Immigrant Homeownership, Economic Assimilation, and Return Migration During the Age of Mass Migration to the United States

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ABSRACT: This report investigates the state of knowledge about urban non-farm home ownership by the native- and foreign-born population between 1890 and 1930. The hypothesis I entertain is that home ownership was relatively common for all non-farm residents in this era because an owned home was a good life-cycle asset. I also suggest that the life-cycle motive for saving was particularly strong for immigrants who intended to become permanent residents of the U.S. For 1900, 1910, 1920, and 1930, I rely on samples drawn from the manuscript enumeration schedules underlying those four U.S. censuses. For 1890 I reproduce data published in the U.S. Census Reports of that year. I find that the incidence of home ownership rose with age for both the foreign- and native-born families in cross-sections drawn from the census samples. Homeownership rates calculated for immigrants were surprisingly high and exceeded those for the native born by a substantial margin when corrected for city size and other coincident variables. I find little reason to be concerned that negative selection among returning migrants distorted the cross-section profiles after excluding those residing in the U.S. for only a few years. Successive cohorts of arriving immigrants do not exhibit a decline in skills. The cross-section profiles of homeownership by age in 1900 accurately predict the ownership trajectory of each birth cohort through 1920. A measure of success in achieving home ownership is the homeownership rate for seniors (say age 55 and above). I find ownership rates at older ages exceeding 45 percent and in smaller urban places reaching 60 percent of the families examined. Ownership was less common in large cities than in smaller urban places.

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... the tendencies toward acquiring their own homes exhibited by families the heads of which were of foreign birth and employed in the industries of the United States, may be taken as an indication of progress toward assimilation and of the intention to permanently settle in this country.

– U.S. Immigration Commission (1911), Report: I, 467.

There is a long-debated question in economics about how well or poorly immigrants assimilate after arrival in their host country.¹ Much of the attention has been on the experience of the last 50 years or so and the main empirical focus has been on earnings. The question typically asked is whether the earnings of recent immigrants converge to those of the native-born as years in the U.S. increase [Chiswick 1978, 1986; Borjas 1985, LaLonde and Topel 1992]. Economic historians studying immigration to the United States during the age of mass immigration (roughly 1880 to 1914²) have thinner, less rich, and less appropriate data sets available to estimate earnings convergence.³ The issue is complicated (perhaps more so in the historical past than in recent years) because the goal of successful immigration may not be

¹ Assimilation (or "acculturation," a term preferred by anthropologists) is usually thought of as a dynamic cultural phenomenon that occurs after two groups with different heritages come into contact. Close contact and communication supposedly induce the attitudes and customs of the minority group to converge to those of the dominant culture and lead eventually to "acceptance" of the minority residents as equal (even undistinguishable) members of the dominant culture [Gordon 1964: Chapter 3]. Defined in this way the term "assimilation" would carry problematic connotations for the social history of immigration to the United States if it is taken to imply the elevation of White-Anglo-Saxon-Protestant culture as an ideal or to suggest that success in assimilation should be judged by the extent to which foreign cultural patterns are extinguished. The concept of assimilation I consider in this report is measured by the success (or lack thereof) in achieving economic parity with the native-born population. I make no attempt to address cultural or linguistic assimilation. The economic assimilation of economic migrants is, to my mind, unambiguously desirable while cultural assimilation is less obviously so. America has always been a multi-cultural nation and each immigrant group has contributed some of its own cultural traits to the dominant society. A brief review of the literature on immigrant assimilation broadly defined is offered by Mary Waters and Tomás Jiménez [2005]. For an early review (now out of date) of the quantitatively-oriented historical material, see Stanley Lieberson [1980]. An up-to-date review that focuses on the work of cliometricians is provided by Timothy Hatton [2010: 949-953].

² High volume migration began around 1880 after steamships eliminated the much slower and uncomfortable sailing ships and steamship lines engaged in fare wars during economic recession of the 1870s. The outbreak of World War followed by post-war immigration restrictions brought the Age of Mass Migration to an end [Keeling 2012].

³ The historical data sets explored for this purposes are chiefly the state labor bureau surveys of industrial workers which have now been collected by the University of California Historical Labor Statistics Project [Carter, Ransom, and Sutch 1991] and the two volumes of the U.S. Commissioner of Labor's study of the cost of production [1890, 1891; Haines 2006]. Examples of studies that use the first-named sources are Joan Hannon [1982], Christopher Hanes [1996], and Timothy Hatton [1997]. Paul McGouldrick and Michael Tannen [1977] examined the survey data published by the U.S. Commissioner of Labor.

assimilation. Some immigrants only intend to be seasonal sojourners, others return to their home country in late life after making their American fortunes, and still others return, probably sooner than later, because they fared poorly in the American labor market or found cultural assimilation difficult.⁴

Researchers working with the scattered earnings data from the Age of Mass Migration have yet to reach a firm conclusion concerning economic assimilation [Hatton 1997, Minns 2000, and Abramitzky, Boustan, and Eriksson 2012].⁵ Rather than take another look at earnings convergence, this report follows a suggestion offered by the 1911 U.S. Immigration Commission (the Dillingham Commission) and uses the acquisition of a home as a measure of economic assimilation.⁶ The commission's interest in home ownership is understandable. Because of the illiquidity of real estate, ownership is unlikely to appeal to the sojourner, "those who come to this country," in the words of the Commission, "with no intention to become American citizens or even to maintain a permanent residence here, but merely to save enough, by the adoption, if necessary, of low standards of living, to return permanently to their home country"

⁴ The term "sojourner" was was introduced into the literature on immigration by Paul Siu [1954]. The sojourner is one "who spends many years of his lifetime in a foreign country without being assimilated by it. … This characterization may be applied to a whole range of foreign residents in any country to the extent that they maintain sojourner attitudes." And, Siu adds, "the intrinsic purpose of the sojourn is to do a job and do it in the shortest possible time." "The hope and dream of an economic adventurer is, of course, to make a fortune, and the length of the sojourn depends upon his success or failure in the adventure" [Siu 1954: 34-35]. The only modification to this definition that I suggest is to take note of the fact that in the American case during the era of mass immigration the sojourn might be "many months" in duration, rather than many years, although the latter characterization would apply to some, the canonical case being the Chinese laundryman famously studied in Siu's 1954 dissertation [Siu 1987].

⁵ The studies that employ surveys of industrial workers cited in footnote 3 are bedeviled by the possibility that discrimination against the foreign born artificially held immigrants (particularly those from southeastern Europe) in lower paying jobs [McGouldrick and Tannen 1977]. The studies by Minns and Abramitzky, Boustan, and Eriksson (ABE) use occupation as a proxy for earnings. Turn of the century occupations are assigned the median income of those occupations in 1950 (ABE), or 1890 (Minns), or mean income in 1900 (ABE [p. 23]). This technique ignores the distribution of earnings within an occupational category and thus obscures the increase in income made by workers who improved their skills as they gained experience on the job.

⁶ Senator William P. Dillingham (Republican, Vermont) was the chair of the joint Senate and House Commission composed of three senators, three representatives, and three members appointed by President Theodore Roosevelt. One of the presidential appointees was Cornell economist, Jeremiah Jenks. John R. Commons was a staff member. The Commission was established in 1907 and reported in 1911. The final report recommended restricting admission of unskilled laborers particularly those unaccompanied by wives or families [U.S. Immigration Commission 1911: I, pp. 47-48]. On the political history of the Commission see John Lund [1994].

[Immigration Commission 1911: I, p. 47]. Savings invested in the purchase of a home would stay in the U.S., a practice the Commission sought to encourage [p. 46].⁷

Immigrant home ownership, in the view of the Commission, was a marker of economic success, the signature of a permanent resident, and a demonstrated commitment to a specific community.⁸ On the other hand, the rental of a home or lodging need not indicate a failure of assimilation. Indeed, many native-born citizens remained renters even though they were thoroughly assimilated into the American culture and the American labor market. Insufficient funds for a down payment and imperfect access to credit barred some from ownership, particularly younger men. A reluctance to settle down for labor market reasons or a taste for wanderlust would discourage others. House prices, rents, and the current condition of the available housing stock offered for sale, might have appeared unfavorable to potential purchasers in some localities. And, as the Commission noted, in some industries the company-house system prevailed. This arrangement was particularly common in mining districts where workers were compelled to rent from mine owners who also owned the surrounding land and housing [Fishback 1992: Chapter 9].

The Age of Mass Migration was well before home ownership became an entrenched and essential ingredient of middle-class American aspirations. The inclusion of home ownership into the "American Dream" was instigated only a half-century ago by the American Association of Realtors through an extensive advertising campaign [Sutch, "American Dream," 2011]. It is probable, however, that the realtors' association simply capitalized on a pre-existing, if unnamed, aspect of the evolving American character. As the introduction to *Census of 1890* remarked "the general custom in this country is to make the first land that a person buys the place of his home" [U.S. Census 1890, volume 13, p. 19].

⁷ The combination of the willingness "to live in the most beggarly way, ... [to] spend as little for living as possible, and to carry out of the country what they can thus save" was frequently cited as an argument against free immigration in the late nineteenth century. The quotation here is from a report on "Uniform Hours of Labor" and was directed specifically at French Canadian immigrants [Massachusetts Bureau of Statistics of Labor 1881: 470]. Hostility to return migration and remittances was frequently expressed in the press and by politicians of the time, who believed (erroneously) that U.S. dollars sent or carried abroad were a drain on the American economy, even "plunder" [Shumsky 1992]. However, since the dollars ultimately returned to purchase U.S. goods and services and were dollars fairly earned, such concerns were unwarranted.

⁸ Despite their interest in the subject, the Commission's analysis of their homeownership data was flawed. They relied on a sample restricted to workers in manufacturing and mining. They failed to control for age or length of time in the U.S. and they were guided by a prejudiced desire to identify those ethnicities (labeled as "races") that were successful (and therefore "desirable") by this measure and those which were not [U.S. Immigration Commission 1911: 469].

The "Life-Cycle Transition"

It is my contention that the origin of this "general custom" favoring ownership over renting was the spread of life-cycle saving during the nineteenth century. This "Life-Cycle Transition," which began around 1830 and picked up steam after the six-year depression of 1837-1843, gradually replaced the premodern tradition of relying on large families and grown children for care and support in old age. The modern strategy which replaced the family-based system required saving during the productive phase of life to build a store of assets that could and generally would be used to finance consumption in late life [Modigliani 1966, 1986]. This change was a transition from reliance on family to self-reliance and from "babies to bank accounts" [Ransom and Sutch 1986 "Transition," 1989; Sutch 1991, Carter, Ransom, and Sutch 2004, and Sutch "Hard Work" 2011]. I suggest that immigrants, typically entering the country in their late teens or twenties and intending to become permanent residents, would had to have adopted the life-cycle strategy since they had left their family and support communities behind in Europe.⁹ To the extent that immigrants remained socially distant from native-born members of their community, reliance upon community or charitable support would seem dubious, particularly at the outset of their American life. The smaller the community of co-ethnics in town the less reliable would be support from one's own countrymen, so the propensity to self-reliant asset accumulation would be greater outside of ethnic enclaves and in smaller towns.

The connection of the life-cycle strategy to home ownership is that a home is a good life-cycle asset. In the context of the financial markets of the nineteenth century, it might well have been a life-cycle asset that dominated alternative investments. A home of one's own would smooth consumption of housing services in the face of volatile income and support consumption during retirement when the household income stream was reduced or extinguished. In this sense a home provided an annuitized stream of services. If the home was owned outright then the continued flow of housing services would not depend upon the uncertain trends in rents, the rate of return to financial assets, or the stability of banks. The home could be used to generate income if needed by accommodating boarders or roomers.

⁹ Michael Haines, working with the Commissioner of Labor data for 1889-1890 [1890, 1891], suggested that immigrants saved more on average than similarly-situated native-born Americans. A categorical variable indicating immigrant status had a positive coefficient in an equation predicting the savings rate of the working-class families in that sample. With the overall savings rate in the neighborhood of ten percent of income, the coefficient on the foreign-born indicator had a magnitude of 1.6 percent [Haines 1985].

There are other motives for saving besides old-age consumption: a precautionary motive, a bequest motive, and an entrepreneurial motive are highlighted in the theoretical literature. However, other motives for saving do not lead to home ownership as a saving vehicle. Moreover, life-cycle assets can simultaneously satisfy the other motives. Homes, for example, can serve a secondary precautionary motive for asset holding [Poterba, Venti, and Wise 2011]. A house can be sold, if necessary, to cover a financial setback. However, the relative illiquidity of real estate suggests that individuals with no lifecycle motive would prefer liquid assets (cash under the mattress) to satisfy a purely precautionary motive. Real estate can serve as the primary inheritance left to their children by parents who are following a lifecycle strategy but who also have a secondary desire to leave a bequest. However, parents without a lifecycle motive would prefer to acquire liquid assets which could more easily be transferred to children either as *inter vivos* gifts or end-of-life bequests. A home or other real property can serve as collateral for business loans. In the nineteenth century and during the first several decades of the twentieth century property ownership was essential to secure the highest credit and pecuniary strength ratings from the rating agencies [Foulke 1941: 314]. Absent a life-cycle motive, however, real estate wealth tied up in a residence would be a poor form of entrepreneurial wealth which would more productively be invested in plant, equipment, and commercial real estate.¹⁰ I suggest, then, that home ownership indicates that the primary motive for asset holding by the homeowner was to secure consumption in the later stages of life. This lie-cycle consideration does not rule out the existence of secondary motives.

The purchase of a home also represented a binding commitment to the life-cycle strategy since the relative illiquidity of real estate discouraged lapsing back to the older family-based approach. From the beginning of the Life-Cycle Transition, home ownership represented responsibility, self-reliance, geographic stability, commitment to a community, and strength of family. These characteristics of home owners help explain the importance of owner-occupied houses in late-nineteenth century portfolios and the ultimate ascendance of home ownership to its star role in the American Dream [Carter *et alia* 2006, Series Dc761-780; Collins and Margo 2011; Sutch, "American Dream," 2011].¹¹

¹⁰ The exception is farming, where ownership of the home was almost universally tied to ownership of the agricultural land. This report focuses attention upon non-farm home ownership.

¹¹ Sojourners, in contrast to permanent immigrants, typically rented rooms in boarding houses or lived with employers during their stay in the United States. But these temporary residents usually returned well before their late 50s to spend their last years in their home country.

Immigrant housing

The previous literature on home ownership among immigrants before World War I is sparse and has, in my opinion, resulted in a rather muddled picture. Much of the earlier qualitative social history emphasized the low wages received by immigrants and the inferiority of tenement housing in the immigrant districts of large cities [Thomas and Znaniecki 1918-1920, Abbott 1936]. Based on such descriptions, scholars speculated that "many [immigrants] lived in poverty or on the edge of poverty" [Reimers 2011: 355]. Implicitly, in this view, most immigrants were too poor to save and to purchase homes. At other points scholars have noted that not all immigrants were poor but then went on to emphasize the propensity of immigrants to live frugally, to save heavily, and to send remittances abroad. Implicitly, these more prosperous immigrants were willing to forego home purchases to support family members who remained behind or to purchase passage for potential brides, relatives, and friends who wished to immigrate and join them.

In seeming contradiction, social and economic historians who have focused on specific geographical locations in the U.S. rather than on immigrants' living standards have tended to report "surprising" levels of home ownership among the foreign-born. Stephan Thernstrom's study of Newburyport, Massachusetts from 1850 to 1880 reported that homes were "strikingly available to working class men who remained in Newburyport for any length of time" [Thernstrom 1964: 117]. Most of these working class men were immigrants. A study of Pittsburgh that relied on the manuscripts of the 1900 census reported higher homeownership rates for foreign-born than native-born whites. "It would appear that the foreign-born, in general, had a greater propensity to buy" [Bodnar, Simon, and Weber 1983: 155]. Michael Haines and Allen Goodman reported high rates of home ownership for immigrants in 1890 and 1900 [Haines and Goodman 1995: Figures 7.3 and 7.7, pp. 215-216].

The life-cycle perspective, I suggest, can help to clarify the situation with regard to immigrants' place of residence and resolve some of the contradictions in the historical literature. If a home is a life-cycle asset then one would expect to observe homeownership rates that increase with the age of the household head, at least up to the typical date of retirement. During the Age of Mass Migration immigrants who were head of household were on average younger than their native-born counterparts. The more recent the flow from a given country of origin, the younger was the average age. At the time of the Immigration Commission's report some countries had been sending immigrants for decades. Thus when comparing homeownership rates across nativities, as did the Immigration Commission in its 1911 report [Table 89, p. 468], the averages by country of origin would reflect differences in the mean age of

migrants as well as any differences in their life-cycle saving behavior. This mixing of nativity and average age will confound any attempt to judge the relative propensities to own a home of distinct émigré groups.

The social historians who focused on immigrant welfare typically did not have data on homeownership. Scholars who made detailed studies of a locality were able to examine manuscript census returns with information on home ownership, but, because the number of nationalities involved was circumscribed they could not shed light on possible differences across ethnic groups in the propensity to assimilate.

The fact that homeownership rates rise with age is evident when examining recent data. Figure 1 presents profiles by age for five selected cohorts born between 1936 and 1960 based on data for 1985 to 2010 [U.S. Census Bureau 2011]. Interestingly, each birth cohort traced out a trajectory as its members aged that follows the same path traversed by the earlier cohorts. Overall the homeownership rate shown rises from 37.7 percent for the 25- to 29-year-olds in 1985 (i.e. the cohort born in 1956 to 1960) to 82.4 percent for those aged 70-74 in 2010 (born 1936-1940).¹²

For the period under consideration in this report I have no data source that followed a panel of individuals and their homeownership status for many years and only limited data that allow me to follow cohorts as they age.¹³ Researchers examining life-cycle behavior in the late nineteenth and early

¹²That older group also showed a small decline from a rate of 82.8 percent recorded in 2005 to 82.4 in 2010, suggesting a slight tendency to withdraw from home ownership after age 64. Similar declines in the homeownership rate beyond 64 are evident in longitudinal data. I also find this tendency displayed in the cross-section data for the early twentieth century. Generally speaking, however, retirees rarely sell their primary residence even in advanced age, unless a drastic event such as illness or death of a spouse occurs [Venti and Wise 2004, Nakajima and Telyukova 2011]. I believe this is because the home provides a secure stream of housing services and at the same time serves as a "precautionary asset" [Poterba, Venti, and Wise 2011]. On the other hand, there is evidence that the elderly undermaintain their homes and thus remove equity value to finance consumption [Davidoff 2006].

¹³ The best practice to follow when examining how individuals (or cohorts of individuals) save and acquire assets and then ultimately dissave and liquidate assets is to observe individuals and their asset portfolios over their entire life. However, without expensive longitudinal studies that systematically follow a panel of individuals and collects data for many years, this best practice can rarely be applied. While some recent efforts are beginning to yield sufficiently large and long-spanned panels, such data is not often available for historical periods. Longitudinal data sets suitable for life-cycle analysis have only appeared in recent decades. For example the Health and Retirement Study which was begun in 1993 has surveyed a representative sample of more than 26,000 Americans over the age of 50 every two years. A good way to survey best-practice work and the progress made with longitudinal panel data as the time period covered has lengthened would be to review the sequence of contributions that have appeared in the National Bureau of Economic Research series on the economics of aging [Wise 1989, 1990, 1992, 1994, 1996, 1998a, 1998b, 2001, 2004, 2005, 2009, 2010, 2011, and 2012].

twentieth centuries have adopted a work around for the absence of longitudinal data: the "synthetic cohort" approach. Observations are assembled from historical censuses or surveys and arrayed by the age of the individual. The result is then interpreted as if this cross section traced out how an individual moved through life.¹⁴ One example of this approach from my own work is a cross section of employment rates by age in 1900. Figure 2 plots the fraction of men employed at each age in 1900. The figure makes it tempting to suggest that the majority of men began working at 18 and that from age 27 to 54 non-employment (including unemployment) was relative low. A profile much like this one led Roger Ransom and me to conclude that retirement in old age was more common at that time than had been previously thought [Ransom and Sutch 1986 "Older Americans"].¹⁵ A young man in 1900 might imagine that his probability of non-employment after age 64 either because of retirement or unemployment was significant. This perception would be a motive for life-cycle saving during his working years.

For most of the quantitative work, therefore, I take the synthetic cohort approach and rely upon cross sections by age. The cross sections are a snapshot of the population at a point in time. There are, as is well known, pitfalls to avoid when interpreting cross sections as longitudinal data [Jianakoplos, Menchik, and Irvine 1989, Hurd 1997: 931-938]. Briefly put, these include confounding cohort effects, possibly-strong period effects, cohort-specific life-time shocks, a correlation between the characteristic of interest (in my case, home ownership) and mortality, and – a particular focus of this report – the aggregation of heterogeneous groups displaying a diversity of behaviors. Bear with me. I will discuss these issues with the objective of raising confidence in my conclusions.

This report investigates the state of knowledge about urban and non-farm home ownership by nativity before World War I employing data at the family level. For 1900, 1910, 1920, and 1930 I rely on samples drawn from the manuscript enumeration schedules underlying those four U.S. censuses [Ruggles *et alia* 2010]. For 1890 I reproduce data published in the U.S. Census Reports of that year [Volumes 1

¹⁴ Demographers use the synthetic cohort approach when calculating life expectancy or total fertility rates from cross sections of age at death or mother's age at the time of birth.

¹⁵ Employment here is defined as indicating that the person reported a valid occupation to the census, thus eliminating those with non-occupational codes (variable <occ> greater than 300). The months of employment during the year is calculated as 12 months minus the number of months on reported non-employment. See Susan Carter and Richard Sutch for a discussion of this definition [1996: 32].

and 13].¹⁶ Unfortunately, the household-level data from the 1890 census was not preserved. It was destroyed as a consequence of a damaging fire in the basement of the Commerce Building in 1921 [Blake 1996, O'mahony 1991].

Home ownership in 1890

The first Federal census which explicitly inquired about home ownership was that of 1890. For illustrative purposes, it is convenient to start there. According to the published returns, approximately 48 percent of all "homes" were owner-occupied.¹⁷ A comparison of cross sections for 1890 and 2010 is presented in Figure 3 which displays the data for household heads arrayed by five-year age periods. It is not particularly surprising that homeownership rates are higher today then in 1890, but the fact that as early as 1890 home ownership was achieved by 69 percent of the household heads aged 60 and over is impressive. Real incomes, of course, were lower then. There were fewer two-earner households. And, 1890 was long before government-sponsored incentives to home-ownership and the introduction of long-term fully-annuitized mortgages.¹⁸ Before World War I the high rate of American home ownership was thanks to land abundance and the prominence of owner-operated farms. See Figure 4.¹⁹ In 1890 38 percent of households were farm homes. Farm versus non-farm differences were great, with 66 percent of farm families living in owner-occupied units contrasted to a 37-percent rate for non-farm families. Still, the ownership rate for non-farm households over 60 was 58 percent.

¹⁶ Approximations to homeownership rates can also be calculated from the response to questions about real estate ownership asked in conjunction with the federal census of 1870 [Sutch, "American Dream," 2011, Collins and Margo 2011]. The census of 1880 did not enquire about home ownership or real estate holdings.

¹⁷ A "family home" in the census definition is synonymous with a census household. The 1890 U.S. Census asked the question "Is the home you live in hired, or is it owned by the head or by a member of the family? The instructions to the enumerators included the following: "A house is not necessarily to be considered as identical with a home and to be counted only once as a home. If it is occupied as a home by one or more tenants, or by owner and one or more tenants, it is to be regarded as a home for each family." [U.S. Census 1890, Volume 13, p. 5].

¹⁸ In 1890, mortgages typically matured in five years or less and required only the payment of interest while they were outstanding. It was not uncommon, however, for the borrower to renew the mortgage several times before accumulating enough saving to fully pay the principle owed. The encumbrance was generally between one-third and one-half of the property value [Snowden 1987 and 2006: 399, Eichengreen 1984]. On the adoption and spread of the long-term fully-annuitized mortgage see Rose and Snowden [2012].

¹⁹ Home ownership was high among farmers throughout American history (leaving aside the cases of black slaves and of black sharecroppers and farm tenants). Ownership of farm land universally meant ownership of the farm operator's residence. American land abundance and her tradition of small-scale owner-operated "family farms" implied a high ownership rate. Farm tenancy was for most renters a stepping stone to eventual farm ownership as indicated by the rising rates of ownership across age groups for farmers recorded for 1890 in Figure 4.

A progressive tendency toward ownership, with the rates advancing with age, is evident in both the 1890 and the modern data displayed in Figure 3. This strong age effect suggests that saving and acquiring a home was part of a life-course plan then as well as now. Figure 5 indicates the fraction of non-farm homes that were mortgaged in 1890. The highest rate of indebtedness, 36 percent, was among non-farm household heads aged 30 to 34. The fraction of owner-occupied dwellings that had an outstanding mortgage falls off after age 34. I suggest this data indicates that many families put home ownership a priority over remaining debt free and that many of these families were ultimately successful in extinguishing the debt. For non-farm household heads 60 and over the fraction remaining in debt was only 17 percent.

I present the data available in the 1890 Census *Reports* on home ownership by non-farm immigrants in Figure 6. The homeownership rate for all immigrant household heads taken together is remarkably high, 37.4 percent. This percentage should be compared to the rate for the native-born, 40.5 percent. However, as noted, homeownership rates will be correlated with the age of the household head. Recent immigrants in 1890 would on average be younger than the natives or the older immigrant stocks. Unfortunately the homeownership rates of immigrants were not cross tabulated by age in 1890. The median age would have differed by country of origin because of the different timing of immigrant flows [Barde, Carter, and Sutch 2006: Figure Ad-D, p. 534].²⁰

Another source of cross section data on home ownership circa 1890 are two reports of the U.S. Commissioner of Labor [1890 and 1891]. This survey, directed by the eminent "father" of labor statistics, Carroll D. Wright, collected detailed data on workers who were employed in nine industries protected by the U.S. tariff. Iron ore, coke, bituminous coal, pig iron, bar iron, and steel were surveyed in 1889; glass, woolens, and cotton textiles in 1890. The data are available at the individual household level [Haines 2006]. I have drawn a subsample of 5,025 families residing outside of the South and not living in company-owned housing. Immigrants were 53 percent of the total. Overall the homeownership rates reported for the two groups were quite similar, 21 percent for natives and 23 percent for immigrants. Figure 7 displays separate cross sections by household age of homeownership rates for the native-born

²⁰ I estimate that the average age of Italian immigrants enumerated in 1890 was roughly 26 years. For those born in Great Britain the average would be 39 years. These estimates were made assuming all immigrants were age 18.5 in the year they arrived and that their mortality after arrival followed that reported in the American Standard Life Table calculated by Sheppard Homans [Clough 1946: Table 8, p. 62]. The annual flows of immigrants arriving from Great Britain and Italy are given in Susan Carter *et alia* [2006: Series Ad107 and Ad117].

and foreign-born household heads. Remarkably, the homeownership rates as smoothed by a polynomial for the foreign born overtake those for the native born at a household age of 34. However, the difference between the two representations above that age is not impressive. For further discussion of the data on homeownership by immigrants from the U.S. Commissioner of Labor survey see Michael Haines and Allen Goodman [1995].

Home ownership and immigrant status, 1900

The 1900 census collected information on homeownership, place of birth, and the year of immigration for the foreign born. The Integrated Public-Use Microdata Sample [IPUMS] of the 1900 census returns is a five-percent random sample of dwelling units. Each dwelling unit could be the home for one or more "census families," also called census households. The census family could either be a single individual or "a group of individuals who occupy jointly a dwelling place or part of a dwelling place." The members of the "family" need not be related. Boarders, lodgers, servants, and other employees were considered by the census as part of the census family if they slept in the dwelling place, regardless of their housekeeping arrangements [Ruggles *et alia* 2010: Chapters 2, "Sample Design," and 5, "Family Interrelationships"].

For my purposes I define a "life-cycle relevant family" as a financially-independent unit that potentially could engage in life-cycle planning and saving.²¹ At its core is a consanguineal family living together. I presume that these family members form a single economic unit with shared resources and non-conflicting economic goals and interests. This unity of economic interests might be by choice or be imposed by the patriarch. The immediate consanguineal family is defined to consist of a family head, his or her spouse, their unmarried and unemancipated children, and their co-residing and dependent parents, whether these relationships are by blood, marriage, or adoption. The life-cycle relevant family in some cases would also include other dependents, such as extended kin and even non-relatives. In an Appendix I provide more detail on the assumptions adopted to identify the family heads and family members.

Turning to the cross section data for 1900, Figure 8 displays the age profile of home ownership for households headed by the native born. Only non-farm families living in urban places of 2,500 or more

²¹ The importance of shifting from the census household to the financially-independent spending unit for calculating homeownership rates is emphasized by Donald Haurin and Stuart Rosenthal [2007].

in population are included in the data used to generate the graph. The figure displays the homeownership rate for each value of the "household age" between 18 and 79. Household age is defined to be the age of the family head or the age of his wife if his wife is younger than he. My logic is that when a couple is engaged in life-cycle planning for old age, the age of the youngest member of the pair is relevant to determining the target wealth required on the date of the husband's retirement. The younger the wife, the longer would be her expected life remaining at the time of her husband's retirement.²² The data are smoothed by fitting a polynomial to the data (N=298,126) using a fractional polynomial probit regression.²³ As expected, homeownership rates rise with age reflecting the prevalence of life-cycle saving and asset accumulation by the native urban population.

Figure 9 displays the comparable homeownership profile for foreign-born family heads. Only those who immigrated as adults (aged 15 or over) are included. Those who immigrated as children, presumably with their parents, are likely to experience higher rates of assimilation due to higher fluency in English and education in U.S. schools [Friedberg 1992: 4-5].²⁴ As before, the smoothed curve is a fractional polynomial estimated with a probit regression (N=129,458). The native-born population includes those born in the territories of the United States. The most numerous nationalities of origin were Canada and Italy, with each accounting for 16 percent of the foreign-born family heads, Austria-Hungary, 13 percent, and Ireland, 11 percent.

²² In the nineteenth century few married women with husband present worked in the labor market. Among urban non-farm families the rate of employment for native-born married women was 4.9 percent in 1900. For the foreign born the rate was 3.1 percent. Typically men married women younger than themselves. In 1900 only 12.9 had married an older woman. The average age gap between husband and wife was 4.0 years. The cross section from the 1889-1890 Commissioner of labor survey presented in Figure 7 also used household age.

²³The STATA statistical package that I employed contains the <fracpoly> command written by Patrick Royston. Similar results are produced using the locally weighted scatterplot smoothing routine <lowess> also in STATA.

²⁴ Most states outside of the South had compulsory schooling laws in place in 1900 (Iowa was the only exception) [Information Please Database 2008]. Given the year each state of residence passed its compulsory schooling law, the age of each immigrant at arrival, and his or her year of immigration, and assuming that compulsory education was required at least through age 11, I calculate that 40 percent of the foreign-born urban non-farm family heads who arrived in the U.S. under the age of 15 were compelled to attend some school by these schooling laws. Robert Margo and Aldrich Finegan offer evidence that compulsion significantly increased attendance rates in 1900 [1996]. A recent paper confirms this conclusion for native-born children [Clay, Longwall, and Stephens 2012]. Many children of immigrants attended school voluntarily even though they were not legally required to do so. Ninety-eight percent spoke English in 1900. For those who arrived as adults (age 15 or older) English fluency was 88.3 percent.

On the same graph I present the polynomial-smoothed age profile for the data set that only includes those immigrants who had resided in the U.S. for six years or more. This adjustment removes 13.8 percent of the foreign-born families. Some of these recent arrivals were temporary migrants who intended to return after a few seasons. My intention is to examine the success in achieving home ownership by those who arrived intending to be permanent residents of the United States. Of course, many of those excluded by this arbitrary rule would actually become permanent residents. However, this overly-generous exclusion rule is intended to purge the data of almost every person likely to depart the country in the years following the census of 1900. What is perhaps surprising about Figure 9 is that the removal of this group of recent arrivals produces only a small upward shift in the homeownership profile. The explanation has two parts. First, the fraction removed falls rapidly with age and is inconsequential at household ages above 35. Second, at the younger ages few immigrants (and few natives) had actually achieved homeownership.

Figure 10 places the two smoothed profiles on the same graph, one for the native born and one for immigrants purged of the recent young-adult arrivals. The ownership rate profile for the foreign born lies everywhere above that for the natives, but the two curves are virtually identical at the higher ages. Immigrant and native urban non-farm families with a household age 55 and over reported ownership rates of 44.6 and 43.3 percent respectively. A surprising proportion of immigrants were successful in achieving home ownership by that age. By this marker of assimilation the foreign born had achieved the American norm after six years of residence. They had become "American."

The transition to ownership

Figure 11 displays the homeownership rate for the foreign households by length of residence in the country. Only those who immigrated as adults are included. The chart shows a slow but steady rise in the overall home owning rate. The figure also provides a hint at how ownership early in the family's life was achieved. At first the household borrowed to finance the purchase and then over time saved to pay off the mortgage.

I am inclined to be cautious, however, when interpreting the cross sections by number of years of residence. Ran Abramitzky, Leah Platt Boustan, and Katherine Eriksson in a recent paper contrasted cross-sections of the occupational status of immigrants by the number of "U.S. years" with results from a panel

study that followed immigrants over time.²⁵ Occupations were scaled by the median earnings of each occupation in 1950.²⁶ They report that the cross-sectional patterns observed were distorted by "declines over time in arrival cohort quality and the departure of negatively-selected return migrants" [Abramitzky, Boustan, and Eriksson 2012: 3]. If we ignore the observations in Figure 11 for the years in the U.S. from zero to six, the return migrants will be largely eliminated. But the possibility of declining immigrant "quality" remains.²⁷ There is a strong upward slope in the homeownership rate in Figure 11 even after six years in the U.S. and continuing through much longer durations. Most immigrants arrived as young adults, age 18-22 (see Figure 12), so there is a high correlation between U.S. years and age. The question then is whether the upward slope in Figure 11 is exaggerated by confounding cohort aptitude with the consequence of life-cycle accumulation.²⁸

The characteristics of the arriving immigrant stock were the central issue addressed by Dillingham's Immigration Commission [1911: Volume 1, pp. 23-24]. The Commission famously contrasted the "old immigration," those coming from the United Kingdom, Germany, Scandinavia, the Netherlands, Belgium, France, and Switzerland, with the "new immigration" from other countries in Europe chiefly Austria-Hungary, Italy, and Russia. Despite the growing predominance of new immigrants shown in Figure 13, there was no increase in the proportion of immigrants who reported farming or laboring occupations at the time of arrival. Figure 14 reports that this proportion of "unskilled" remained relatively stable at approximately 60 percent from 1840 through 1900.²⁹ Indeed,

²⁵ Abramitzky, Boustan, and Eriksson examine a panel of foreign-born men with "uncommon names" who they have linked across the 1900, 1910, and 1920 censuses. They included only men who had arrived in the U.S. before 1900 and were aged 18 to 35 in 1900. Their match rate was 8.9 percent [2012: 2-3 and Table 1].

²⁶ Although Abramitzky, Boustan, and Eriksson minimize the problem associated with using 1950 occupational income scores, it is worth noting that the economy of 1950 was very different than that of 1900 [Sobek 1996 and 1997].

²⁷ The term "quality" is unfortunate. Presumably this adjective is meant to indicate the skills the immigrant brought to America and the relevance of those skills to the occupation taken up in their new residence. Many immigrants were farmers or unskilled laborers in their home country, but found employment in the industrial sector in the United States. The term might also indicate the presence of such character traits as ambition, resourcefulness, and entrepreneurial ability.

²⁸ The coincidence of the home ownership-age profiles of native- and foreign-born family heads in Figure 10 suggests that differences in cohort aptitude are unlikely to be much of a problem. The native born, presumably, did not experience deterioration in innate ability over time.

²⁹ Private household workers (servants) are excluded from this definition of unskilled since most of those who reported this old-world occupation were women [Carter *et alia* 2006: Series Ad239].

this proportion was higher before the Civil War than after. This measure of immigrant aptitude suggests that there is little reason to worry about a distortion due to declining skills of successive cohorts of immigrants.³⁰

This result may seem surprising. There is a common presumption that the human capital possessed on arrival by successive waves of immigrants deteriorated over the time spanned by the Age of Mass Migration. Actually, however, there are few quantitative measures of these skills and they suggest otherwise. In addition to the home-country occupations reported upon arrival displayed in Figure 14, proficiency in English is probably of some importance. Immigrants from English-speaking countries of Europe (Great Britain and Ireland) fell from over 50 percent around 1870 to 16 percent of European immigrants just before 1900 Census. On arrival only 23 percent of immigrants from non-English speaking countries could speak English. A lack of fluency would no doubt initially circumscribe both occupational and residential opportunities. However, immigrants from the non-English speaking countries rapidly mastered the English language. After six years in the U.S., 90 percent could speak English. The immigration authorities did not collect information on literacy before 1899, so we have no evidence on the trend in the ability to read or write in any language before that date.

Another point to keep in mind when considering the relevance of the Abramitzky, Boustan, and Eriksson result to the present investigation is that homeownership is a different indicator of assimilation than occupational attainment. The life-cycle strategy is available for families with high and low incomes alike. The poor save out of their lower incomes and eventually purchase a modest home. Once the relatively poor become homeowners, they may be described as "wealthy hand-to-mouth households," liquidity constrained but with substantial assets tied up in their illiquid real estate holdings.³¹ According to Abramitzky, Boustan, and Eriksson the earning scores of immigrants viewed in a cross section rise as years in the U.S. increase, but that observation more likely reflects a longitudinal rise in the hierarchy of occupations than the superiority of old immigrant cohorts over new. Figure 15 displays the years of

 $^{^{30}}$ Essentially the same observation and conclusion was made by Paul Douglas [1919]. "Is it not accurate to state that the new immigration is approximately as skilled as the old?" [p. 64]. Timothy Hatton examined average wage data by industry and ethnicity reported by the Dillingham Commission and concluded that "immigrant 'quality' in terms of earnings did decline due to shifting composition but these effects are very small ... In this perspective, the rhetoric about, and the ultimate result of, the perceived decline in immigrant "quality" in the forty years before World War I seems out of all proportion to the magnitude of the observed effects." [2000: 509, 524].

³¹ The "wealthy hand-to-mouth household" is a category identified and so labeled by Greg Kaplan and Giovanni Violante [2012].

residence for the 25th, 50th, and 75th percentiles of the occupational income score for immigrant families.³² After six years in the United States the plots displaying the 25th percentile and the median are essentially flat, suggesting that it was difficult to move to a higher-scoring occupation from those positions. However, the 75th percentile shows a rise as years in America increase. This pattern would not be expected if older cohorts were uniformly superior to younger ones across the board.

Another way to assure that cohort effects are not distorting the years-in-residence profiles is to examine successive cross sections of homeownership by age taken at different census dates. A 28-year old immigrant in 1900 would be 38-years old at the next census in 1910. Any change in homeownership rate for that particular cohort would reflect the gains made by individuals born around 1872. The question is whether the 1900 cross section of homeownership rates by age predicts the trajectory that the birth cohort of 1872 will follow over the next twenty years. Figure 16 illustrates that it does so extremely well. The 1900 cross sectional profile is the jagged black line. It reports the ownership rate for male immigrants who had resided in the U.S. for six years or more by single years of age.³³ The blue line at the 1900 cross section for 28-year olds. The 1910 homeownership rate for 38-year olds is calculated only for foreign-born males who had resided in the U.S. for at least ten years. Similarly the point for 1920 on the blue line is the homeownership rate for 48-year olds who had resided in the U.S for at least 20 years.³⁴ The green line follows the birth cohort of 1863 (37 in 1900). The red line at the right follows the cohort born in 1851 from age 49 to 69.

There is an alternative way to look at the same data. In Figure 17 I have plotted the smoothed ownership profiles from 1900, 1910, 1920, and 1930 on top of each other. The rates for 1910 and 1920 are virtually identical for the range of ages where they overlap (age 40 to 80), but are slightly higher than those for 1900. Still, the 1900 profile does a pretty good job of predicting the ownership curves for 1910 and 1920. However, the profile based on the 1930 census shows a greater success in achieving

³² The occupational income score indicates in units of 100 dollars, the median income of each occupation in 1950. Thus a score of 20 indicates an annual income of \$2,000 in 1950 dollars.

³³ I examine all males (not just urban residents and not just family heads) because I need to follow a closed population through successive censuses. Since a man's place of residence and family status can change, a more restricted 1900 population would not be closed.

³⁴ The restriction of the populations in 1910 and 1920 to those who had immigrated before 1901 effectively eliminates most temporary immigrants.

homeownership across the spectrum of ages than would be predicted by the earlier cross sections. I attribute the more rapid pace of acquisition of homes in the 1920s to the housing boom of that decade financed with increasingly-available and affordable mortgages [Grebler, Blank and Winnick 1956: Chart 3, p. 39, and Table L-1, pp. 443-444; White 2009; Brocker and Hanes 2011; and Rose and Snowden 2012].

City size and homeownership

Perhaps an increased demand for home ownership in the 1920s reflects the beginnings of suburbanization initiated in turn by the explosion of automobile sales in that decade [Carter et alia 2006: Series Cd53 and Cd128]. Suburbanization is important because homeownership is lower in large cities, where high land prices and multi-storied tenements were common, than in smaller cities and towns. In fact there was a strong negative correlation between city size and homeownership rates in 1900 for both foreign-born and native families. Figure 18 plots the data. In the top panel the descending stair case at the left displays the average ownership rate for several size classes of cities for families whose household age is 55 or older and whose head had resided in the U.S. for two years or more. By concentrating attention on this older cohort, I capture homeownership near the end of the life-cycle accumulation phase and restrict attention to immigrants who were most likely to be permanent residents in the United States. Note that the horizontal axis is a logarithmic scale. Surprisingly, across the range of city size older immigrant families exhibited substantially higher propensity to own homes then their native-born counterparts.³⁵ The difference (excluding New York) is estimated at 10.8 percentage points!³⁶ New York, the largest city in 1900 and the port of entry for most new arrivals at the time, is an exception.³⁷ In that city the homeownership rates of natives exceeded that of the immigrants, 23.8 percent versus 19.2 percent. New York City was also the home of some of the wealthiest people in the country, almost all of them native

³⁵The near equality of ownership rates for the two groups illustrated in Figure 10 hides this fact since immigrants were more likely to reside in large cities where house prices were high.

 $^{^{36}}$ The estimate is based on a probit regression with homeownership (zero or one) as the dependent variable and the log of the city population, household age and higher orders of age, and categorical (dummy) variables indicating whether the head is married, able to speak English, and is foreign born as independent variables. Only urban families – excepting those in New York City – whose head was age 55 or older were included (N=51,789). If New York is included the estimated difference is 9.5 percentage points.

³⁷ New York City was consolidated in 1898 joining all five Boroughs and abolishing the five existing county governments.

born. The bottom panel repeats the exercise for families with a household age of 35 or older. This graph includes families during their prime accumulation phase of the life cycle.

I can conclude that immigrants were generally more successful at achieving home ownership than their native-born urban neighbors. Upon reflection, this result should not surprise. Immigration selects for the ambitious and hard working. Immigrants were reported to be heavy savers with an unusually strong demand for real estate. With only the census returns to inform us it is not possible to determine whether this desire to become home owners was due to the landless status of their forbearers in Europe [Reimers 2011: 366; Bodnar, Simon, and Weber 1983: 153], their desire for status and a voice in their chosen community [Abbott and associates 1936: 379-382, Thomas and Znaniecki 1918-1920: 162, Luria 1976, Simon 1976: 448, Kirk and Kirk 1981], their employer's preference for workers who were settled and less likely to quit [Fitch 1910: 193], or – as I believe – the importance of acquiring a life-cycle stock of wealth because of an inability to rely upon distant family members, the larger community, or co-ethnic neighbors for protection in old age. Probably a mix of such motives weighed more heavily on immigrants than natives.

Ethnic differences in the propensity to acquire homes

Ethnic histories of immigrants uniformly report that the desire for home ownership was strong in each immigrant stock examined [Kirk and Kirk 1981: 472 {citing Williams 1938: 6, 46; Nelli 1970: 34; Woods and Kennedy 1969: 39, 132; Byington 1910: 155-156, Conzen 1976: 79-80; Sutherland 1973: 196; Bodnar 1976: 49-50; Addams 1910: 243; and Barton 1975: 101-104}]. The census data confirms these reports. I take the homeownership rate of urban non-farm family households aged 55 and older as an indication of the late-life success in acquiring life-cycle assets. Figure 19 displays the success rates for the most prominent countries of origin (all those with over 100 observations from urban areas outside of New York City). As in 1890, there were noticeable differences. Russia, Italy, and French Canada recorded lower success rates than the other countries of origin.³⁸

The majority of Russians in this era were Jews. Their migration after 1881 might be better characterized as a "refugee movement" than the consequence of a voluntary self-selection [Chiswick

³⁸ The Chinese reported almost no home ownership, but this was during the era of Chinese exclusion. Most Chinese were single men (or married with their family remaining in China) who intended to return. They were excluded by law or discrimination from many occupations. They could not naturalize. See Erica Lee [2003, 2006] and Susan Carter [2011, 2012] for discussions of the Chinese experience in America during the Exclusion Era.

1991].³⁹ Many central and eastern European Jews took up the occupation of itinerate peddler in rural America [Diner 2012, Chiswick 1999, Pollak1982].⁴⁰ Itinerates would be less likely to have a permanent home of their own. Jews also faced discrimination when considering home purchases. This anti-Semitism was enforced by restrictive covenants in house deeds and the reluctance of mortgage lenders to finance the purchase [Levy 2005, Pietila 2010]. French Canadians were more likely than others to think of themselves as temporary residents in the United States and their proximity to Quebec made the prospect of return seem salient [Bélanger and Bélanger 2000]. The Italians are a unique case that I discuss below.

The chart indicates with blue bars the homeownership rates achieved for urban families outside of New York City and with red bars for all cities. Russians and Italians were disproportionately residents of that city with its low incidence of home ownership.⁴¹ However, the differences among the ethnic groups evident in Figure 19 are not the consequence of different geographical dispersion patterns such as the possible tendency of one émigré group favoring large cities and another smaller towns and cities. Figure 20 contrasts, for example, the homeownership rates of German and Italian families over the age of 35 and resident for 2 years or more. The gap between them is evident at all classes of city size.

Italian Exceptionalism

While migrants from many nations no doubt dreamed of riches and eventual return, those dreams often faded in the face of the realities of American life, the distances involved, and the lack of continuing communication [Thomas and Znaniecki 1918-1920]. The rapidity by which many immigrants acquired homes suggests that such dreams were probably short lived. As mentioned however, the Italians may be an anomalous case. Not only did Italians have lower homeownership rates even when measured late in life or after long periods of American residence, Italians reportedly had an unusually high proportion of semi-annual sojourners among arrivals. Temporary members of the Italian American communities could transmit news in both directions helping to sustain ties with former neighbors and relations in Italy.

³⁹ Simon Kuznets estimated that two thirds of the Russian immigrants to the U.S. between 1880 and 1899 were Jews [1975: Table 2, p.43].

⁴⁰ David Gerber in a study of mid-nineteenth century Buffalo, New York, suggested that Jewish businessmen were less likely to own real estate than Germans because they preferred to invest their saving in expanding their businesses. He further conjectured that the Jewish entrepreneurs "lacked deep roots in Buffalo … many had come to the city with complex American business histories, including prior failures and insolvencies, and some continued to have commercial ties elsewhere, which regularly took them away for extended periods of time … [Gerber 1982: 628-629].

⁴¹ The unique case of Manhattan and the experience of Italian and Russian immigrants are discussed at length by Thomas Kessner [1977].

Moreover, Italians seem to exhibit a greater tendency to engage in a transnational life style, following Italian politics [Cusumano 1921: 150]; consuming imported food products from Italy or purchasing "tipo Italiano," Italian-style goods manufactured in the U.S. [Zanoni 2012]; and returning to Italy for visits periodically. The Italian Commissariato Generale dell' Emigrazione writing in 1907 reported that

> Transoceanic emigration is ... assuming an increasingly temporary character. ... Even emigrants to America can return to Italy to see their families and their native land for two or three years, and then leave again to take part in new work. Actual currents of periodic emigration are [also] being formed ... Southern peasants, as well as workers from the Piedmont, the Veneto and other regions of Italy ... emigrate about March or April to the United States to do outside construction work, and then they return to Italy at the beginning of the winter season [quotation reproduced from Bodnar, Simon, and Weber 1983: 46 and 53, translation by Betty Boyd Caroli].

The U.S. Immigration Commission reported Italian statistics to suggest that the return rate for the period 1899 through 1907 was 46 percent for native Italians. The Commission's tabulation of U.S. data for the fiscal years 1908-1910 estimated the return rate to Italy to have been 63 percent for North Italians and 56 percent for South Italians. For the fiscal year 1908 Italians accounted for 43.9 percent of all departing aliens. Young males predominated in this return migration suggesting that many were temporary sojourners. At the same time, the Commission also reported that approximately 12 percent of all European immigrants admitted between 1899 to 1906 had been in the United States previously [U.S. Immigration Commission 1911: Volume I, p. 184, and Tables 14 and 16, pp. 180 and 182].⁴²

Transnational communities in the United States are now common [Portes, Guarnizo, Landolt 1999; Levitt, DeWind, Vertovec, editors 2003], but the Italian Americans seemed to have been in the vanguard [Gabaccia 2000: Chapter 4]. The sociologist W. I. Thomas, an early specialist in immigrant assimilation and the primary author of *Old World Traits Transported*, noted in 1921:

Among the more important immigrant groups the Italians show perhaps the strongest *wish* to remain in solitary communities. They settle here by villages and even by streets, neighbors in Italy to become neighbors here [Thomas (with Park and Miller) 1921: 146, emphasis in the original].⁴³

⁴² On return migration in general and for a discussion of the reliability of the U.S. statistics see Drew Keeling [2010].

⁴³ W. I. Thomas is primarily remembered for his five-volume work with Florian Znanieki on the migration of the Polish peasant [1918-1920] and for the formulation (with his research assistant and future wife, Dorothy Swain Thomas) of the concept of a self-fulfilling prophesy known to sociologists as the "Thomas theorem" [Bogardus 1949, Volkart 1951, Smith 1995]. He was the author of *Old World Traits Transplanted* quoted here, but the 1921

Figure 21 reproduces a map from Thomas' book documenting the concentration of Italian residents from different provinces and several towns in Sicily along Elizabeth Street in lower Manhattan [Thomas 1921: Map 3, facing page 146; also see Gabaccia 1984: Map 5-2, p. 73].

Gaspare Cusumano undertook a detailed study of one such "colony" of Italian Americans centered at East Sixty-ninth Street and Avenue A in New York City. This group had come from the village of Cinisi, Sicily. A few extracts from his report illustrate the strong provincialism he found and the near-universal desire to return.

> The colony is held together by the force of custom. People do exactly as they did in Cinisi. If someone varies, he or she will be criticized. If many vary – then that will become the custom. ... So strong is this influence that people hesitate to wear anything except what was customary in Cinisi. ... Most of the Cinisari in the Sixty-ninth Street group intend to return to Sicily. The town of Cinisi is forever in their minds ... They receive mail keeping them informed as to the most minute details, and about all the gossip that goes on in Cinisi in addition; they keep the home town informed as to what is going on here. ... The reputation given them in Cinisi by report from here means much to them, because they expect to return. Whole families have the date fixed [Cusumano 1921: 147-151].

W. I. Thomas comments "the Sicilian heritages are so different from the American that the members of this group feel no original interest in participating in American life" [Thomas 1921: 158].

If these "old world traits" were frequently transported to the United States by Italian immigrants (or Italians from the South of Italy, or Sicilians) then the low rates of home ownership recorded by the census takers for those born in Italy become more understandable. Interestingly, Cusumano noted that "those who express openly their intention of remaining here are the young Americanized men" [Cusumano 1921: 151]. Figure 22 illustrates the resistance of Italian-raised Italians to home ownership by contrasting the homeownership rates of Italians and Germans arrayed by the age at which the head of

edition did not carry his name. He was a controversial professor at the University of Chicago, controversial for his views and his life style. In 1918 he was arrested by the Federal Bureau of Investigation, purportedly acting in an attempt to intimidate his first wife on account of her pacifist activities. The FBI alleged that he was caught "transporting a female [across a State line] for immoral purposes." The case was dismissed by the court. Yet, in what has come to be viewed as of the more "shameful" chapters in the history of the University, the president of the University of Chicago, Henry Pratt Judson, supported by the trustees, dismissed Thomas. The chair of his department and his faculty colleagues made no protest. The University's Press which had published the first two volumes of *The Polish Peasant* terminated his contract and the remaining three volumes were published elsewhere. The Carnegie Corporation of New York had previously commissioned Thomas to write *Old Word Traits*. The Corporation, however, refused to publish it with the author's name. Thus the book appeared in 1921 with Robert E. Park and Herbert A. Miller identified as the authors, although they apparently had contributed only in a minor way to the research [Volkart 1951: 259].

the family arrived in America. Those Italians who arrived as children or young men were more likely to have been "Americanized." And, indeed, that group reported much higher ownership rates than those who arrived as mature adults, while the German Americans show only a slight age-at-arrival effect.

One common way for immigrants to finance the purchase of a home was to obtain a mortgage informally by borrowing from a friend in their ethnic community. The tight Italian American communities described by Thomas and Cusumano potentially provided such opportunities to the "young Americanized men" who sought a permanent residence in their adopted country. Cusumano, however, reported that:

To be financially low is looked down upon, and the *Giornale di Sicilia* warns people to look out for such and such a person, as he may ask for a loan. To be willing to lend means that one has accumulated money and thus the secret of the lender is out. So this is the reason they refuse to lend to one another [Cusumano 1921: 149].

It is not obvious how much weight that this reported reluctance to lend should be assigned in an explanation for the gap between Germans and Italians who arrived as children. Building and Loan Associations were ubiquitous in the period preceding the 1900 census [Snowden 1997]. Many of these were organized to serve a small local community or neighborhood and often these organizations were explicitly designed to serve a specific immigrant community. Italian building and loans were present in all the major cities and many smaller ones as well [U.S. Commissioner of Labor 1893]. I should note, however, that both the reluctance to lend and the strong desire to return are cultural traits that speak to the Italian resistance to assimilation.⁴⁴

Multivariate analysis

It is sometimes helpful to consider multiple influences on behavior simultaneously. I do this in a multiple regression context. Table 1 presents results for a series of probit regressions using data from 1900.⁴⁵

⁴⁴ As an alternative to the sociologists' view of Sicilian resistance to acculturation, the historian Mark Choate explains the Italians' close connection to their homeland as a consequence of a deliberate policy of the Italian government to tie Italians in America to their home culture. The government encouraged loyalty to Italy, attempted to bind Italian Americans together, and supported return migration. The policy fostered Italian identity through Italian-language schools and newspapers (*Il Progresso Italo-Americano* in New York City), the Catholic Church, Italian Chambers of Commerce, the Dante Alighieri Society, and banks to handle emigrant remittances [Choate 2008, Zanoni 2012]. I find it doubtful that such a campaign could be the most important part of the explanation for Italian exceptionalism. Why should such efforts continue to hold sway for a family that has resided in America for 20 years? For 40 years?

⁴⁵ The results for 1910 and 1920 are similar.

These equations predict the probability that each family resides in a home it owns. The top panel (Panel A) employs a sample consisting of all urban non-farm families with a household age of 18 or greater. Families headed by a foreign-born individual are excluded if the head has been in the country for less than four years. The discrete independent variables included are indicators for whether the family head is married with spouse present, is female, and whether he or she speaks English. The place of birth is indicated in two variants. In equations 1 through 4 a variable indicates if the family head is foreign born. In equations 5, 6, and 7 the dichotomous foreign-born indicator is replaced by a set of 12 country-of-birth indicators. The places of birth are those portrayed in Figure 23. The lower panel repeats the battery of correlations for a sample that includes only those with a household age of 55 or greater. These results are provided to indicate the predominance of home ownership near the end of the households' life-cycle saving phase. All variables are economically and statistically significant. The coefficients (including those of the control variables other than the number of children) are stable across the several specifications. Particularly noteworthy is the result evident with both samples that impact of being foreign born is positive. Apparently immigrants were more successful at becoming home owners than natives. At age 55 and above the immigrant households had homeownership rates 8.7 to 9.8 percentage points higher than their American-born neighbors controlling for household age and city size (and other variables). The ability to speak English is taken to be an indicator of a desire to become a permanent resident. Marriage was a strong inducement to ultimately become a home owner.

Progress in achieving home ownership between 1900 and 1910

To display the advances in home ownership made by immigrants between 1900 and 1910 I calculated the *rate* of net flow from the status of non-homeowner to owner by adapting the intercensal cohort-component method of measuring flows, also known as the census survival method.⁴⁶ As an illustration of the technique, consider the number of foreign-born males, say, 28 years of age in 1900 who did not report owning a home. Ten years later these individuals, if still alive and resident in the county, would be 38-years old. The actual number of 38-year old non-home-owners meeting this description in 1910 however, will, in general, be different. Different because some 28-year olds in 1900 would have died and some would have moved abroad in the intervening decade. I subtract out an estimate of the net losses from the

⁴⁶ See United Nations [2002], and Shyrock, Siegel, and associates [1976: 357-358] for a description of the technique. The census rate of survival procedure was first introduced by Hamilton [1934, 1944]. Carter and Sutch [1996] give an example used to estimate the flows into and out of employment. Sutch [1975:199-210] gives an example of the method used to estimate geographical net migration. Sutch's appendix provides a detailed description of the procedure and discusses the accuracy and sensitivity of the method.

1900 homeowners due to death or return migration abroad to reach an estimate of the hypothetical number of non-home-owners to be found in 1910 had there been no net flow into or out of ownership during the intercensal period. The difference between this hypothetical expected number and the actual number reported in 1910 is an estimate of the number who became home owners.

To estimate the mortality and net migration rate I calculate a "survival rate" for each age cohort of foreign-born males.⁴⁷ The rate is defined as the number of foreign-born males of age X in 1910 less those who resided in the U.S. for less than ten years, with the result then divided by the number of foreign-born males of age X-10 in 1900. The survival rates are plotted in Figure 24. Of course, no true survival rate defined this way could exceed one and it is unlikely that the 1910 30-year-olds were markedly more robust than their 29- and 31-year old colleagues. These distortions reflect the under numeration of young adults in 1900 (the 28- and 30-year olds in 1910 were 18 and 20 in 1900) and age heaping in the census reports. To the extent that the degree of under enumeration and age heaping at each age is uniform across the two states (home owner and renter) under study, however, use of the census survival ratios will automatically correct for this bias. The use of life tables would introduce serious errors [Price 1950; Sutch 1975]. Note that for this purpose migration abroad is equivalent to death.

With the estimate of the net increase in the number of homeowners, it is easy to obtain the annual rate of net flow into ownership. Figure 25 displays these rates.⁴⁸ We have centered the rates midway between the age of a cohort at the beginning and its age at the end of the decade. These rates indicate the annual rate at which the non-homeowners became owners. The age at which net flows are zero (at the average age of 67) represents the age at which the number obtaining a home exactly equals the number leaving homeownership. Negative values of the rate represent net flows out of ownership. We have expressed these negative flows as a percentage of the number owning homes. At advanced ages some families either chose or were forced by infirmity or poor health to leave the home they owned and live elsewhere. This alternative residence is likely to be in the home of their grown children.

⁴⁷ The 1900 IPUMS is a five-percent representative sample of the enumerated population. The 1910 IPUMS is a one-percent representative sample.

⁴⁸ The average annualized rate is computed as $[(1 + m)^{0.1} - 1]*100$, where m is the difference between the actual and expected number of homeowners at a given age divided by the appropriate base value.

Child labor

One of the observations frequently made in the literature is that immigrants were so eager to save and to purchase homes that they deviated from American norms to live at a low standard of living and to put their children to work at very young ages [Immigration Commission 1911: I, p. 47, Modell 1978: 238-239, Haines 1985]. Stephan Thernstrom focusing on the period before mass immigration (1850-1880) asserted that:

The ordinary workman of nineteenth century Newburyport could rarely build up a savings account and purchase a home without making severe sacrifices. To cut family consumption expenditures to the bone was one such sacrifice. To withdraw the children from school and to put them to work at the age of ten to twelve was another. ... This pattern was particularly characteristic of Irish working class families in Newburyport [Thernstrom 1964: 155].

Child labor was more common in 1880 than in 1900 [Carter and Sutch 1996: 16-17, Weiss 1999, Carter *et alia* 2006: Series Ba32 and Ba71], but the study of Irish immigrants by John Modell employed the Commissioner of Labor data from 1889 [1978: Table 6-18, p. 235]. The 1900 census data can shed some light on the claim that immigrants were likely to put very young children to work. Figure 26 presents the employment rate for white children of native-born parents, native-born children of foreign-born parents, and foreign born children.⁴⁹ The census did not collect occupation or employment information from children under ten so the bar charts in Figure 26 begin with that age. Most compulsory schooling laws in force at the turn of the century specified age 14 as the age when children could leave school [Margo and Finegan 1996].

When I compare the American-born children of immigrant parents with the children of nativeborn whites, I find that the native-born with native parents have higher employment rates than the children of immigrants for ages 10 to 12. The two rates for 13-year old boys are virtually identical. For the age group 10 to 13 white native parents have 5.7 percent of their boys employed, while foreign parents have only 3.6 percent of their American-born boys at work. For the daughters the corresponding percentages are 2.2 and 1.9. If I consider all children under the school-leaving age of 14 with one or two foreign parents the employment rate for boys is 4.0 and 1.9 percent for girls. Yet, these rates are relatively low and do not suggest that child labor under the age of 14 was a significant issue for the immigrant population.

⁴⁹ Only unmarried children living in a non-farm household are included. The employment rate is calculated as described in footnote 15.

If one is concerned that some parents were taking their children out of school to put them to work there is more reason to be concerned about black children than about the children of immigrants. Native black males under 14 had an employment rate of 21.1 percent. Black females had a rate of 12.1. The children of immigrants under 14 (whether American born or not) had employment rates of 4.3 and 2.3 percent respectively.

While there were differences in the incidence of child labor by the ethnicity of the child's father, none of the major immigrant groups reported a higher incidence of employment for children 10 to 13 than the white children of native parents. Table 2 presents the data for boys. Contrary to the situation reported by Thurnstrom for Newburyport, the Irish do not standout nationally.

Conclusions

I conclude that home ownership was relatively common for all non-farm residents in the age of mass migration because an owned home was a good life-cycle asset. I also suggest that the life-cycle motive for saving was particularly strong for immigrants who intended to become permanent residents of the U.S. The incidence of home ownership rose with age for both the foreign- and native-born families in cross-sections drawn from the census samples of 1900, 1910, 1920, and 1930. Homeownership rates calculated for immigrants equaled or exceeded those for the native born except at the youngest ages. I found little reason to be concerned that negative selection among returning migrants or declining skill levels with successive waves of immigrants distorted the cross-section profiles. I propose that success in achieving home ownership by age 55 is a marker of economic assimilation. I report ownership rates at older ages for both the foreign born and native born that exceeded 45 percent and reached 60 percent in smaller urban places. Ownership was less common in large cities than in smaller urban places. Homeownership rates calculated for immigrants were surprisingly high and exceeded those for the native born by a substantial margin when corrected for city size and other coincident variables. By the time they had reached retirement age, most immigrants had become "American."

Appendix: Defining the life-cycle relevant family

I assume that all census-defined household heads of either sex are life-cycle relevant family heads. Using variables available in the IPUMS data set, I also identify life-cycle relevant family heads living within another census household by making several assumptions. In doing so I faced the difficult issue of what should be considered the age of emancipation, since some single, but grown, children might consider themselves as financially independent while others still considered themselves a dependent member of their parents' family. The marriage of sons and daughters, of course, usually signals their independence. That is why I include among independent family heads all married men, spouse present, living in the household provided at least one member of the couple was earning significant income through employment.⁵⁰ By age 24 over half of all women were married; at 27 over half of all males were married. Using those ages a rough guide, I included single, widowed, divorced, and married-but-spouse-absent employed relatives aged 25 and older as life-cycle relevant family heads.⁵¹ I assume that children younger than 25 who had not "struck out on their own" remained dependent members of the household head. I also assumed that a single parent living with the family of a grown child was dependent whether or not she or he was employed.⁵² Finally, I assumed that single servants over the age of 17 and boarders and other non-relatives who were employed and over the age of 17 were financially independent. Appendix Table 1 presents a breakdown of the adult population (age18 and over) by relationship to the census-defined household head and the count of those I assume were life-cycle relevant family heads.

The homeownership status I attribute to each life-cycle relevant family is the homeownership recorded by the IPUMS ownership variable if the life-cycle family head is also the head of the census-defined family.⁵³ Otherwise, I assume that the family did not own a home. If they owned a home, why would they be living in the home of another? Including these additional families in the base lowers the overall homeownership rate from 30.6 to 20.9. See the right-hand column of Appendix Table 1.

⁵⁰ To meet this condition a couple would have to have reported employment in the previous year totaling between them 6 months or more. Employment is defined as described in footnote 15.

⁵¹ Most of these family heads were the grown children of the head of the family. William Collins and Robert Margo [2011] also adopt the age of 25 as the presumed age of independence when defining the base for the calculation of homeownership rates.

⁵² Most of these parents and parents-in-law were widows (72 percent) and few were employed (6 percent). I presume that any income earned by the dependent parent was contributed to the household budget.

⁵³ IPUMS assigns the homeownership rate of the household head to all members of the census household.

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Table 1Coefficients from probit regressionsProbability of being a homeowner, urban non-farm families, 1900

A: All households with a household age greater than 17 and four or more years of residence Number of Observations = 454,627; foreign born = 155,298; native = 299,329

| | | Equation number | | | | | | | |
|-------------------------------|-------|-----------------|-------|-------|-------|-------|-------|-------|-------|
| | Notes | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Impact of indicator variable: | а | | | | | | | | |
| Married? | b | | | 23.8 | 22.9 | 21.8 | 23.6 | 22.7 | 21.7 |
| Female? | с | | | 9.9 | 4.4 | 4.4 | 9.8 | 4.4 | 4.3 |
| Speaks English? | d | | | 7.2 | 7.2 | 7.5 | 6.8 | 6.9 | 7.0 |
| Foreign born? | е | | 4.0 | 3.8 | 4.1 | 3.4 | | | |
| Controls: | | | | | | | | | |
| Third-order polynomial in | | | | | | | | | |
| household age | f | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| log of the city population | g | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Occupation of family head | h | | | | Yes | Yes | | Yes | Yes |
| Number of children | i | | | | | Yes | | | Yes |
| Regional division | j | | | | | Yes | | | Yes |
| Country of birth | k | | | | | | Yes | Yes | Yes |
| Psudo R-square | m | 0.137 | 0.140 | 0.206 | 0.218 | 0.228 | 0.212 | 0.224 | 0.233 |

B: All households with a household age greater than or equal to 55

| Number of Observations = 5 | 57,753; foreign born = | 27,255; native = 30,498 |
|----------------------------|------------------------|-------------------------|
|----------------------------|------------------------|-------------------------|

| | Equation number | | | | | | | | |
|------------------------------|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| | Notes | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Impact of indicator variable | а | | | | | | | | |
| Married? | b | | | 24.7 | 23.8 | 21.6 | 24.5 | 23.6 | 21.5 |
| Female? | С | | | 11.5 | 3.1 | 2.0 | 11.3 | 3.0 | 1.9 |
| Speaks English? | d | | | 19.1 | 19.9 | 20.4 | 18.2 | 19.1 | 19.4 |
| Foreign born? | е | | 8.7 | 9.8 | 9.8 | 8.8 | | | |
| Controls: | | | | | | | | | |
| household age | f | 0.5 | 0.5 | 0.9 | 0.7 | 0.6 | 0.9 | 0.7 | 0.6 |
| log of the city population | g | Yes |
| Occupation of family head | h | | | | Yes | Yes | | Yes | Yes |
| Number of children | i | | | | | Yes | | | Yes |
| Regional division | j | | | | | Yes | Yes | Yes | Yes |
| Country of birth | k | | | | | | Yes | Yes | Yes |
| Psudo R-square | m | 0.050 | 0.055 | 0.084 | 0.102 | 0.117 | 0.092 | 0.110 | 0.123 |

Notes to table of coefficients from probit regressions

a. The coefficients for indicator variables are an estimate of the impact of a discrete change of the variable from 0 to 1 and are expressed as a change of the percentage of homeowners. Thus the impact on the probability of homeownership of being foreign born as estimated by equation 4 of panel B (8.8) suggests that after controlling for the full set of indicator and categorical variables, older immigrants had a homeownership rate that was 8.8 percentage points greater than the rate for their native counterparts.

b. The variable indicates whether the head of the family was married with spouse present.

c. The variable indicates whether the head of the family was a woman. In almost all cases a female-headed family was headed by a single, widowed, or divorced woman.

| Marital Status | Male | Female | Total | |
|-------------------------|------|--------|-------|--|
| | | | | |
| Married, spouse present | 55.0 | 0.1 | 55.1 | |
| Married, spouse absent | 2.1 | 1.8 | 3.8 | |
| Divorced | 0.2 | 0.4 | 0.6 | |
| Widowed | 3.3 | 9.5 | 12.7 | |
| Never married | 16.9 | 10.8 | 27.7 | |
| | | | | |
| Total | 77.5 | 22.5 | 100.0 | |

Percent distribution of the panel A sample by marital status and gender

d. The variable indicates whether the head of the family spoke English. Three percent did not speak English.

e. The variable indicates whether the head of family was foreign born.

f. Household age is the minimum of the age of the family head and the age of the head's spouse.

g. The population of the urban place in 000s.

h. Occupations are classified into nine classes. Each was identified by an indicator variable. Unskilled labor is the omitted variable.

i. The number of children are classified into five categories: none, one, two, three to five, and six or more. Zero children is the omitted indicator variable.

j. The standard nine census divisions were identified with indicator variables. New England was the omitted variable.

k. Thirteen county-of-birth indicator variables were constructed. See Figure 23, Native-born Americans are the omitted variable.

m. Because of the large sample size all magnitudes are precisely estimated and are statistically different from zero.

Table 2

| Ethnic group | Employment Rate | Estimated number of child laborers in the U.S. in 1900 |
|--|--------------------|--|
| Total Sample * | 6.5 | 105,972 |
| U.Sborn Whites with native parents | 5.7 | 47,678 |
| U.Sborn Blacks with nativeparents | 21.1 | 32,576 |
| Foreign born | 7.3 | 6,782 |
| All native born of foreign parents | 3.6 | 12,515 |
| Ethnicitiy of native born to foreign parents | | |
| Italy | 5.0 | 540 |
| Czechoslovakia | 4.9 | 418 |
| Poland | 4.8 | 713 |
| Austria | 4.7 | 310 |
| England | 4.1 | 1,022 |
| Ireland | 3.9 | 2,338 |
| Netherlands | 3.9 | 123 |
| Hungary | 3.9 | 143 |
| Germany | 3.4 | 3,937 |
| Scotland | 3.0 | 273 |
| Switzerland | 2.7 | 97 |
| Canada | 2.0 | 553 |
| Russia | 2.0 | 280 |
| Sweden | 2.0 | 400 |
| Norway | 1.8 | 180 |
| Denmark | 1.3 | 67 |

Employment rates of single male children, 10 to 13 years old, living with their non-farm parents, 1900

* Includes native born of other races (American Indian and Asian) and nativeborn with one native-born parent and one foreign-born parent.

Appendix Table 1

Estimated number of urban, non-farm, family heads, 1900 Age 18 and over

| | | Percent of: | | | | |
|----------------------------|-------------|-------------------------------------|---------|------------------------------|-----------------------------|------------------------------|
| Relation to head of census | | Life-cycle relevant family head? | | Sample that are family | Family heads that are | Home ownership rate of |
| household | Sample size | No | Yes | heads | married | family heads |
| Head of household | 318,657 | 0 | 318,657 | 100.0 * | 75.9 | 30.6 |
| Spouse of householder | 243,565 | 243,565 | 0 | 0.0 * | | |
| Child/child-in-law | 171,367 | 126,195 | 45,172 | 26.4 | 14.4 | 0.0 * |
| Parent/parent-in-law | 20,792 | 20,090 | 702 | 3.4 | 100.0 * | 0.0 * |
| Sibling/sibling-in-law | 30,688 | 19,402 | 11,286 | 36.8 | 6.5 | 0.0 * |
| Grandchild | 1,916 | 1,683 | 233 | 12.2 | 20.2 | 0.0 * |
| Other relatives | 8,815 | 6,694 | 2,121 | 24.1 | 7.2 | 0.0 * |
| Partner, friend, visitor | 1,298 | 1,280 | 18 | 1.4 | 100.0 * | 0.0 * |
| Boarders/lodgers | 77,987 | 14,617 | 63,370 | 81.3 | 5.2 | 0.0 * |
| Servants/employees | 25,713 | 174 | 25,539 | 99.3 | 0.6 | 0.0 * |
| Relative of Employee | 400 | 366 | 34 | 8.5 | 100.0 * | 0.0 * |
| Total non-HH heads | 582,541 | 434,066 | 148,475 | 25.5 | 25.5 | 0.0 * |
| Total All | 901,198 | 434,066 | 467,132 | 51.8 | 51.8 | 20.9 |

* These values are fixed by assumption. See text.







Homeowneership rates by age, 1890 and 2010



Homeowneership rates by age and farm status, 1890



Percent of non-farm homes with a mortgage,1890



Homeownership rates by ethnicity of the foreign born, non-farm homes, 1890

Figure 7



Homeownership rates, urban non-farm families, 1900



Prediction based on fractional polynomial probit regressions

Homeownership rates, urban non-farm families, 1900



Predictions based on fractional polynomial probit regressions

Homeownership rates, urban non-farm families, 1900



Predictions based on fractional polynomial probit regressions

The foreign-born population excludes those who arrived as young adults and had resided for less than seven years.





Immigrant arrivals from Central, Eastern, and Meditarian Europe as a percentage of all European immigrants, 1840-1914



Source: Carter et al [2006: Series Ad106-120].. Germany is not included





Source: Carter et al [2006: Series Ad231, Ad233, Ad241, Ad244, and Ad245].

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Distribution of income for urban non-farm imigrant families

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Years in U.S.

The 1900 cross section of homeownership rates as a predictor of the change in home ownership for birth cohorts over the subsequent 20 years







Age 55 and over



Figure 19 Homeownership rates by ethnicity, non-farm urban families, family heads 55 or older with 6 years or more of residence





Homeownership rates for German Americans and Italian Americans by City Size, Age 35 and over, 1900



Elizabeth and Mott Streets, Lower Manhattan, showing Italian Settlements according to native provinces and towns, circa 1920



Homeownership rates for Italian and German American urban non-farm familes with a head 35 years old or older by age of head upon first arrival in the U.S., 1900



Probit coefficients for selected countries of origin, 1900 relative to native born equal to zero [From Equation A-7]







