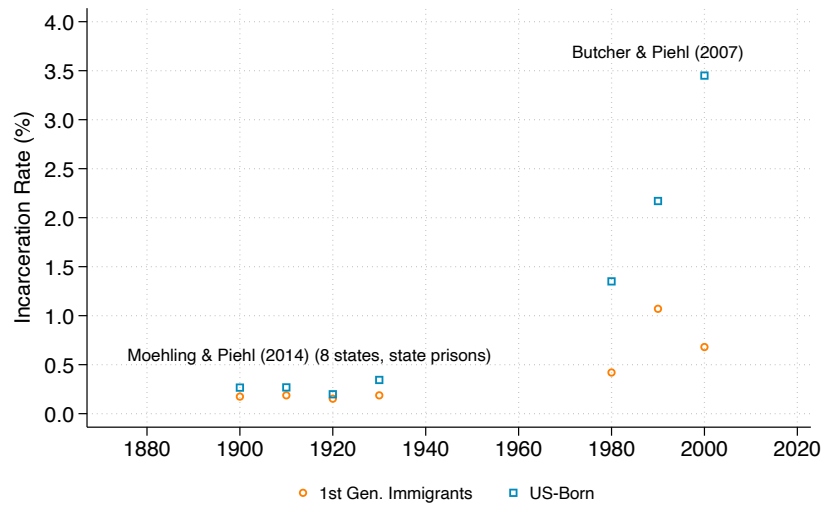
**(b) All**



*Notes:* Each panel in this figure presents immigrant-native labor market gaps between 1940 and 2020. The first series plots employment gaps. The second and third series plot labor force participation and income gaps. We use wage income in 1940 and total income between 1950 and 2020. Regressions include age fixed effects.

## A Appendix Figures and Tables

**Figure A1:** Existing Evidence on Immigrant and US-born Incarceration Rates



*Notes:* This figure plots historical incarceration rates of immigrants and natives from Moehling and Piehl (2014) and modern incarceration rates from Butcher and Piehl (2007). The historical incarceration rates are based on all US-born and immigrant individuals aged 18-44 in eight “high immigration states”: Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, Illinois, Michigan, and California. The modern rates correspond to institutionalization rates among all US-born and immigrant men age 18-40.

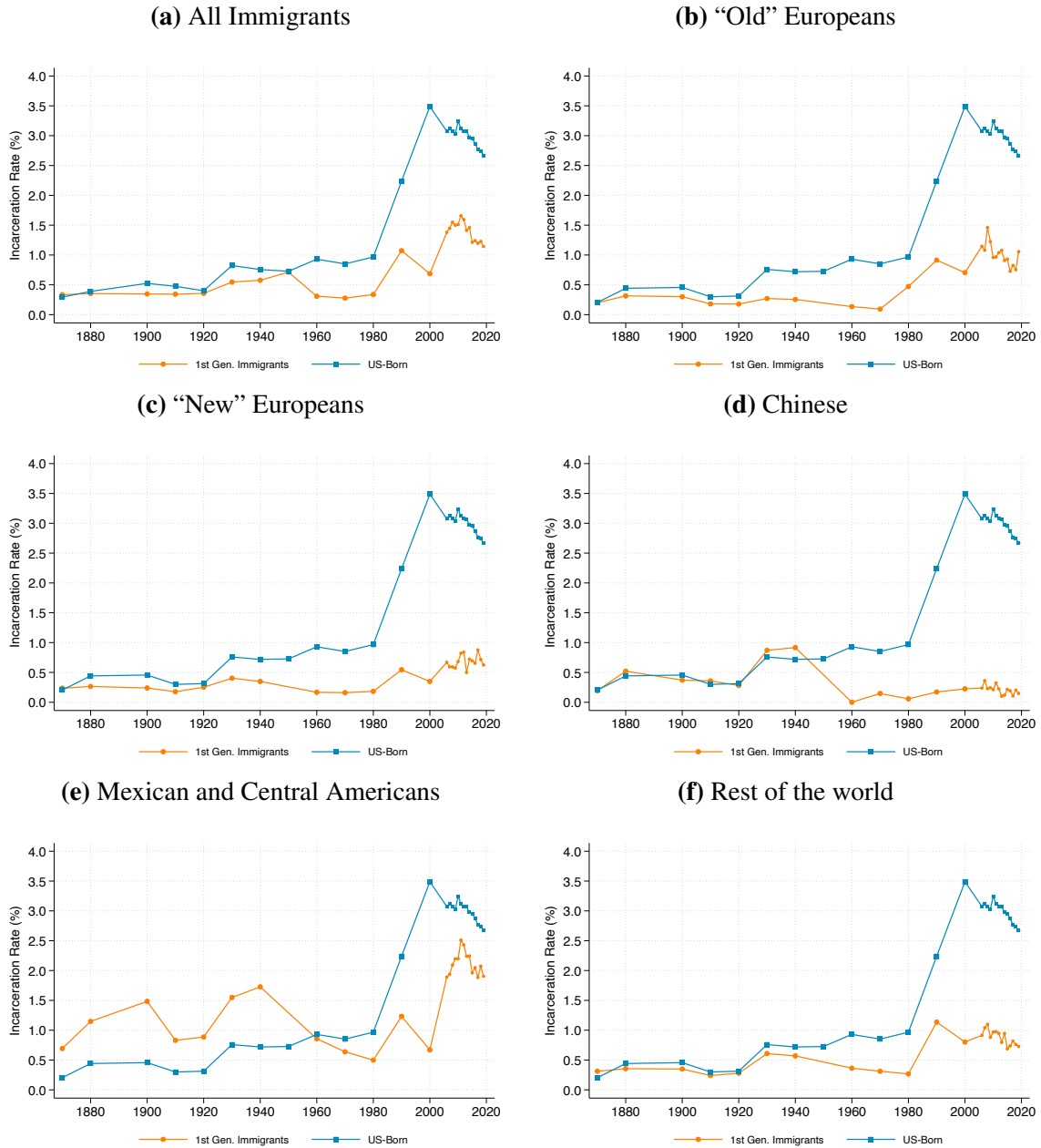


**Figure A2:** Example Record of Incarcerated Individual in 1930 Census

m- of ily a er is- ion	<b>NAME</b> of each person whose <i>place of abode</i> on April 1, 1930, was in this family Enter surname first, then the given name and middle initial, if any Include every person living on April 1, 1930. Omit children born since April 1, 1930	<b>RELATION</b> Relationship of this person to the head of the family	Home owned or rented
	5	6	7
	Hardy Frank W	inmate	
	Barrow Clyde	inmate	
	Bewley Pat	inmate	
	Williams Travis	inmate	
	Barnett William L	inmate	

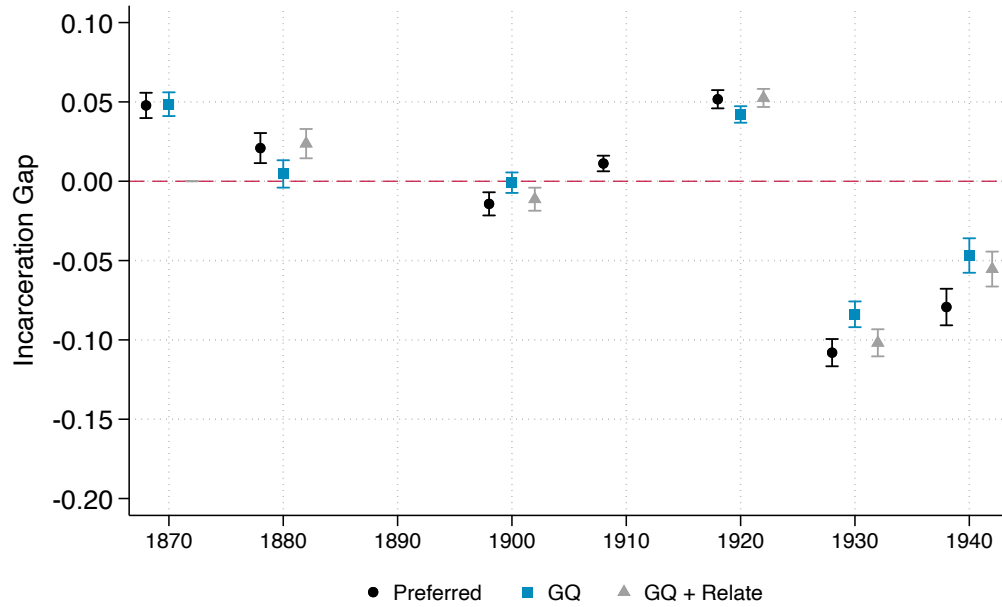
*Notes:* This figure shows an example record of prisoners in the 1930 population Census.

**Figure A3: Incarceration Rates of Immigrants and All US-Born (1870-2019)**



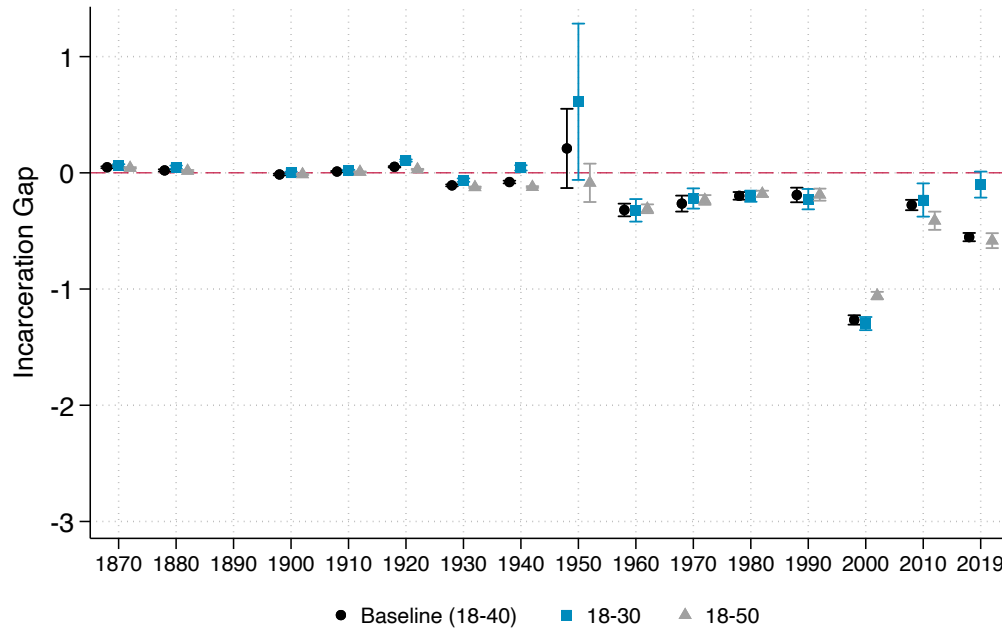
*Notes:* Each of the panels in this figure shows incarceration rates for immigrants and all US-born men between 1870 and 2019. Data are restricted to males aged 18-40. Data spanning 1870 to 1940 are from the full-count decennial Censuses. Data spanning 1950 to 2000 are from the largest available sub-sample from each corresponding decennial Census. Data from 2005 onward are from the annual American Community Survey (ACS). Panel (a) compares US-born men to all immigrants. Panels (b)-(f) compares US-born men to immigrants from a particular country-of-origin group, as indicated by the title. “Old Europeans” are immigrants from countries in the North and West of Europe. “New Europeans” are immigrants from countries in Eastern and Southern Europe. The “Rest of the world” category includes immigrants from countries not included in panels (b)-(f). For more details, see the Online Appendix.

**Figure A4:** Incarceration Gap Between Immigrants and White US-Born Men Using Alternative Incarceration Measures, Full-Count Data



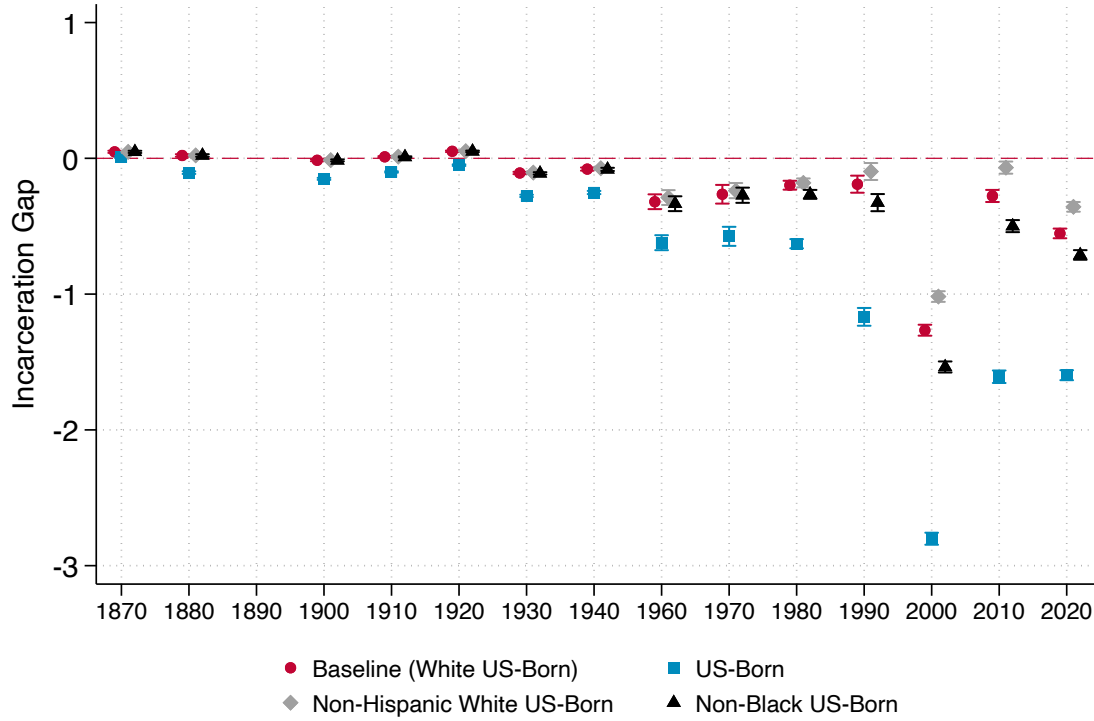
*Notes:* This figure plots the immigrant-native incarceration gap between 1870 and 1940 using the full-count decennial Censuses. The baseline estimate utilizes the baseline measure of incarceration. The second series only uses the group quarter variable to classify an individual as incarcerated. The third series only uses the group quarters variable and the variable denoting the relationship to the household head to classify an individual as incarcerated. For more details, see the Online Appendix.

**Figure A5:** Incarceration Gap Between Immigrants and White US-Born Men Varying the Age of the Sample



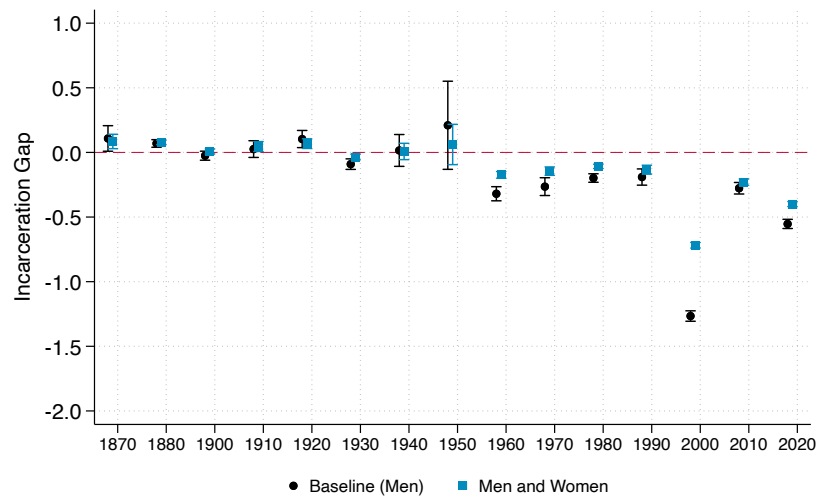
*Notes:* This figure plots the immigrant-native incarceration gap between 1870 and 2020, varying the age range of the sample. The baseline estimate only considers men ages 18–40. The second series only considers men ages 18–30. The third series considers men ages 18–50.

**Figure A6:** Incarceration Gaps between Immigrants and the US Born, Robustness to Alternative Comparison Groups



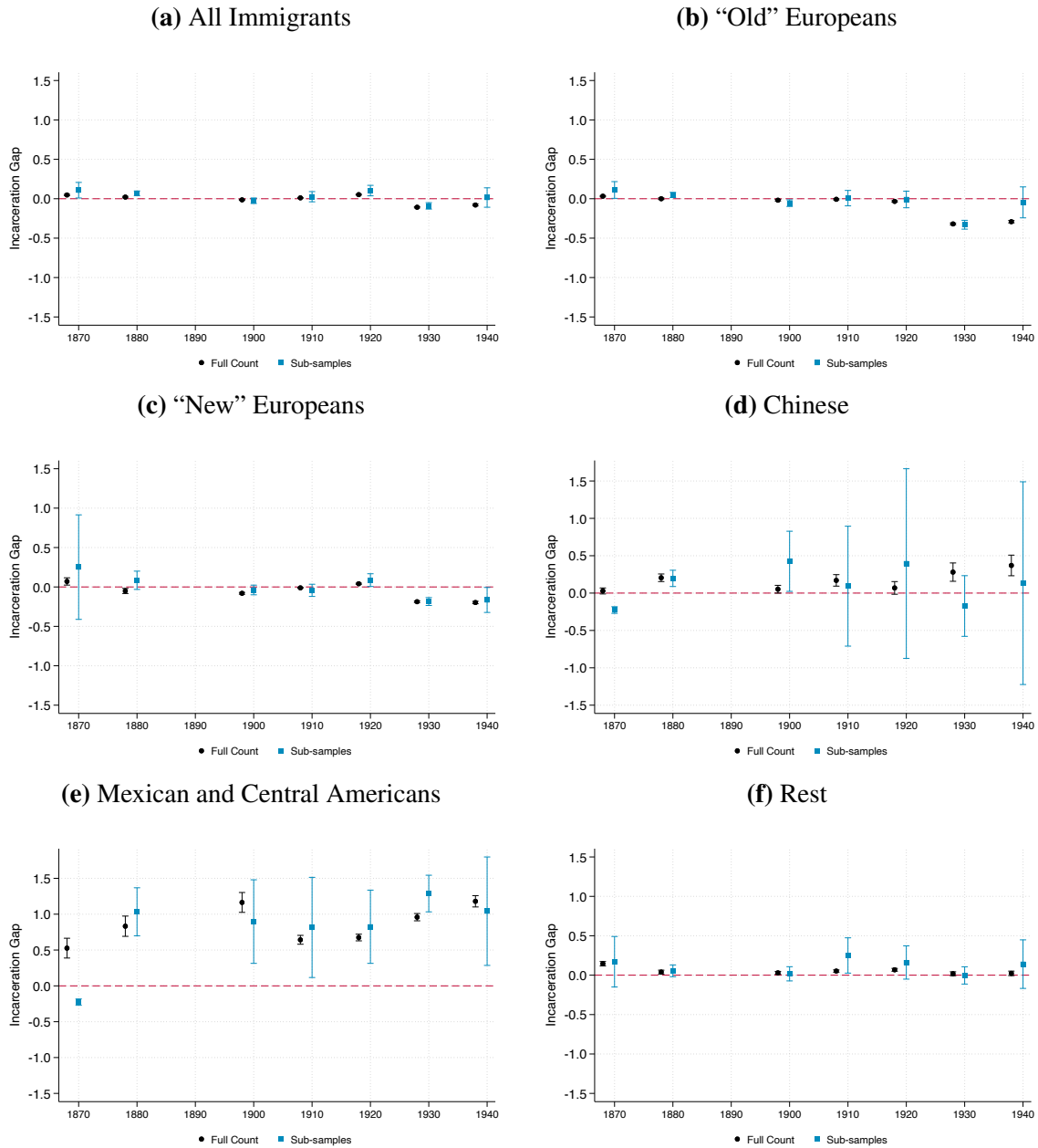
*Notes:* This figure plots the immigrant-native incarceration gap between 1870 and 2020, varying the group of individuals used to estimate the incarceration rates for US-born individuals. The baseline estimate only considers US-born white men. The second series uses all US-born men. The third series uses non-Hispanic US-born white men. The fourth series uses US-born men whose race is not identified as Black.

**Figure A7:** Incarceration Rate of Immigrants and White US-Born, Including Women



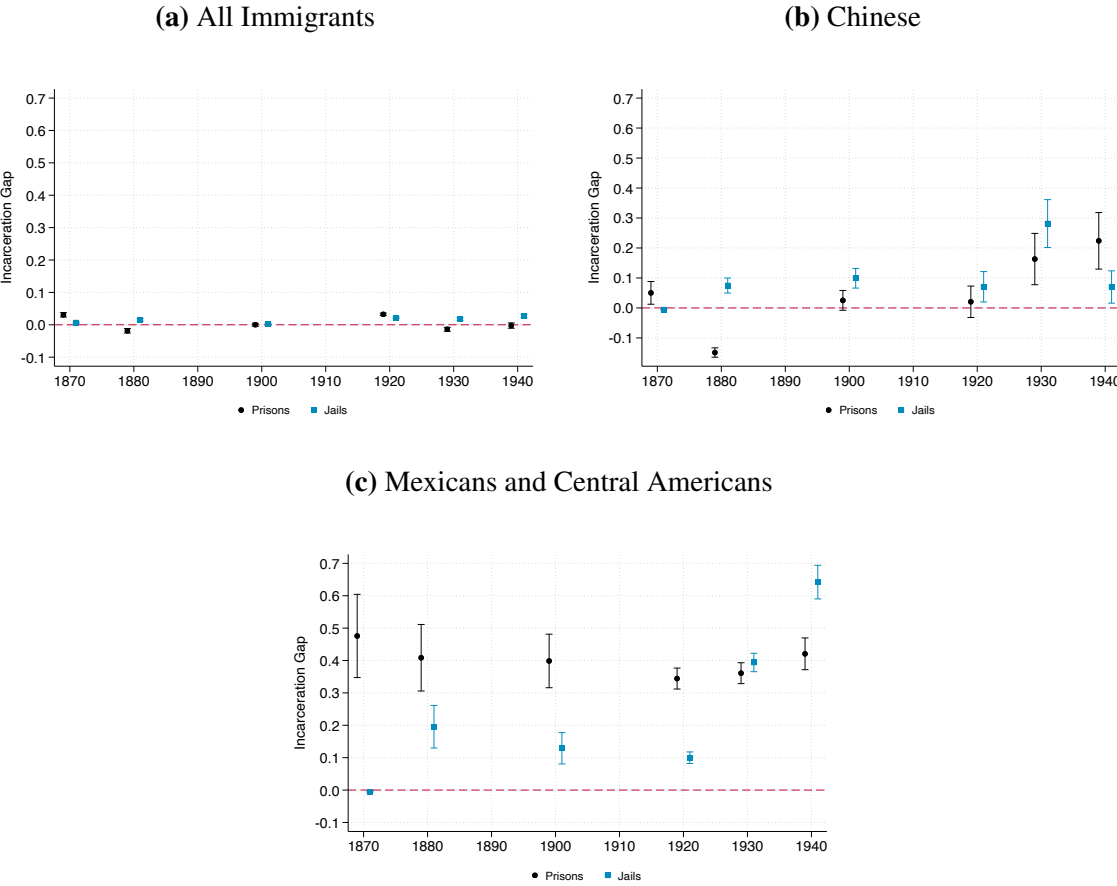
*Notes:* This figure plots the immigrant-native incarceration gap between 1870 and 2020. The first series only includes men. The second series includes men and women. The sample is restricted to individuals aged 18-40 in each census.

**Figure A8: Difference in Incarceration Rates of Immigrants and All US-born Men, Comparing Full Count Census with Sub-samples (1870-1940)**



*Notes:* This figure shows the gap in the incarceration rate between immigrants and white US-born men. The first series reproduces the baseline estimates using full-count Census samples. The second series utilizes the largest available sub-sample from each decennial census for the historical time period. The sample is limited to men age 18-40. Panel (a) compares white US-born men to all immigrants. Panels (b)-(f) compare white US-born men to immigrants from a particular country-of-origin group. See notes to Figure 1 and the Online Appendix for a definition of each country-of-origin group.

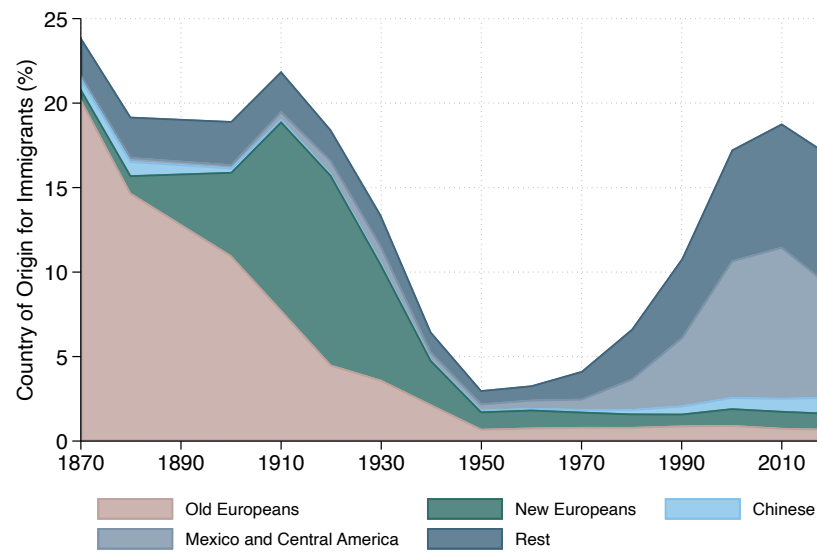
**Figure A9: Incarceration Gap Between Immigrants and White US-born Men (1870-1940), by Jurisdiction**



Notes:

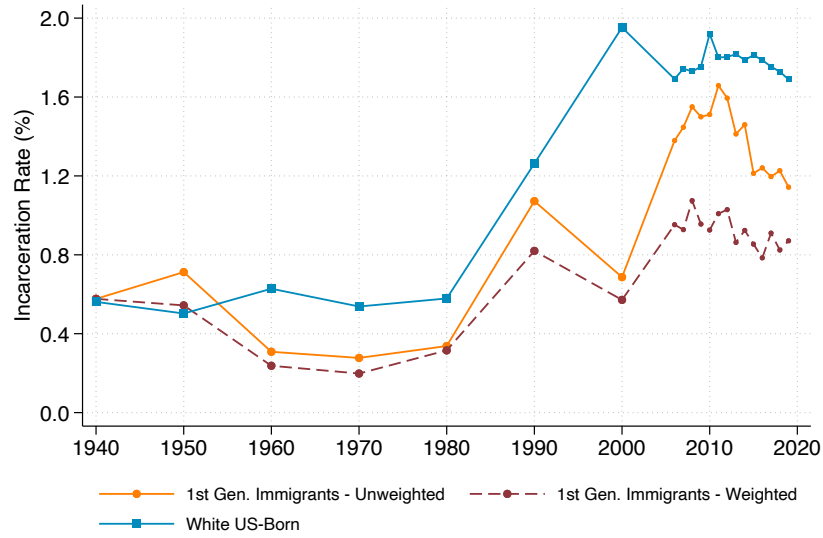


**Figure A10: Immigrant Composition in the US, 1870-2019**



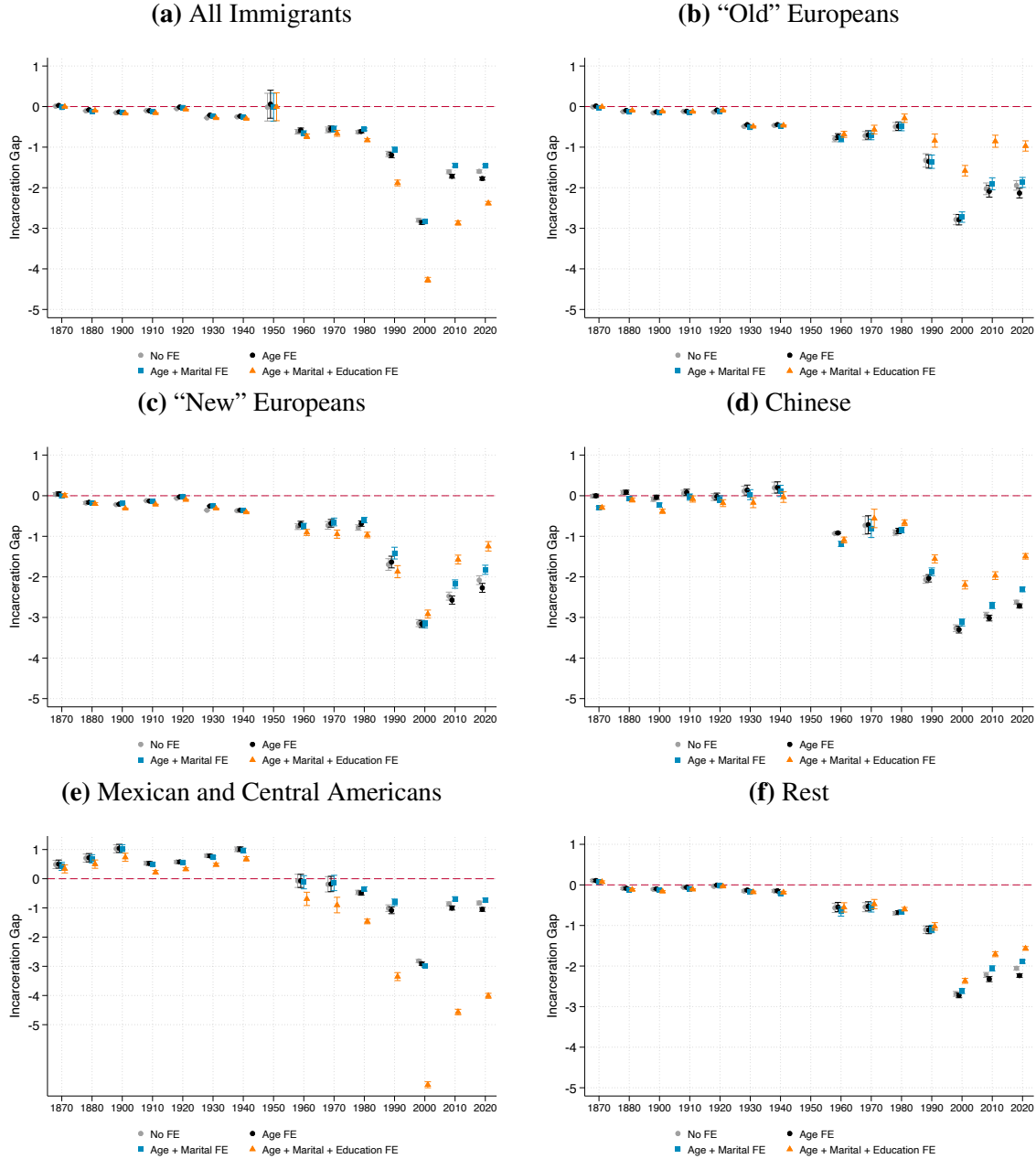
*Notes:* This figure illustrates the share of men aged 18–40 that are foreign-born between 1870 and 2019. Each color depicts immigrants from a specific country-of-origin group. For more details on country groups, see the Online Appendix.

**Figure A11:** Incarceration Rate of Immigrants and White US-Born, Fixing the 1940 Immigrant Country Group Composition



*Notes:* The first (orange) and third (blue) series plot the raw incarceration rates of immigrant men and white US-born men, analogous to those in Figure 1. The second series (red) holds fixed the immigrant composition in 1940 (using the five groups: “old” Europeans, “new” Europeans, Chinese, Mexican and Central Americans, and those from the rest of the world) and calculates the counterfactual incarceration rate after 1940 if the share of each immigrant group had remained at 1940 levels. The sample is restricted to males ages 18–40.

**Figure A12:** Difference in Incarceration Rates of Immigrants and All US-born Men, Adjusting for Individual-Level Characteristics (1870-2019)

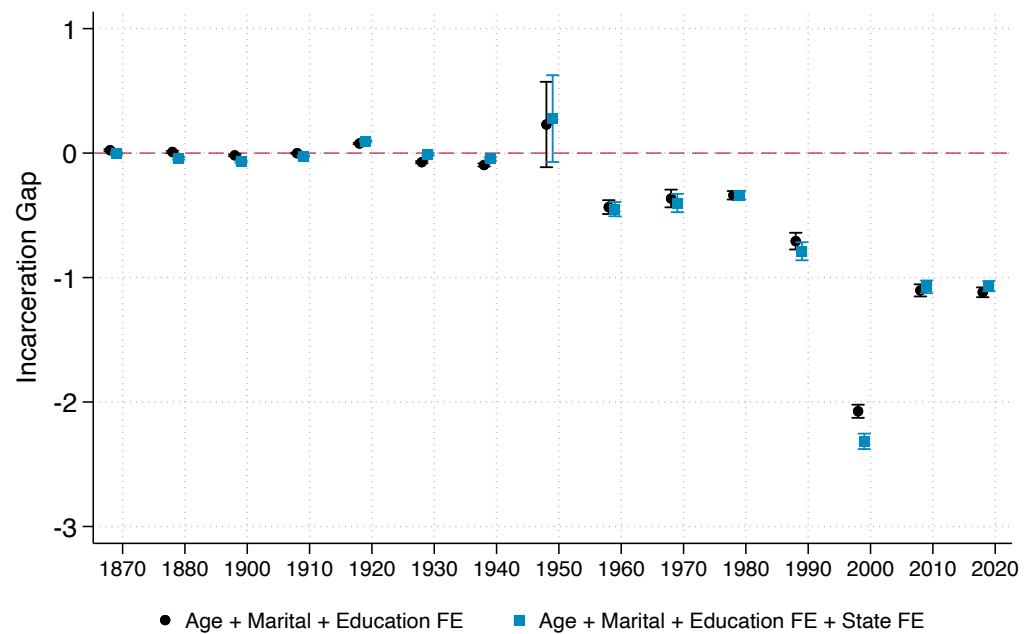


*Notes:* Each panel in this figure presents the estimated values of  $\beta$  in the following regression (estimated separately by Census year):

$$Incarcerated_{it} = \beta_{it} Immigrant_{it} + \gamma X_{it} + \epsilon_{it}$$

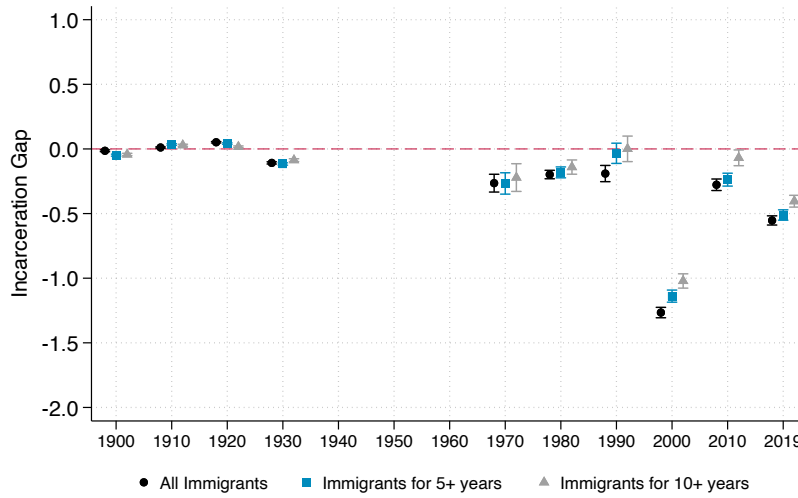
where *Incarcerated* is an indicator that takes a value of one if an individual *i* in census year *t* is incarcerated and *Immigrant* is an indicator that takes a value of one if an individual is foreign born. The vector  $X_{it}$  include age, state, marital status, and education (after 1940) fixed effects. Data are restricted to males aged 18-40. Data spanning 1870 to 1940 are from the full count decennial censuses. Data spanning 1950 to 2000 are from the largest available sub-sample from each corresponding decennial census. Data from 2005 onward are from the annual American Community Survey. Panel (a) compares all US-born men to all immigrants. Panels (b)-(f) compares all US-born men to immigrants from a particular country-of-origin group. See notes to Figure 2 as well as the Online Appendix for a definition of each country-of-origin group.

**Figure A13:** Incarceration Gap Between Immigrants and White US-Born Men, Including State Fixed Effects



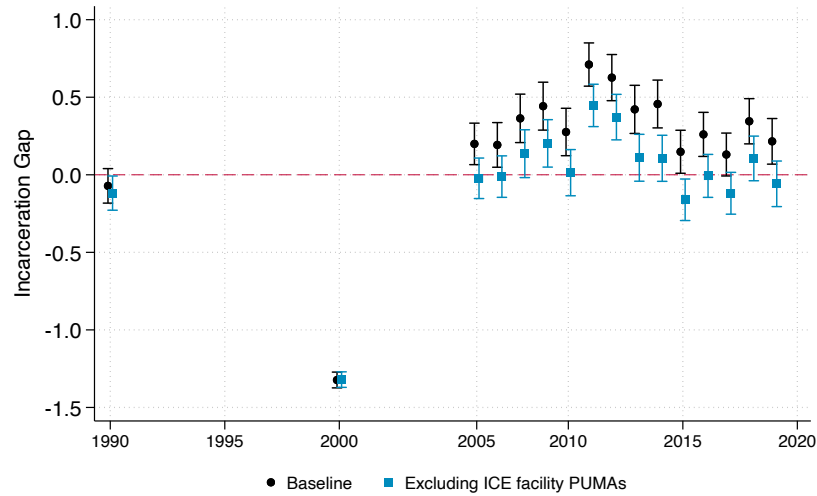
*Notes:* This figure plots the immigrant-native incarceration gap between 1870 and 2020 controlling for individual-level characteristics and including state fixed effects.

**Figure A14:** Incarceration Gap Between Immigrants and White US-Born Men, Excluding Recent Immigrants



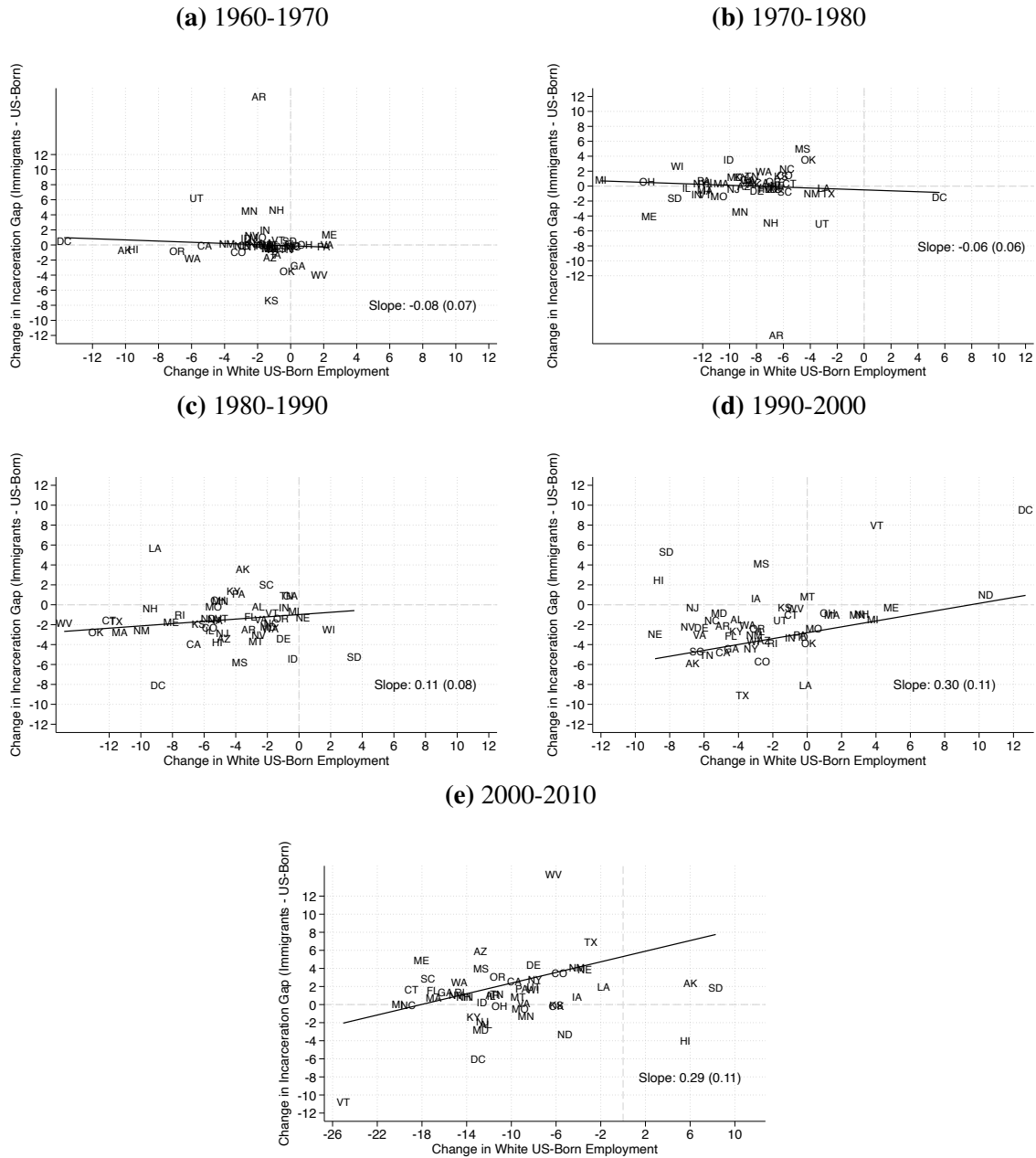
*Notes:* This figure plots the immigrant-native incarceration gap between 1870 and 2020, excluding recent immigrant arrivals from the sample. The first series considers immigrants regardless of time since arrival. The second and third series exclude individuals arriving to the US within five and ten years, respectively.

**Figure A15:** Incarceration Gaps between Mexican and Central American Immigrants and White US-born Men, Excluding PUMAs with ICE Facilities



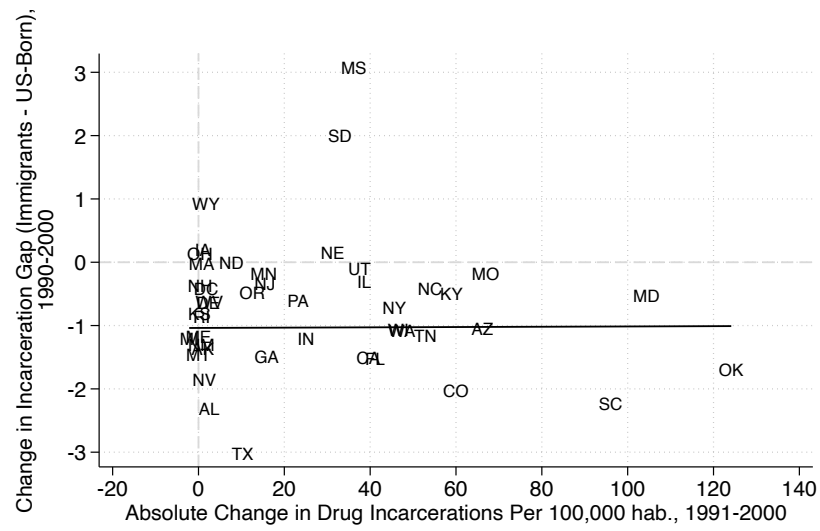
*Notes:* This figure plots the gap in the incarceration rates between Mexican and Central American immigrants and those of white US-born men between 1990 and 2019. The first series reproduces these gaps from Figure 1. The second series excludes the 17 Public Use Microdata Areas (PUMA) that include federal ICE detention facilities. For more details, see the Online Appendix.

**Figure A16:** Income Gaps and State Level Changes in Incarceration and Employment, 1960-2010



*Notes:* This figure shows scatter plots of state level changes in white US-born employment rates over a decade and changes in white US-born/immigrant incarceration rates during the same period. The sample is restricted to individuals who did not complete high school. A regression line is fitted using state population in the latter year as weights.

**Figure A17:** Change in Incarceration Gaps Between Immigrants and White US-Born and Change in Drug Incarcerations, 1990-2000



*Notes:*



**Table A1:** Sample Size for Immigrants and White US-Born, by Year

	US-Born			Immigrants		
	Incarcerated (1)	Total (2)	% Incarcerated (3)	Incarcerated (4)	Total (5)	% Incarcerated (6)
1870	7,474	4,490,300	0.166	3,573	1,667,878	0.214
1880	20,609	6,532,392	0.315	6,084	1,808,660	0.336
1900	32,479	10,166,088	0.319	8,626	2,826,244	0.305
1910	23,897	12,718,739	0.188	8,165	4,101,636	0.199
1920	30,408	14,398,113	0.211	9,624	3,661,154	0.263
1930	102,878	17,432,396	0.590	14,609	3,030,274	0.482
1940	113,032	20,681,052	0.547	6,817	1,458,940	0.467
1950	345	266,229	0.503	17	8,946	0.712
1960	7,010	1,115,860	0.628	132	42,800	0.308
1970	4,092	760,658	0.538	103	37,146	0.277
1980	8,765	1,636,649	0.536	461	136,617	0.337
1990	15,191	1,705,506	1.263	1,909	229,569	1.072
2000	26,578	1,512,560	1.953	3,084	372,255	0.687
2010	40,916	1,392,156	1.851	10,336	340,376	1.574
2019	46,872	1,474,924	1.756	8,284	326,127	1.203

Notes: This table presents the sample size and incarceration rates (using sample weights whenever available) for white US-born men and immigrant men. The sample is restricted to men ages 18–40. See the Online Appendix for more information about each data source

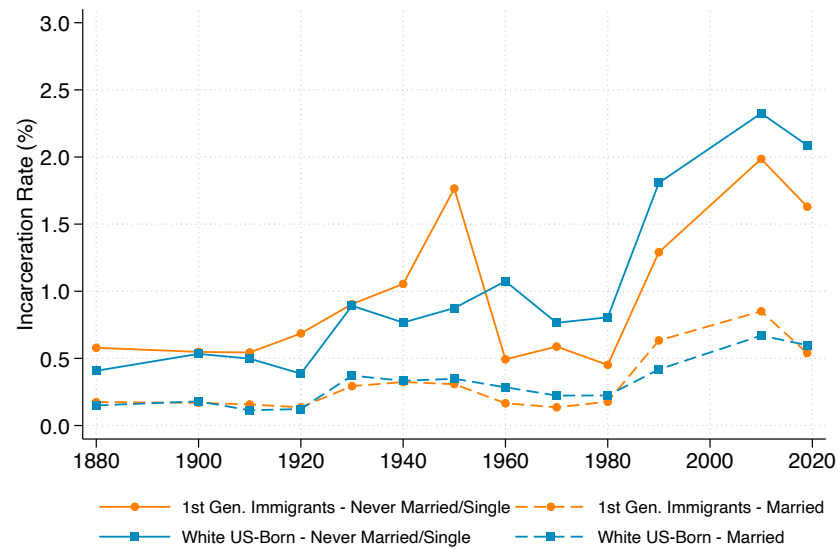
**Table A2:** Top Rest of the World Birth Countries, 1870-2019

	1880	1900	1920	1940	1960	1980	2000	2019
Canada	95.60	84.16	71.51	64.13	51.46	15.33	6.64	5.31
Atlantic Islands	0.14	0.13	0.82	-	-	-	-	-
Cuba	1.08	0.82	1.11	1.46	4.88	11.37	6.68	5.79
West Indies	1.38	1.16	4.92	6.07	7.28	11.54	13.80	11.20
South America	0.58	0.24	1.41	2.73	5.26	11.14	13.91	13.38
Japan	-	10.89	9.05	4.54	5.51	4.89	3.05	2.40
Korea	-	-	-	-	-	4.85	5.78	4.91
Indonesia	0.08	-	-	-	-	-	-	-
Philippines	-	-	0.84	6.92	9.48	9.90	9.64	9.17
Vietnam	-	-	-	-	-	4.86	7.52	6.54
India	0.13	-	-	-	-	5.89	11.23	16.93
Lebanon	-	-	-	-	1.49	-	-	-
Syria	-	0.67	4.43	3.99	-	-	-	-
Turkey	0.08	0.82	2.87	5.19	3.36	-	-	-
Southwest Asia n.e.c./n.s.	-	-	-	-	1.89	-	-	-
Asia n.e.c./n.s.	-	-	-	-	-	-	-	-
Africa	0.22	0.16	-	0.84	1.90	4.77	6.82	9.64
Australia and New Zealand	0.51	0.50	1.01	1.12	-	-	-	-
Total Top 10	99.79	99.56	97.97	96.99	92.49	84.54	85.08	85.29
Outside Top 10	0.21	0.44	2.03	3.01	7.51	15.46	14.92	14.71

Notes: The table presents the shares of the top 10 most frequent rest of the world birthplaces. n.e.c. stands for not elsewhere classified; n.s. stands for not specified.

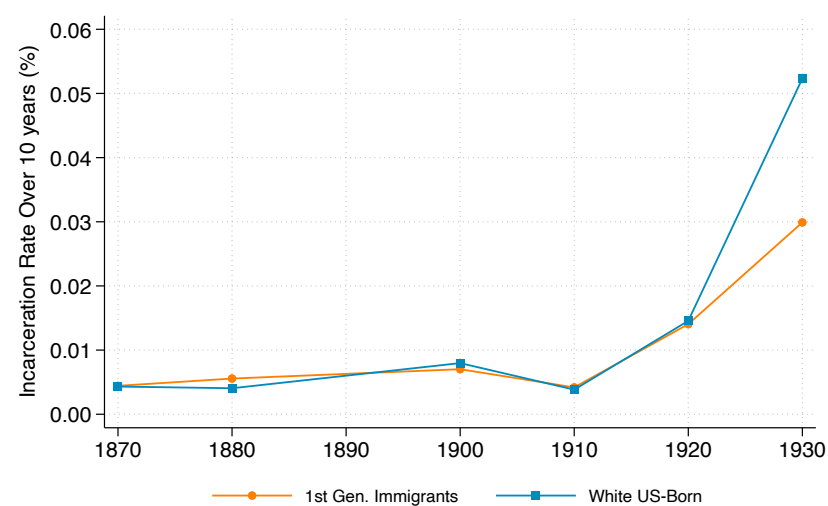
## B Additional

**Figure A18:** Incarceration Rates for Immigrants and White US-born Men Natives, By Marital Status



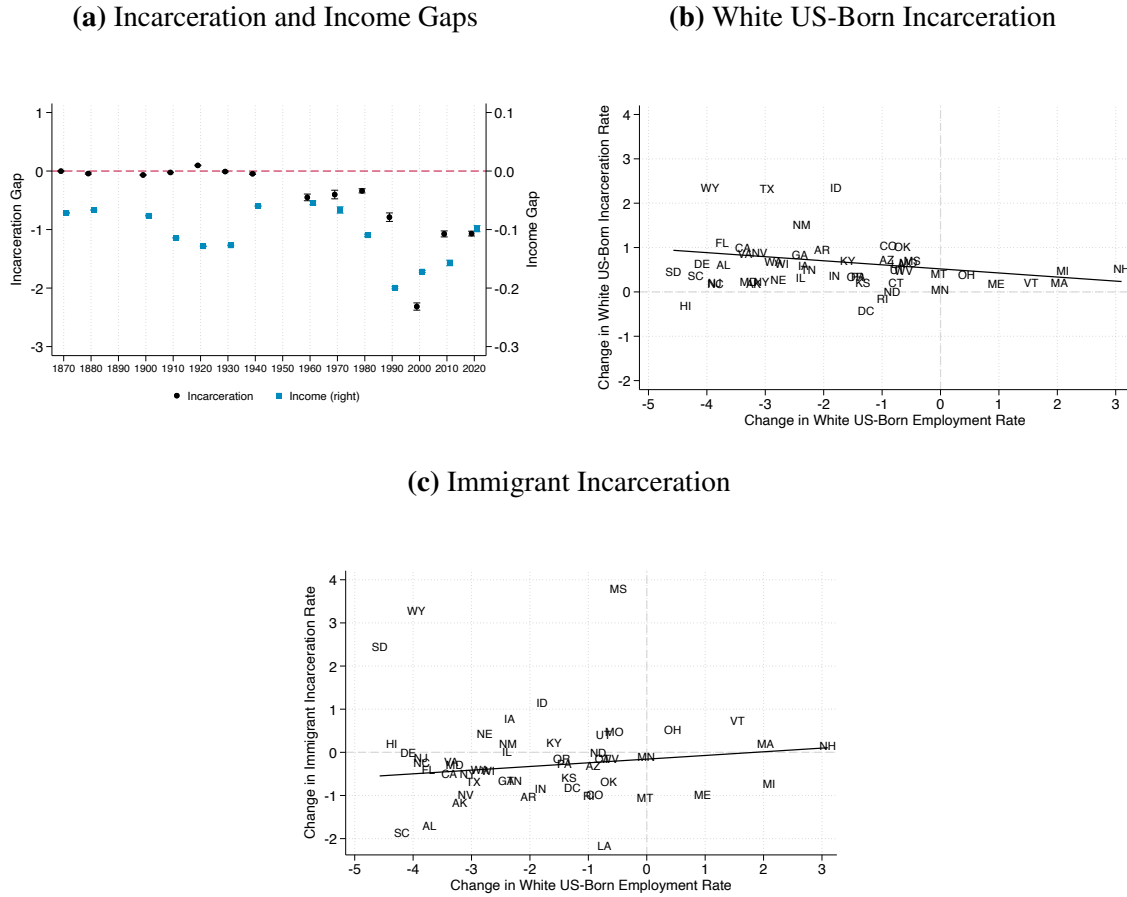
*Notes:* This figure plots the incarceration rates of immigrant men and white US-born men by marital status. The sample is males ages 18–40.

**Figure A19:** Incarceration Rates Over 10 Years of Immigrants and White US-Born



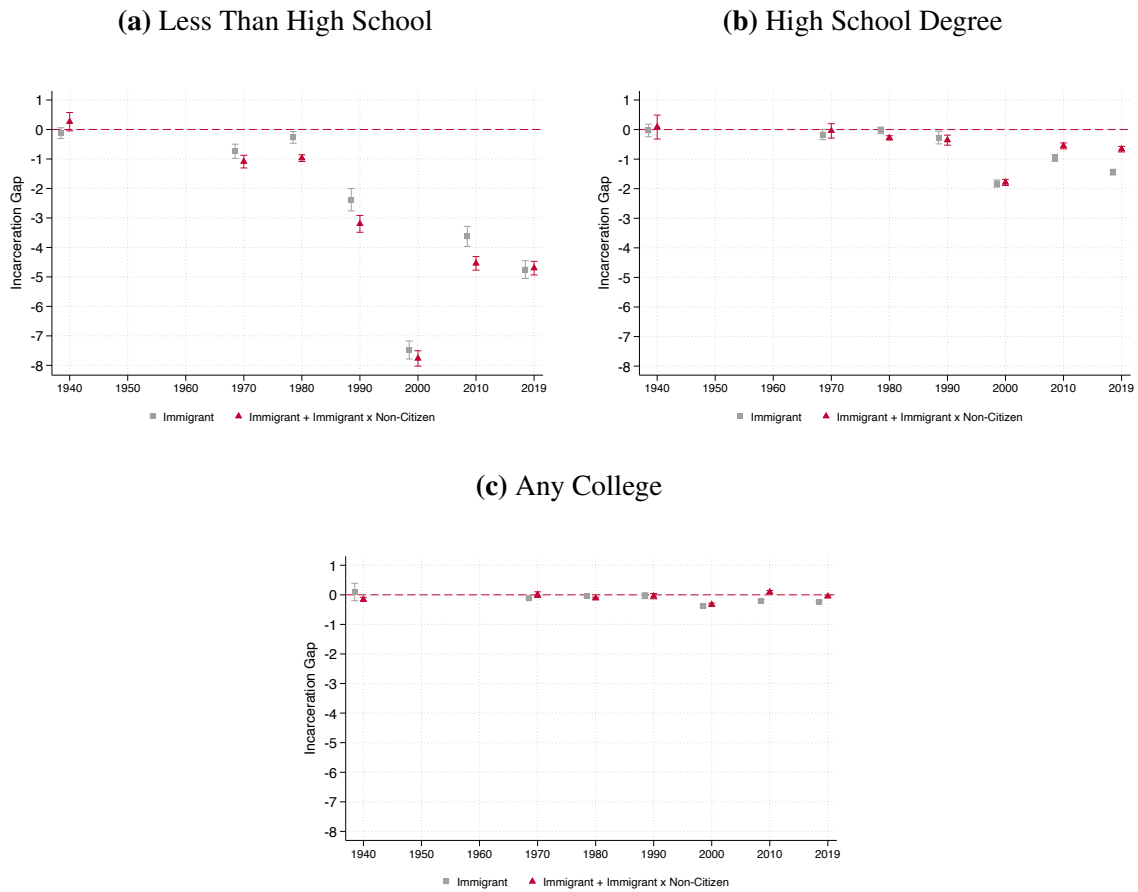
*Notes:*

**Figure A20: Income Gaps and State Level Changes in Incarceration and Employment, 1990-2000**



*Notes:* Panel (a) shows the estimated values of  $\beta$  in Panel (a) of Figure 2 and the estimated values of  $\beta$  for an analogous regression in which the outcome variable is income. Regressions include age, state, marital status and education (after 1940) fixed effects. Data are restricted to males aged 18-40. Data spanning 1870 to 1940 are from the full count decennial Censuses. Data spanning 1950 to 2000 are from the largest available sub-sample from each corresponding decennial census. Data from 2005 onward are from the annual American Community Survey. We use predicted income (described in the main text and Online Appendix) as the measure of income. Panels (b) and (c) present scatter plots of state level changes in white US-born employment rates between 1990 and 2000 and changes in white US-born/immigrant incarceration rates during the same period. The sample is restricted to individuals who did not complete high school. A regression line is fitted using state population in 2000 as weights.

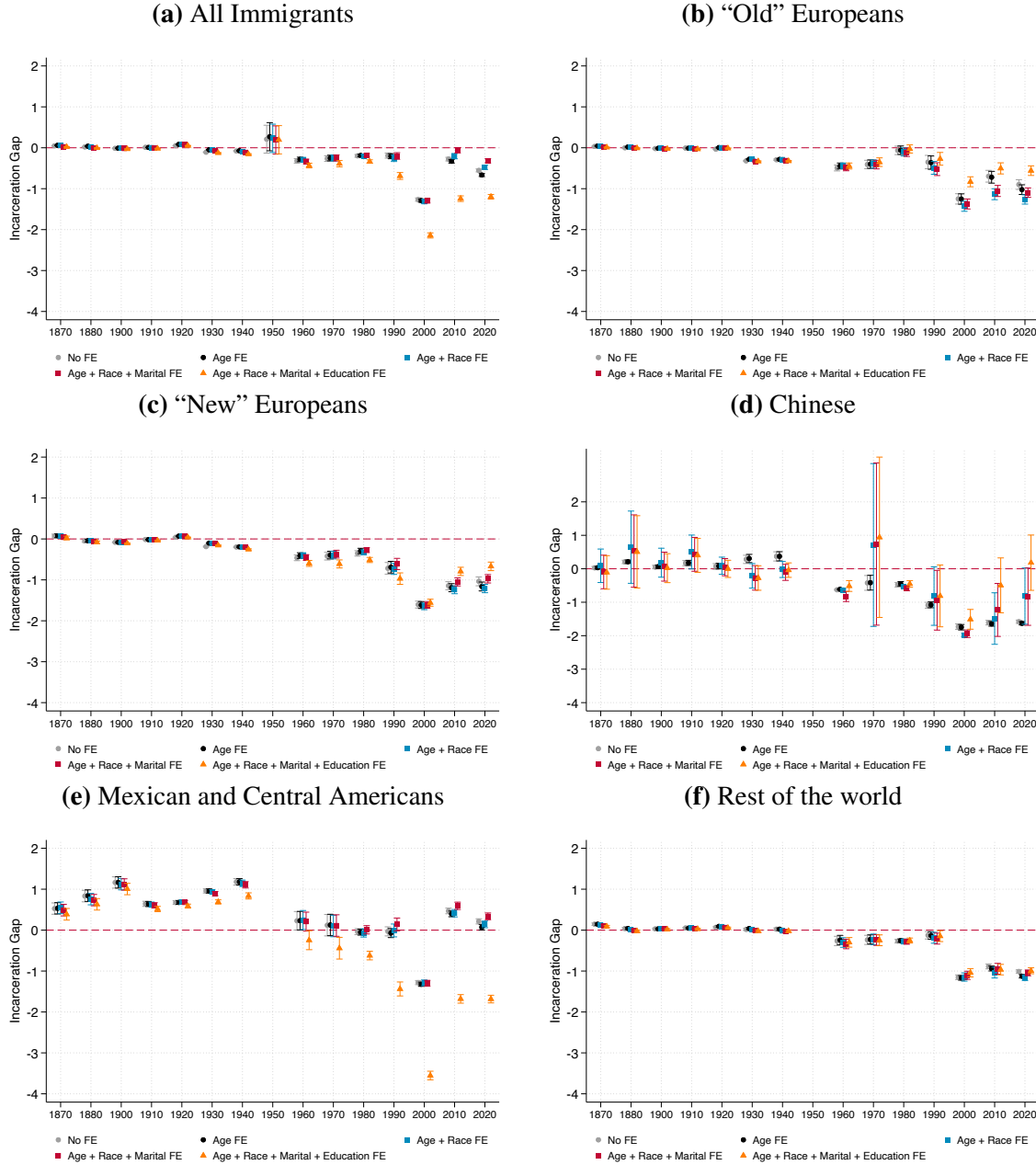
**Figure 1: Incarceration Gap Between Immigrants and White US-born Men (1940-2019), by Citizenship Status and Educational Attainment**



*Notes:*



**Figure 2:** Difference in Incarceration Rates of Immigrants and White US-born Men, Adjusting for Individual-Level Characteristics (1870-2019)



*Notes:* Each panel in this figure presents the estimated values of  $\beta$  in the following regression (estimated separately by Census year):

$$Incarcerated_{it} = \beta_{it} Immigrant_{it} + \gamma X_{it} + \epsilon_{it}$$

where *Incarcerated* is an indicator that takes a value of one if an individual *i* in census year *t* is incarcerated and *Immigrant* is an indicator that takes a value of one if an individual is foreign born. The vector  $X_{it}$  include age, state, marital status, and education (after 1940) fixed effects. Data are restricted to males aged 18-40. Data spanning 1870 to 1940 are from the full count decennial censuses. Data spanning 1950 to 2000 are from the largest available sub-sample from each corresponding decennial census. Data from 2005 onward are from the annual American Community Survey. Panel (a) compares white US-born men to all immigrants. Panels (b)-(f) compares white US-born men to immigrants from a particular country-of-origin group. See notes to Figure 1 as well as the Online Appendix for a definition of each country-of-origin group.