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DAUGHTERS AS SAFETY NET?
FAMILY RESPONSES TO PARENTAL EMPLOYMENT SHOCKS:
EVIDENCE FROM ALCOHOL PROHIBITION

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ABSTRACT

We study the impact of Federal alcohol Prohibition in 1919 on workers in the alcohol industry and their families using newly linked census records that allow us to follow spouses, sons and daughters. Immediately after Prohibition, men previously working in alcohol-related industries were less likely to be in the labor force, and when working, employed in lower skilled occupations. By 1940, 21 years after Prohibition, workers were still more likely to be in unskilled occupations, but they were more likely to be employed, consistent with delayed retirement. In the short run, sons are largely unaffected but in the long run, they complete slightly more schooling and earn more. Interestingly, daughters were more likely to remain at home, delay marriage and be employed, even 20 years later. These effects are driven by daughters living at home in 1920. Daughters, not sons, appear to have acted as the family's safety net in this period before public provision of relief.

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1   Introduction

In the decades following the Industrial Revolution, the US witnessed the continual rise and fall of important industries. Railways, iron, and steel were dominant industries in 1900, yet they represent only a small share of the US economy today. Coal, once an important component of the economy, is predicted to disappear completely from the US power grid by 2033 (Wade, 2021).

How long does it take for workers to recover from the demise of an industry? And how do their families respond? In this paper, we examine the impact of federal alcohol Prohibition (1919-1933) on short-, medium-, long-term and intergenerational outcomes of affected workers. In 1910, nearly 175,000 workers were employed in the alcohol industry, declining to 40,000 by 1920 and to less than 10,000 by 1930 (Figure A1).[1] Those affected worked in a wide range of occupations, from craftsmen and bartenders to clerical workers in breweries and distilleries.

Federal Prohibition is a useful context for investigating the long-run consequences of the demise of an industry for multiple reasons. First, the historical nature of the episode enables us to estimate its long-term and even intergenerational impacts. Second, the setting, the quick demise of an entire industry as a result of federal regulation, allows us to construct a plausible counterfactual group of workers in other unaffected industries. Specifically, we use linked census records (Abramitzky *et al.*, 2021; Buckles *et al.*, 2023) to compare the outcomes of men who worked in alcohol related industries in 1910 (the last census year before Prohibition in 1919) with the outcomes of equivalent men (based on country of birth, age, marital status, detailed occupation, and county of residence) employed in non-alcohol related industries in 1910. Using 1910 as the baseline year carries the advantage that federal Prohibition was not predicted at that point, reducing concerns of negative selection among workers into alcohol related industries in 1919 if workers anticipated Prohibition was imminent.[2] We confirm that these two groups of workers are both very similar in 1910 and on similar trajectories 1900-1910. Using linked census records, we follow the outcomes of these two groups of men through 1940. Exploiting recent advances in linking that now include women (Buckles *et al.*, 2023), we also identify their *spouses*, *sons* and *daughters* and follow them through 1940. This allows us to examine not only whether and how spouses respond, but also whether the responses of children vary by gender.

We find that in 1920, immediately after Prohibition, men previously working in alcohol-related industries were less likely to be in the labor force, and among those employed, worked in lower skilled occupations relative to equivalent men previously employed in the same occupation but a different industry. More specifically, affected workers were three percentage points less likely to be employed in skilled blue-collar occupations and more likely to be in unskilled occupations. Overall, their occupational income score (occscore) was nearly four percent lower than workers in comparable occupations in 1910, corresponding to $1240 in 2023$. By 1940, 21 years after Prohibition (and seven years after its repeal in 1933), men who were in alcohol-related industries in 1910 were slightly more likely to be employed, but still in less skilled occupations, consistent with delayed retirement. The effects are largest for older alcohol workers and those initially in higher skilled occupations. Such workers had likely accumulated greater industry-specific human capital making the demise of the alcohol industry especially costly for them. In interpreting the magnitude of these effects, it's important to note that they are reduced form or intent-to-treat effects. Given that only a subset of these workers lost their jobs as a result of Prohibition, the treatment effects are likely larger.

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[1]These figures do not include workers in industries that might have been indirectly affected by Prohibition.

[2]See (Gibbons & Katz, 1991) for an illustration of negative selection into layoffs. The main disadvantage of this approach is that some of these men may not have been working in alcohol related industries by 1919. As such the estimates are likely a lower bound.

We next examine how the families of affected workers responded to the shock. Spouses are generally unresponsive. Sons' employment and occupation also appear largely unchanged through 1930 as a result of the shock to their fathers' employment. By 1940, there appear to be modest benefits to the sons: they earn more and have completed slightly more schooling.

Interestingly, daughters are very responsive to the negative shock experienced by their father. They are 4 percentage points more likely to be employed in 1930 (a 9 percent increase) and this effect persists through 1940, twenty years after the shock. They also remain at home for longer, delay marriage and childbearing. They are roughly 2 percentage points more likely to be living at home in 1930 and 1940 and about two percentage points less likely to be married by age 40. The delay in marriage is accompanied by a very slight (0.10) reduction in completed fertility. The results are driven entirely by unmarried daughters still living at home in 1920. For daughters already out of the parental home at the time of the shock, there is no response.

We conclude that the demise of the alcohol industry as a result of Prohibition led to persistent effects on the employment and occupational standing of affected workers. Moreover, during this period, when the public safety net had yet to be fully developed, daughters played a key role in supporting their families, remaining at home, increasing their employment and delaying marriage and childbearing.

This paper contributes to the existing literature in three areas: the direct and intergenerational impacts of job displacement, within family transfers, and the economic consequences of Prohibition. The literature on the direct and intergenerational consequences of job displacement often focuses on the consequence of mass layoffs taking place in specific firms (Abowd *et al.*, 2009; Stevens & Schaller, 2011; Sullivan & Von Wachter, 2009; Stevens, 1997; Davis & Von Wachter, 2011; Brand, 2015; Couch & Placzek, 2010; Oreopoulos *et al.*, 2008a). We focus on regulation-induced layoffs affecting an entire industry. Hence, our estimates more easily generalize to settings in which an entire industry rather than a specific firm is negatively affected. There are many such instances both historically and more recently, from the decline of the American automobile industry to the energy transition away from coal, natural gas, and petroleum. Furthermore, while other work investigating the impact of layoffs on child outcomes has included short follow-up periods and focused on sons (Hilger, 2016; Oreopoulos *et al.*, 2008b), we allow for a twenty year follow up period and include daughters, a group that is rarely studied when employment outcomes are considered. For daughters, we consider how their employment, marriage and fertility were all affected by the shock.

Importantly, we study a period before the modern safety net had been established, when family members likely played a more important role in providing resources in the face of an economic shock. The role of the family in the safety net and how it has changed over time remains an important topic of research and policy discussion (Cherlin & Seltzer, 2014; Altonji *et al.*, 1992; Schaller & Eck, 2023). Our finding with respect to daughters increasing their employment in response to parental job loss is especially interesting given that it takes place during a period of significantly lower rates of female labor force participation.[3] While much of the existing work on the rise in female labor force participation over the twentieth century focuses on changes in women's human capital, career expectations, and the emergence of modern fertility control methods (Goldin, 2006), ours is the first paper linking female labor force participation to parental job loss in the early part of the period. Incorporating family responses, particularly among women, to economic shocks is necessary to consider the full impact of an economic shock on household well-being.[4]

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[3]Though the overall female labor force participation rate in 1920 was around 25 percent, in our young, urban sample of daughters, the rate is closer to forty percent.

[4]More broadly, we also contribute to the literature on the adjustment of workers to various shocks such as immigration (Foged & Peri, 2016), international trade (Autor *et al.*, 2013, 2014), automation (Feigenbaum & Gross, 2020; Bessen *et al.*, 2023; Cockriel, 2023), or environmental regulation (Walker, 2013). A key contribution of our analysis is to show the effect of these shocks on both workers and on their families.

Finally, by providing the first estimates of the consequences of Prohibition for workers in alcohol-related industries and their children, we contribute to the literature on the social and economic consequences of Prohibition in the US. This literature includes studies of the consequences of Prohibition on alcohol consumption (Miron & Zwiebel, 1991), crime (Owens, 2014), infant and adult mortality (Jacks *et al.*, 2020, 2023), firm survival (Hernández, 2016), innovation (Andrews, 2019), and land values (Howard & Ornaghi, 2021). There are no studies investigating how workers in the alcohol industry and their families were affected by the shock. We show that the Prohibition of alcohol had long-lasting consequences for incumbent workers in the alcohol industry and their families, with particularly interesting and important effects on daughters.

2   Background

The Temperance Movement and Prohibition. The first attempts to regulate the sale and production of alcohol in the United States are traced to the early 19th century (Cook, 2011). The "temperance movement" brought together a coalition of social movements (such as the American Temperance Society and the Anti-Saloon league) who viewed alcohol as the source of societal ills such as crime, poverty and poor health.

Throughout the late 19th century and early 20th centuries, a number of state- and county-level alcohol Prohibitions were enacted throughout the country (although these local regulations typically still permitted the sale of beer and wine). By the time Federal Prohibition was enacted, 26 states had already adopted some form of alcohol Prohibition and more than half of Americans lived in dry locations. Our analysis focuses on workers in the states for which federal Prohibition was binding (that is, the remaining "wet" states in 1918).

The 18th Amendment to the US Constitution, ratified in January of 1919, established that "no person shall manufacture, sell, barter, transport, import, export, deliver, furnish or possess any intoxicating liquor except as authorized in this act."[5] But it was the National Prohibition Act (Volstead Act) of October of 1919 that provided practical guidelines for the enforcement of the 18th amendment. Unexpectedly, the Volstead act defined a beverage as "intoxicating" if it contained just 0.5% or more of alcohol, effectively prohibiting nearly all alcoholic drinks. Most had believed that beer would be excluded, increasing the "shock" associated with the act, a point to which we return in the estimation. In January of 1920, the 18th amendment went into effect until its repeal in December of 1933 via the the 21st amendment.

Effects of Prohibition on the Domestic Alcohol Industry. Although some firms in the alcohol industry responded to Prohibition by switching to the production of alternative goods such as soft drinks or near beer (beer with less than 0.5% of alcohol), most evidence suggests that alcohol Prohibition constituted a large negative shock for domestic alcohol producers. For instance, between 1915 and 1925, the number of wineries declined from 318 to just 27 and the number of breweries from 1250 to 531 (Bureau of Statistics, 1928).

Alcohol Prohibition and the Rise of the Underground Market for Alcohol. Prohibition was associated with the growth of an underground market for alcohol, with the emergence of "speakeasies" and the growth of bootlegging. However, incumbent workers in the alcohol industry most likely could not fully absorb the shock of Prohibition by simply moving to the underground economy. First, most studies quantifying the extent to which Prohibition reduced alcohol consumption find sizable declines (in the order of 30 to 50%), particularly at the beginning of the Prohibition era (Miron & Zwiebel, 1991). Second, there was a large illegal inflow of liquor from abroad which likely displaced local production.[6] As a result, domestic alcohol

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[5]The law did not ban alcohol *consumption*, as individuals could still drink alcohol bought prior to Prohibition.

[6]Though it is hard to quantify how much alcohol was smuggled into the US, a US Coast Guard report indicates that 50,000 quarts of alcohol traveled through the Bahamas on route to the US in 1917 and this increased to 10,000,000 in

production, both legal and illegal, most likely declined significantly after Prohibition.

3 Data and Empirical Strategy

3.1 Linked Sample Following Workers and Their Children

Our analysis is based on longitudinal data in which we follow workers and their descendants from the 1910 census to the 1920, 1930, and 1940 censuses. Below we describe how we 1) identify workers in Alcohol Related Employment (ARE), 2) construct the control or counterfactual sample of equivalent workers, and 3) link workers to their family members and future outcomes.

Defining Alcohol Related Employment (ARE). Because the 1910 census is the last census before Prohibition, we identify workers aged 18-55 who were likely in ARE based on their 1910 "Industry" and "Occupation" variables collected by the census. We start with workers in industry code 418 ("Manufacturing, beverage industries") and 688 ("Retail Trade, Liquor Stores") based on the 1950 Census classification. We further refine our categorization of workers using the original strings of the industry and occupation variables available from the restricted access full count population census. Specifically, we categorize as working in ARE only those workers whose industry or occupation string explicitly mentions an alcohol-related word (for instance, "beer" or "distillery", see appendix Section B.3 for a full list of words). There are about 175,000 18-55 year old men in ARE based on this definition, 60,000 in manufacturing and 115,000 in services (largely bartending).[7] The local concentration of ARE workers varies widely from zero to 6.1% of the local workforce (Figure A3). Table A2 shows the list of top 10 cities based on the proportion of the workforce in alcohol-related employment, which includes cities in the Northeast, Midwest and West Coast.

For this analysis we focus on the 60,000 men employed in manufacturing because of the relative ease with which we can identify "counterfactual" workers in the same occupation but different industries. The same is not true for service occupations such as bartending, for which it is difficult to find control workers with similar characteristics and occupations.

We also consider a second, more flexible definition of ARE in which we start with the same industry codes and then drop individuals whose industry or occupation string explicitly mentions a *non-alcoholic* beverage (for instance, "water" or "pop"). This second definition adds roughly 4,000 manufacturing workers to our more conservative definition. When we include them in a robustness check, the results are very similar. The list of occupations that we characterize as alcohol related employment using both the more conservative and flexible measures show a wide range of occupations represented in the alcohol industry, ranging from laborers to operatives to clerical workers (Table A1.)

Creating the Control Group. Based on the characteristics of men employed in ARE manufacturing in 1910, we identify "control" workers in the 1910 census with the same (1) country of birth, (2) age, (3), marital status, (4) detailed (three digits) occupation (based on the *OCC1950* variable), (5) labor force participation status, (6) 1910 county of residence, (8) urban status, (9) size of place, (10) race, and (11) nativity of spouse. If more than one control worker is matched to an ARE worker, we randomly select a single match.[8] By design, ARE workers are very similar to the control group workers along a variety of dimensions (Table 1). Impor-

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1922 (Canney, 1989).

[7]This is consistent with the published tabulations of the 1910 census https://www2.census.gov/library/publications/decennial/1910/4/volume-4-p4.pdf. For example, the census reports that there were 30,000 semi-skilled operatives employed in the "liquors and beverage industries" of which 25,000 were employed in breweries or distilleries and 5,000 (that is, 25% of the total) were employed in the production of other beverages.

[8]We allow for some flexibility in the match on age in 1910.

tantly, ARE workers are also similar to control group workers in terms of their 1900 (pre-Prohibition) labor market outcomes as well as other characteristics (for instance, years of education for those we observe in the 1940 census) which we do not use for matching, increasing our confidence that that the control workers are an appropriate counterfactual.

Creating the Sample of Descendants. We first identify the *children* of working-age individuals in the 1910 census and follow them to the 1920, 1930 and 1940 censuses. To identify children who might have been born *after* 1910 but *prior* to Prohibition, we locate children born in 1910-1918 co-residing with their father in the 1920 census. We then match these children forward (to the 1930 and 1940 censuses) and their father backward (to the 1910 census, so as to observe his occupation and industry of employment prior to Prohibition). Throughout the paper, we focus on children born *before* Prohibition to address concerns about selective fertility responses. Because the census crosswalks developed by Price *et al.* (2021) include men and women, we can follow both sons and daughters to later population censuses, representing a significant innovation in this literature.

Linking to Future Censuses. Of the sample of men working in ARE and control occupations from the 1910 census that we use for our analysis, we are able to link 84% percent to at least one future census: 65% to the 1920, 58% to the 1930 and 52% to the 1940. These matching rates compare favorably with previous work (see Abramitzky *et al.* (2021) for a summary of the literature using linked historical census records). We are able to link 79% of their children to a future census: 86% for sons and 73% for daughters.

Men and women in our linked sample are very similar to men and women of the same age in the general US population, for both the adult and descendant samples (Tables A3, A4, and A5). Any differences are small in size and do not suggest selection in any one direction. Individuals are slightly more likely to be matched to the 1920 census if they were employed in alcohol-related-industries than in other sectors of the economy, but the matching rates to other other future censuses are nearly identical (Table A6). For their children, the difference in linking rates are also modest (Table A7). We provide further details on linking in Data Appendix section B. To address any impact this would have on our estimates, in the robustness section we present results in which we re-weight the data to account for any differences in the observable characteristics of matched and non-matched individuals. The results are unchanged.

3.2 Estimating Equation

We first compare the outcomes of workers employed in the alcohol industry in 1910 (pre-Prohibition) to the 1920, 1930 and 1940 outcomes of similar workers in other industries. We then compare the behavior and outcomes of the *spouses* and *children* of such workers. For each group (workers, spouses, children), we estimate the following equation:

$$y_{it} = \alpha + \gamma Alcohol_i + \delta X_i + \epsilon_{it} \tag{1}$$

where y_{it} is an outcome of worker i in year t (1920, 1930 or 1940). $Alcohol_i$ is an indicator that takes a value of one if worker i worked in the alcohol industry in 1910, and X_i is a vector of worker characteristics including age, country of birth, as well as occupation and county fixed effects (all measured in 1910). Note that, because we use a sample that is balanced on that same set of characteristics, whether we include these controls or not does not affect the estimates but only helps to improve their precision. When we focus on intergenerational outcomes, y_{it} is instead an outcome for the *children* of worker i. Whenever we focus on labor market outcomes, we restrict the analysis to individuals who were also of working age (18-55) at the

time we observe them in the later census.[9]

As described above, our main approach to identification is to implement a matching exercise in which we compare ARE workers to other "control" workers with the same characteristics. Our main results are based on the matched sample, but we show results based on the full unmatched sample as well for comparison. Our assumption behind the identification strategy is that, in the absence of Prohibition, workers in the alcohol industry and their families would have had a similar trajectory as that of equivalent workers in other industries. A concern with this strategy is that workers in the alcohol-industry might have already been on different career trends than other workers. If this was the case, ARE workers may have diverged from workers in the control group even in the absence of Prohibition. To address this possibility, we consider the *pre-Prohibition* evolution of outcomes for workers in ARE for the period 1900-1910 and compare them with those of workers in the control group. As we show in Section 4.3, we find no difference in pre-trends for these workers, suggesting that the labor market trajectories of alcohol and non-alcohol related workers would have been very similar in the absence of Prohibition.

4   Results

We first present the results with respect to incumbent workers. We examine impacts of prohibition on their employment, occupation and income (in 1940). We then examine non-labor market outcomes including marriage, mobility and fertility. We follow this with an examination of the family's response to the shock -spouses, sons and daughters. We explore heterogeneity and also conduct multiple robustness exercises.

4.1   Direct Effects on Incumbent Workers

Impact on Occupational Status. The first outcome we consider is a summary measure of occupational standing (IPUMS occscore) which is based on the median earnings of workers in an occupation in 1950. This measure is available and consistently coded in every census year, allowing us to examine how the impact of Prohibition on workers changes with time from the initial shock. In 1920, immediately after Prohibition, workers who were employed in the alcohol industry in 1910 were employed in lower skilled, lower paying occupations (Figure 2, first panel). This gap remains through 1930. By 1940, 21 years after Federal Prohibition was enacted and seven years after its repeal are in slightly less skilled occupations, but not statistically significantly so.

To better understand how Prohibition shaped workers' occupational trajectories, we examine the types of occupations in which affected workers were more likely to be employed post Prohibition. Alcohol Prohibition led to large occupational downgrading among affected workers (Figure 2, second and third panels). In 1920, workers in the alcohol industries were 3 percentage points more likely to be employed in an unskilled occupation and 3.5 percentage points less likely to be employed in a skilled blue-collar job. These effects increase in magnitude so that by 1930, affected workers are 3.7 percentage points more likely to be employed in an unskilled job. By 1940, workers previously employed in alcohol-related industries were slightly more likely to be in unskilled occupations, though not significantly so. Because only a subset of those employed in the alcohol industry in 1910 were still working in ARE in 1919, the year of prohibition, these estimates represent reduced form or intent to treat (ITT) effects. To estimate treatment effects (the impact of losing one's job as a result of Prohibition), one would scale (divide) the ITT effects by the share treated

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[9]This restriction implies that, for instance, we can only measure labor market outcomes in 1930 for workers that were ages 18-35 by 1910.

which we approximate at 79 percent based on the share in the control group that do not change industries between 1910 and 1920. This scaling suggests that the effect of losing one's job because of Prohibition is roughly 25 percent larger than the estimated ITT effects presented here.

Impact on Employment. We next investigate the extent to which Prohibition resulted in a lower likelihood of employment. Employment status was not asked in the 1920 census, so for this year we investigate impacts on labor force participation (based on whether workers reported a "gainful occupation" in the census). In 1920, those employed in the alcohol industry in 1910 are one percentage point less likely to be in the labor force (Figure 2, fourth panel). By 1930, differences in labor force participation have declined but still remain. By 1940, however, the employment gap has disappeared and, if anything, those previously employed in alcohol-related employment appear more likely to be employed by 1.5 percentage points. One possible explanation for this reversal is that the Prohibition shock resulted in workers retiring later (note that our 1940 sample is comprised of relatively old individuals as they were already in the workforce by 1910). Indeed, this finding is consistent with those in Table A8 Panel D showing that the earned income of men affected by Prohibition is higher than the control group of men in 1940, despite their slightly lower occupational standing.

Maintaining a Constant Sample. Because we focus on individuals age 18-55 at the time we observe them in the labor market, the composition of our sample changes as we consider outcomes in different census years (as some individuals drop out of the labor force as they age). When we restrict the sample to individuals we are able to observe in *all* census years (that is, individuals age 18-25 by 1910 who we follow in the labor market through 1940) as in Table A9, we observe a similar pattern, with negative effects through 1930 but rebounding by 1940.

Comparing Matched and Unmatched Estimates. We explore how our estimates change when we move from the full (unmatched sample) to the matched sample and when we exclude and include controls. In the full and unmatched sample (n=1.7 million in 1920), the negative impact of Prohibition on employment outcomes is much larger (Table A8, Panel A). Simply adding controls, the estimates decline significantly, to roughly one third the original uncontrolled estimate (Panel B). Moving from the full sample with controls to the matched sample without controls (n=39,974 in 1920), the negative estimated effects increases slightly (Panel C) and, unsurprisingly, are unchanged when controls are included to the matched sample in Panel D. Overall this suggests that the matching strategy is needed to reduce omitted variable bias.

Heterogeneity. To investigate potential heterogeneity of the impacts documented above, we include an interaction term between our main treatment variable (*alcohol* in equation 1) and multiple worker characteristics including occupational score in 1910, age, and foreign-born status as well as characteristics of the areas in which they resided in 1910, including severity of the Great Depression, whether the place was large, and whether there were many workers employed in the alcohol industry at baseline.

Workers in areas with more workers in the alcohol industry (as measured in 1910) experienced a significantly larger immediate impact of Prohibition as measured by 1920 occupational score, but over time, the difference declines (Table A10). The only other groups for whom we find significantly different effects are workers with relatively high occupational scores in 1910 and older workers, with the negative effects of prohibition long-lasting. This finding is consistent with Prohibition having a greater impact on workers in more specialized occupations and older workers for which the loss of occupation-specific capital might have been more severe. In contrast, there do not appear to be any differences with respect to worker nativity. Nor are there are persistent differences with respect to the severity of the Great Depression.[10]

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[10]We measure Great Depression severity using data on the 1929-1933 growth rate in retail sales by county from Fishback *et al.* (2005). We define Great Depression severity as an indicator equal to one if an individual lived in a county 1910 where the growth rate in retail sales between 1929 and 1939 is below the median across counties.

Non-Labor Market and Spouse Outcomes. Finally, we examine the impact of Prohibition on geographic mobility, marital status, and spousal employment. Working in the alcohol industry significantly reduces the probability that a worker moves post Prohibition by nearly four percentage points in 1920, with the effect largely persistent through 1940 (Figure A4). This is consistent with existing findings based on a more recent time period that less skilled workers are comparatively immobile in the face of a labor demand slump in a more recent setting (Notowidigdo, 2020).[11] Workers in the alcohol industry are not more or less likely to marry, nor does the employment of their spouses appear to be affected by the Prohibition shock, they seem to be slightly less likely to be employed both pre and post prohibition, though the difference is very small.

4.2   Intergenerational Effects

Effects on Sons. Sons' labor market outcomes in 1930 appear largely unaffected (Table 2, Panel A).[12] Their occupational score and employment status are no different than those of the sons of similar workers in non-alcohol related industries. However, sons of alcohol workers appear to have increased their schooling by a very modest amount, and by 1940, they earn five percent more.

Effects on Daughters. Daughters respond strongly and relatively quickly to the Prohibition shock in multiple ways. Daughters of fathers impacted by Prohibition significantly increased their employment by 3.8 percentage points in 1930 (Table 2, Panel B), and this increased employment largely persists through at least 1940. Relative to an average employment rate among control daughters of 44 percent, this represents a eight percent increase. Consistent with this increase in employment, daughters are 3.3 percentage points more likely to earn positive income in 1940. Daughters' educational attainment is unaffected. As for the types of jobs, daughters of fathers working in ARE prior to Prohibition are more likely to work in non-professional white collar jobs (for instance, secretarial positions).

We also examine the impact of Prohibition on daughters' marriage, living arrangements, and fertility. Not surprisingly given their entry into the labor force, daughters delay marriage: They are three percentage points less likely to be married by age 25 and even 2 percentage points less likely to be married by age 40 (Table 3, Panel A). They are also more likely to be living at home on the 1930 and 1940 censuses (Table 3, Panel B). Their total fertility declines, but only slightly, by 0.10 birth (Table 3, Panel B).

If the objective of the daughters' behavior is to contribute resources to the parental household after a loss of earning associated with the father's employment, then one should find that the results are driven by those living at home in 1920 which is in fact what we find (Table A12).

To understand to what extent families benefited from the decisions of daughters living at home to delay marriage, and childbearing and increase their employment, we examine whether the improved outcomes for sons observed in 1940 are correlated with whether or not they had a sister at home in 1920. When we stratify the results for sons by whether they had a sister at home in 1920, we see that the positive relationship between having a father in the alcohol industry in 1910 and their sons' increased schooling and earnings in 1940 is driven entirely by sons with a sister at home (Table A13). This pattern suggests that daughters' responding in the short and medium run to a negative employment shock to their parents by increasing their own employment may have allowed greater investment in the human capital of their brothers, with longer term payoffs. Interestingly, the increased employment of daughters persists long after the shock and any safety net consideration, suggesting that a seemingly temporary labor supply adjustment can lead to

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[11]Interestingly, this is despite the fact that geographic mobility seems to enable workers to absorb the shock of Prohibition, at least initially (see Table A10).

[12]As discussed above, we consider impacts only on children born before 1919 in order to avoid endogenous fertility responses to Prohibition. Hence, the youngest children in our sample are those who were at least 22 by 1930.

long lasting labor market attachment among women (see (Martinoty, 2022) for an example of this involving spousal response to a husband's loss of employment in Argentina).

4.3 Robustness

We present evidence to support our claim that the results are not driven by negative selection into ARE. We also show that they are robust to how we define ARE, to restricting the sample to individuals who were least likely to have anticipated that federal Prohibition would affect their employment (those manufacturing beer), and to controls for sample attrition due to incomplete linking.

Examining Negative Selection into ARE. To rule out the possibility that workers in ARE in 1910 were negatively selected and would have exhibited declines in employment and occupational standing over time even in the absence of Prohibition, we examine and compare changes over time 1900-1910 (pre-Prohibition) for those in alcohol vs. non-alcohol related employment in 1910.

We plot these results in Figure 2. Examining changes over time 1900-1920 in occupational score, labor force participation, and employment suggests no differences among those in alcohol vs. other industries. In other words, workers employed in the alcohol industry in 1910 do not appear to have been trending any differently in the period prior to Prohibition than similar workers in non-Alcohol industries. There are some small differences in the skill level of alcohol workers: their skill level appears to have increased slightly between 1900 and 1910 relative to those in non ARE jobs. The increase is small, but makes the reversal after prohibition when the skill level of ARE workers declined significantly and persistently all the more striking.

Alternative Definition of Alcohol Related Employment. The ARE measure used throughout the paper required the occupation or industry to include some reference to alcohol (i.e, beer, brewery, etc). We next repeat estimation of equation 1 using a more flexible ARE measure which adds to this any industries/occupations that do not specifically mention alcohol so long as they do not mention *non-alcoholic* industries or occupations. These results presented in Figure A5, show similar estimated effects.

Anti-German Sentiment post WWI. With the entry of the United States into World War I, there was a surge in anti-German sentiment in the US. Although our empirical design compares individuals in the alcohol industry to others of the same nationality, a concern is that German workers in the alcohol industry (a stereotypical German industry) might have been particular targets of discrimination. To address this concern, we show that our main results are robust to excluding German workers from the sample (Table A11, Panel A).

Anticipating Prohibition. By focusing on ARE employment in 1910 (a full decade before federal Prohibition), we alleviate concerns that workers might have anticipated Prohibition, leading to negative selection of those who remained in the alcohol industry by 1919. Yet, it is possible that such negative selection might have still taken place if workers were sufficiently forward looking. To address this concern, we exploit the fact that, as described in Section 2, the Prohibition of beer and wine was much less anticipated than the Prohibition of hard liquors. Indeed, before the Volstead Act which defined "intoxicating liquors," most believed that Prohibition would exclude wine and beer. If we focus only on those working in breweries in 1910, (for whom such anticipation effects were much less likely), the effects are, if anything, slightly larger (Table A11, Panel B).

Selection into the Linked Sample. Finally, we rule out the possibility that our results might be driven by selection into the linked sample. Note that, for such selection to explain our results, it would need to be case that the linked sample over-represents workers with worse career prospects and does so to a larger degree among those initially in ARE employment. To alleviate this concern, we show that our results are similar when we reweight the sample to account for differences in the observable characteristics of matched

and non-matched individuals (Table A11, Panel C). To do so, we estimate a probit model of the likelihood of being matched to the census and then reweight the data using the inverse of the estimated probability. The results are largely unchanged.

5   Conclusions

Using linked historical census records for men and women, we trace the short, medium, and intergenerational impact of federal alcohol Prohibition. We find that Prohibition led to an immediate and long lasting deterioration of the outcomes of workers in affected industries.

Our findings suggest that industry-wide shocks might be particularly costly for workers as they destroy both firm-specific and industry-specific human capital. As such, estimates based on mass-layoffs affecting a specific firm might not be informative of the effects of job displacement caused by industry-wide shocks.

Interestingly, when workers experienced this negative shock, we observe the strongest response among their *daughters* who delayed marriage, remained home with their parents and significantly increased their employment, thereby likely contributing resources to the parental household in the wake of the negative shock. Why daughters and not spouses? Wives may have faced greater barriers to entering the labor market given their advanced age. Thus during this historical period, prior to the development of a public safety net system, daughters served as an informal safety net for their families. It appears that their behavior may have shielded sons from the negative impact of the shock. The improvement in son outcomes in 1940 (increased schooling and income) is concentrated among those with a sister living at home in 1920. While contemporary evidence indicates that daughters are more likely to care for the elderly parents than are sons (Grigoryeva, 2017), our results suggest that this asymmetry includes financial support and also extends historically, to periods of much lower rates of female labor force participation than observed today. Moreover, this shock to female employment appears to have generated an attachment to the labor market that was long lasting, suggesting that negative shocks to households may have provided another pathway to women's increasing labor force participation over the twentieth century.

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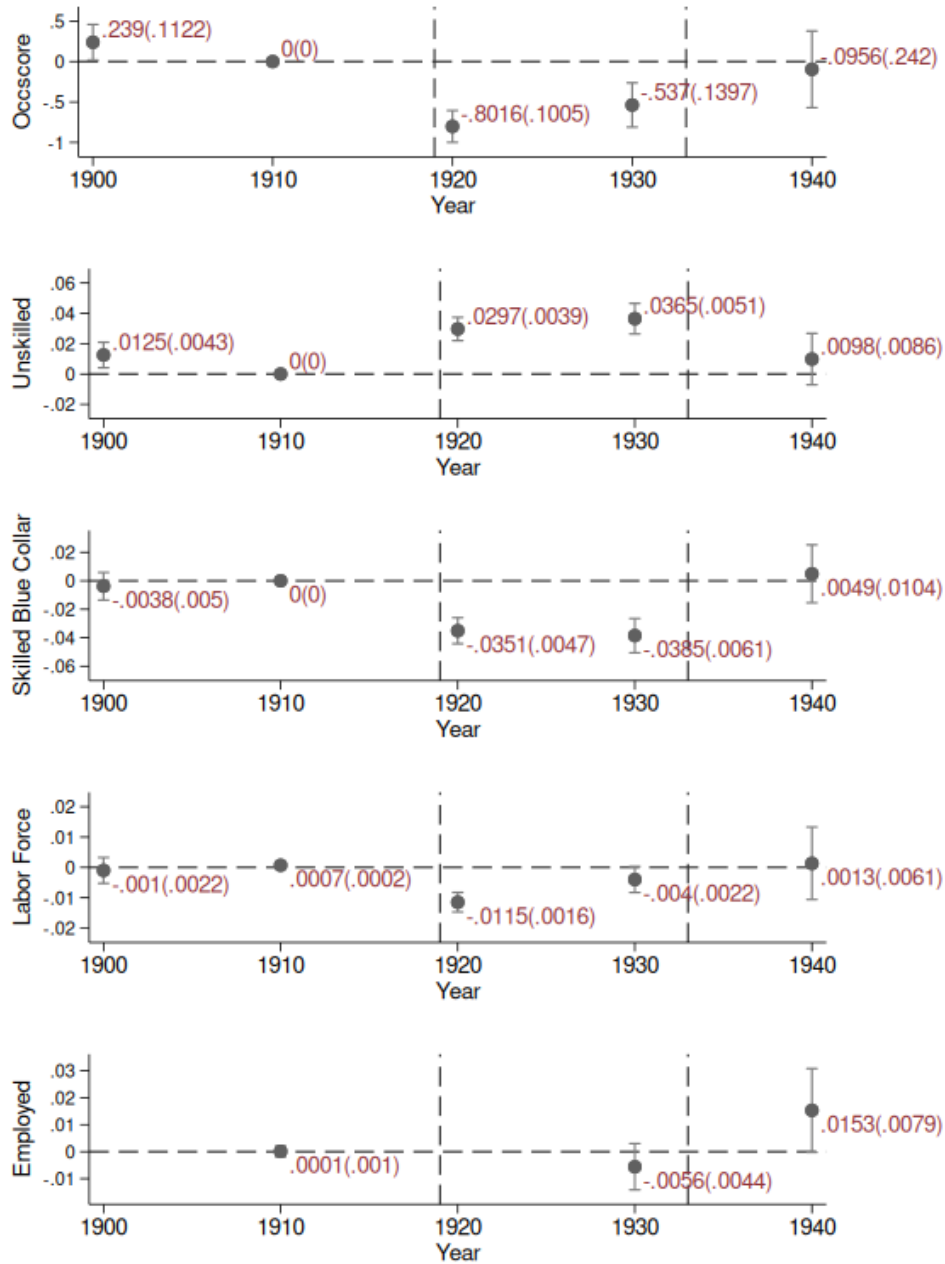
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FIGURE 1: NUMBER OF WORKERS IN MANUFACTURING ALCOHOL-RELATED EMPLOYMENT, BY CENSUS YEAR
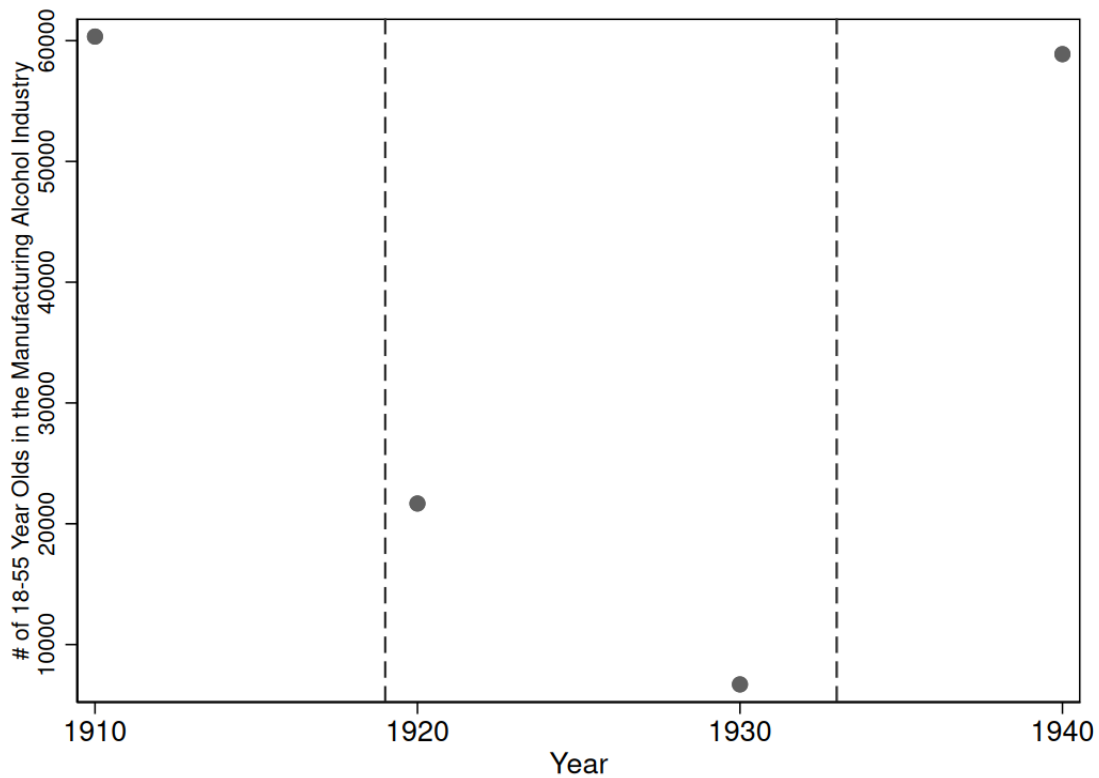
Note: The measure for manufacturing alcohol-related employment is created using the 1910-1930 restricted full-count censuses and 1940 IPUMS 1% sample. The y-axis is the number of working age males in the alcoholic beverage manufacturing industry. This figure classifies ARE using the conservative measure.

FIGURE 2: EFFECTS OF ALCOHOL PROHIBITION ON INCUMBENT WORKERS

Note: The figure plots the coefficients of the regression of each labor market outcome in a given year on an indicator for being in the alcohol industry in 1910. The regressions also control for 1910 age, country of birth, occupation (occ1950), and county fixed effects. Occscore refers to occupational income score provided in the census. Labor Force and Employed are dummy variables that equal one if an individual is in the labor force and employed, respectively. Unskilled is an indicator variable equal to one if employed in an unskilled occupation. While Blue Collar is an indicator variable equal to one if employed in a blue collar occupation. All outcomes are conditional on being working age at the time the outcome is measured. Working age is defined as being between 18 and 55 years old. This figure uses the conservative matched sample from Table 1 column (2).

TABLE 1: BALANCE TABLE

	(1)	(2)	(3)	(4)	(5)
	Full sample	Matched Sample	Treatment	Control	Difference (3)-(4)
Age (1910)	32.5380	35.1384	35.1596	35.1167	0.0429
Native (1910)	0.6609	0.5968	0.5930	0.6006	-0.0076
Black (1910)	0.0248	0.0083	0.0088	0.0079	0.0008
Irish (1910)	0.0279	0.0482	0.0478	0.0485	-0.0007
Italian (1910)	0.0294	0.0104	0.0107	0.0100	0.0007
German (1910)	0.0636	0.2761	0.2780	0.2742	0.0039
Married (1910)	0.6207	0.7252	0.7254	0.7250	0.0004
Urban Status (1910)	0.8205	0.9364	0.9364	0.9363	0.0001
Employed (1910)	0.9563	0.9833	0.9833	0.9832	0.0001
Size of Place (1910)	28.4248	42.3710	42.4616	42.2779	0.1838
Native Spouse (1910)	0.3683	0.3929	0.3892	0.3967	-0.0075
Occscore (1910)	25.5531	24.3782	24.3767	24.3799	-0.0032
Occscore (1900)	15.1809	17.4488	17.6138	17.2768	0.3370**
Labor Force (1910)	0.9974	0.9995	0.9998	0.9991	0.0007***
# of Children (1910)	1.2736	1.7207	1.7267	1.7144	0.0123
Average Occscore in Enumeration District (1910)	24.1791	24.8985	24.9732	24.8216	0.1516***
Years of Education	7.4752	7.3796	7.3818	7.3773	0.0045
N	2531256	61944	31408	30536	61944

Note: Column 1 reports the means of the full linked sample of males aged 18 - 55 years old in manufacturing industries, with the exception of bartenders, managers, officials, and proprietors. Columns (2) - (5) reports summary statistics for our main matched sample using the conservative ARE measure. The variables above the horizontal line correspond to the variables we use for matching. We also match on county of residence, country of birth, and occupation (occ1950). All of the individuals in the matched sample are from the full sample in column (1). All columns are restricted to individuals living in states that still allowed the sale of alcohol in 1918 (i.e. "wet" states).

TABLE 2: 2ND GENERATION LABOR MARKET OUTCOMES

Panel A: Sons

	(1) Occscore (1930)	(2) Occscore (1940)	(3) Employed (1930)	(4) Employed (1940)	(5) Positive Wage Income	(6) Wage Income	(7) Years of Education
Father in Alcohol (1910)	0.189	0.0449	-0.00146	0.00138	0.00949**	69.41***	0.0581**
	[0.120]	[0.107]	[0.00378]	[0.00343]	[0.00397]	[10.53]	[0.0281]
Observations	34012	36309	34012	36309	36309	36309	35699
Adjusted R^2	0.041	0.023	0.021	0.007	0.010	0.043	0.137
Control Mean	24.84	26.63	0.856	0.877	0.821	1232.9	9.355

Panel B: Daughters

	(1) White Collar (1930)	(2) White Collar (1940)	(3) Employed (1930)	(4) Employed (1940)	(5) Positive Wage Income	(6) Years of Education
Father in Alcohol (1910)	0.0294***	0.0169***	0.0376***	0.0292***	0.0334***	-0.0104
	[0.00589]	[0.00573]	[0.00643]	[0.00672]	[0.00667]	[0.0346]
Observations	22426	19956	22426	19956	19956	19672
Adjusted R^2	0.068	0.047	0.082	0.056	0.064	0.190
Control Mean	0.273	0.206	0.442	0.358	0.352	9.495

Note: Panel A and B use the matched sample of sons and daughters born before 1919 with fathers employed in the alcohol manufacturing industry in 1910. We match on the following 1910 father variables: age, black dummy, martial status, urban status, employment status, size of place, country of birth, occupation (occ1950), spouse nativity, and county of residence. We also match on the child's year of birth. All regressions control for father's 1910 age, country of birth, occupation (occ1950), and county fixed effects. All outcomes are conditional on being working age (18 - 55 years old) at the time the outcome is measured. The treatment is defined using the conservative definition. Robust standard errors in brackets.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

## TABLE 3: DAUGHTER'S NON-LABOR MARKET OUTCOMES

Panel A: Marital Outcomes

	(1)	(2)	(3)	(4)	(5)
	Married (1930)	Married (1940)	Married by 25	Married by 30	Married by 40
Father in Alcohol (1910)	-0.0201***	-0.0303***	-0.0275***	-0.0231***	-0.0192**
	[0.00519]	[0.00656]	[0.00620]	[0.00683]	[0.00968]
Observations	27918	20091	23421	18052	7784
Adjusted R^2	0.209	0.084	0.060	0.049	0.045
Control Mean	0.389	0.649	0.634	0.695	0.764

Panel B: Non-Labor Market Outcomes (Conditional on Age $\geq$ 18 in Outcome Year)

	(1)	(2)	(3)	(4)	(5)	(6)
	Living at Home	Living at Home	Living at Home	# of Children	# of Children	# of Children
	(1920)	(1930)	(1940)	(1920)	(1930)	(1940)
Father in Alcohol (1910)	0.00353	0.0172***	0.0228***	-0.0493***	-0.0809***	-0.103***
	[0.00710]	[0.00629]	[0.00662]	[0.0134]	[0.0171]	[0.0222]
Observations	15087	22431	20065	15087	22431	20065
Adjusted R^2	0.048	0.108	0.087	0.045	0.099	0.054
Control Mean	0.728	0.564	0.372	0.395	0.829	1.240

Note: Panels use the matched sample of daughters born before 1919 with fathers employed in the alcohol manufacturing industry in 1910. We match on the following 1910 father variables: age, black dummy, martial status, urban status, employment status, size of place, country of birth, occupation (occ1950), spouse nativity, and county of residence. We also match on the child's year of birth. All regressions control for father's 1910 age, country of birth, occupation, and county fixed effects. Living at home is defined as living in the same household as their mother or father. The treatment is defined using the conservative definition. Robust standard errors in brackets. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$
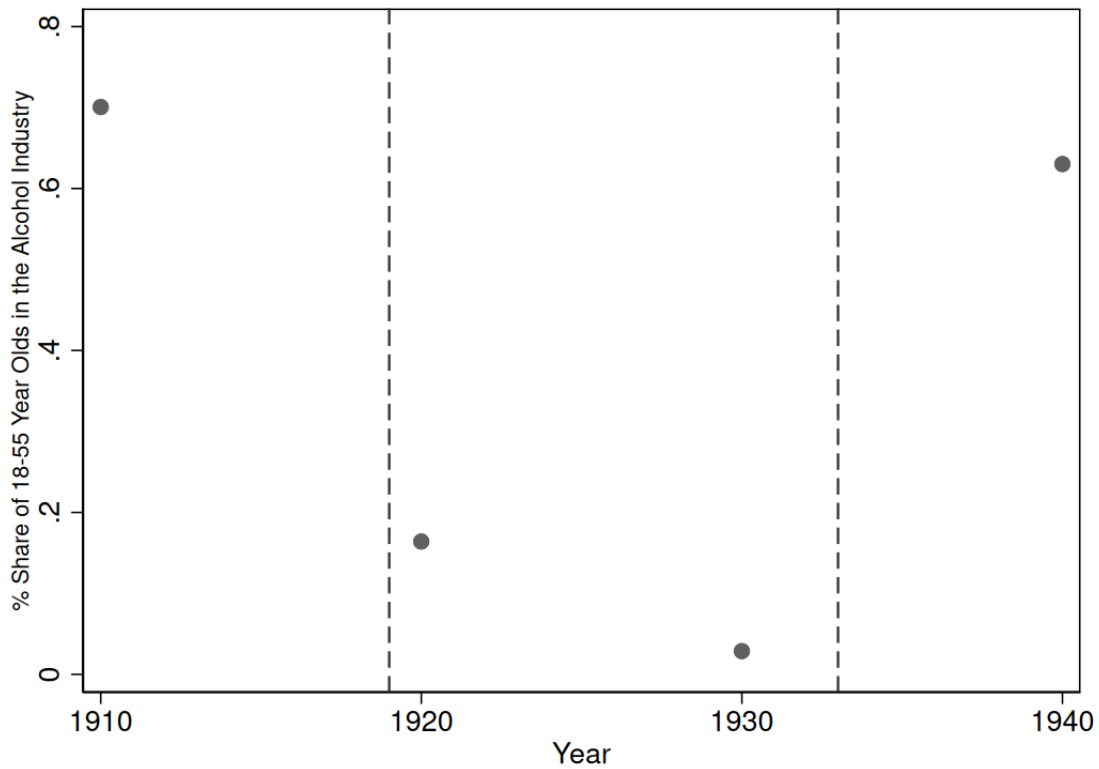
A Online Appendix - Not for Publication

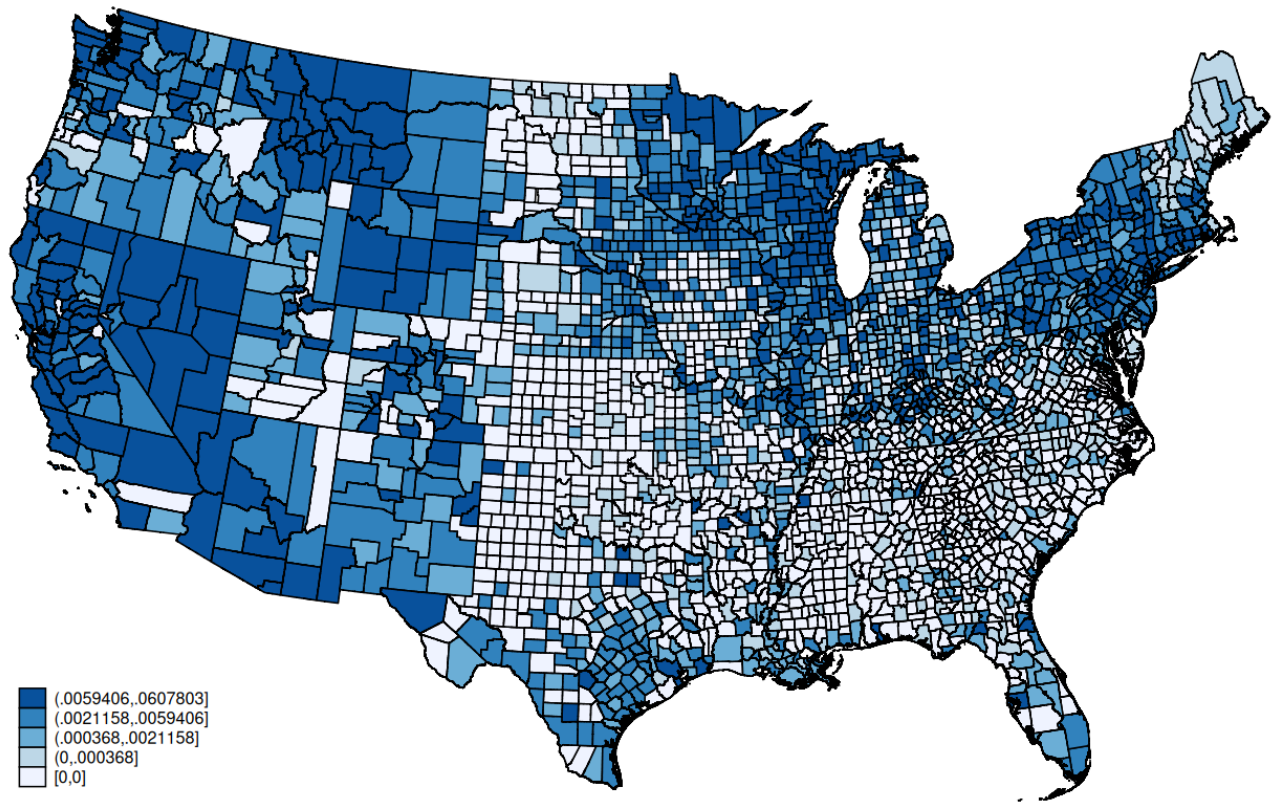**FIGURE A1: NUMBER OF WORKERS IN ALCOHOL-RELATED EMPLOYMENT, BY CENSUS YEAR**
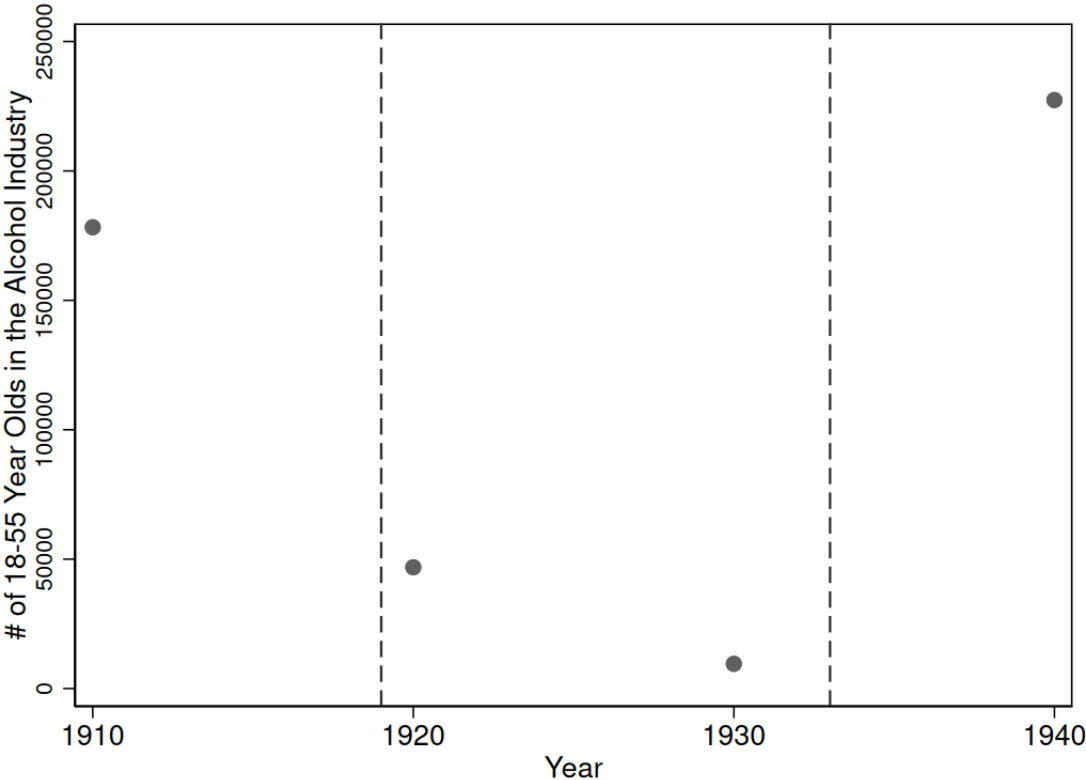
Note: The measure for alcohol-related employment is created using the 1910-1930 restricted full-count censuses and 1940 IPUMS 1% sample. The y-axis is the number of working aged males in the alcohol industry. This figure classifies ARE using the conservative measure.

FIGURE A2: PROPORTION OF WORKERS IN ALCOHOL-RELATED EMPLOYMENT, BY CENSUS YEAR

Note: The measure for alcohol-related employment is created using the 1910-1930 restricted full-count censuses and 1940 IPUMS 1% sample. The y-axis is the share of working aged males in the alcohol industry as a share of all working aged males. The y-axis units are converted to percentages to get the percentage of working aged males in the alcohol industry each year. This figure classifies ARE using the conservative measure.
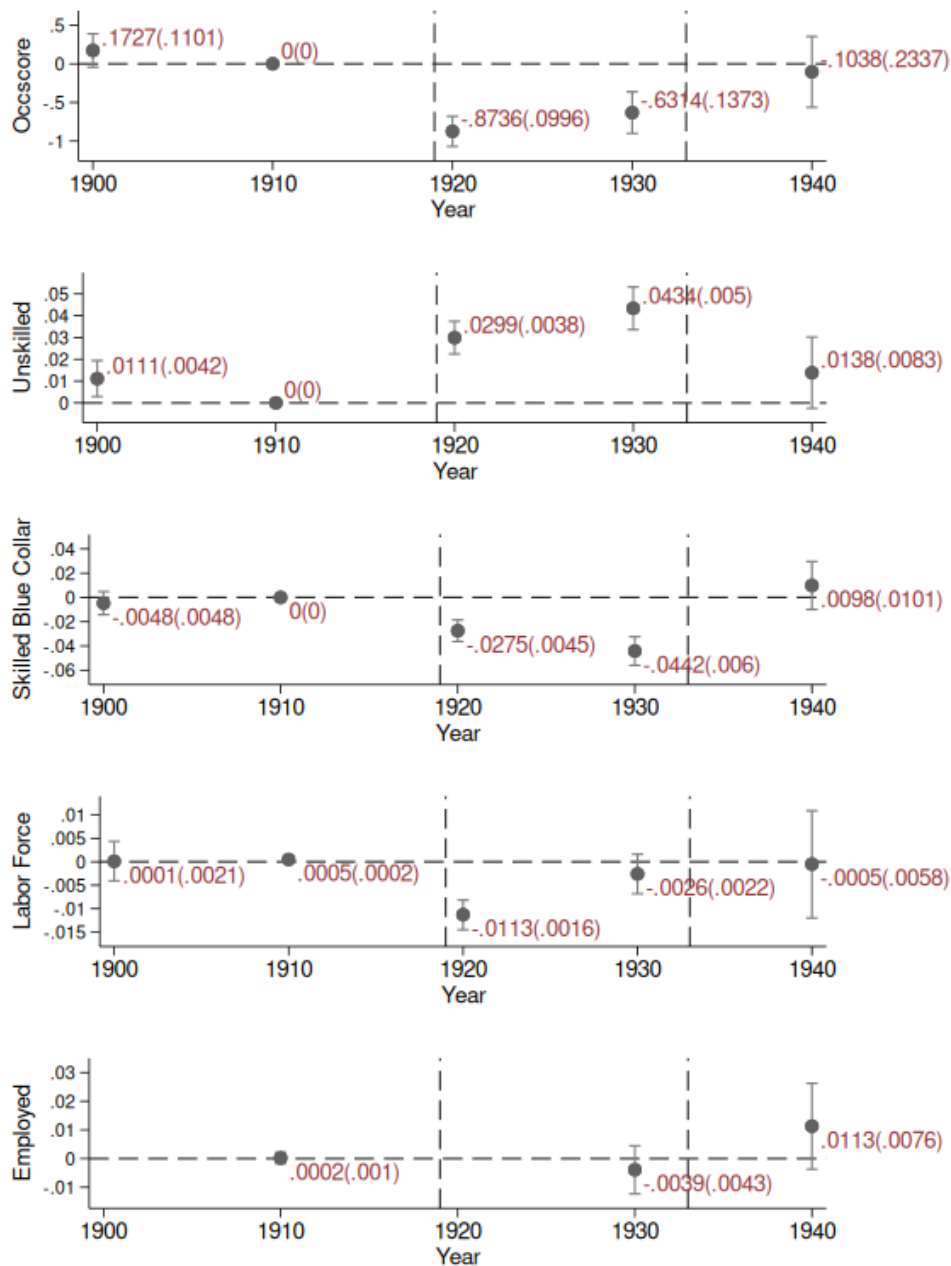
Note: The measure for alcohol-related employment is created using the 1910 restricted full-count census. ARE is
measured as the share of working age males in the alcohol industry as a share of all working age males within a
county. This figure classifies ARE using the conservative measure.

FIGURE A4: EFFECTS ON NON-LABOR MARKET OUTCOMES
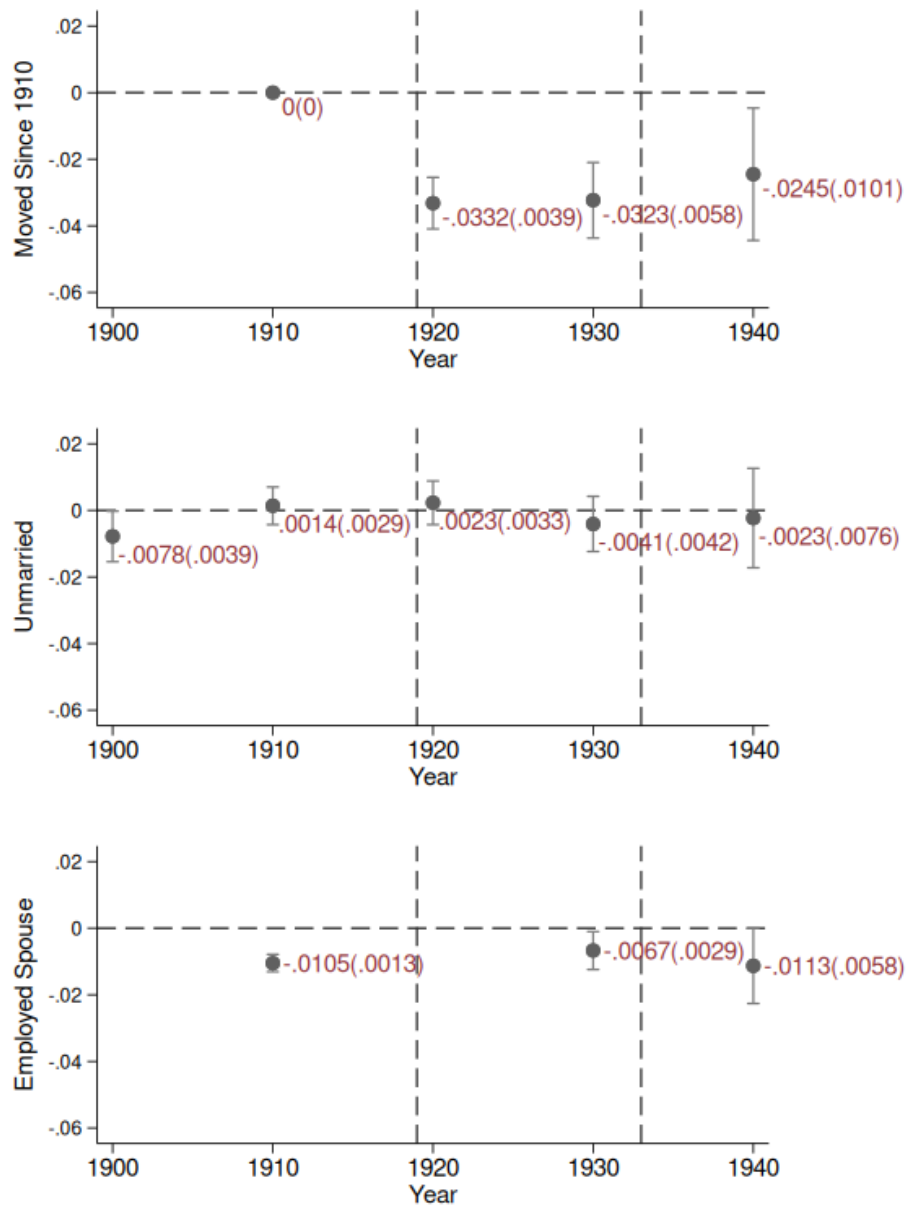
Note: The figure plots the coefficients of the regression of each non-labor market outcome in a given year on an indicator for being in the alcohol industry in 1910. The regressions also control for 1910 age, country of birth, occupation, and county fixed effects. Moved Since 1910 is an indicator equal to one if the person is no longer located in the same county they lived in 1910. Unmarried is an indicator equal to one if the person is unmarried. Employed Spouse is an indicator equal to one if the person has a spouse that is employed when the census was collected. All outcomes are conditional on being working age at the time the outcome is measured. Working age is defined as being between 18 and 55 years old. This figure uses the conservative matched sample from Table 1 column (2).

FIGURE A5: EFFECTS OF ALCOHOL PROHIBITION ON INCUMBENT WORKERS

Note: The figure plots the coefficients of the regression of each labor market outcome in a given year on an indicator for being in the alcohol industry in 1910. The regressions also control for 1910 age, country of birth, occupation, and county fixed effects. Occscore refers to occupational income score provided in the census. Labor Force and Employed are dummy variables that equal one if an individual is in the labor force and employed, respectively. Unskilled is an indicator variable equal to one if employed in an unskilled occupation. While Blue Collar is an indicator variable equal to one if employed in a blue collar occupation. All outcomes are conditional on being working age at the time the outcome is measured. Working age is defined as being between 18 and 55 years old. This figure uses the flexible matched sample.

	Flexible	Conservative
Laborers (n.e.c.)	12201	11511
Craftsmen and kindred workers (n.e.c.)	9666	9614
Operative and kindred workers (n.e.c.)	9156	8817
Teamsters	5734	5659
Truck and tractor drivers	5683	5302
Salesmen and sales clerks (n.e.c.)	3048	2564
Managers, officials, and proprietors (n.e.c.)	2879	2473
Bookkeepers	2765	2451
Stationary engineers	2340	2214
Stationary firemen	1617	1548
Foremen (n.e.c.)	1378	1297
Clerical and kindred workers (n.e.c.)	1187	1082
Collectors, bill and account	780	685
Carpenters	589	562
Shipping and receiving clerks	585	544
Guards, watchmen, and doorkeepers	510	491
Machinists	465	427
Stenographers, typists, and secretaries	369	297
Plumbers and pipe fitters	280	274
Cashiers	202	182
Oilers and greaser, except auto	185	178
Painters, except construction or maintenance	181	168
Accountants and auditors	154	132
Blacksmiths	122	114
Electricians	120	116
Porters	115	106
Millers, grain, flour, feed, etc.	106	105
Deliverymen and routemen	106	94
Bartenders	94	94
Hucksters and peddlers	83	78
Mechanics and repairmen (n.e.c.)	82	54
Apprentices, trade not specified	80	77
Farmers (owners and tenants)	70	60
Chemists	66	59
Millwrights	57	55
Laundresses, private household	55	53
Cabinetmakers	52	50
Teachers (n.e.c.)	42	42
Janitors and sextons	41	38
Tinsmiths, coppersmiths, and sheet metal workers	38	37
Lumbermen, raftsmen, and woodchoppers	38	35
Meat cutters, except slaughter and packing house	34	31
Messengers and office boys	32	30
Barbers, beauticians, and manicurists	32	29
Bakers	28	28
Taxicab drivers and chauffers	28	26
Dressmakers and seamstresses, except factory	27	27
Mine operatives and laborers	27	25
Brickmasons, stonemasons, and tile setters	26	23
Foresters and conservationists	22	21
Compositors and typesetters	18	17
Weavers, textile	18	18
Private household workers (n.e.c.)	18	17
Molders, metal	16	11
Waiters and waitresses	16	15
Draftsmen	14	12
Lawyers and judges	14	14
Clergymen	13	13
Engineers, electrical	12	10
Painters, construction and maintenance	10	8
Elevator operators	10	10
Newsboys	9	9
Plasterers	9	8
Policemen and detectives	9	6
Insurance agents and brokers	8	6
Farm laborers, wage workers	8	6
Physicians and surgeons	7	7
Buyers and shippers, farm products	7	5
Agents (n.e.c.)	7	6
Boilermakers	7	7
Mechanics and repairmen, railroad and car shop	7	7

Continued - Occupations Classified as Manufacturing Alcohol Related Employment

	Flexible	Conservative
Tailors and tailoresses	7	7
Motormen, street, subway, and elevated railway	6	6
Switchmen, railroad	6	6
Conductors, railroad	5	5
Purchasing agents and buyers (n.e.c.)	5	4
Mail carriers	5	5
Real estate agents and brokers	5	4
Linemen and servicemen, telegraph, telephone, and power	5	5
Milliners	5	5
Boarding and lodging house keepers	5	5
Counter and fountain workers	5	4
Housekeepers and stewards, except private household	5	5
Engineers, civil	4	2
Credit men	4	4
Officials and administrators (n.e.c.), public administration	4	4
Brakemen, railroad	4	3
Housekeepers, private household	4	4
Practical nurses	4	4
Service workers, except private household (n.e.c.)	4	4
Garage laborers and car washers and greasers	4	4
Musicians and music teachers	3	2
Inspectors, public administration	3	3
Advertising agents and salesmen	3	3
Stone cutters and stone carvers	3	3
Bus drivers	3	3
Laundry and dry cleaning operatives	3	2
Artists and art teachers	2	2
Dentists	2	2
Veterinarians	2	1
Postmasters	2	2
Telephone operators	2	1
Locomotive engineers	2	1
Tool makers, and die makers and setters	2	1
Upholsterers	2	2
Apprentice plumbers and pipe fitters	2	2
Dyers	2	2
Sawyers	2	2
Fishermen and oystermen	2	2
Longshoremen and stevedores	2	2
Designers	1	1
Dietitians and nutritionists	1	-
Editors and reporters	1	1
Farm and home management advisors	1	1
Pharmacists	1	1
Photographers	1	1
Managers and superintendents, building	1	1
Office machine operators	1	1
Telegraph operators	1	1
Newsboys	1	1
Cranemen, derrickmen, and hoistmen	1	1
Inspectors (n.e.c.)	1	1
Loom fixers	1	-
Mechanics and repairmen, automobile	1	1
Paperhangers	1	1
Shoemakers and repairers, except factory	1	1
Boatmen, canalmen, and lock keepers	1	1
Filers, grinders, and polishers, metal	1	-
Bootblacks	1	-
Charwomen and cleaners	1	1
Cooks, except private household	1	1
Firemen, fire protection	1	1
Marshals and constables	1	1
Total	63977	60338

Notes: The measure for alcohol-relate employment is created using the 1910 restricted full-count census. Both samples are restricted to males 18-55 years old. Occupation refer to the 1950 Census Bureau occupational classification (occ1950) provided in the 1910 census.

TABLE A2: TOP 10 ARE INTENSE CITIES IN 1910

	Alcohol-Related Employment Share
Portsmouth, NH	.0687969
La Crosse, WI	.0477941
Peoria, IL	.0456277
Newport, KY	.0419106
Manitowoc, WI	.0411836
Vincennes, IN	.0363908
Sandusky, OH	.0348368
Terre Haute, IN	.0335753
Milwaukee, WI	.0331218
Belleville, IL	.0316281

Note: The measure for alcohol-related employment is created using the 1910 restricted full-count census. ARE is measured as a share of working age males (18-55 years old). Therefore, ARE is the share of working age males in the alcohol industry in a city as a share of all working age males in that city. This table uses the conservative ARE measure.

TABLE A3: LINKED SAMPLE REPRESENTATIVENESS: MEN IN 1910

	(1) Full Sample in ARE	(2) Linked Sample in ARE	(3) Intergenerational Sample in ARE
Age (1910)	35.5265	35.8218	37.8648
Native (1910)	0.5179	0.5450	0.4829
Black (1910)	0.0141	0.0121	0.0083
Irish (1910)	0.0469	0.0481	0.0514
Italian (1910)	0.0188	0.0139	0.0135
German (1910)	0.2873	0.2905	0.3436
Married (1910)	0.7177	0.7460	0.9156
Urban Status (1910)	0.9002	0.8998	0.8986
Employed (1910)	0.9699	0.9719	0.9763
Size of Place (1910)	36.5661	36.2781	36.5067
Native Spouse (1910)	0.5263	0.5444	0.5329
Occscore (1910)	24.6516	24.7363	25.0318
N	49535	41387	27433

Notes: Each sample is restricted to males in the 1910 census that are: (1) working aged (18-55 years old); (2) living in state that is wet by 1918; (3) in the manufacturing industry; (4) not bartenders or managers, officials, or proprietors. Column (1) is the sample of working aged males in alcohol-related employment in 1910. Column (2) is the sample of male in alcohol-related employment in 1910 that can be linked forward to their 1920, 1930, and/or 1940 census records. Column (3) is the sample of males from column (2) that can be matched child in a future census. This table uses the conservative ARE measure.

TABLE A4: LINKED SAMPLE REPRESENTATIVENESS: WOMEN IN 1910

	(1) Full Sample with Father in ARE	(2) Linked Sample with Father in ARE	(3) Matched Sample with Father in ARE
Father's Age (1910)	41.0534	40.6934	40.1343
Urban Status (1910)	0.8974	0.8970	0.9424
Black Father (1910)	0.0103	0.0069	0.0041
Married Father (1910)	0.9987	0.9991	1.0000
Father's Occscore (1910)	25.1113	25.1230	24.5046
Size of Place (1910)	36.1446	34.9441	45.7559
Employed Father (1910)	0.9739	0.9757	0.9906
Father in Labor Force (1910)	1.0000	1.0000	1.0000
Father w/ Native Spouse (1910)	0.4597	0.4891	0.4928
German Father (1910)	0.4068	0.3940	0.3893
Italian Father (1910)	0.0167	0.0125	0.0088
Irish Father (1910)	0.0633	0.0694	0.0791
Professional Father (1910)	0.0042	0.0047	0.0019
White Collar Father (1910)	0.1016	0.1096	0.0922
Farmer Father (1910)	0.0011	0.0009	0.0001
Blue Collar Father (1910)	0.5786	0.5741	0.5571
Unskilled Father (1910)	0.3145	0.3107	0.3486
Year of Birth	1900.0750	1900.8092	1901.1784
N	40367	29210	16521

Note: Each column is restricted to women in the 1910 census that are: (1) living with their father in 1910; (2) their father is working aged in 1910 (18-55 years old); (3) their father is in the manufacturing industry; (4) their father is not a bartender or manager, official, or proprietor; (5) living in state that is wet by 1918. Column (1) is the sample of women in 1910 with a father employed in alcohol. Column (2) is the sample of women in 1910 that can be linked forward to their 1920, 1930, and/or 1940 census records with a father employed in alcohol. Column (3) is the sample of women in the matched sample with 5 criteria outlined above. This table uses the conservative ARE measure.

TABLE A5: 2ND GENERATION SELECTION

Panel A: Sons

	(1) Matched Sample	(2) Treatment	(3) Control	(4) Difference (2)-(3)
Father's Age (1910)	38.8179	38.8574	38.7779	0.0795
Father's Urban Status (1910)	0.9418	0.9417	0.9420	-0.0003
Black Father	0.0051	0.0052	0.0049	0.0003
Married Father (1910)	0.9521	0.9527	0.9516	0.0011
Native Father (1910)	0.4756	0.4706	0.4806	-0.0100*
Father with Native Spouse (1910)	0.4683	0.4641	0.4725	-0.0084
Father's Occscore (1910)	24.4109	24.4263	24.3953	0.0309
Employed Father (1910)	0.9912	0.9908	0.9915	-0.0007
Father in Labor Force (1910)	0.9999	0.9999	0.9998	0.0001
Father's # of Children (1910)	3.5514	3.5832	3.5191	0.0641**
Age (1919)	16.4552	16.4839	16.4262	0.0577
Year of Birth	1902.5448	1902.5161	1902.5738	-0.0577
Black	0.0052	0.0051	0.0052	-0.0001
Irish	0.0013	0.0007	0.0019	-0.0011***
German	0.0193	0.0170	0.0216	-0.0046***
Italian	0.0018	0.0015	0.0021	-0.0006
# of Siblings (1910)	2.9912	3.0223	2.9596	0.0627**
# of Siblings (1920)	2.4227	2.4533	2.3913	0.0620**
Average Occscore in Enumeration District (1910)	24.7998	24.8922	24.7060	0.1862***
N	48071	24211	23860	48071

Panel B: Daughters

	(1) Matched Sample	(2) Treatment	(3) Control	(4) Difference (2)-(3)
Father's Age (1910)	37.8816	37.9222	37.8394	0.0828
Father's Urban Status (1910)	0.9377	0.9379	0.9375	0.0004
Black Father	0.0042	0.0041	0.0044	-0.0003
Married Father (1910)	0.9482	0.9488	0.9474	0.0014
Native Father (1910)	0.5036	0.4973	0.5101	-0.0128*
Father with Native Spouse (1910)	0.4912	0.4859	0.4967	-0.0108*
Father's Occscore (1910)	24.2834	24.2783	24.2887	-0.0104
Employed Father (1910)	0.9902	0.9902	0.9901	0.0001
Father in Labor Force (1910)	1.0000	1.0000	0.9999	0.0001
Father's # of Children (1910)	3.5077	3.5219	3.4930	0.0289
Age (1919)	15.2373	15.2757	15.1973	0.0784
Year of Birth	1903.7627	1903.7243	1903.8027	-0.0784
Black	0.0043	0.0040	0.0046	-0.0006
Irish	0.0010	0.0008	0.0011	-0.0003
German	0.0131	0.0107	0.0155	-0.0048***
Italian	0.0007	0.0005	0.0008	-0.0003
# of Siblings (1910)	2.9938	3.0148	2.9720	0.0429
# of Siblings (1920)	2.5757	2.5911	2.5595	0.0316
Average Occscore in Enumeration District (1910)	24.8098	24.8871	24.7295	0.1575***
N	40271	20519	19752	40271

Note: Panel A and B use the matched sample of sons and daughters born before 1919 with fathers employed in the alcohol manufacturing industry in 1910. We match on the following 1910 father variables: age, black dummy, martial status, urban status, employment status, size of place, country of birth, occupation (occ1950), spouse nativity, and county of residence. We also match on the child's year of birth. The treatment is defined using the conservative definition.

TABLE A6: DIFFERENCES IN MATCHING RATES BETWEEN ARE (TREATMENT) AND OTHER (CONTROL) WORKERS

	(1) Full sample	(2) Treatment	(3) Control	(4) Difference (2)-(3)
Match Rate (1900)	0.6656	0.6820	0.6491	0.0329***
	(0.4718)	(0.4657)	(0.4773)	(0.00)
Match Rate (1920)	0.6518	0.6593	0.6443	0.0150***
	(0.4764)	(0.4739)	(0.4787)	(0.00)
Match Rate (1930)	0.5834	0.5834	0.5835	-0.0002
	(0.4930)	(0.4930)	(0.4930)	(0.00)
Match Rate (1940)	0.5232	0.5289	0.5175	0.0114
	(0.4995)	(0.4992)	(0.4997)	(0.01)
N	74116	37058	37058	74116

Note: This table uses the conservative matched sample from Table 1. The match rate is the share of working age (18-55) males we match to a given census year (i.e. 1900, 1920, 1930, 1940) as a share of all males that would be working age by year they are matched.

TABLE A7: DIFFERENCES IN 2ND GENERATION MATCHING RATES BETWEEN ARE (TREATMENT) AND OTHER (CONTROL) WORKERS

Panel A: Sons

| | First Observed in 1910 | | | | First Observed in 1920 | | | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
	Full sample	Treatment	Control	Difference (2)-(3)	Full sample	Treatment	Control	Difference (6)-(7)
Match Rate (1920)	0.7587	0.7719	0.7455	0.0264***	-	-	-	-
	(0.4279)	(0.4196)	(0.4356)	(0.00)				
Match Rate (1930)	0.6850	0.6937	0.6763	0.0173***	0.8198	0.8155	0.8241	-0.0086
	(0.4645)	(0.4610)	(0.4679)	(0.00)	(0.3844)	(0.3879)	(0.3807)	(0.01)
Match Rate (1940)	0.6400	0.6536	0.6265	0.0271***	0.7061	0.7068	0.7055	0.0013
	(0.4800)	(0.4758)	(0.4837)	(0.00)	(0.4556)	(0.4553)	(0.4559)	(0.01)
N	46252	23069	23183	46252	9872	4993	4879	9872

Panel B: Daughters

| | First Observed in 1910 | | | | First Observed in 1920 | | | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
	Full sample	Treatment	Control	Difference (2)-(3)	Full sample	Treatment	Control	Difference (6)-(7)
Match Rate (1920)	0.6632	0.6815	0.6451	0.0364***	-	-	-	-
	(0.4726)	(0.4659)	(0.4785)	(0.00)				
Match Rate (1930)	0.4464	0.4541	0.4386	0.0155***	0.7890	0.7878	0.7902	-0.0024
	(0.4971)	(0.4979)	(0.4962)	(0.00)	(0.4080)	(0.4089)	(0.4072)	(0.01)
Match Rate (1940)	0.3478	0.3582	0.3375	0.0206***	0.4432	0.4427	0.4437	-0.0010
	(0.4763)	(0.4795)	(0.4729)	(0.00)	(0.4968)	(0.4968)	(0.4969)	(0.01)
N	45408	22632	22776	45408	9696	4920	4776	9696

Note: Panel A reports matching rates for sons, while panel B reports matching rates for daughters. Columns (1) - (4) report matching rates for the sample of matched children who we first observe in 1910. These match rates are the share of sons(daughters) we first observe in 1910 that we match to a given census (i.e. 1920, 1930, 1940). Columns (5) - (8) report matching rates for the sample of matched children who we first observe in 1920. These match rates are the share of sons(daughters) we first observe in 1920 that we match to a given census (i.e. 1930, 1940). The treatment is defined using the conservative.

Panel A: Full Sample Without Controls

	(1) Occscore (1920)	(2) Occscore (1930)	(3) Occscore (1940)	(4) Employed (1930)	(5) Employed (1940)	(6) Positive Wage Income	(7) Wage Income
Alcohol (1910)	-1.571***	-1.317***	-0.844***	-0.0132***	0.00575	0.0120**	83.66***
	[0.0656]	[0.0904]	[0.156]	[0.00279]	[0.00496]	[0.00597]	[15.82]
Observations	1711987	1173362	533104	1173362	533104	533104	533104
Adjusted R^2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Control Mean	25.63	26.16	26.14	0.882	0.847	0.749	1144.5

Panel B: Full Sample With Controls

	(1) Occscore (1920)	(2) Occscore (1930)	(3) Occscore (1940)	(4) Employed (1930)	(5) Employed (1940)	(6) Positive Wage Income	(7) Wage Income
Alcohol (1910)	-0.451***	-0.387***	-0.0681	-0.00727**	0.0142***	0.0231***	107.1***
	[0.0667]	[0.0926]	[0.159]	[0.00290]	[0.00510]	[0.00613]	[15.87]
Observations	1711987	1173362	533104	1173362	533104	533104	533104
Adjusted R^2	0.088	0.065	0.059	0.013	0.010	0.021	0.083
Control Mean	25.63	26.16	26.14	0.882	0.847	0.749	1144.5

Panel C: Matched Sample Without Controls

	(1) Occscore (1920)	(2) Occscore (1930)	(3) Occscore (1940)	(4) Employed (1930)	(5) Employed (1940)	(6) Positive Wage Income	(7) Wage Income
Alcohol (1910)	-0.773***	-0.588***	-0.0688	-0.00692	0.0177**	0.0255***	123.2***
	[0.104]	[0.143]	[0.242]	[0.00435]	[0.00778]	[0.00925]	[24.40]
Observations	39974	23632	8633	23632	8633	8633	8633
Adjusted R^2	0.001	0.001	-0.000	0.000	0.000	0.001	0.003
Control Mean	24.86	25.52	25.45	0.875	0.837	0.743	1127.7

Panel D: Matched Sample With Controls

	(1) Occscore (1920)	(2) Occscore (1930)	(3) Occscore (1940)	(4) Employed (1930)	(5) Employed (1940)	(6) Positive Wage Income	(7) Wage Income
Alcohol (1910)	-0.802***	-0.537***	-0.0956	-0.00558	0.0153*	0.0261***	124.9***
	[0.100]	[0.140]	[0.242]	[0.00438]	[0.00791]	[0.00940]	[24.18]
Observations	39974	23632	8633	23632	8633	8633	8633
Adjusted R^2	0.078	0.053	0.042	0.005	0.011	0.013	0.065
Control Mean	24.86	25.52	25.45	0.875	0.837	0.743	1127.7

Note: Panel B and D control for 1910 age, country of birth, occupation (occ1950), and county fixed effects. All outcomes are conditional on being working age (18-55 years old) at the time the outcome is measured. This table uses the conservative matched sample from Table 1. Robust standard errors in brackets.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

TABLE A9: FIRST GENERATION LABOR MARKET OUTCOMES - OBSERVED IN ALL CENSUS YEARS

	(1) Occscore (1920)	(2) Occscore (1930)	(3) Occscore (1940)	(4) Employed (1930)	(5) Employed (1940)	(6) Positive Wage Income	(7) Wage Income
Alcohol (1910)	-0.681***	-0.639***	-0.280	-0.00721	0.0115	0.0207*	124.0***
	[0.142]	[0.174]	[0.280]	[0.00527]	[0.00902]	[0.0110]	[28.78]
Observations	20526	15072	6338	15072	6338	6338	6338
Adjusted R^2	0.078	0.059	0.052	0.003	0.015	0.022	0.064
Control Mean	25.12	25.87	25.89	0.889	0.850	0.751	1165.7

Note: Controls for 1910 age, country of birth, occupation (occ1950), and county fixed effects. This table uses the conservative matched sample from Table 1. All outcomes are conditional on being working age (18-55 years old) at the time the outcome is measured.) Robust standard errors in brackets.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

TABLE A10: FIRST GENERATION HETEROGENEITY

	(1) Occscore (1920)	(2) Occscore (1930)	(3) Occscore (1940)	(4) Employed (1930)	(5) Employed (1940)	(6) Positive Wage Income	(7) Wage Income
Alcohol (1910) × High ARE (1910)	-0.397**	0.0952	-0.0550	0.0218**	0.0205	0.0221	78.13
	[0.201]	[0.280]	[0.483]	[0.00876]	[0.0158]	[0.0188]	[48.54]
Alcohol (1910) × High Occscore (1910)	-0.283	0.161	-1.154**	0.00998	-0.0181	-0.00722	-33.66
	[0.206]	[0.285]	[0.492]	[0.00895]	[0.0160]	[0.0191]	[49.23]
Alcohol (1910) × Mover	0.311	0.272	-0.129	-0.00412	-0.0298*	-0.0277	-60.61
	[0.215]	[0.290]	[0.497]	[0.00896]	[0.0161]	[0.0191]	[48.98]
Alcohol (1910) × Age	-0.0187	-0.0439*	-0.114	-0.00161**	-0.00159	-0.00267	-1.725
	[0.0127]	[0.0258]	[0.0941]	[0.000820]	[0.00280]	[0.00303]	[7.433]
Alcohol (1910) × GDP Severity	-0.116	-0.553*	-0.284	0.00134	-0.00697	0.0254	-6.523
	[0.233]	[0.316]	[0.547]	[0.00974]	[0.0177]	[0.0210]	[53.75]
Alcohol (1910) × Large Place (1910)	-0.0853	-0.112	-0.579	0.00511	-0.00338	0.0309	81.42*
	[0.206]	[0.284]	[0.488]	[0.00885]	[0.0160]	[0.0189]	[48.23]
Alcohol (1910) × Immigrant (1910)	0.0684	0.463	-0.566	0.0245**	-0.0260	-0.0318	15.07
	[0.206]	[0.306]	[0.609]	[0.0101]	[0.0206]	[0.0253]	[57.34]
Alcohol (1910) × German Immigrant (1910)	-0.656**	0.204	-1.265	0.0396**	0.0561	0.0511	69.71
	[0.329]	[0.519]	[1.115]	[0.0177]	[0.0382]	[0.0479]	[105.4]
Observations	39974	23632	8633	23632	8633	8633	8633

Note: Each row corresponds to a regression where the interaction term is the main explanatory variable. Each regression also includes an indicator for alcohol employment in 1910, the other variable in the interaction term, as well as the following controls: 1910 age, country of birth, occupation (occ1950), and county fixed effects. All outcomes are conditional on being working age (18- 55 years old) at the time the outcome is measured. High ARE is defined as living in a county in 1910 with ARE above the median across all counties. High occscore is defined as having an occscore above the median across all occscores in the matched sample. Mover is an indicator for if the individual moved counties post-1910. GD severity is defined as living in a county 1910 where the growth rate in retail sales between 1929 and 1939 is below the median across counties. Large place is defined as living a place in 1910 that is above the median across individuals. This table uses the conservative matched sample from Table 1. Robust standard errors in brackets, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

TABLE A11: ROBUSTNESS

Panel A: Removing German Workers

	(1) Occscore (1920)	(2) Occscore (1930)	(3) Occscore (1940)	(4) Employed (1930)	(5) Employed (1940)	(6) Positive Wage Income	(7) Wage Income
Alcohol (1910)	-0.745***	-0.603***	0.000514	-0.0118**	0.0149*	0.0265***	121.2***
	[0.115]	[0.152]	[0.253]	[0.00470]	[0.00824]	[0.00976]	[25.33]
Observations	31043	20228	8038	20228	8038	8038	8038
Adjusted R^2	0.073	0.057	0.039	0.005	0.009	0.012	0.065
Control Mean	24.92	25.69	25.48	0.880	0.835	0.743	1135.8

Panel B: Brewery Workers and Matched Controls

	(1) Occscore (1920)	(2) Occscore (1930)	(3) Occscore (1940)	(4) Employed (1930)	(5) Employed (1940)	(6) Positive Wage Income	(7) Wage Income
Alcohol (1910)	-0.834***	-0.655***	-0.0885	-0.000710	0.0100	0.0276***	133.4***
	[0.111]	[0.158]	[0.277]	[0.00503]	[0.00901]	[0.0107]	[27.84]
Observations	32591	18776	6630	18776	6630	6630	6630
Adjusted R^2	0.083	0.051	0.049	0.007	0.013	0.016	0.069
Control Mean	24.94	25.60	25.43	0.868	0.844	0.751	1156.0

Panel C: Regression using Weights

	(1) Occscore (1920)	(2) Occscore (1930)	(3) Occscore (1940)	(4) Employed (1930)	(5) Employed (1940)	(6) Positive Wage Income	(7) Wage Income
Alcohol (1910)	-0.774***	-0.580***	-0.174	-0.00491	0.0130	0.0259***	126.1***
	[0.102]	[0.142]	[0.252]	[0.00463]	[0.00834]	[0.00978]	[23.82]
Observations	39958	23606	8629	23606	8629	8629	8629
Adjusted R^2	0.074	0.053	0.042	0.007	0.015	0.015	0.065
Control Mean	24.86	25.51	25.45	0.875	0.837	0.743	1127.9

Note: All panels uses the conservative matched sample from Table 1 column (2). All panels also control for 1910 age, country of birth, occupation, and county fixed effects. All outcomes are conditional on being working aged (18-55 years old) at the time the outcome is measured. Panel A removed all German workers from the sample. Panel B includes only treatment workers employed in a brewery or beer manufacturing in 1910 and their matched controls. Panel C re-weights the sample with the inverse probability of being matched. Robust standard errors in brackets. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

TABLE A12: DAUGHTER'S STRATIFIED RESULTS

Panel A: Not Living at Home in 1920

	(1) White Collar (1930)	(2) White Collar (1940)	(3) Employed (1930)	(4) Employed (1940)	(5) Positive Wage Income	(6) Years of Education
Father in Alcohol (1910)	0.00752	-0.00822	0.0334***	0.0216	0.0198	-0.0145
	[0.00818]	[0.00864]	[0.0120]	[0.0132]	[0.0129]	[0.0830]
Observations	3404	3045	3404	3045	3045	3033
Adjusted R^2	0.041	0.042	0.049	0.024	0.032	0.156
Control Mean	0.0530	0.0616	0.120	0.129	0.123	8.311

Panel B: Living at Home in 1920

	(1) White Collar (1930)	(2) White Collar (1940)	(3) Employed (1930)	(4) Employed (1940)	(5) Positive Wage Income	(6) Years of Education
Father in Alcohol (1910)	0.0269***	0.0224***	0.0290***	0.0285***	0.0343***	-0.0634
	[0.00706]	[0.00695]	[0.00742]	[0.00788]	[0.00782]	[0.0390]
Observations	17154	15295	17154	15295	15295	15036
Adjusted R^2	0.070	0.047	0.072	0.056	0.067	0.204
Control Mean	0.327	0.240	0.517	0.411	0.405	9.831

Note: All regressions control for father's 1910 age, country of birth, occupation (occ1950), county fixed effects, and daughter's year of birth. All outcomes are conditional on being working age (18 - 55 years old) at the time the outcome is measured. This table uses the conservative matched sample from Table A5 Panel B.
Robust standard errors in brackets. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

TABLE A13: SON'S OUTCOMES STRATIFIED BY SISTER'S PRESENCE IN THE HOUSEHOLD

Panel A: No Sister Living at Home in 1920

	(1) Occscore (1930)	(2) Occscore (1940)	(3) Employed (1930)	(4) Employed (1940)	(5) Positive Wage Income	(6) Wage Income	(7) Years of Schooling
Father in Alcohol (1910)	0.434	-0.134	-0.00148	-0.000963	-0.00276	35.67	-0.0178
	[0.310]	[0.259]	[0.00973]	[0.00809]	[0.00943]	[25.23]	[0.0679]
Observations	5920	6855	5920	6855	6855	6855	6724
Adjusted R^2	0.069	0.048	0.042	0.017	0.019	0.049	0.195
Control Mean	24.34	26.96	0.845	0.882	0.824	1248.3	10.10

Panel B: At Least One Sister Living at Home in 1920

	(1) Occscore (1930)	(2) Occscore (1940)	(3) Employed (1930)	(4) Employed (1940)	(5) Positive Wage Income	(6) Wage Income	(7) Years of Schooling
Father in Alcohol (1910)	-0.0349	0.0316	-0.00393	0.00517	0.0159***	81.29***	0.0521
	[0.171]	[0.149]	[0.00580]	[0.00499]	[0.00552]	[13.80]	[0.0384]
Observations	16154	18325	16154	18325	18325	18325	17933
Adjusted R^2	0.069	0.031	0.038	0.007	0.011	0.064	0.148
Control Mean	23.98	26.13	0.837	0.869	0.828	1170.0	9.471

Note: An individual is classified as having a sister at home in 1920 if both the individual and their sister are located in their father's household in 1920. Regressions control for father's 1910 age, country of birth, occupation, county fixed effects, and son's year of birth. All outcomes are conditional on being working aged (18-55 years old) at the time the outcome is measured. This table uses the conservative matched sample from Table A5 Panel A. Robust standard errors in brackets.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

B Sample Construction

This section provides further details on the construction of the linked census data.

B.1 Data Sources

B.1.1 Full-Count Decennial Censuses (1900-1940)

Our main data source is the full-count decennial Census (1900-1940). We recover the restricted version of the full-count decennial Censuses from IPUMS through the NBER server (Ruggles *et al.*, 2020).

B.1.2 Census Tree Links

Our main linked samples are constructed by linking together complete-count census records from 1900 to 1940. We use census links constructed by the Census Tree Project (Price *et al.*, 2021). The links from the Census Tree Project allow us to link individuals, both men and women, across two census waves. We use the following crosswalks for sample construction: 1900-1910; 1910-1920; 1910-1930; 1910-1940; 1920-1930; and 1920-1940 (Price *et al.*, 2023a,b,c,d,e,f) .

B.1.3 Prohibition Classification

Prior to the enactment of Federal Prohibition, several states and counties had enacted local alcohol prohibitions. Throughout the paper, we restrict our main sample to individuals who were living in a state that did not prohibit the consumption and production of alcohol prior to federal Prohibition using data from Sechrist (2012). We identify the following 26 states to be 'dry' (i.e. prohibited alcohol) by 1918: Maine, New Hampshire, Indiana, Michigan, Iowa, Kansas, Nebraska, North Dakota, South Dakota, Virginia, Alabama, Arkansas, Georgia, Mississippi, North Carolina, South Carolina, Texas, Oklahoma, Tennessee, West Virginia, Arizona, Colorado, Idaho, Utah, Oregon, and Washington. We drop individuals who initially resided in these states from our analysis.

B.1.4 Great Depression Severity

To explore the heterogeneous impacts of Prohibition on the basis of Great Depression severity, we use data on the 1929-1933 growth rate in retail sales by county from Fishback & Kantor (2018). We define Great Depression severity as an indicator variable equal to one if an individual lived in a county 1910 where the growth rate in retail sales between 1929 and 1939 is below the median across counties.

B.2 Census Linking

B.2.1 1st Generation Sample

To construct our main linked sample we start with working-age males (18 to 55 years old) in the 1910 complete-count census. A total of 25,440,197 individuals satisfy this age restriction. Then we find these individuals in the preceding census year (1900) and the forwarding census years (1920, 1930, and 1940) using crosswalks from the Census Tree Project (CTP). The linking proceeds in the following steps:

(1) Link 1910 sample to 1900 census records using CTP's crosswalk between the 1900 and 1910 census

(2) Link 1910 sample to 1920 census records using CTP's crosswalk between the 1910 and 1920 census

FIGURE A6: CENSUS LINKING BY GENERATION

Panel A: 1st Generation Sample

Panel B: 2nd Generation Sample
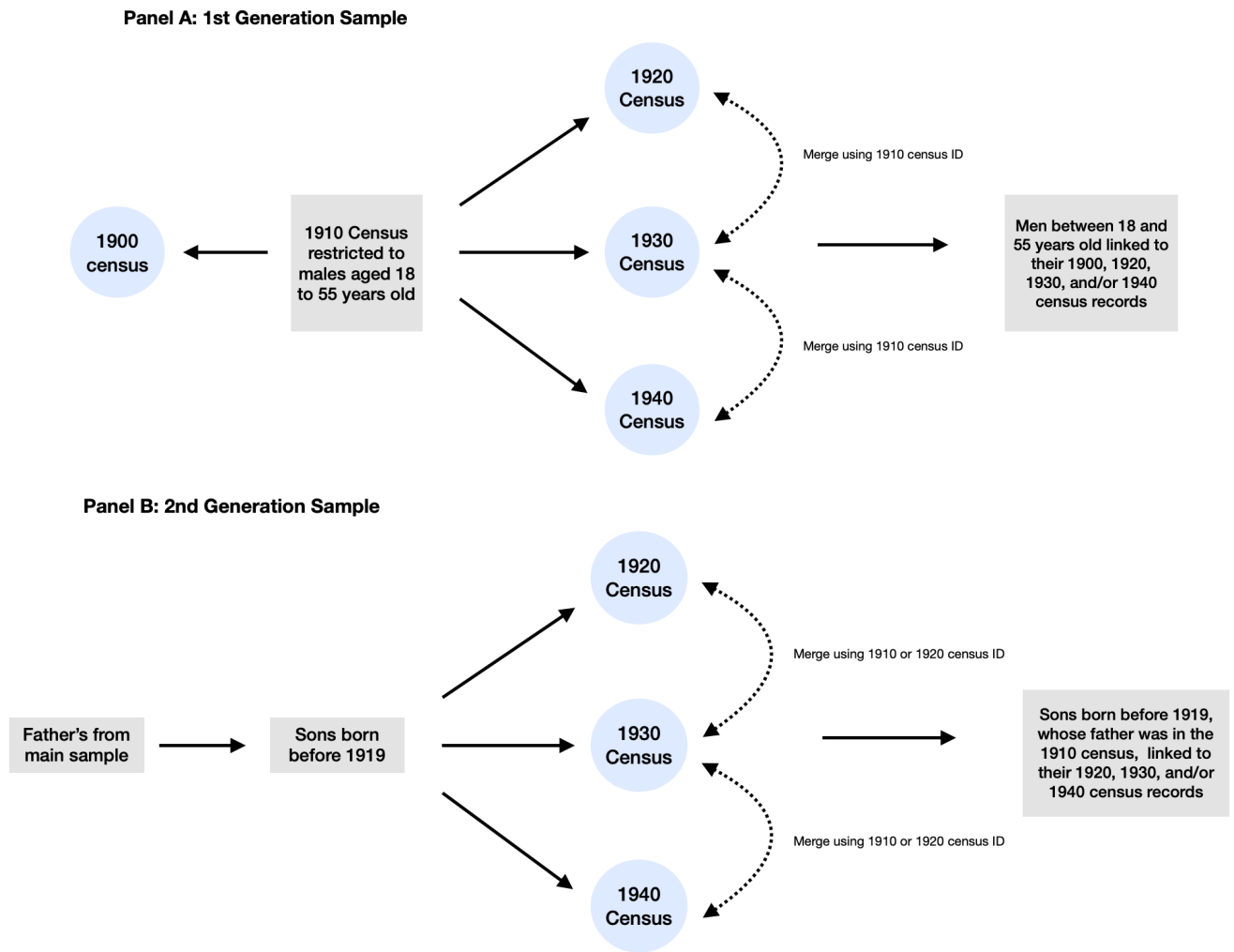
(3) Link 1910 sample to 1930 census records using CTP's crosswalk between the 1910 and 1930 census

(4) Link 1910 sample to 1940 census records using CTP's crosswalk between the 1910 and 1940 census

(5) Merge together (1) - (4) using each individuals unique 1910 census ID

The process above produced 11,923,082 links between 1910 and at least one of the other census years of interest.[13] Our final sample for the 1st generation consists of men between 18 and 55 years old in 1910 who are linked to their 1900, 1920, 1930, and/or 1940 census records. Figure A6 Panel A outlines the procedure discussed above graphically.

B.2.2 2nd Generation Sample

To understand the persistent effects of Prohibition on later generations, we link fathers in our 1st generation sample to their sons and daughters in later census years. The 1910 census data enable us to directly observe children living with fathers from our 1st-generation sample. The 1920 census data enable us to capture children who might have been born prior to Prohibition but after 1910. To do so, we first restrict the 1910 and 1920 full-count census data to individuals who meet the following criteria:

  (i) Born before 1919

 (ii) Living with their father in the first census they are observed in (i.e. 1910 or 1920 census)

(iii) Their father must be between 18 and 55 years old in 1910

(iv) Can be linked to their father's 1910 census records

The first criteria is imposed so that the 2nd generation is born before the Prohibition. The second restriction enable us to link father and children records so we can observe the characteristics of their father. The age restriction on their fathers is imposed so that the children's fathers are the same men as in our 1st generation sample. The 1910 census data enable us to directly observe children living with fathers from our 1st-generation sample. The 1920 census data enable us to capture children who might have been born prior to Prohibition but after 1910.

After imposing these sample restrictions, we follow a similar linking process as the 1st generation sample. However, we must add an additional step since we are linking across two generations. The steps proceed as follows:

(1) Restrict the 1910 and 1920 full-count censuses by criteria (i) and (ii).[14]

(2) Link the data from (1) forward to the 1930 and 1940 censuses using crosswalks from CTP.

(3) For the sample of children living with their father in 1910, we retrieve their father's 1910 census records by linking their father's 1910 census ID with the 1910 census ID from the 1910 full-count census sample of males aged 18 to 55 years old. This allow us to satisfy criteria (iii) since the sample of fathers are from our main sample who must be between 18 to 55 years old in 1910.

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[13]This only includes individuals living in states that are still wet by the start of Prohibition.

[14]We are able to identify an individual's census records for their father using POPLOC. Conditional on living in the same household as the father, POPLOC identifies the father's PERNUM, the order in which all persons within each household appear in the original census manuscript. Then using their father's PERNUM, as well as the sample identifier (SAMPLE) and unique household identifer (SERIAL), we can locate the census records for their father.

(4) For the linked sample of children living with their father in 1920, we retrieve their father's 1910 census records by linking their father's 1920 census ID with 1920 census ID from the 1st generation sample.[15]

(5) Append together (3) and (4)[16]

The process above produced 10,620,221 sons and 8,992,709 daughters born before 1919 who live with their father in either 1910 or 1920 and their father is between 18 and 55 years old in 1910.[17] Each child is linked to their 1910, 1920, 1930, and/or 1940 census record and their father's census records for 1910. Figure A6 Panel B outlines the procedure discussed above graphically for the sons sample.[18]

B.3 Measuring Alcohol-Related Employment

To measure alcohol-related employment, we construct two different measures that vary in flexibility and precision: (1) conservative; (2) flexible. These measures rely on the occupation string (OCCSTR) and industry string (INDSTR) provided in the restricted version of the full-count census data from 1900 to 1940.[19] OCCSTR and INDSTR provide the original unedited documentation of an individual's occupation and industry, respectively, from the census manuscript. Below, we outline how we construct each measure.

B.3.1 Conservative

To construct the conservative measure, we follow the steps below for each census year in our sample:

(1) Identify and classify those employed at a liquor store (ind190=688) as ARE (alcohol =1).

(2) Among those employed in the beverage industry (ind1950=418), we identify and classify those who mention the following words alcohol related words as ARE (alcohol =1): BEER, BREWERY, WHISKEY, LIQUOR, DISTILLERY, DISTILLING, WINE, WINERY, SPIRITS, RUM, GIN.

- We compute a string distance between words in the industry and occupation strings and each of our alcohol related words. We only classify a worker as ARE if at least one alcohol-related word is within a 0.1 jarowinkler distance of at least one word in the industry and/or occupation strings.

(3) Among those employed in eating and drinking places (ind1950=679), we identify and include those who mention the words related to alcoholic beverages listed in (2) as ARE (alcohol =1).

- We compute the string distance in the same way as (2)

(4) Identify and include bartenders(occ1950==750) as ARE (alcohol =1).

(5) All other males in the sample are classified as non-alcohol employment (alcohol=0).

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[15]Since we have to link the 2nd generation records to the 1st generation using their father's 1920 census ID, the fathers in this sample must be linked between the 1910 and 1920 censuses.

[16]Some individuals in (3) will also be in (4). For these duplicated observations, we keep their 1910 census observation. Therefore, those individuals who we first observe in 1920 were either born between 1910 and 1920 or were not living with their father in 1910.

[17]This only includes individuals with fathers living in states in 1910 that are still wet states by the start of the Prohibition.

[18]We follow the same process for the daughters sample.

[19]INDSTR is not available for the 1900 census.

The conservative measure classifies 178,238 working-aged males in the 1910 census as being employed in the alcohol industry. Of those, 60,338 are employed in the alcoholic beverage manufacturing industry.[20] While the measure identifies 43,269 working-aged males in the alcohol manufacturing industry in 1910 for our main linked sample outlined in section B.2.1.

B.3.2 Flexible

The flexible measure includes all the individuals we classify as alcohol under the conservative measure, as well as all the additional workers identified using the follow procedure:

(1) Identify and classify those employed in the beverage industry (ind1950=418) or at a liquor store (ind1950=688) as ARE (alcohol =1).

(2) Among those employed in the beverage industry or liquor stores, we exclude individuals whose industry string and/or occupation string contains at least one of the following non-alcohol words (alcohol=0): SODA, POP, SOFT, MINERAL, MALT, DR PEPPER, WATER, COCA COLA, COLA, COCOA, CANADA DRY, MEAT, CARB, BAKE, VINEGAR, TEA, FLORIST, PEPSI COLA, ORANGE CRUSH, GINGERALE, FRUIT, CARBONATED, JUICE, BOTTLING, BATTING, BOTTLE, SELTZER, CANDY, TONIC.

(3) Identify and include those employed in eating and drinking places (ind1950=679) that contain at least one of the following words in their industry string as ARE (alcohol =1): WHISKY, WHISKEY, WINE, BEER, LIQU, LIQUOR, LIQOUR, LIQUORS, COCKTAIL, SALOON, TAVERN.

(4) Identify and include bartenders(occ1950==750) as ARE (alcohol =1).

The flexible measure classifies 238,331 working-aged males in the 1910 census as being employed in the alcohol industry. Of those, 63,977 are employed in the alcohol manufacturing industry. While the measure identifies 45,518 males in the alcohol manufacturing industry in 1910 for our main linked sample outlined in section B.2.1.

B.4 Matching Procedure

Below outlines the matching procedure for the 1st generation and 2nd generation samples.

B.4.1 1st Generation Sample

To construct the 1st generation matched sample, we take the sample of all 18-55 year old men working in manufacturing and living in a "wet" state in 1910 and match those in the alcohol manufacturing industry in 1910 (treatment group) to males that are not in the alcohol manufacturing industry but live in the same county with the same occupation, as well as other demographics, in 1910 (control group). Specifically, we match individuals exactly on country of birth, an indicator for black, marital status, urban status, employment status, size of place, occupation (based on three digits occupation), spouse nativity, and county of residence in 1910, while allowing the control observation's age in to be ±2 years from the treatment observation's age. All variables used in the matching are measured in 1910. In order to make the cleanest

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[20]Manufacturing alcohol is the sample of men categorized as an alcohol worker under the conservative measure and are employed in the beverage industry (ind1950=418).

comparison, we only match individuals that are employed in manufacturing industry.[21] We include one control per treatment observation: when there are multiple potential matches, one match is randomly selected from the total matches each treatment observation has. Note that duplicate controls were not deleted (i.e. samples may contain some control observations more than once if they are matched to more than one treatment). For our main matched sample using the conservative measure, we were able to match 74% of our treatment observations.

B.4.2 2nd Generation Sample

To create our matched 2nd-generation sample, we employ an analogous procedure to the one outline above. Specifically, we take the sample of children born before 1919 with a father in 1910 that was (1) 18-55 years old, (2) working in manufacturing in 1910, and (3) lived in a "wet" state in 1910. Then we match those with fathers in the alcohol manufacturing industry in 1910 (treatment group) to individuals with fathers that are not in the alcohol manufacturing industry but live in the same county with the same occupation, as well as other father demographics, in 1910 (control group).We also allowing the control observation's year of birth in to be ± 2 years from the treatment observation's year of birth. For our sons matched sample using the conservative-complete measure, we match 56% of our treatment observations. For the daughters matched sample, we also match 56% of our treatment observations.

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[21]Due to issues of selection, among our treatment group we also exclude bartenders, managers, officials, and proprietors.