

Bad Luck or Bad Workers? A View of the Long-term Unemployed in the Great Depression through Matched Census Records

Paul Gaggl* and Gabriel P. Mathy†

August 10, 2017

PRELIMINARY: Please do not cite

Version 1.00

[You can view the latest version by clicking here](#)

Abstract

We use the 100% samples of the 1940, 1930, and 1920 Censuses to see how the unemployed in 1940 compared to other workers before the Depression, particularly the long-term unemployed. We also examined how emergency workers on programs like the Works Progress Administration (WPA) fared as former members of the unemployed. We match workers across Census waves and distinguish them along several dimensions, including age, race, skill, region, occupation, industry, migration status, and local economic conditions. These matched records will allow us to see how much unemployment outcomes were determined by worker productivity versus having the bad luck in not having work during the Depression.

JEL Codes: E24, J64, N12

Keywords: Unemployment, Emergency Employment, Matched Census Records

*University of North Carolina at Charlotte, pgaggl@uncc.edu, 9201 University City Blvd Charlotte, NC 28223-0001.

†American University, mathy@american.edu, 4400 Massachusetts Avenue NW, Washington, DC 20016. The author would like to thank the Institute of New Economic Thinking for their generous support.

1 Introduction

Unemployment rose in the Great Depression from 3% in 1929 to a peak of about a quarter in 1933, a level not seen before or since. In response to this deep and severe downturn, the New Deal political program put in place federal emergency relief programs so that the unemployed could support their families. The recovery starting in 1933 combined with these programs brought down the unemployment rate during the period before the Second World War, but this progress was interrupted by the sharp but brief recession of 1937-1938. The percent of the labor force without any work was still 11% in 1939 when the 1940 Census was taken and 6% of the labor force was participating in work relief programs like the Works Progress Administration (WPA) and the Civilian Conservation Corps (CCC) (Lebergott, 1964; Darby, 1976; Margo, 1991).

We use the recently released 100% sample of the 1940 Census to shed light on the long-term unemployed, by matching them to their records in the 1920 and 1930 Censuses. The experience of the unemployed during this period is also useful to differentiate between two competing explanations for long-term unemployment: duration dependence and unobserved heterogeneity. Duration dependence is based on the idea that, as the duration of unemployment increases, the long-term unemployed are increasingly undesirable to employers, which makes the probability of finding employment lower, generating increasingly long spells of unemployment. This effect is smaller during non-recessionary periods where most job separations are from voluntary quits of workers looking for new jobs. Quitting workers tend to be of higher quality, which makes the average productivity of the unemployed much higher during booms. By contrast, during a large downturn, employers will fire workers with lower productivity at the same time as quits fall and hiring slows, creating a pool of unemployed with lower productivity. The theory of unobserved heterogeneity predicts that this effect explains the lengthening duration of long-term unemployment, as a result of a clearer signal about worker productivity during downturns. During most downturns, which are fairly mild and brief, these effects can be difficult to separate (Jackman and Layard, 1991; Blan-

chard and Diamond, 1994). However, the Great Depression provides an example of a downturn which is both very deep and very long. Moreover, since we can use 100% samples for the 1940 Censuses and prior Censuses, we can disaggregate the American workforce at a very fine level and use this episode to disentangle these two effects more cleanly than the previous literature.

We decompose both the unemployed and workers on emergency relief projects like the WPA by their characteristics in the 1920 and 1930 Censuses, including age, race, skills, occupation, region, and industry. We decompose the unemployed by their duration of unemployment as well to see how the short-term, medium-term, and long-term unemployed fared. We also match migrants that moved out of their home county and out of their home state between those Census years. Finally, we use the variation in the decline in employment across states to see how the severity of the Depression differentially affected workers of various characteristics.

2 Emergency Relief Programs

By the 1920s, American localities had put in place relief programs that would support the needy, which included the unemployed but also the disabled, the disabled, and orphans. These programs were non-existent at the federal level and relief programs were set up for an agricultural economy without large cyclical swings in unemployment.¹ As the Depression worsened in the early 1930s, localities could not afford relief, and state agencies were set up to keep these local programs afloat. However, state finances also worsened during this severe recession as revenues dried up and more people made use of these relief programs. In response, the federal government faced increased calls for federal aid to state relief programs and for federal relief programs to address those that had been made destitute by the Great Contraction. President Hoover and Congress largely resisted these calls (cite Hoover's memoirs), though some federal loans were made available through the

¹The importance of private charity varied regionally, but approximately 75% of all relief provided in 1929 was by governmental sources(WPA, 1947, p. 2). While there was some crowd-out of private charity, on net relief was greatly increased by these programs (Gruber and Hungerman, 2007).

Reconstruction Finance Corporation to state and local relief agencies through 1933.²

Roosevelt made little mention of his stance on this issue during the election, but the election of 1932 changed the political alignment of Congress and the presidency towards support for federal relief and the other components of the New Deal program. These relief programs took different forms and changed over time, with most including a work requirement at the federal level to allow states to focus on providing unconditional transfers to the needy. The Federal Emergency Relief Administration (FERA) was created in May of 1933 with \$500 million available for grants to state relief efforts. This was structured as a partnership between the federal government and states and localities, a structure that would continue in later federal relief agencies. (WPA, 1947, p. 2-3)

At the same time, the Public Works Administration (PWA) was set up as a traditional public works agency with the federal government funding infrastructure, which would indirectly reduce unemployment through new labor demand. However, as this was slow to begin, a direct federal employment program began under the Civil Works Administration (CWA) to provide relief during the winter of 1933. After the initiation of the CWA in November 1933, it would be liquidated by the following spring as intended. The CWA would hire, at its peak, 4.26 million workers as federal workers. Regional wage scales were set up for CWA projects, with skilled workers making \$1.20 per hour in the Northern Region, \$1.20 in the central region, and \$1.00 in the Southern Region, and unskilled workers making \$0.50 per hour in the Northern Region, \$0.45 in the central region, and \$0.40 in the Southern Region. Over 80% made less than \$0.55 per hour, but even so, wages were above prevailing wages in some areas, so this system was scrapped near the end of the CWA with a floor of 30 cents per hour set. The work on these projects was similar to what was done in later programs, with blue-collar workers assisting in building roads, bridges, schools, and parks, and white-collar workers providing service as clerking, surveying, and drafting charts and maps for government agencies. After the CWA was unwound, financing for emergency relief reverted to

²The Federal Farm Board also gave millions of bushels of surplus wheat to the indigent in 1932 (WPA, 1947, p. 1-2)

the FERA, which employed as many as 2.5 million workers at its peak in January 1935, but which would itself be unwound later that year. (WPA, 1947, p. 3-4)

2.1 The Public Works Administration

The lessons learned in these early programs would be applied to the WPA, first named the Works Progress Administration when it was incorporated in May 1935, and changed to the Works Projects Administration when it was reorganized in 1939 (WPA, 1947, p. 7). At its peak, this program would employ about 8.5 million Americans, with a peak employment of 3,336,000 in November 1938 (WPA, 1947, p. 30). To be eligible for the WPA, one needed to fulfill several criteria. Only one member per household could participate, with the intention that this relief would support an entire family. Naturally this made men heavily over-represented as they were the primary breadwinners in American society at the time. There were other requirements like age limits, as the under 16 were not allowed, and other federal transfer payments like Social Security also made one ineligible. If one was offered private employment, that would terminate WPA employment immediately, though enforcement was inconsistent. (WPA, 1947, p. 15-16) The mean testing for the WPA involved calculating the minimum income a family required for basic needs, and if the household's family income was more than 15% below that, they qualified (WPA, 1947, p. 16).

During that period average wages were approximately 42 cents per hour, but the policy was changed in 1936 to be one of prevailing wages in the area, which caused the average wage to rise to 51 cents. This compares favorably with the average pay of laborers in July 1940, which was 51 cents per hour (WPA, 1947, p. 27). Unskilled workers were always the bulk of WPA employment, accounting for between 54 and 75 percent of all project workers (WPA, 1947, p. 37).³

³Wages were set regionally, with the highest wages set in most parts of the Northeast, the Midwest, and the West, with lower wages set in the South. Wages were assigned based on four categories of skills: unskilled, intermediate, skilled, and professional and technical, as well as by the population size where the worker lived. In 1935, an unskilled worker in the Deep South would make between \$19 and \$30 per month while a professional would make between \$39 and \$75 per month. Wages in the Northeast were approximately \$20 higher. Workers were expected to work 120 to 140 hours per month or 30 to 35 hours per week. (WPA, 1947, p. 16) The vast majority of WPA workers were unskilled, though skilled workers were required for the construction of public buildings like schools, which required

Professional worker, managers, clerical, sales, and service workers were underrepresented on WPA projects versus their proportion of the population, while craftsmen, foremen, operatives, and laborers were overrepresented on WPA projects relative to their share of the labor force. (WPA, 1947, p. 4). When workers complete a project, their files were returned to the queue. In theory this allowed new workers access to employment, though in practice many workers remained employed over long periods (WPA, 1947, p. 16). Worker in their prime working years, from 25-65, were underrepresented on the WPA relative to other ages, with those 45-65 who faced the most age discrimination also being the most overrepresented (WPA, 1947, p. 43). Women made up about 15% of WPA workers in 1940. They were primarily employed in clerical and service work. (WPA, 1947, p. 44). Blacks were heavily overrepresenting in WPA worker due to discrimination, and transitioned to private employment more slowly than whites. Agricultural workers were overrepresented on WPA rolls, especially seasonal workers who needed aid when work was scarce (WPA, 1947, p. 45).

While most workers transitioned off of emergency employment successfully, some had significant difficulty finding private employment and could be described as “hardcore unemployed.” Many of these workers were laid off when a provision was introduced in the summer of 1939 to limit continuous relief work to 18 months and these workers were later surveyed. Only 8 percent found work by September 1940 and only 13 percent had found work by February 1940. By then, about two-thirds of these workers were back at the WPA or on the dole receiving benefits but not working. Age discrimination appears to have interacted with the general stigma attached to WPA workers as bad workers, as workers over 45 had half the reemployment rate as those under 30. Blacks and women also had difficulty finding private employment, as discrimination against them interacted with the stigma of WPA work (WPA, 1947, p. 41). The Roosevelt administration began winding down the WPA program by December 1942, and it was completely eliminated by the following summer. Given the high level of labor demand and low unemployment rates during the

more skilled workers.(WPA, 1947, p. 9)

Figure 1: Severity of the Depression



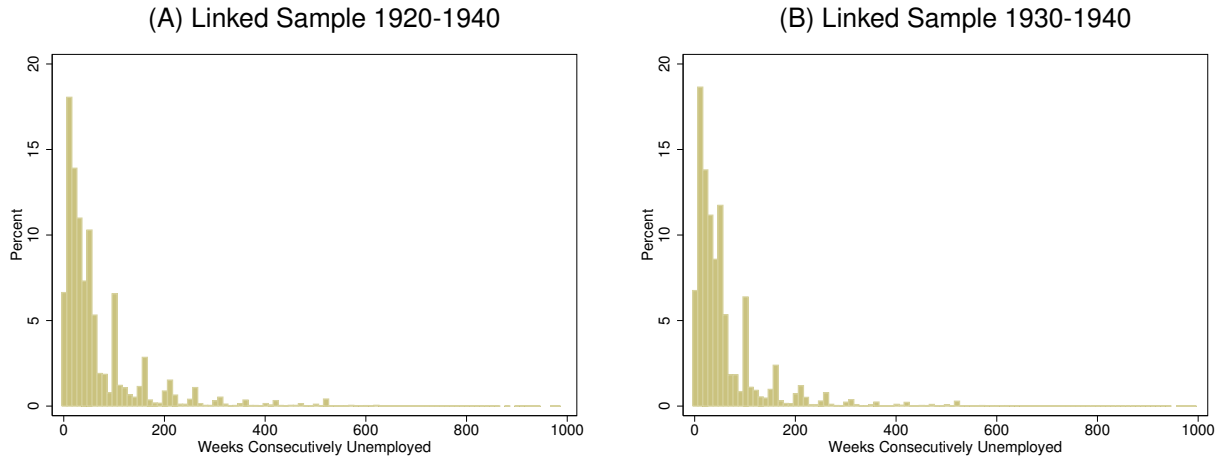
Notes: Panel A plots unemployment rates as reported by [Lebergott et al. \(1948\)](#) and [Darby \(1976\)](#). Panel B plots the drop in employment in non-agricultural employment (BLS) during 1929-1933 against the corresponding drop in personal income per capita (BEA).

war, the WPA was obsolete ([WPA, 1947](#), p. 15).

2.2 Unemployment in the Depression

The highest unemployment rates in US history occurred during the Great Depression of 1929-1941. Unemployment was 3.2% in 1929 and then rose to be about 23% in 1932. Starting in 1933 unemployment fell through 1937, rose again in the recession starting that year, and then fell again from 1938 through the Second World War. The magnitude of these changes depends on the definition of unemployment. Starting in 1933, the New Deal political program implemented federal work relief projects for the unemployed, as there was no national unemployment insurance at that time. As this was intended as a way to support the unemployed in exchange for work, some, like [Lebergott et al. \(1948\)](#) considered those on emergency relief work as unemployed. However, since work was required to receive payments in these programs, these workers were employed in a similar fashion as other non-emergency government employees, and so other authors such as [Darby \(1976\)](#) considered these workers as employed. The two series are plotted in panel A of Figure 1.

Figure 2: Unemployment Duration in 1940



Notes: The figures show histograms of unemployment duration in our sample of linked individuals. Panel A shows the 1920-1930 sample, while panel B shows the 1930-1940 sample.

The unemployment rate in 1940 was 14.6% if we count emergency employed as unemployed, and 9.5% if we count the emergency employed as employed.

Prior to the 2012 release of the 100% sample of the 1940 Census, a 1% sample was available. While this small of a sample makes successful matching unlikely, it does permit a snapshot of unemployment duration to be estimated, as [Margo \(1993\)](#) did. We build on this work by matching the unemployed of all durations to their status in 1930 and 1920 to see how these differed from other workers at that time. The distribution of unemployment duration can be found in [Figure 2](#). Those unemployed 200 weeks or more, roughly four years of unemployment or more, make up 8% of the unemployed, those unemployed between 100-199 weeks, or roughly 2-4 years, make up 14% of the unemployed, those unemployed between 50-99 or roughly 1-2 years weeks make up 19% of the unemployed, and those unemployed 1-49 weeks of less than 1 year make up 58% of the unemployed. While a majority of the unemployed are unemployed less than 1 year, these long unemployment duration lasting for years make up only a small percentage of the unemployed in postwar recessions which are much more mild. A long-term unemployment problem had arisen in the 1930s which had been mitigated during the recovery periods, but it took the Second World War

to completely eliminate the problem of long-term unemployment ([Mathy, 2017](#)).

3 Data

We utilize the 100% samples from the 1940, 1930, and 1920 Censuses, provided by IPUMS ([Ruggles et al., 2010](#)) as this allows us to match individuals between Census years. Our primary left hand side variables are the three categories that make up the labor force in 1940: the unemployed, the employed, and the emergency employed. We also have data on the duration of unemployment in weeks, a question which was only asked in the 1940 Census. We split unemployment duration into the following bins: 1-49 weeks, 50-99 weeks, 100-199 weeks, and 200 weeks and more. While this is just a snapshot of the duration of unemployment at the time the Census was administered, durations of unemployment had never been higher than during the Great Depression, and this matching procedure allows us to see who the long-term unemployed were in prior decades.

We also have some data on the decline in nonagricultural employment by state from the Bureau of Labor Statistics (BLS) data obtained from [Wallis \(1989\)](#). Together with annual data on personal income per person from the Bureau of Economic Analysis (BEA), we use this measure to gauge the depth of the downturn in employment from 1929-1933. This will allow us to how variation across states in the severity of the Depression interacted with the other characteristics of our matched workers. Panel B of Figure 1 plots these measures against each other to illustrate both the severity of the recession and the amount of cross-state variation in the magnitude of the downturn.

To link individuals across Census waves we largely follow [Abramitzky et al. \(2012\)](#). Like in [Gaggl et al. \(2015\)](#), we match men using age (± 2 years), birthplace, father's and mother's birthplace, as well as soundex encoded first and last names. We err on the side of caution and use only unique matches, with the smallest age discrepancy, dropping all men with duplicate matches from our sample.⁴

⁴See [Gaggl et al. \(2015\)](#) for more details.

We link both the 1920 and the 1930 Census separately to individuals in the 1940 Census. Matching 1920 and 1940 is useful as this allows us to see characteristics of the population treated by the Depression before anyone can conceivably predict that a Depression will occur. This does have some drawbacks however, as we only match 711,117 men between 1920 and 1940 (mostly due to the larger age span), while we can match over a million men between 1930 and 1940. However, the Depression had started at the time of the 1930 Census, so some outcomes recorded in the 1930 Census are likely already shaped by the ensuing Depression. For example, some groups may already have had trouble finding work, such as youth who were entering labor markets for the first time. For this reason, we consider the 1920-1940 linked sample our baseline. We also performed the same analysis for the 1930-1940 matched individuals, finding similar results, so we relegate these results to a separate appendix for brevity.

While the historical Census asks a variety of questions, the set of relevant economic characteristics is more limited than in modern day Census waves. Regarding demographic characteristics, we begin with investigating the role of race, as blacks face extensive discrimination in labor markets (Wright, 1986). We further consider regional differences, using the four Census regions: Northeast, Midwest, South, and West. We further distinguish between broad age bins, to the extent that we can match individuals at that age: 14-24, 25-34, 35-44, 45-54, 55-64, and 65 and older. Since we are matching between decades, we cannot match any individual 10 years of age or less from 1930 to 1940 and we cannot match any individual of 20 years of age or less to 1920. As a result, we drop the 14-24 age group from the 1920 results.

We use the consistent 3-digit occupations based on the 1950 Census classification (OCC1950), described in IPUMS (2011) and group these detailed occupations into broad 1-digit categories: Professional/Technical, Farmers (owners/tenants/managers), Clerical and Kindred, Sales, Craftsmen, Operatives,⁵ Service,⁶ Farm Laborers, and Non-Farm Laborers. Since the Census did not

⁵Operatives are primarily factory workers.

⁶Service includes any personal service including housework, servants, hospitality, and so on.

ask about earnings prior to the 1940 Census, we use the IPUMS variable `occscore` to proxy for earnings in 1920 and 1930 based on the reported occupation. This “occupational score” bins occupations based on earnings reported in the 1950 census. To the extent that the *ranking* of occupations did not change dramatically between 1920 and 1940, we interpret this as a measure of ranked skills and socioeconomic status, as low-skill and low-wage professions like farm laborer have low scores, while high-skill and high-wage occupations like professionals have high occupational scores. To distinguish different sectors, we group the 3-digit IPUMS variable `ind1950` into the following 1-digit sectors: Agriculture/Forestry/Fishing, Mining, Construction, Manufacturing, Transportation/Communications/Utilities, Wholesale/Retail, Finance/Insurance/Real Estate (FIRE), Service, and Public Sector.

Table 1 shows occupational income quintile in 1920 versus race, both for a crude breakdown into 3 groups (black/white/other) as well as more detailed groupings as originally recorded in the Census. It can easily be seen that blacks and others are overrepresented in the bottom two quintiles and underrepresented in the top three quintiles relative to whites. Table 2 presents the same quintiles by region, where the South is heavily overrepresented in the first quintile and the Northeast underrepresented, with the south being underrepresented in the upper declines. Across age groups, the young and old are more common in the first decile, as the young have not had as much time to acquire skills, and the elderly come from cohorts that had lower skills. The upper skill declines are more heavily concentrated around middle age, particularly 35-44. Table 3 presents more of these breakdowns. Agriculture/Forestry/Fishing is concentrated in the first quintile of skills, Mining in the third, Construction in upper quintiles, Manufacturing spread fairly evenly across skill groups, Transportation/Communications/Utilities in the second and fifth quintiles, Wholesale/Retail in upper occupational groups, Finance/Insurance/Real Estate (FIRE) in the top quintile, with Service and Public Sector spread unevenly across the distribution.

Table 4 focuses on the distribution of workers across different occupations, broken down by race. Blacks and other races are concentrated in farming and as laborers both on and off the farm,

and are underrepresented in other occupations, as compared with whites. Table 5 shows that the South is heavily involved in farming while the Northeast farms less, while the Northeast has more Craftsmen and Operatives and the South fewer. Age groups are spread fairly evenly, though the elderly are more likely to be in farming due to the steady transition out of agriculture over time. The youngest group, from 14-24, is most likely to be laborers. Table 6 presents occupations against sectors, which is fairly intuitive. Table 7 shows occupations against race, with blacks and others being overrepresented in agricultural and service work, such as household servants, and underrepresented elsewhere. Table 8 shows industry against region, with Agriculture/Forestry/Fishing overrepresented in the South and underrepresented in the Northeast, with the reverse for Manufacturing and Transportation/Communications/Utilities. Agriculture is an older industry and manufacturing younger but otherwise the distribution is fairly even. Table 9 shows occupation against industry and is fairly intuitive.

4 Results

In this section, we use our matched 1920-1940 sample in order to take a closer look at the 1920 characteristics of workers with different labor market outcomes in 1940. All analyses are restricted to linked men, who were in the labor force in both years and we use simple linear probability models throughout, using 1940 outcomes as the dependents variables and a variety of characteristics in 1920 as our independent variation.

4.1 The Anatomy of the 1940 Unemployed

We begin with estimating a series of linear probability models for sorting into various labor force states. Tables 10-12 display these results and are organized as follows. Panel A breaks down the unemployed into four bins by weeks of unemployment duration; panel B decomposes the labor force into three bins: unemployed, emergency employment, and non-emergency employment.

Each column reports coefficients from a regression of 100 times an indicator variable for the respective labor force status on indicators for various demographic bins and a constant. Each section shows separate regressions for different demographic breakdowns and the omitted group is indicated in each section heading. The constant in these regressions captures the probability that a worker, who was in the omitted group in 1920, would end up in the particular labor force state in 1940. All other coefficients show differential effects relative to this omitted group. Notice that, while all these regression are run separately, the coefficients for columns (5)-(6) approximately sum to one. Moreover, as panel A is simply a more detailed breakdown of the unemployed in column (5), columns (1)-(4) approximately sum up to the average in column (5). We note that all estimates shown in Tables 10-12 are comparable to analogous analyses the 1930-1940 match, but the 1920 results have the advantage of not being contaminated with the Depression which was already underway in 1929.

The first category we consider is race, with whites being the baseline. Overall, blacks have a much lower chance of being unemployed than whites, though looking at those unemployed between 50-99 weeks blacks are somewhat overrepresented in this category., perhaps reflecting their status as “last hired, first fired” (Sundstrom, 1992). This may seem surprising today, higher relative black unemployment rates have prevailed for many decades, but this racial unemployment gap arose during the 1940s and 1950s, *after* the period we consider. Prior to 1940, unemployment rates between races were roughly similar (Fairlie and Sundstrom, 1997). The racial gaps here are driven by black over-representation in sectors like agriculture, which had lower unemployment rates during the Depression as we will see shortly. The other category, primarily Native Americans and Asians, Chinese, Filipinos, and Japanese, also had lower unemployment than whites, and this is concentrated in very high duration of unemployment of 200 weeks or more.⁷

Blacks also had higher participation in emergency employment (column 6 of Table 10), helping

⁷African-Americans and other non-whites obviously had the bad luck to be born into a society that discriminated against them in such an egregious way. Blacks may have made different choices about human capital, skills acquisition, and occupation given these severe constraints but their conditional labor productivity would be the same as whites.

to explain some of their lower unemployment rate than whites, as did the other category relative to whites. This was despite significant discrimination in emergency employment, such as in the CCC which was completely segregated. A major concern among administrators and politicians with setting up these employment programs was the question of relative wage rates. Wages were much lower in the South, which was a major source of support for the Democratic party and the New Deal. However, blacks faced significant discrimination in labor markets which translated into much lower wage rates for blacks than for whites, particularly in the South (Wright, 1986). While wages were set low in emergency employment to ensure that these programs didn't draw workers from private employment, given the huge racial disparities wages in emergency programs, set without regard for race, would have been relatively more attractive to blacks than to whites. Southern Democrats understood this and complained bitterly. Governor Talmadge of Georgia recounted a constituent's complaint to FDR: "I wouldn't plow nobody's mule from sunrise to sunset for 50 cents a day when I could get \$1.30 [from the CWA] for pretending to dig a DITCH [capitalization in original]" (Rauchway, 2015, p. 97) Moreover, there was a significant stigma to emergency employment, as it was seen as work only for those that no private employer wanted to hire ("shovel-leaners"). Given African-Americans' lower social status, this stigma would have been relatively less costly, also helping to explain these results. Neither blacks nor other races had significantly lower rates of non-emergency employment relative to whites (column 7 of Table 10).

Given the 20 year delay between the 1920 and 1940 Census, the youngest match possible is a twenty year old, so 25-34 year old bin is now the baseline group for these results. The young had higher unemployment rates than the elderly, unsurprising as they were much less likely to get a first job and enter labor markets. In general, unemployment rates decline with age, though the 45-54 group more than 55-64, perhaps because those aged 45-54 would have faced age discrimination but were too young to retire. However, the 55-64 group is heavily overrepresented in long-term unemployment of over 200 weeks, even more than the 45-54 group, while results for short-term unemployment mirror aggregate unemployment. Trends in employment are the mirror image of

those of unemployment but in reverse, so that employment generally increases with age.

Within our sample of linked men between 1920-1940, 25-34 year olds faced an unemployment rate of 10.77% in 1940, 3.73 percentage points above the unconditional average of 7.043% (column 5 of Table 10).⁸ In light of this, youth were a focus of emergency projects, as they would have had difficulty getting their first job in the midst of the Depression with so few job openings. The Civilian Conservation Corps (CCC) in particular was targeted towards young men under the age of 28 (it did not hire any women) to clean up and develop national parks and other federal lands by building trails, lodges, and roads (Paige, 1985). There was also the National Youth Administration (NYA) which also focused on youth, particularly high school and college students, and which hired both men and women. The 35-44 group faced less age discrimination and thus had slightly lower participation (though the difference was not significant). The 45-65 group had insignificantly higher participation, due to age discrimination in private markets make relief work more attractive, and the 65+ group had smaller participation, as those on work relief couldn't receive Social Security benefits.

For the regional results, we use the Northeast as the baseline, which had the highest unemployment rate (column 5 of Table 10) due to its high concentration of manufacturing (first row of Table 8). The West has little industry resulting in lower unemployment rates. While the Midwest is also industrialized it is relatively more concentrated in agriculture, which has lower unemployment rates, so the Midwest has lower unemployment rates than the Northeast or the West. The South sees a much smaller decline in employment and lower unemployment than other regions, consistent with the finding in Wallis (1989), due to a high share of agriculture (53.7%) and a low share in other sectors like manufacturing (see Table 8). Decomposing by duration shows a similar regional ranking as in the aggregate. Interestingly, despite its lower unemployment rate, the

⁸We note that our 1920-1940 link excludes 14-24 year olds, which had an even higher unemployment rate of 12.699% in our 1930-1940 linked sample, 4.061 percentage points greater than the unconditional average of 8.638% in the 1930-1940 linked sample. Aside from missing the youngest group of workers, the general patterns across the age distribution are consistent across the two samples.

South has significantly higher participation in emergency employment than the Northeast. We will propose a novel theory for this phenomenon below, based on work that found that relief spending was, at least in part, designed to help the electoral chances of the Democratic party (Neumann et al., 2010; Fishback et al., 2003).

While the relief workers were not chosen for political reasons, managerial positions went almost exclusively to loyal Democrats (Clement, 1971; Marcello, 1991). The formula for allocating WPA funds was never made clear despite repeated Congressional inquiries (Wright, 1974), though it was shown that administrators in the Pennsylvania WPA pressured WPA workers to support the Democratic party through party registration, financial contributions, and votes (Clement, 1971). A patronage effect for the Solid South can help explain why the South ended up with more emergency employment despite having low New Deal spending overall (Reading, 1973) and smaller employment declines than other regions.⁹ P

Continuing with Table 11, we look at workers matched by their occupation in 1920. In general the results for overall unemployment mirror those separated by duration of unemployment. The baseline group is clerical, which was dominated by women, and was also a non-high skilled white collar profession. Men in this group had relatively high unemployment rates (7.987%) as they did not generate direct sales. Operatives, who largely work in manufacturing, see the largest unemployment rate (across all durations), have the lowest employment rates and also make up the largest portion of emergency employment (panel B of table 11). This is not surprising, given that the manufacturing sector was hard hit by the Depression. The workers faring best are in professional/technical occupations, are managers/proprietors, or are farm owners or tenants. While farm laborers face an unemployment rate that is similarly low to that of managers/proprietors, this group appears to have mostly been absorbed in emergency employment.

It might seem surprising that agriculture sees such low unemployment rates. Agriculture was

⁹It is clear that increasing apportions in the strongly Democratic South was not optimal for the national party, so this effect must stem from local officials trying to extend their own patronage network locally and gain themselves votes locally, even if the effect on the national party's success was virtually nil.

particularly hard-hit by the Depression, with a price index of agricultural goods falling from 100 in 1923-1925 to 70 in the third quarter of 1929, down to 24.4 in December 1932, or 35% of the 1929 level (p. 73-74 [Kindleberger, 1986](#), citing [Timoshenko \(1933\)](#)). However, agriculture saw much more wage flexibility, and thus much larger declines in wages, than other sectors, particularly manufacturing. Real wages in agriculture remained depressed through the 1930s while real wages in manufacturing rose significantly after 1933. This meant that agricultural employment fell much less than in sectors like manufacturing due to this wage flexibility ([Cole and Ohanian, 2004](#)). Moreover, due to the depreciation of the US dollar and the recovery in farm income through 1940, the agricultural sector had recovered significantly between 1933 and 1940.

Relief work was limited to one member per family, which meant that male breadwinners were overrepresented, and their wives had to try to find work elsewhere. However, clerical work was needed for the many relief projects, so the clerical category ends up being close to average among occupational groups. Participation in emergency employment programs is related to unemployment rates, but primarily is related to the suitability of that sector's skills to relief work. Many administrators on the WPA were political appointees and not professional managers. There were some small programs for artists or for technical workers to create maps, but overall there was little demand for professionals on these employment programs. The primary need was unskilled labor, and so all laborers, both the relatively high unemployment non-farm and the relatively low unemployment farm laborers were overrepresented in emergency employment. The skills of operatives and craftsmen were also needed on these projects, while salesmen had skills that fit poorly with relief projects. Some service jobs like janitorial work were needed for these projects as well. Farmers also had skills that fit well with emergency work and so, despite their low unemployment rates, they were overrepresented in relief work

The next breakdown considered is by occupational score quintile in 1920 based on IPUMS's `occscore`, with the first quintile omitted (Table 11). The occupational score ranks occupations by annual earnings in 1950, which provides an ordered ranking that is highly correlated with

labor productivity, which is also correlated strongly with skills and human capital. The lowest quintile of occupational score has the lowest unemployment rate and highest employment rates of all groups, though the highest unemployment groups are the second and third quintile, with the top quintile having the second lowest unemployment rate. This correlation is due to the concentration of agricultural workers among the low-skilled (97.7% of workers in the agricultural sector are in the bottom quintile as shown in Table 3), though some of this effect may be driven by low skilled youth in 1920 moving to higher skill groups. The second quintile includes many operatives and non-farm laborers in construction, who have high unemployment rates. For emergency employment, the second quintile, having the highest unemployment rate, participates in emergency employment at higher rates than the first quintile and higher quintiles. There are few clear patterns that distinguish the duration results from the overall results for occupational score.

Finally, we break down our matched individuals by the sector they worked in in 1920. The main takeaway is very similar to that obtained from our occupation breakdown. The agricultural sector sees the lowest unemployment rates across all durations and also the highest employment rates. On the flip-side, mining and manufacturing are the two sectors hit hardest, with the highest unemployment rates across all durations, high emergency unemployment take-up and the lowest rates of employment (Table 12).

4.2 The Anatomy of 1940 Migrants

Next we focus on migrants, with results presented in Tables 13-15. This group of workers is interesting within our context, as they selected into trying to address their circumstances by moving to greener pastures. It is likely that these may have been “better” workers who realized that they would have a good chance at employment in a better area. We consider both migrants to different counties and different states. Whites were less likely to migrate than blacks or the other racial category. Blacks were very likely to migrate during this period, even before the Great Depression, primarily to escape low wages and severe discrimination in the South. These migration patterns did

serve to reduce gaps between whites and blacks between 1910 and 1930 (Collins and Wanamaker, 2014).

The young were most likely to migrate out of their home county, though the elderly were more likely to move out-of-state between 1920 and 1940. Southerners were most likely to move to a different county, and Midwesterners the least likely, while those in the West in 1920 were most likely to move to a different states, surprising perhaps considering the size of Western states and that it is generally a destination to migrate and not a sending area like the Northeast.

The highly local clerical profession, with work spread relatively evenly across geographic areas, had very low rates of migration (among the men in our sample). Male professions focused on certain geographic areas like cities saw higher rate of migration, like professional and technical workers, as well as managers, salespeople, craftsmen, operatives, service workers, and non-farm laborers. Those employed in agriculture were not significantly more likely to move. The second quintile of the occupational score distribution was the most likely to migrate between 1920 and 1940, perhaps unsurprising as these are non-agricultural workers in high-migration industries who also faced high unemployment in the Depression. The first quintile was the least likely to migrate, consistent with their status as agricultural and in geographically dispersed industries, though the difference is more significant for out-of-state migrants.

The agricultural and FIRE industries were unlikely to migrate relative to the localized wholesaling and retailing sector, while mining was highly likely to migrate, due to geographic dispersion of employment. While utility and communication work was local, transportation work was mobile, helping to explain a significant positive coefficient on local migration and a significant negative coefficient on out-of-state migration. Construction and the service industries were moderately more likely to migrate. There are significant sectoral reasons for migration, but these migration categories correlate poorly with unemployment incidence, so other factors mattered a great deal as well.

4.3 Differential Effects of the Depression

This section asks whether states that were harder hit by the depression experienced differential effects among the various demographic groups that we discussed above. To address this question, we amend our simple linear probability models from the previous sections. To measure regional variation in the severity of the recession, we utilize the state specific drop in personal income per person during 1929-1933 provided by the BEA (as plotted in panel B of Figure 1). We then incorporate this measure into our analysis by running regressions of the following form:

$$y_{igs} = \sum_g \beta_g (I_{igs} \times Dep_s) + \gamma_g + \epsilon_{igs} \quad (1)$$

where y_{igs} is a dummy variable indicating that individual i , who was in demographic group g and lived in state s in 1920, wound up in labor market state y in 1940. Dep_s is our measure capturing the severity of the recession in state s , with an increase in Dep_s corresponding to a percentage point increase in the percent income drop during 1929-1933 in state s . I_{igs} is an dummy variable, indicating that individual i was in demographic group g . Finally γ_g are group effects (as in the regressions in the previous sections) and ϵ_{igs} is an error term. Tables 16-20 report the coefficient estimates for the interactions terms, β_g , capturing the differential effects of the depression by demographic groups.

Overall the differential effects are small. This is primarily because variation in the severity of the recession across states is limited (see panel B of Figure 1) relative to the size of the aggregate shock, with an average drop in personal income per person of 46.72% during 1929-1933 and a standard deviation of only 6.5 percentage points.

Table 16 displays the results for race. When facing a larger shock in their home state in 1930, blacks have a slightly higher unemployment rate in 1940 for the 1-49 and 100-199 week bins, and the other racial category is more likely to be on relief work and less likely to be employed, but no more likely to be unemployed. Table 17 shows the effect of the severity of the Depression on the

occupational income quintiles. Only the second quintile sees higher unemployed for 100+ weeks unemployed (but not overall higher unemployment), higher rates of relief work in the hardest hit states, and lowest regular employment.

Table 18 shows the severity shock for occupations. Professionals and technical workers see lower unemployment overall and for under 100 weeks, Managers also see lower overall unemployment and lower unemployment under 50 weeks. Operatives actually see lower short-term unemployment in harder hit states somewhat surprisingly, with higher emergency work participation, and non-farm laborers see higher unemployment in the 100-199 week range and lower employment in the hardest hit states. Table 19 presents the results for regions, with the hardest hit states outside of the Northeast and unemployment higher and emergency employment lower than the Northeast, but also with lower short-term unemployment less than 50 weeks. The Midwest and South have higher short-term unemployment in severely hit states, the Midwest and West have lower overall unemployment, the South and West have higher emergency employment, and the South has lower regular employment as compared to the Northeast in the hardest hit states.

Table 20 shows no differential effects for workers of different ages. Finally, Table 21 presents the results for different industries in the most affected states. In the hardest hit states, those in the Mining sector were more likely to be on emergency employment, and those in manufacturing were more likely to be unemployed for the 100-199 week duration. Overall the picture that emerges from this exercise are results of small magnitudes, with little statistical significant, and little consistency across groups.

5 Conclusion

We used matched data to see what the unemployed and those on emergency employment in 1940 looked like twenty years before, in 1920. We were able to see how much of these outcomes for those that were not employed in the private sector came from bad luck, i.e. being in sectors, geo-

graphic areas, industries, occupations, or age groups hard hit by the Depression, or “bad workers”, i.e., having characteristics like lower skills or human capital. While some occupations like professionals or managers or some industries like Finance, Real Estate, and Insurance had relatively low unemployment rates due to a concentration of highly skilled workers, many groups with lower skills also saw low unemployment rates particularly in agriculture. The lowest wage quintile had the lowest unemployment rates of all quintiles, though the highest quintiles had a low rate than the median wage occupation as well. Blacks and other non-whites had lower unemployment rates than whites and the agricultural industry had low unemployment, both for farmers themselves and for farm laborers. The South, being highly agricultural, had lower unemployment rates, while the Northeast had high unemployment due to a larger share of manufacturing which experienced very high unemployment rates. The young had the highest unemployment rates, largely due to difficulty attaching to the labor market during the Depression, though older workers faced age discrimination and saw higher unemployment rates, despite being a relatively skilled group.

Blacks and other non-whites had higher participation in emergency employment, perhaps explaining some of their lower unemployment rates. Blacks would have been attracted by relatively high salaries in emergency work, enough to offset the frequent discrimination they faced in these programs, and had trouble finding private employment once unemployed in this period. The second quintile of the skill distribution had the highest rate of emergency employment, with the top two quintiles underrepresented, consistent with high unemployment in the second quintile and fewer high skilled white-collar workers in WPA work. The lowest quintile also participated in emergency employment in large numbers, due to their skills which were good matches for relief work. Clerical workers, being white-collar workers, had little participation in WPA employment, though there were some clerical projects which offset the gender effect. Blue-collar professions like laborers, farmers, craftsmen, and operatives were overrepresented on emergency work, while white collar work like professionals and managers, had low rates of participation. The South had higher rates of participation in relief work, perhaps due to politically motivated hiring by Democratic adminis-

trators in the Solid South. Emergency employment did not vary much by age, though the elderly participated less and retired instead. Industries with many male blue collar jobs like agriculture, mining, construction, manufacturing, services or transportation were more likely to participate in emergency employment. White collar industries like finance and the public sector were underrepresented.

Blacks and other racial groups were most likely to migrate, seeking greener pastures with more jobs and perhaps less discrimination. The lowest skilled groups were least likely to migrate, consistent with their lower unemployment rates. Clerical workers, being local white-collar, migrated little, while the other professions, being blue-collar, migrated more, with the exception of low unemployment agricultural pursuits. Midwesterners were less likely to migrate while Southerners were more likely to migrate. Members of the youngest group were the most likely to migrate.

The results for duration show mainly that high unemployment groups are overrepresented in longer unemployment duration (duration dependence) but lower skilled groups or disadvantaged groups like blacks do not have consistently higher duration of unemployment than higher skilled groups or whites. Similarly, the severity of the decline in employment from 1929-1933 matters little across the groups we consider, which points to little role for individual observable characteristics and a large role for the bad luck of being in a severely affected state.

While skills level and other characteristics do matter for the unemployment rate, some disadvantaged groups like blacks, the low-skilled, and the low-wage agricultural sector had lower unemployment rates than other groups. Thus traditionally high unemployment groups had lower unemployment rates than traditionally low unemployment groups with higher skills or who faced less societal discrimination. Some of the lower productivity workers did make their way to relief work, but having skills appropriate for emergency employment projects or being in certain regions also mattered. Groups facing racial and age discrimination, uncorrelated or negatively correlated with their conditional productivity, were more likely to seek emergency work rather than private employment. Bad luck played a big role not only in unemployment, but also in those on relief

projects.

Lower skill groups did not have consistently higher unemployment spells, and the lowest group in occupational income had lower unemployment durations, as did the lowly paid agricultural laborer. The severity of the Depression mattered little across the categories we consider, pointing to bad luck rather than bad workers as a primary determinant of unemployment during the Depression. While unemployment was a significant problem in the Depression, it was largely due to unfortunate circumstances and not individual worker productivity, at least as far as we can tell from the observables in this study. While this study has described the population we were able to match between the 1920 and 1940 Censuses, further work can use these matched data to examine the effects of the Depression on the American worker in 1940. While we cannot quantify the exact role that bad luck or bad workers played in the Depression, it is clear that bad luck was the primary factor in determining who would become unemployed, who would be unemployed for a long time, and would end up on relief project like the WPA.

References

- Abramitzky, Ran, Leah Platt Boustan, and Katherine Eriksson**, “Europe’s tired, poor, huddled masses: Self-selection and economic outcomes in the age of mass migration,” *The American economic review*, 2012, 102 (5), 1832–1856.
- Blanchard, Olivier Jean and Peter Diamond**, “Ranking, unemployment duration, and wages,” *The Review of Economic Studies*, 1994, 61 (3), 417–434.
- Clement, Priscilla Ferguson**, “The Works Progress Administration in Pennsylvania, 1935 to 1940,” *The Pennsylvania Magazine of History and Biography*, 1971, 95 (2), 244–260.
- Cole, Harold L and Lee E Ohanian**, “New Deal policies and the persistence of the Great Depression: A general equilibrium analysis,” *Journal of Political Economy*, 2004, 112 (4), 779–816.
- Collins, William J and Marianne H Wanamaker**, “Selection and economic gains in the great migration of African Americans: new evidence from linked census data,” *American Economic Journal: Applied Economics*, 2014, 6 (1), 220–252.
- Darby, Michael R**, “Three-and-a-half million US employees have been misled: or, an explanation of unemployment, 1934-1941,” *Journal of Political Economy*, 1976, 84 (1), 1–16.
- Fairlie, Robert W and William A Sundstrom**, “The racial unemployment gap in long-run perspective,” *The American Economic Review*, 1997, 87 (2), 306–310.
- Fishback, Price V, Shawn Kantor, and John Joseph Wallis**, “Can the New Deal’s three Rs be rehabilitated? A program-by-program, county-by-county analysis,” *Explorations in Economic History*, 2003, 40 (3), 278–307.
- Gaggi, Paul, Rowena Gray, Ioana Marinescu, and Miguel Morin**, “Technological Revolutions and Occupational Change: Electrifying News from the Old Days,” *Working Paper*, 2015.
- Gruber, Jonathan and Daniel M Hungerman**, “Faith-based charity and crowd-out during the great depression,” *Journal of Public Economics*, 2007, 91 (5), 1043–1069.
- IPUMS**, “Integrated Occupation and Industry Codes and Occupational Standing Variables in the IPUMS,” November 2011, pp. 1–11.
- Jackman, Richard and Richard Layard**, “Does long-term unemployment reduce a person’s chance of a job? A time-series test,” *Economica*, 1991, pp. 93–106.
- Kindleberger, Charles Poor**, *The world in depression, 1929-1939*, Vol. 4, Univ of California Press, 1986.
- Lebergott, Stanley**, *Manpower in economic growth: The American record since 1800*, McGraw-Hill New York, 1964.

- **et al.**, “Labor Force, Employment and Unemployment, 1929-39: Estimating Methods,” *Monthly Labor Review* (July 1948), 1948.
- Marcello, Ronald E.**, “The Politics of Relief: The North Carolina WPA and the Tar Heel Elections of 1936,” *The North Carolina Historical Review*, 1991, 68 (1), 17–37.
- Margo, Robert A.**, “The microeconomics of depression unemployment,” *The Journal of Economic History*, 1991, 51 (2), 333–341.
- , “Employment and Unemployment in the 1930s,” *The Journal of Economic Perspectives*, 1993, 7 (2), 41–59.
- Mathy, Gabriel P.**, “Hysteresis and persistent long-term unemployment: the American Beveridge Curve of the Great Depression and World War II,” *Cliometrica*, 2017, pp. 1–26.
- Neumann, Todd C., Price V Fishback, and Shawn Kantor.**, “The dynamics of relief spending and the private urban labor market during the New Deal,” *The Journal of Economic History*, 2010, 70 (1), 195–220.
- Paige, John C.**, *The Civilian Conservation Corps and the National Park Service, 1933-1942: An Administrative History.*, National Park Service mimeo, 1985.
- Rauchway, Eric.**, *The Money Makers: How Roosevelt and Keynes Ended the Depression, Defeated Fascism, and Secured a Prosperous Peace*, Basic Books, 2015.
- Reading, Don C.**, “New Deal activity and the states, 1933 to 1939,” *The Journal of Economic History*, 1973, 33 (4), 792–810.
- Ruggles, Steven, J. Trent Alexander, Katie Genadek, Ronald Goeken, Matthew B. Schroeder, and Matthew Sobek.**, “Integrated Public Use Microdata Series: Version 5.0 [Machine-readable database].” Technical Report, University of Minnesota, Minneapolis 2010.
- Sundstrom, William A.**, “Last hired, first fired? Unemployment and urban black workers during the Great Depression,” *The Journal of Economic History*, 1992, 52 (2), 415–429.
- Timoshenko, Vladimir Prokopovich.**, *World agriculture and the depression*, Vol. 5, niversity of Michigan, School of Business Administration, Bureau of Business Research, 1933.
- Wallis, John Joseph.**, “Employment in the Great Depression: New data and hypotheses,” *Explorations in Economic History*, 1989, 26 (1), 45–72.
- WPA.** *Final report on the WPA program, 1935-43*, U.S. Government Printing Office, 1947.
- Wright, Gavin.**, “The political economy of New Deal spending: An econometric analysis,” *The Review of Economics and Statistics*, 1974, pp. 30–38.
- , *Old South, New South: Revolutions in the southern economy since the Civil War*, Basic Books (AZ), 1986.

6 Tables

Table 1: Occupational Income Quintile in 1920

| Occupational Income Quintile in 1920 | | | | | |
|--------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | (1) | (2) | (3) | (4) | (5) |
| <i>1. Race (3 groups)</i> | | | | | |
| White | 32.6*** (4.05) | 13.8*** (0.79) | 21.5*** (1.42) | 10.9*** (1.06) | 21.2*** (1.25) |
| Black | 53.5*** (4.61) | 31.6*** (2.95) | 7.2*** (1.19) | 5.1*** (0.69) | 2.6*** (0.30) |
| Other | 50.2*** (3.41) | 29.6*** (2.14) | 9.2*** (1.09) | 5.9*** (0.58) | 5.1*** (0.66) |
| Obs. | 584187 | 584187 | 584187 | 584187 | 584187 |
| LHS Mean | 34.441 | 15.383 | 20.255 | 10.362 | 19.558 |
| <i>2. Race (IPUMS detail)</i> | | | | | |
| White | 32.6*** (4.05) | 13.8*** (0.79) | 21.5*** (1.42) | 10.9*** (1.06) | 21.2*** (1.25) |
| Spanish | 25.0 (21.88) | 50.0* (25.26) | 25.0 (21.88) | 0.0 | 0.0 |
| Mexican (1930) | 42.9*** (3.80) | 32.1*** (4.33) | 13.1*** (3.70) | 1.2 (1.24) | 10.7*** (3.34) |
| Puerto Rican | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Black/Negro | 53.5*** (4.61) | 31.6*** (2.95) | 7.2*** (1.19) | 5.1*** (0.69) | 2.6*** (0.30) |
| Mulatto | 50.0*** (3.85) | 30.1*** (2.39) | 9.2*** (1.26) | 6.6*** (0.65) | 4.1*** (0.41) |
| Native Am. | 72.3*** (3.76) | 16.9*** (3.46) | 5.6*** (1.35) | 2.3*** (0.76) | 2.9*** (0.79) |
| Chinese | 26.4*** (2.48) | 39.1*** (6.99) | 14.1*** (3.52) | 2.4*** (0.72) | 18.1*** (2.01) |
| Japanese | 52.9*** (9.21) | 26.6*** (8.31) | 6.4*** (0.84) | 2.0** (0.78) | 12.0*** (0.94) |
| Filipino | 19.4*** (6.57) | 32.3*** (7.17) | 22.6*** (7.90) | 6.5 (4.61) | 19.4** (7.98) |
| Obs. | 584187 | 584187 | 584187 | 584187 | 584187 |
| LHS Mean | 34.441 | 15.383 | 20.255 | 10.362 | 19.558 |

Notes: Each column reports a regression of 100 times an indicator for occupational income quintiles in 1920 (1 - 5) on indicators for demographic groups. The regression includes linked men from the 1920 and 1940 Censuses. The regression does not include a constant, so the coefficients can be interpreted as shares. Standard errors are clustered on state and reported in parentheses below each coefficient. Significance levels are indicated by * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$.

Table 2: Occupational Income Quintile in 1920

| | Occupational Income Quintile in 1920 | | | | |
|-----------------------|--------------------------------------|-------------------|-------------------|-------------------|-------------------|
| | (1) | (2) | (3) | (4) | (5) |
| <i>3. Region</i> | | | | | |
| Northeast | 12.6*** (1.21) | 17.8*** (1.46) | 28.3*** (1.37) | 14.9*** (1.52) | 26.4*** (0.81) |
| Midwest | 37.8*** (4.44) | 14.5*** (0.88) | 18.4*** (1.41) | 9.7*** (0.91) | 19.6*** (1.47) |
| South | 54.8*** (2.82) | 13.7*** (0.80) | 13.9*** (1.38) | 6.1*** (0.58) | 11.5*** (0.87) |
| West | 35.7*** (3.85) | 15.2*** (1.03) | 18.3*** (0.76) | 10.0*** (1.04) | 20.8*** (1.92) |
| Obs. | 584187 | 584187 | 584187 | 584187 | 584187 |
| LHS Mean | 34.441 | 15.383 | 20.255 | 10.362 | 19.558 |
| <i>4. Age in 1920</i> | | | | | |
| 14-24 | 36.8*** (4.66) | 16.9*** (0.82) | 21.8*** (1.96) | 11.4*** (1.32) | 13.1*** (1.31) |
| 25-34 | 31.0*** (3.94) | 14.8*** (0.62) | 20.7*** (1.34) | 10.7*** (0.99) | 22.9*** (1.50) |
| 35-44 | 32.6*** (3.96) | 14.5*** (0.73) | 19.1*** (1.27) | 9.3*** (0.94) | 24.5*** (1.44) |
| 45-54 | 37.1*** (4.05) | 14.2*** (0.78) | 17.3*** (1.20) | 8.6*** (0.87) | 22.8*** (1.45) |
| 55-64 | 41.0*** (3.79) | 14.2*** (0.88) | 16.6*** (1.14) | 8.4*** (0.81) | 19.9*** (1.29) |
| 65+ | 49.7*** (3.77) | 13.0*** (1.43) | 15.0*** (1.32) | 7.7*** (0.82) | 14.6*** (1.28) |
| Obs. | 584187 | 584187 | 584187 | 584187 | 584187 |
| LHS Mean | 34.441 | 15.383 | 20.255 | 10.362 | 19.558 |

Notes: Each column reports a regression of 100 times an indicator for occupational income quintiles in 1920 (1 - 5) on indicators for demographic groups. The regression includes linked men from the 1920 and 1940 Censuses. The regression does not include a constant, so the coefficients can be interpreted as shares. Standard errors are clustered on state and reported in parentheses below each coefficient. Significance levels are indicated by * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$.

Table 3: Occupational Income Quintile in 1920

| Occupational Income Quintile in 1920 | | | | | |
|--------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | (1) | (2) | (3) | (4) | (5) |
| <i>5. Sector in 1920</i> | | | | | |
| Ag./For./Fish. | 97.7*** (0.22) | 1.5*** (0.18) | 0.7*** (0.05) | 0.0*** (0.01) | 0.1*** (0.01) |
| Mining | 0.0 (0.00) | 2.9*** (0.78) | 87.8*** (1.24) | 3.5*** (0.26) | 5.8*** (0.35) |
| Construction | 0.0 | 17.5*** (0.62) | 52.1*** (1.52) | 9.6*** (0.52) | 20.8*** (1.27) |
| Manufacturing | 2.4*** (0.57) | 31.0*** (2.50) | 27.5*** (2.09) | 12.8*** (0.60) | 26.3*** (1.05) |
| Trasp./Comm./Util. | 0.3*** (0.04) | 30.3*** (1.52) | 7.9*** (0.55) | 19.0*** (2.09) | 42.5*** (1.61) |
| Wholesale/Retail | 3.2*** (0.33) | 11.2*** (0.48) | 39.0*** (0.73) | 18.7*** (1.24) | 27.9*** (0.69) |
| Finance/Ins./RE | 0.0 (0.03) | 9.6*** (0.74) | 9.5*** (0.46) | 27.6*** (3.40) | 53.2*** (3.71) |
| Service | 6.9*** (0.43) | 26.5*** (0.35) | 13.9*** (0.89) | 26.8*** (0.75) | 25.8*** (0.46) |
| Public Sector | 5.8*** (1.04) | 17.7*** (1.13) | 27.5*** (0.89) | 13.5*** (0.42) | 35.6*** (0.70) |
| Obs. | 584187 | 584187 | 584187 | 584187 | 584187 |
| LHS Mean | 34.441 | 15.383 | 20.255 | 10.362 | 19.558 |

Notes: Each column reports a regression of 100 times an indicator for occupational income quintiles in 1920 (1 - 5) on indicators for demographic groups. The regression includes linked men from the 1920 and 1940 Censuses. The regression does not include a constant, so the coefficients can be interpreted as shares. Standard errors are clustered on state and reported in parentheses below each coefficient. Significance levels are indicated by * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$.

Table 4: Major Occupations 1920

| | Prof. (1) | Farm. (2) | Man. (3) | Cler. (4) | Sales (5) | Craft (6) | Op. (7) | Serv. (8) | F Lab. (9) | NF Lab. (10) |
|-------------------------------|------------------|-------------------|-------------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| <i>1. Race (3 groups)</i> | | | | | | | | | | |
| White | 3.1*** (0.17) | 18.8*** (2.62) | 5.9*** (0.33) | 5.9*** (0.60) | 5.4*** (0.33) | 18.4*** (1.11) | 15.6*** (1.55) | 2.3*** (0.30) | 12.3*** (1.48) | 12.4*** (0.74) |
| Black | 0.9*** (0.10) | 27.5*** (3.70) | 0.5*** (0.07) | 0.6*** (0.16) | 0.4*** (0.06) | 4.3*** (0.51) | 8.2*** (1.37) | 7.0*** (1.19) | 22.8*** (1.70) | 27.7*** (2.38) |
| Other | 1.4*** (0.14) | 23.0*** (2.65) | 2.3*** (0.58) | 1.3*** (0.36) | 1.2*** (0.45) | 5.6*** (0.44) | 9.4*** (1.13) | 10.7*** (1.39) | 22.6*** (1.50) | 22.4*** (1.61) |
| Obs. | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 |
| LHS Mean | 2.921 | 19.517 | 5.409 | 5.399 | 4.949 | 17.204 | 14.923 | 2.794 | 13.228 | 13.655 |
| <i>2. Race (IPUMS detail)</i> | | | | | | | | | | |
| White | 3.1*** (0.17) | 18.8*** (2.62) | 5.9*** (0.33) | 5.9*** (0.60) | 5.4*** (0.33) | 18.4*** (1.11) | 15.6*** (1.55) | 2.3*** (0.30) | 12.3*** (1.48) | 12.4*** (0.74) |
| Spanish | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 25.0 (21.88) | 0.0 | 25.0 (21.88) | 50.0* (25.26) |
| Mexican (1930) | 0.0 | 22.6*** (7.10) | 7.1*** (2.20) | 0.0 | 2.4 (1.46) | 6.0** (2.88) | 9.5*** (2.42) | 3.6* (2.11) | 16.7*** (5.05) | 32.1*** (5.08) |
| Puerto Rican | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 |
| Black/Negro | 0.9*** (0.10) | 27.5*** (3.70) | 0.5*** (0.07) | 0.6*** (0.16) | 0.4*** (0.06) | 4.3*** (0.51) | 8.2*** (1.37) | 7.0*** (1.19) | 22.8*** (1.70) | 27.7*** (2.38) |
| Mulatto | 1.4*** (0.16) | 23.7*** (2.84) | 1.1*** (0.15) | 1.3*** (0.42) | 0.6*** (0.10) | 6.1*** (0.51) | 9.5*** (1.23) | 10.0*** (1.38) | 22.8*** (1.62) | 23.4*** (1.73) |
| Native Am. | 1.2** (0.44) | 33.7*** (5.54) | 1.4*** (0.49) | 0.8** (0.32) | 1.4 (0.95) | 2.3*** (0.71) | 3.5*** (1.15) | 1.9*** (0.70) | 32.4*** (2.64) | 21.5*** (5.61) |
| Chinese | 0.5** (0.19) | 1.2** (0.53) | 17.2*** (2.01) | 1.4*** (0.32) | 10.4*** (3.41) | 1.6*** (0.47) | 20.5*** (5.45) | 29.2*** (3.61) | 8.5** (3.66) | 9.6*** (2.20) |
| Japanese | 1.0** (0.44) | 20.7*** (3.42) | 8.2*** (0.75) | 1.3*** (0.46) | 3.1*** (0.44) | 5.1*** (0.83) | 3.1*** (0.90) | 14.6*** (2.85) | 24.3*** (6.58) | 18.7*** (6.65) |
| Filipino | 3.2 (2.19) | 3.2 (3.41) | 12.9** (6.36) | 3.2 (3.31) | 6.5 (4.61) | 16.1*** (4.97) | 12.9* (7.68) | 6.5 (4.38) | 9.7* (5.74) | 25.8*** (5.30) |
| Obs. | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 |
| LHS Mean | 2.921 | 19.517 | 5.409 | 5.399 | 4.949 | 17.204 | 14.923 | 2.794 | 13.228 | 13.655 |

Notes: Each column reports a regression of 100 times an indicator for occupation groups (1-10) in 1920 on indicators for demographic groups. The occupations are: 1 professional/technical; 2 farm owners/tenants/managers; 3 managers, officials, and proprietors; 4 clerical and kindered workrs; 5 craftsmen; 6 operatives; 7 service; 8 farm laborers; 9 non-farm laborers. Rows approximately sum to one across columns. The regression includes linked men from the 1920 and 1940 Censuses. The regression does not include a constant, so the coefficients can be interpreted as shares. Standard errors are clustered on state and reported in parentheses below each coefficient. Significance levels are indicated by * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$.

Table 5: Major Occupations 1920

| | Prof. (1) | Farm. (2) | Man. (3) | Cler. (4) | Sales (5) | Craft (6) | Op. (7) | Serv. (8) | F Lab. (9) | NF Lab. (10) |
|-----------------------|------------------|-------------------|------------------|------------------|------------------|-------------------|-------------------|------------------|-------------------|-------------------|
| <i>3. Region</i> | | | | | | | | | | |
| Northeast | 3.6*** (0.27) | 5.9*** (0.69) | 6.7*** (0.66) | 7.9*** (0.94) | 6.0*** (0.77) | 23.2*** (0.83) | 22.7*** (2.07) | 3.7*** (0.64) | 5.0*** (0.50) | 15.4*** (1.66) |
| Midwest | 2.8*** (0.15) | 21.6*** (2.75) | 5.1*** (0.14) | 5.0*** (0.63) | 4.9*** (0.25) | 17.2*** (1.50) | 12.9*** (1.47) | 2.3*** (0.21) | 15.1*** (1.86) | 12.9*** (0.83) |
| South | 2.1*** (0.13) | 32.5*** (2.28) | 4.0*** (0.22) | 3.2*** (0.36) | 3.6*** (0.20) | 10.2*** (0.95) | 9.3*** (1.42) | 2.2*** (0.18) | 20.5*** (0.79) | 12.5*** (0.83) |
| West | 3.8*** (0.36) | 19.1*** (3.12) | 6.6*** (0.51) | 4.4*** (0.52) | 5.8*** (0.72) | 18.4*** (1.82) | 11.7*** (0.61) | 3.3*** (0.50) | 12.6*** (1.10) | 14.3*** (1.62) |
| Obs. | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 |
| LHS Mean | 2.921 | 19.517 | 5.409 | 5.399 | 4.949 | 17.204 | 14.923 | 2.794 | 13.228 | 13.655 |
| <i>4. Age in 1920</i> | | | | | | | | | | |
| 14-24 | 1.9*** (0.17) | 9.1*** (1.42) | 1.5*** (0.14) | 8.2*** (1.23) | 5.5*** (0.49) | 14.1*** (1.14) | 17.2*** (1.86) | 1.9*** (0.14) | 25.2*** (3.24) | 15.4*** (0.85) |
| 25-34 | 3.6*** (0.25) | 20.7*** (3.08) | 5.7*** (0.41) | 4.8*** (0.37) | 5.2*** (0.31) | 19.4*** (1.27) | 15.7*** (1.47) | 3.2*** (0.37) | 8.7*** (0.95) | 13.0*** (0.65) |
| 35-44 | 3.5*** (0.21) | 26.7*** (3.66) | 9.0*** (0.45) | 3.2*** (0.25) | 4.4*** (0.26) | 19.1*** (1.31) | 13.3*** (1.45) | 3.3*** (0.42) | 4.8*** (0.43) | 12.6*** (0.65) |
| 45-54 | 3.4*** (0.15) | 31.9*** (3.85) | 9.6*** (0.60) | 2.7*** (0.23) | 3.9*** (0.27) | 18.0*** (1.25) | 10.6*** (1.26) | 3.4*** (0.34) | 4.4*** (0.30) | 12.1*** (0.67) |
| 55-64 | 3.1*** (0.17) | 35.0*** (3.64) | 9.0*** (0.49) | 2.3*** (0.22) | 3.7*** (0.27) | 17.5*** (1.31) | 8.4*** (0.98) | 3.7*** (0.31) | 5.2*** (0.27) | 12.0*** (0.80) |
| 65+ | 3.1*** (0.35) | 41.2*** (3.76) | 7.0*** (0.71) | 2.4*** (0.32) | 3.1*** (0.50) | 15.0*** (1.24) | 5.7*** (0.82) | 4.0*** (0.54) | 7.6*** (0.67) | 10.8*** (1.24) |
| Obs. | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 |
| LHS Mean | 2.921 | 19.517 | 5.409 | 5.399 | 4.949 | 17.204 | 14.923 | 2.794 | 13.228 | 13.655 |

Notes: Each column reports a regression of 100 times an indicator for occupation groups (1-10) in 1920 on indicators for demographic groups. The occupations are: 1 professional/technical; 2 farm owners/tenants/managers; 3 managers, officials, and proprietors; 4 clerical and kindered workrs; 5 craftsmen; 6 operatives; 7 service; 8 farm laborers; 9 non-farm laborers. Rows approximately sum to one across columns. The regression includes linked men from the 1920 and 1940 Censuses. The regression does not include a constant, so the coefficients can be interpreted as shares. Standard errors are clustered on state and reported in parentheses below each coefficient. Significance levels are indicated by * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$.

Table 6: Major Occupations 1920

| | Prof. (1) | Farm. (2) | Man. (3) | Cler. (4) | Sales (5) | Craft (6) | Op. (7) | Serv. (8) | F Lab. (9) | NF Lab. (10) |
|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| <i>5. Sector in 1920</i> | | | | | | | | | | |
| Ag./For./Fish. | 0.0*** (0.01) | 58.6*** (0.90) | 0.0*** (0.00) | 0.0** (0.00) | 0.0 | 0.0*** (0.01) | 0.1*** (0.01) | 0.0* (0.00) | 39.7*** (0.81) | 1.4*** (0.18) |
| Mining | 0.3*** (0.07) | 0.0 | 0.8*** (0.14) | 0.9*** (0.08) | 0.0 | 6.9*** (0.47) | 88.1*** (1.27) | 0.1*** (0.03) | 0.0 | 2.9*** (0.78) |
| Construction | 0.5*** (0.06) | 0.0 | 5.9*** (0.28) | 0.5*** (0.05) | 0.0 | 74.9*** (0.54) | 1.6*** (0.13) | 0.1*** (0.02) | 0.0 | 16.5*** (0.59) |
| Manufacturing | 1.2*** (0.07) | 0.0 | 1.5*** (0.11) | 4.8*** (0.27) | 0.2*** (0.03) | 30.8*** (1.24) | 29.1*** (2.10) | 0.5*** (0.03) | 0.0 | 31.9*** (2.77) |
| Trasp./Comm./Util. | 1.0*** (0.06) | 0.0 | 4.7*** (0.22) | 13.2*** (0.47) | 0.1*** (0.02) | 23.4*** (1.23) | 24.3*** (1.07) | 1.8*** (0.19) | 0.0 | 31.5*** (0.91) |
| Wholesale/Retail | 2.0*** (0.09) | 0.0 | 25.5*** (0.74) | 4.1*** (0.25) | 36.5*** (0.87) | 7.9*** (1.07) | 10.6*** (0.50) | 5.6*** (0.40) | 0.0 | 7.8*** (0.62) |
| Finance/Ins./RE | 2.0*** (0.18) | 0.0 | 18.1*** (1.75) | 37.9*** (3.31) | 33.1*** (2.45) | 0.7*** (0.12) | 0.6*** (0.15) | 5.6*** (0.55) | 0.0 | 2.0*** (0.19) |
| Service | 30.0*** (0.91) | 0.0 | 4.2*** (0.19) | 7.7*** (1.23) | 0.4*** (0.04) | 21.8*** (1.00) | 8.6*** (0.93) | 20.9*** (0.40) | 0.0 | 6.3*** (0.48) |
| Public Sector | 3.3*** (0.20) | 0.0 | 12.8*** (0.44) | 14.9*** (0.69) | 9.0*** (0.43) | 23.6*** (0.87) | 15.8*** (0.64) | 4.9*** (0.32) | 0.0 | 15.7*** (1.23) |
| Obs. | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 |
| LHS Mean | 2.921 | 19.517 | 5.409 | 5.399 | 4.949 | 17.204 | 14.923 | 2.794 | 13.228 | 13.655 |

Notes: Each column reports a regression of 100 times an indicator for occupation groups (1-10) in 1920 on indicators for demographic groups. The occupations are: 1 professional/technical; 2 farm owners/tenants/managers; 3 managers, officials, and proprietors; 4 clerical and kindered workrs; 5 craftsmen; 6 operatives; 7 service; 8 farm laborers; 9 non-farm laborers. Rows approximately sum to one across columns. The regression includes linked men from the 1920 and 1940 Censuses. The regression does not include a constant, so the coefficients can be interpreted as shares. Standard errors are clustered on state and reported in parentheses below each coefficient. Significance levels are indicated by * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$.

Table 7: Major Sectors 1920

| | Ag. (1) | Mine (2) | Cons. (3) | Man. (4) | Trans. (5) | Trade (6) | Fin. (7) | Serv. (8) | Public (9) |
|-------------------------------|--------------------|------------------|------------------|-------------------|-------------------|-------------------|------------------|-------------------|-------------------|
| <i>1. Race (3 groups)</i> | | | | | | | | | |
| White | 31.6*** (4.09) | 4.0*** (1.24) | 5.1*** (0.30) | 20.7*** (1.85) | 9.1*** (0.54) | 9.5*** (0.69) | 1.7*** (0.20) | 6.4*** (0.50) | 11.8*** (0.84) |
| Black | 51.4*** (4.92) | 2.7** (1.07) | 3.9*** (0.39) | 15.4*** (1.55) | 8.6*** (0.95) | 4.1*** (0.52) | 0.5*** (0.13) | 6.8*** (0.82) | 6.7*** (0.85) |
| Other | 46.9*** (3.86) | 2.2*** (0.80) | 3.9*** (0.43) | 12.9*** (1.14) | 8.2*** (0.89) | 7.6*** (1.21) | 0.7*** (0.12) | 10.7*** (1.13) | 6.9*** (0.72) |
| Obs. | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 |
| LHS Mean | 33.289 | 3.897 | 5.023 | 20.170 | 9.076 | 9.116 | 1.610 | 6.505 | 11.314 |
| <i>2. Race (IPUMS detail)</i> | | | | | | | | | |
| White | 31.6*** (4.09) | 4.0*** (1.24) | 5.1*** (0.30) | 20.7*** (1.85) | 9.1*** (0.54) | 9.5*** (0.69) | 1.7*** (0.20) | 6.4*** (0.50) | 11.8*** (0.84) |
| Spanish | 50.0* (25.26) | 25.0 (21.88) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 25.0 (21.88) |
| Mexican (1930) | 42.9*** (4.22) | 3.6 (3.22) | 8.3** (3.86) | 9.5*** (3.01) | 16.7*** (3.46) | 13.1*** (4.12) | 0.0 | 1.2 (1.26) | 4.8 (2.91) |
| Puerto Rican | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Black/Negro | 51.4*** (4.92) | 2.7** (1.07) | 3.9*** (0.39) | 15.4*** (1.55) | 8.6*** (0.95) | 4.1*** (0.52) | 0.5*** (0.13) | 6.8*** (0.82) | 6.7*** (0.85) |
| Mulatto | 47.6*** (4.20) | 2.4** (0.96) | 4.5*** (0.46) | 13.4*** (1.24) | 9.1*** (0.99) | 5.6*** (0.59) | 0.8*** (0.14) | 9.8*** (1.06) | 6.9*** (0.83) |
| Native Am. | 69.0*** (5.46) | 0.8 (0.47) | 1.0** (0.43) | 13.8*** (4.54) | 2.9*** (0.73) | 1.9* (1.05) | 0.2 (0.16) | 4.1*** (1.06) | 6.4*** (1.02) |
| Chinese | 11.1** (4.30) | 0.5* (0.25) | 0.7** (0.29) | 6.4*** (1.73) | 1.6* (0.96) | 40.5*** (2.23) | 0.0 | 31.1*** (4.34) | 8.2*** (1.11) |
| Japanese | 47.6*** (10.31) | 1.0 (1.03) | 0.0 | 8.7** (4.23) | 6.6* (3.50) | 16.1*** (1.83) | 0.5 (0.44) | 13.8*** (1.10) | 5.6*** (1.18) |
| Filipino | 12.9* (6.93) | 0.0 | 6.5** (2.98) | 22.6*** (8.20) | 3.2 (2.19) | 22.6*** (7.12) | 0.0 | 9.7** (4.30) | 22.6*** (5.49) |
| Obs. | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 |
| LHS Mean | 33.289 | 3.897 | 5.023 | 20.170 | 9.076 | 9.116 | 1.610 | 6.505 | 11.314 |

Notes: Each column reports a regression of 100 times an indicator for major sectors (1-9) in 1920 on indicators for demographic groups. The sectors are: 1 agriculture/forestry/fishing; 2 mining; 3 construction; 4 manufacturing; 5 transportation; 6 wholesale/retail trade; 7 finance and real estate; 8 service; 9 public sector. Rows approximately sum to one across columns. The regression includes linked men from the 1920 and 1940 Censuses. The regression does not include a constant, so the coefficients can be interpreted as shares. Standard errors are clustered on state and reported in parentheses below each coefficient. Significance levels are indicated by * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$.

Table 8: Major Sectors 1920

| | Ag. (1) | Mine (2) | Cons. (3) | Man. (4) | Trans. (5) | Trade (6) | Fin. (7) | Serv. (8) | Public (9) |
|-----------------------|-------------------|------------------|------------------|-------------------|-------------------|-------------------|------------------|------------------|-------------------|
| <i>3. Region</i> | | | | | | | | | |
| Northeast | 11.3*** (1.15) | 4.4 (3.31) | 6.3*** (0.56) | 30.1*** (2.32) | 11.0*** (0.60) | 11.5*** (1.36) | 2.2*** (0.46) | 8.1*** (0.96) | 15.0*** (1.39) |
| Midwest | 37.1*** (4.51) | 3.3*** (0.58) | 4.8*** (0.24) | 18.9*** (2.75) | 8.7*** (0.70) | 8.7*** (0.60) | 1.5*** (0.11) | 5.9*** (0.26) | 11.0*** (0.86) |
| South | 53.7*** (2.90) | 3.9** (1.47) | 3.8*** (0.29) | 11.5*** (1.16) | 7.1*** (0.62) | 6.6*** (0.39) | 1.0*** (0.10) | 5.0*** (0.31) | 7.4*** (0.75) |
| West | 32.6*** (3.97) | 4.2*** (1.33) | 5.6*** (0.60) | 15.5*** (2.30) | 10.2*** (0.32) | 10.2*** (1.03) | 1.9*** (0.21) | 8.3*** (0.92) | 11.4*** (1.35) |
| Obs. | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 |
| LHS Mean | 33.289 | 3.897 | 5.023 | 20.170 | 9.076 | 9.116 | 1.610 | 6.505 | 11.314 |
| <i>4. Age in 1920</i> | | | | | | | | | |
| 14-24 | 34.9*** (4.64) | 4.0*** (1.21) | 3.1*** (0.19) | 22.8*** (2.13) | 8.8*** (0.62) | 8.3*** (0.69) | 1.5*** (0.32) | 5.5*** (0.46) | 11.2*** (0.95) |
| 25-34 | 29.8*** (4.00) | 4.1*** (1.20) | 5.1*** (0.30) | 20.8*** (1.80) | 10.1*** (0.55) | 9.5*** (0.72) | 1.6*** (0.14) | 7.3*** (0.55) | 11.7*** (0.82) |
| 35-44 | 32.0*** (4.05) | 4.2*** (1.24) | 6.6*** (0.38) | 18.2*** (1.67) | 9.2*** (0.52) | 10.0*** (0.70) | 1.6*** (0.12) | 6.9*** (0.50) | 11.4*** (0.86) |
| 45-54 | 36.9*** (4.08) | 3.3*** (0.99) | 7.2*** (0.43) | 15.8*** (1.53) | 7.9*** (0.50) | 9.3*** (0.78) | 1.8*** (0.16) | 6.9*** (0.39) | 10.8*** (0.81) |
| 55-64 | 40.9*** (3.85) | 2.3*** (0.61) | 8.2*** (0.47) | 14.2*** (1.48) | 6.8*** (0.45) | 8.6*** (0.66) | 2.1*** (0.19) | 6.5*** (0.38) | 10.4*** (0.80) |
| 65+ | 49.3*** (3.86) | 1.5*** (0.49) | 8.5*** (0.72) | 10.6*** (1.51) | 4.4*** (0.41) | 7.9*** (0.99) | 1.8*** (0.35) | 6.8*** (0.50) | 9.2*** (0.90) |
| Obs. | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 |
| LHS Mean | 33.289 | 3.897 | 5.023 | 20.170 | 9.076 | 9.116 | 1.610 | 6.505 | 11.314 |

Notes: Each column reports a regression of 100 times an indicator for major sectors (1-9) in 1920 on indicators for demographic groups. The sectors are: 1 agriculture/forestry/fishing; 2 mining; 3 construction; 4 manufacturing; 5 transportation; 6 wholesale/retail trade; 7 finance and real estate; 8 service; 9 public sector. Rows approximately sum to one across columns. The regression includes linked men from the 1920 and 1940 Censuses. The regression does not include a constant, so the coefficients can be interpreted as shares. Standard errors are clustered on state and reported in parentheses below each coefficient. Significance levels are indicated by * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$.

Table 9: Major Sectors 1920

| | Ag. (1) | Mine (2) | Cons. (3) | Man. (4) | Trans. (5) | Trade (6) | Fin. (7) | Serv. (8) | Public (9) |
|------------------------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| <i>5. Occupation in 1920</i> | | | | | | | | | |
| Professional, Technical | 0.5*** (0.08) | 0.4*** (0.10) | 0.9*** (0.10) | 8.1*** (0.69) | 3.2*** (0.17) | 6.1*** (0.25) | 1.1*** (0.16) | 66.8*** (1.46) | 12.9*** (0.94) |
| Farmers | 100.0*** (0.00) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Manag./Propr. | 0.1*** (0.03) | 0.6*** (0.16) | 5.5*** (0.28) | 5.6*** (0.23) | 7.9*** (0.28) | 42.9*** (0.65) | 5.4*** (0.38) | 5.1*** (0.21) | 26.8*** (0.82) |
| Clerical and Kindred | 0.0** (0.02) | 0.7*** (0.20) | 0.5*** (0.04) | 18.0*** (1.14) | 22.2*** (1.75) | 7.0*** (0.35) | 11.3*** (1.17) | 9.2*** (1.13) | 31.1*** (1.09) |
| Sales | 0.0 | 0.0 | 0.0 (0.00) | 0.8*** (0.07) | 0.2*** (0.04) | 67.2*** (0.74) | 10.8*** (0.42) | 0.5*** (0.05) | 20.5*** (0.74) |
| Craftsmen | 0.1*** (0.01) | 1.6*** (0.46) | 21.9*** (0.81) | 36.1*** (1.54) | 12.3*** (0.98) | 4.2*** (0.69) | 0.1*** (0.02) | 8.3*** (0.44) | 15.5*** (0.63) |
| Operatives | 0.2*** (0.04) | 23.0*** (5.98) | 0.5*** (0.05) | 39.3*** (3.80) | 14.8*** (1.06) | 6.5*** (0.73) | 0.1*** (0.02) | 3.8*** (0.63) | 12.0*** (1.03) |
| Service | 0.1* (0.03) | 0.2*** (0.06) | 0.1*** (0.03) | 3.9*** (0.41) | 5.7*** (0.30) | 18.2*** (0.77) | 3.2*** (0.34) | 48.7*** (1.14) | 19.9*** (0.62) |
| Farm Laborers | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Non-Farm Laborers | 3.5*** (0.48) | 0.8*** (0.19) | 6.1*** (0.47) | 47.1*** (2.31) | 20.9*** (1.20) | 5.2*** (0.33) | 0.2*** (0.03) | 3.0*** (0.23) | 13.0*** (0.39) |
| Obs. | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 |
| LHS Mean | 33.289 | 3.897 | 5.023 | 20.170 | 9.076 | 9.116 | 1.610 | 6.505 | 11.314 |

Notes: Each column reports a regression of 100 times an indicator for major sectors (1-9) in 1920 on indicators for demographic groups. The sectors are: 1 agriculture/forestry/fishing; 2 mining; 3 construction; 4 manufacturing; 5 transportation; 6 wholesale/retail trade; 7 finance and real estate; 8 service; 9 public sector. Rows approximately sum to one across columns. The regression includes linked men from the 1920 and 1940 Censuses. The regression does not include a constant, so the coefficients can be interpreted as shares. Standard errors are clustered on state and reported in parentheses below each coefficient. Significance levels are indicated by * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$.

Table 10: Anatomy of the 1940 Unemployed

| | A. Unemployment Duration Bins (Weeks) | | | | B. Labor Force Status | | |
|--|---------------------------------------|----------------------|----------------------|----------------------|-----------------------|----------------------|----------------------|
| | 1-49 (1) | 50-99 (2) | 100-199 (3) | 200+ (4) | Unemp. (5) | Emerg. Emp. (6) | Regular Emp. (7) |
| <i>1. Race (Omitted group: White)</i> | | | | | | | |
| Black | -0.116 (0.186) | 0.242** (0.095) | -0.021 (0.076) | 0.033 (0.091) | -1.269*** (0.350) | 1.529*** (0.243) | -0.260 (0.352) |
| Other | 0.351 (0.240) | 0.219 (0.174) | 0.179 (0.127) | -0.207* (0.122) | -0.950** (0.363) | 1.453*** (0.379) | -0.503 (0.494) |
| Constant | 4.403*** (0.080) | 1.608*** (0.073) | 1.392*** (0.053) | 1.398*** (0.082) | 7.142*** (0.344) | 3.558*** (0.176) | 89.300*** (0.296) |
| Obs. | 713743 | 713743 | 713743 | 713743 | 713743 | 713743 | 713743 |
| LHS Mean | 4.400 | 1.628 | 1.393 | 1.398 | 7.043 | 3.682 | 89.275 |
| <i>2. Age in 1940 (Omitted group: 25-34 and younger)</i> | | | | | | | |
| 35-44 | -0.869* (0.478) | -1.068*** (0.280) | 0.045 (0.187) | 0.030 (0.154) | -2.491*** (0.884) | -0.215 (0.315) | 2.706*** (0.828) |
| 45-54 | -1.411*** (0.441) | -1.278*** (0.290) | -0.036 (0.184) | 0.240 (0.161) | -3.778*** (0.872) | 0.299 (0.334) | 3.479*** (0.821) |
| 55-64 | -1.483*** (0.431) | -1.250*** (0.271) | 0.024 (0.178) | 0.571*** (0.161) | -3.295*** (0.836) | 0.196 (0.352) | 3.099*** (0.769) |
| 65+ | -4.559*** (0.491) | -2.356*** (0.288) | -0.983*** (0.187) | -0.619*** (0.144) | -7.456*** (0.993) | -2.846*** (0.401) | 10.302*** (0.825) |
| Constant | 6.071*** (0.502) | 2.972*** (0.317) | 1.524*** (0.182) | 1.295*** (0.137) | 10.770*** (1.160) | 4.039*** (0.403) | 85.192*** (0.946) |
| Obs. | 713663 | 713663 | 713663 | 713663 | 713663 | 713663 | 713663 |
| LHS Mean | 4.400 | 1.628 | 1.393 | 1.398 | 7.043 | 3.682 | 89.275 |
| <i>3. Region in 1920 (Omitted group: Northeast)</i> | | | | | | | |
| Midwest | -0.467*** (0.110) | -0.450*** (0.099) | -0.201** (0.096) | -0.213 (0.175) | -2.138*** (0.220) | 0.410 (0.399) | 1.728*** (0.394) |
| South | -0.474** (0.229) | -0.404*** (0.111) | -0.375*** (0.113) | -0.598*** (0.172) | -3.046*** (0.336) | 0.914** (0.434) | 2.132*** (0.515) |
| West | 0.302 (0.235) | -0.514*** (0.118) | -0.243*** (0.088) | -0.428** (0.163) | -1.389*** (0.224) | -0.013 (0.500) | 1.402** (0.533) |
| Constant | 4.663*** (0.088) | 1.921*** (0.069) | 1.577*** (0.073) | 1.657*** (0.157) | 8.661*** (0.146) | 3.303*** (0.371) | 88.036*** (0.305) |
| Obs. | 713743 | 713743 | 713743 | 713743 | 713743 | 713743 | 713743 |
| LHS Mean | 4.400 | 1.628 | 1.393 | 1.398 | 7.043 | 3.682 | 89.275 |

Notes: Each column reports a regression of 100 times an indicator for the particular labor force status on indicator variables for demographic groups. The regression includes linked individuals who were in the labor force in both periods. Hence, the coefficients for columns (1)-(4) add up to column (5), while columns (5)-(7) sum to one. Standard errors are clustered on state and reported in parentheses below each coefficient. Significance levels are indicated by * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$.

Table 11: Anatomy of the 1940 Unemployed (continued)

| | A. Unemployment Duration Bins (Weeks) | | | | B. Labor Force Status | | |
|---|---------------------------------------|----------------------|----------------------|----------------------|-----------------------|----------------------|----------------------|
| | 1-49 (1) | 50-99 (2) | 100-199 (3) | 200+ (4) | Unemp. (5) | Emerg. Emp. (6) | Regular Emp. (7) |
| <i>4. Occupation in 1920 (Omitted group: clerical and kindred workers)</i> | | | | | | | |
| Prof./Tech. | -1.051*** (0.171) | -0.890*** (0.097) | -0.276** (0.127) | -0.205** (0.079) | -2.485*** (0.225) | -0.325* (0.193) | 2.810*** (0.326) |
| Farmers | -1.030*** (0.150) | -0.952*** (0.131) | -0.564*** (0.091) | -0.511*** (0.094) | -3.768*** (0.440) | 0.405* (0.240) | 3.363*** (0.409) |
| Manag./Proprietors | -0.688*** (0.106) | -0.687*** (0.103) | -0.294*** (0.086) | -0.322*** (0.073) | -1.955*** (0.228) | -0.354** (0.160) | 2.309*** (0.215) |
| Sales | 0.115 (0.143) | -0.337** (0.161) | -0.181** (0.088) | -0.137* (0.080) | -0.554** (0.233) | 0.118 (0.157) | 0.436 (0.319) |
| Craftsmen | 0.523*** (0.086) | -0.401*** (0.091) | -0.066 (0.067) | 0.036 (0.059) | -0.237 (0.220) | 0.437*** (0.120) | -0.199 (0.194) |
| Operatives | 1.021*** (0.125) | 0.044 (0.103) | 0.330*** (0.071) | 0.452*** (0.096) | 0.860*** (0.285) | 1.325*** (0.142) | -2.185*** (0.336) |
| Service | -0.032 (0.132) | -0.605*** (0.111) | -0.091 (0.146) | 0.157 (0.101) | -0.992*** (0.278) | 0.329* (0.184) | 0.662** (0.277) |
| Farm Laborers | 0.505** (0.206) | -0.609*** (0.127) | -0.384*** (0.095) | -0.439*** (0.075) | -1.869*** (0.464) | 1.093*** (0.252) | 0.775 (0.469) |
| Non-Farm Laborers | 1.103*** (0.177) | -0.007 (0.094) | 0.236*** (0.078) | 0.468*** (0.075) | 0.552 (0.358) | 1.735*** (0.165) | -2.287*** (0.341) |
| Constant | 4.192*** (0.123) | 2.039*** (0.115) | 1.506*** (0.083) | 1.424*** (0.083) | 7.987*** (0.478) | 3.009*** (0.219) | 89.004*** (0.364) |
| Obs. | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 |
| LHS Mean | 4.400 | 1.628 | 1.393 | 1.398 | 7.043 | 3.682 | 89.275 |
| <i>5. Occupational Score Quintile in 1920 (Omitted group: 1st quintile)</i> | | | | | | | |
| Quintile: 2.0000 | 1.238*** (0.090) | 0.713*** (0.068) | 0.681*** (0.062) | 0.848*** (0.074) | 3.211*** (0.199) | 0.756*** (0.160) | -3.968*** (0.251) |
| Quintile: 3.0000 | 1.171*** (0.133) | 0.663*** (0.095) | 0.592*** (0.062) | 0.656*** (0.090) | 3.304*** (0.267) | 0.154 (0.216) | -3.458*** (0.319) |
| Quintile: 4.0000 | 0.715*** (0.137) | 0.620*** (0.096) | 0.483*** (0.066) | 0.577*** (0.090) | 2.886*** (0.367) | -0.326* (0.182) | -2.560*** (0.366) |
| Quintile: 5.0000 | 0.047 (0.116) | 0.234** (0.094) | 0.264*** (0.050) | 0.344*** (0.065) | 1.558*** (0.256) | -0.675*** (0.159) | -0.883*** (0.281) |
| Constant | 3.876*** (0.124) | 1.258*** (0.065) | 1.054*** (0.050) | 0.987*** (0.050) | 5.167*** (0.186) | 3.747*** (0.172) | 91.086*** (0.263) |
| Obs. | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 |
| LHS Mean | 4.400 | 1.628 | 1.393 | 1.398 | 7.043 | 3.682 | 89.275 |

Notes: Each column reports a regression of 100 times an indicator for the particular labor force status on indicator variables for demographic groups. The regression includes linked individuals who were in the labor force in both periods. Hence, the coefficients for columns (1)-(4) add up to column (5), while columns (5)-(7) sum to one. Standard errors are clustered on state and reported in parentheses below each coefficient. Significance levels are indicated by * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$.

Table 12: Anatomy of the 1940 Unemployed (continued)

| | A. Unemployment Duration Bins (Weeks) | | | | B. Labor Force Status | | |
|---|---------------------------------------|----------------------|----------------------|----------------------|-----------------------|----------------------|----------------------|
| | 1-49 (1) | 50-99 (2) | 100-199 (3) | 200+ (4) | Unemp. (5) | Emerg. Emp. (6) | Regular Emp. (7) |
| <i>4. Sector in 1920 (Omitted group: wholesale trade)</i> | | | | | | | |
| Ag./Forestry/Fishing | -0.484*** (0.165) | -0.493*** (0.100) | -0.400*** (0.065) | -0.417*** (0.083) | -2.381*** (0.312) | 0.472** (0.224) | 1.909*** (0.303) |
| Mining | 1.350*** (0.225) | 0.650*** (0.132) | 0.763*** (0.077) | 1.138*** (0.217) | 2.087*** (0.558) | 2.370*** (0.493) | -4.458*** (0.373) |
| Construction | 1.169*** (0.212) | 0.098 (0.124) | 0.091 (0.079) | 0.005 (0.067) | 1.183*** (0.224) | 0.503*** (0.131) | -1.686*** (0.256) |
| Manufacturing | 0.612*** (0.137) | 0.140* (0.073) | 0.232*** (0.054) | 0.377*** (0.070) | 0.880*** (0.165) | 0.690*** (0.099) | -1.570*** (0.162) |
| Trasp./Comm./Util. | 0.357** (0.140) | 0.117 (0.118) | 0.153** (0.068) | 0.255*** (0.062) | 0.299** (0.143) | 0.827*** (0.160) | -1.126*** (0.182) |
| Finance/Ins./RE | -0.729*** (0.215) | -0.070 (0.218) | -0.172 (0.112) | -0.266** (0.103) | -0.846** (0.352) | -0.617*** (0.155) | 1.463*** (0.369) |
| Service | -0.159 (0.122) | -0.181* (0.101) | -0.040 (0.077) | 0.065 (0.071) | -0.464** (0.175) | 0.041 (0.155) | 0.423* (0.234) |
| Public Sector | 0.111 (0.121) | 0.019 (0.102) | 0.065 (0.070) | 0.099** (0.047) | 0.170 (0.149) | 0.221* (0.131) | -0.391* (0.202) |
| Constant | 4.291*** (0.129) | 1.718*** (0.096) | 1.416*** (0.050) | 1.361*** (0.082) | 7.406*** (0.342) | 3.222*** (0.237) | 89.372*** (0.258) |
| Obs. | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 | 584187 |
| LHS Mean | 4.400 | 1.628 | 1.393 | 1.398 | 7.043 | 3.682 | 89.275 |

Notes: Each column reports a regression of 100 times an indicator for the particular labor force status on indicator variables for demographic groups. The regression includes linked individuals who were in the labor force in both periods. Hence, the coefficients for columns (1)-(4) add up to column (5), while columns (5)-(7) sum to one. Standard errors are clustered on state and reported in parentheses below each coefficient. Significance levels are indicated by * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$.

Table 13: Anatomy of 1940 Migrants (continued)

| | Migration | |
|---|-----------------------|----------------------|
| | County (1) | State (2) |
| <i>1. Race (Omitted group: white)</i> | | |
| Black | 18.625*** (1.447) | 6.419* (3.397) |
| Other | 13.098*** (1.436) | 4.487* (2.510) |
| Constant | 67.011*** (1.210) | 36.168*** (1.245) |
| Obs. | 713743 | 713743 |
| LHS Mean | 68.459 | 36.667 |
| <i>2. Age in 1940 (Omitted group: younger than 25-34)</i> | | |
| 35-44 | -20.510*** (1.286) | 0.514 (0.970) |
| 45-54 | -15.719*** (1.324) | 10.777*** (1.133) |
| 55-64 | -15.121*** (1.424) | 14.548*** (1.209) |
| 65+ | -16.739*** (1.383) | 14.615*** (1.344) |
| Constant | 85.852*** (1.207) | 28.397*** (1.800) |
| Obs. | 713663 | 713663 |
| LHS Mean | 68.459 | 36.667 |
| <i>3. Region in 1920 (Omitted group: northeast)</i> | | |
| Midwest | -5.904** (2.323) | 1.657 (2.520) |
| South | 6.334** (2.428) | -0.103 (2.889) |
| West | -2.313 (2.484) | 15.615*** (4.368) |
| Constant | 68.912*** (1.954) | 35.092*** (2.128) |
| Obs. | 713743 | 713743 |
| LHS Mean | 68.459 | 36.667 |

Notes: Each column reports a regression of 100 times an indicator for migration across counties (1) and migration across states (2). The regression includes linked individuals who were in the labor force in both periods. Standard errors are clustered on state and reported in parentheses below each coefficient. Significance levels are indicated by * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$.

Table 14: Anatomy of 1940 Migrants (continued)

| | Migration | |
|---|----------------------|----------------------|
| | County (1) | State (2) |
| <i>4. Occupation in 1920 (Omitted group: clerical and kindred workers)</i> | | |
| Prof./Tech. | 8.968*** (1.940) | 10.791*** (0.928) |
| Farmers | 4.849 (3.141) | 1.482 (1.807) |
| Manag./Proprietors | 8.729*** (1.989) | 14.281*** (0.911) |
| Sales | 5.486*** (1.685) | 7.675*** (0.640) |
| Craftsmen | 8.439*** (1.926) | 13.442*** (0.912) |
| Operatives | 9.696*** (2.057) | 12.074*** (0.945) |
| Service | 16.339*** (1.911) | 21.495*** (1.462) |
| Farm Laborers | 3.932 (3.086) | -2.499 (1.786) |
| Non-Farm Laborers | 14.690*** (2.508) | 16.444*** (1.718) |
| Constant | 60.709*** (2.815) | 27.994*** (1.957) |
| Obs. | 584187 | 584187 |
| LHS Mean | 68.459 | 36.667 |
| <i>5. Occupational Score Quintile in 1920 (Omitted group: 1st quintile)</i> | | |
| Quintile: 2.0000 | 8.855*** (1.228) | 15.189*** (1.443) |
| Quintile: 3.0000 | 2.870 (1.717) | 9.433*** (1.367) |
| Quintile: 4.0000 | 1.279 (2.238) | 7.604*** (1.394) |
| Quintile: 5.0000 | 1.333 (1.724) | 8.810*** (1.483) |
| Constant | 66.206*** (1.731) | 29.622*** (1.301) |
| Obs. | 584187 | 584187 |
| LHS Mean | 68.459 | 36.667 |

Notes: Each column reports a regression of 100 times an indicator for migration across counties (1) and migration across states (2). The regression includes linked individuals who were in the labor force in both periods. Standard errors are clustered on state and reported in parentheses below each coefficient. Significance levels are indicated by * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$.

Table 15: Anatomy of 1940 Migrants (continued)

| | Migration | |
|--------------------------|----------------------|-----------------------|
| | County (1) | State (2) |
| <i>6. Sector in 1920</i> | | |
| Ag./Forestry/Fishing | -3.639** (1.785) | -12.271*** (1.229) |
| Mining | 10.479*** (1.199) | 6.426*** (2.230) |
| Construction | 0.479 (0.604) | 0.952* (0.564) |
| Manufacturing | 0.826 (0.733) | 0.801 (0.872) |
| Trasp./Comm./Util. | 1.914*** (0.454) | -1.859* (1.054) |
| Finance/Ins./RE | -4.214*** (1.169) | -6.387*** (0.898) |
| Service | 2.738*** (0.479) | 0.364 (0.422) |
| Public Sector | -0.224 (0.465) | 0.047 (0.980) |
| Constant | 68.896*** (1.307) | 40.248*** (1.508) |
| Obs. | 584187 | 584187 |
| LHS Mean | 68.459 | 36.667 |

Notes: Each column reports a regression of 100 times an indicator for migration across counties (1) and migration across states (2). The regression includes linked individuals who were in the labor force in both periods. Standard errors are clustered on state and reported in parentheses below each coefficient. Significance levels are indicated by * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$.

Table 16: Differential Effect of the Depression (Base Year: 1920)

| | A. Unemployment Duration Bins (Weeks) | | | | B. Labor Force Status | | |
|---|---------------------------------------|-------------------|-------------------|------------------|-----------------------|---------------------|---------------------|
| | 1-49 (1) | 50-99 (2) | 100-199 (3) | 200+ (4) | Unemp. (5) | Emerg. Emp. (6) | Regular Emp. (7) |
| <i>Race (Interactions with size of state level % decline in personal income per person)</i> | | | | | | | |
| White | -0.007 (0.019) | -0.010 (0.012) | 0.001 (0.011) | 0.006 (0.013) | -0.038 (0.044) | 0.011 (0.024) | 0.027 (0.055) |
| Black | 0.045* (0.026) | -0.002 (0.017) | 0.029* (0.016) | 0.023 (0.016) | 0.034 (0.048) | 0.038 (0.040) | -0.072 (0.071) |
| Other | 0.064 (0.045) | 0.037 (0.032) | 0.018 (0.019) | 0.021 (0.020) | 0.035 (0.053) | 0.137*** (0.049) | -0.172** (0.084) |
| Obs. | 711117 | 711117 | 711117 | 711117 | 711117 | 711117 | 711117 |
| LHS Mean | 4.400 | 1.628 | 1.393 | 1.398 | 7.043 | 3.682 | 89.275 |
| Shock Mean | 46.674 | 46.674 | 46.674 | 46.674 | 46.674 | 46.674 | 46.674 |
| Group Effects | yes | yes | yes | yes | yes | yes | yes |

Notes: Each column is based on a regression of 100 times an indicator for the particular labor force status on interactions of state-level % declines in personal income per person during 1929-1933 (in absolute value) and indicator variables for demographic groups, as well as a complete set of group effects (equation (1)). We only report the coefficients from the interactions term. These coefficients are identified from cross-state variation. The sample includes linked individuals who were in the labor force in both periods. Hence, the coefficients for columns (1)-(4) add up to column (5), while columns (5)-(7) sum to one. Standard errors are clustered on state and reported in parentheses below each coefficient. Significance levels are indicated by * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$.

Table 17: Differential Effect of the Depression (Base Year: 1920)

| | A. Unemployment Duration Bins (Weeks) | | | | B. Labor Force Status | | |
|---|---------------------------------------|-------------------|-------------------|--------------------|-----------------------|--------------------|---------------------|
| | 1-49 (1) | 50-99 (2) | 100-199 (3) | 200+ (4) | Unemp. (5) | Emerg. Emp. (6) | Regular Emp. (7) |
| <i>Occupational Income Quintile in 1920 (Interactions with size of state level % decline in personal income per person)</i> | | | | | | | |
| Quintile: 1.0000 | 0.008 (0.022) | -0.008 (0.012) | 0.003 (0.009) | 0.009 (0.008) | 0.011 (0.032) | -0.016 (0.029) | 0.005 (0.049) |
| Quintile: 2.0000 | 0.015 (0.024) | -0.003 (0.008) | 0.028* (0.014) | 0.035** (0.013) | 0.028 (0.044) | 0.042** (0.019) | -0.070 (0.044) |
| Quintile: 3.0000 | -0.003 (0.029) | 0.002 (0.017) | 0.009 (0.011) | 0.013 (0.013) | -0.011 (0.047) | 0.015 (0.035) | -0.004 (0.065) |
| Quintile: 4.0000 | 0.012 (0.019) | -0.008 (0.016) | 0.013 (0.013) | -0.002 (0.013) | -0.018 (0.041) | 0.004 (0.037) | 0.014 (0.053) |
| Quintile: 5.0000 | 0.001 (0.011) | -0.014 (0.009) | 0.006 (0.010) | 0.005 (0.013) | -0.023 (0.028) | 0.015 (0.021) | 0.007 (0.033) |
| Obs. | 582303 | 582303 | 582303 | 582303 | 582303 | 582303 | 582303 |
| LHS Mean | 4.387 | 1.612 | 1.380 | 1.377 | 6.934 | 3.729 | 89.337 |
| Shock Mean | 46.707 | 46.707 | 46.707 | 46.707 | 46.707 | 46.707 | 46.707 |
| Group Effects | yes | yes | yes | yes | yes | yes | yes |

Notes: Each column is based on a regression of 100 times an indicator for the particular labor force status on interactions of state-level % declines in personal income per person during 1929-1933 (in absolute value) and indicator variables for demographic groups, as well as a complete set of group effects (equation (1)). We only report the coefficients from the interactions term. These coefficients are identified from cross-state variation. The sample includes linked individuals who were in the labor force in both periods. Hence, the coefficients for columns (1)-(4) add up to column (5), while columns (5)-(7) sum to one. Standard errors are clustered on state and reported in parentheses below each coefficient. Significance levels are indicated by * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$.

Table 18: Differential Effect of the Depression (Base Year: 1920)

| | A. Unemployment Duration Bins (Weeks) | | | | B. Labor Force Status | | |
|---|---------------------------------------|---------------------|--------------------|--------------------|-----------------------|--------------------|---------------------|
| | 1-49 (1) | 50-99 (2) | 100-199 (3) | 200+ (4) | Unemp. (5) | Emerg. Emp. (6) | Regular Emp. (7) |
| <i>Occupation in 1920 (Interactions with size of state level % decline in personal income per person)</i> | | | | | | | |
| Prof./Tech. | -0.057** (0.024) | -0.035** (0.015) | -0.017 (0.018) | 0.009 (0.021) | -0.086* (0.049) | -0.025 (0.026) | 0.111* (0.063) |
| Farmers | 0.027* (0.016) | -0.008 (0.011) | 0.006 (0.009) | 0.014* (0.008) | 0.038 (0.023) | -0.014 (0.029) | -0.024 (0.041) |
| Manag./Proprietors | -0.034** (0.015) | -0.026* (0.014) | 0.021 (0.015) | 0.005 (0.010) | -0.057* (0.031) | 0.017 (0.019) | 0.040 (0.031) |
| Clerical and Kindred | 0.021 (0.025) | 0.002 (0.014) | 0.003 (0.013) | 0.011 (0.016) | 0.002 (0.046) | -0.013 (0.044) | 0.011 (0.052) |
| Sales | 0.003 (0.032) | -0.026 (0.018) | 0.002 (0.018) | 0.007 (0.014) | -0.013 (0.056) | -0.025 (0.038) | 0.038 (0.074) |
| Craftsmen | 0.032* (0.018) | 0.006 (0.008) | 0.006 (0.009) | 0.004 (0.013) | 0.018 (0.031) | 0.015 (0.026) | -0.033 (0.040) |
| Operatives | -0.022 (0.021) | 0.002 (0.019) | 0.018 (0.012) | 0.014 (0.015) | -0.037 (0.039) | 0.042 (0.041) | -0.005 (0.058) |
| Service | 0.012 (0.023) | -0.016 (0.020) | 0.016 (0.019) | -0.003 (0.016) | 0.011 (0.045) | 0.031 (0.026) | -0.041 (0.044) |
| Farm Laborers | -0.005 (0.030) | -0.003 (0.014) | 0.002 (0.012) | 0.012 (0.010) | -0.001 (0.039) | -0.015 (0.036) | 0.015 (0.062) |
| Non-Farm Laborers | 0.023 (0.033) | -0.002 (0.011) | 0.033** (0.014) | 0.036** (0.015) | 0.038 (0.051) | 0.044** (0.019) | -0.082 (0.055) |
| Obs. | 582303 | 582303 | 582303 | 582303 | 582303 | 582303 | 582303 |
| LHS Mean | 4.387 | 1.612 | 1.380 | 1.377 | 6.934 | 3.729 | 89.337 |
| Shock Mean | 46.707 | 46.707 | 46.707 | 46.707 | 46.707 | 46.707 | 46.707 |
| Group Effects | yes | yes | yes | yes | yes | yes | yes |

Notes: Notes: Each column is based on a regression of 100 times an indicator for the particular labor force status on interactions of state-level % declines in personal income per person during 1929-1933 (in absolute value) and indicator variables for demographic groups, as well as a complete set of group effects (equation (1)). We only report the coefficients from the interactions term. These coefficients are identified from cross-state variation. The sample includes linked individuals who were in the labor force in both periods. Hence, the coefficients for columns (1)-(4) add up to column (5), while columns (5)-(7) sum to one. Standard errors are clustered on state and reported in parentheses below each coefficient. Significance levels are indicated by * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$.

Table 19: Differential Effect of the Depression (Base Year: 1920)

| | A. Unemployment Duration Bins (Weeks) | | | | B. Labor Force Status | | |
|---|---------------------------------------|--------------------|--------------------|---------------------|-----------------------|--------------------|---------------------|
| | 1-49 (1) | 50-99 (2) | 100-199 (3) | 200+ (4) | Unemp. (5) | Emerg. Emp. (6) | Regular Emp. (7) |
| <i>Region in 1920 (Interactions with size of state level % decline in personal income per person)</i> | | | | | | | |
| Northeast | -0.070** (0.034) | 0.007 (0.024) | -0.009 (0.025) | -0.004 (0.040) | 0.087*** (0.020) | -0.145* (0.081) | 0.058 (0.082) |
| Midwest | -0.006 (0.016) | -0.012 (0.014) | -0.008 (0.013) | -0.002 (0.016) | -0.011 (0.034) | -0.008 (0.039) | 0.019 (0.053) |
| South | 0.088*** (0.029) | 0.030** (0.013) | 0.030** (0.013) | 0.025*** (0.009) | 0.087* (0.052) | 0.072** (0.035) | -0.159** (0.064) |
| West | 0.035 (0.061) | 0.013 (0.027) | 0.012 (0.015) | -0.032 (0.028) | -0.024 (0.045) | 0.114 (0.082) | -0.091 (0.115) |
| Obs. | 711117 | 711117 | 711117 | 711117 | 711117 | 711117 | 711117 |
| LHS Mean | 4.400 | 1.628 | 1.393 | 1.398 | 7.043 | 3.682 | 89.275 |
| Shock Mean | 46.674 | 46.674 | 46.674 | 46.674 | 46.674 | 46.674 | 46.674 |
| Group Effects | yes | yes | yes | yes | yes | yes | yes |

Notes: Each column is based on a regression of 100 times an indicator for the particular labor force status on interactions of state-level % declines in personal income per person during 1929-1933 (in absolute value) and indicator variables for demographic groups, as well as a complete set of group effects (equation (1)). We only report the coefficients from the interactions term. These coefficients are identified from cross-state variation. The sample includes linked individuals who were in the labor force in both periods. Hence, the coefficients for columns (1)-(4) add up to column (5), while columns (5)-(7) sum to one. Standard errors are clustered on state and reported in parentheses below each coefficient. Significance levels are indicated by * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$.

Table 20: Differential Effect of the Depression (Base Year: 1920)

| | A. Unemployment Duration Bins (Weeks) | | | | B. Labor Force Status | | |
|--|---------------------------------------|-------------------|-------------------|-------------------|-----------------------|---------------------|---------------------|
| | 1-49 (1) | 50-99 (2) | 100-199 (3) | 200+ (4) | Unemp. (5) | Emerg. Emp. (6) | Regular Emp. (7) |
| <i>Age in 1940 (Interactions with size of state level % decline in personal income per person)</i> | | | | | | | |
| 25-34 | 0.038 (0.078) | -0.006 (0.052) | 0.058 (0.035) | -0.035 (0.028) | 0.080 (0.135) | -0.089 (0.084) | 0.009 (0.122) |
| 35-44 | 0.003 (0.028) | -0.013 (0.016) | 0.000 (0.014) | 0.003 (0.014) | -0.016 (0.056) | -0.004 (0.029) | 0.021 (0.071) |
| 45-54 | -0.003 (0.021) | -0.009 (0.011) | 0.006 (0.012) | 0.008 (0.013) | -0.027 (0.044) | 0.011 (0.025) | 0.016 (0.048) |
| 55-64 | 0.007 (0.023) | -0.010 (0.012) | 0.010 (0.013) | 0.019 (0.016) | -0.021 (0.051) | 0.038 (0.027) | -0.017 (0.059) |
| 65+ | -0.014 (0.009) | -0.004 (0.007) | -0.005 (0.005) | 0.000 (0.007) | -0.022 (0.025) | -0.023** (0.010) | 0.044* (0.024) |
| Obs. | 711037 | 711037 | 711037 | 711037 | 711037 | 711037 | 711037 |
| LHS Mean | 4.400 | 1.628 | 1.393 | 1.398 | 7.043 | 3.682 | 89.275 |
| Shock Mean | 46.674 | 46.674 | 46.674 | 46.674 | 46.674 | 46.674 | 46.674 |
| Group Effects | yes | yes | yes | yes | yes | yes | yes |

Notes: Each column is based on a regression of 100 times an indicator for the particular labor force status on interactions of state-level % declines in personal income per person during 1929-1933 (in absolute value) and indicator variables for demographic groups, as well as a complete set of group effects (equation (1)). We only report the coefficients from the interactions term. These coefficients are identified from cross-state variation. The sample includes linked individuals who were in the labor force in both periods. Hence, the coefficients for columns (1)-(4) add up to column (5), while columns (5)-(7) sum to one. Standard errors are clustered on state and reported in parentheses below each coefficient. Significance levels are indicated by * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$.

Table 21: Differential Effect of the Depression (Base Year: 1920)

| | A. Unemployment Duration Bins (Weeks) | | | | B. Labor Force Status | | |
|---|---------------------------------------|-------------------|-------------------|-------------------|-----------------------|---------------------|---------------------|
| | 1-49 (1) | 50-99 (2) | 100-199 (3) | 200+ (4) | Unemp. (5) | Emerg. Emp. (6) | Regular Emp. (7) |
| <i>Sector in 1920 (Interactions with size of state level % decline in personal income per person)</i> | | | | | | | |
| Ag./For./Fish. | 0.011 (0.021) | -0.007 (0.012) | 0.004 (0.009) | 0.014* (0.008) | 0.019 (0.029) | -0.015 (0.030) | -0.004 (0.047) |
| Mining | 0.063 (0.043) | -0.024 (0.034) | 0.037 (0.025) | 0.095 (0.058) | -0.043 (0.102) | 0.245*** (0.069) | -0.202** (0.077) |
| Construction | 0.039 (0.046) | 0.015 (0.020) | 0.002 (0.015) | -0.007 (0.014) | 0.015 (0.061) | 0.018 (0.032) | -0.032 (0.077) |
| Manufacturing | -0.009 (0.027) | -0.002 (0.012) | 0.021* (0.012) | 0.007 (0.015) | -0.004 (0.037) | 0.006 (0.033) | -0.002 (0.057) |
| Trasp./Comm./Util. | 0.006 (0.017) | -0.008 (0.013) | 0.012 (0.012) | 0.011 (0.015) | -0.009 (0.040) | 0.028 (0.020) | -0.020 (0.044) |
| Wholesale/Retail | -0.011 (0.020) | -0.016 (0.015) | 0.015 (0.015) | -0.003 (0.013) | -0.020 (0.042) | -0.012 (0.034) | 0.032 (0.055) |
| Finance/Ins./RE | 0.036 (0.046) | 0.000 (0.033) | 0.002 (0.023) | 0.019 (0.020) | 0.013 (0.053) | -0.013 (0.050) | 0.000 (0.066) |
| Service | 0.007 (0.018) | -0.006 (0.010) | -0.008 (0.013) | 0.012 (0.019) | -0.010 (0.038) | 0.009 (0.030) | 0.001 (0.042) |
| Public Sector | -0.007 (0.017) | -0.015 (0.011) | 0.007 (0.013) | 0.016 (0.011) | -0.027 (0.041) | 0.009 (0.024) | 0.018 (0.044) |
| Obs. | 582303 | 582303 | 582303 | 582303 | 582303 | 582303 | 582303 |
| LHS Mean | 4.387 | 1.612 | 1.380 | 1.377 | 6.934 | 3.729 | 89.337 |
| Shock Mean | 46.707 | 46.707 | 46.707 | 46.707 | 46.707 | 46.707 | 46.707 |
| Group Effects | yes | yes | yes | yes | yes | yes | yes |

Notes: Each column is based on a regression of 100 times an indicator for the particular labor force status on interactions of state-level % declines in personal income per person during 1929-1933 (in absolute value) and indicator variables for demographic groups, as well as a complete set of group effects (equation (1)). We only report the coefficients from the interactions term. These coefficients are identified from cross-state variation. The sample includes linked individuals who were in the labor force in both periods. Hence, the coefficients for columns (1)-(4) add up to column (5), while columns (5)-(7) sum to one. Standard errors are clustered on state and reported in parentheses below each coefficient. Significance levels are indicated by * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$.