

Demographic Forces and Turning Points in the American City, 1950-2040

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The effects of two major demographic forces are traced between 1950 and 2040: the formation and aging of the baby boom generation and the reduction and subsequent return of large-scale immigration. These forces combine to mark several major turning points essential for understanding the changing urban condition. These include the depopulation of “gray areas” that spurred urban renewal in the 1950s, the gentrification initiated in the 1970s, and the collapse of apartment construction in the 1990s followed by its recovery in the 2000s. Looking forward, the authors address the substantial impact of settled immigrants who are now upwardly mobile. Finally, the authors consider the impacts of the sell-off of housing by the aging of the massive baby boom generation that is anticipated to take place beginning in 2020 and discuss whether the expected housing glut can be absorbed by a relatively smaller and less advantaged younger generation in the 2040s.

Keywords: baby boom; immigration; urban decline; gentrification; sprawl; housing demand

Population growth and decline are fundamental aspects of urban change (Alonso 1980). Beyond the obvious importance of total population size, demographic shifts directly affect the housing market. Two major population forces in particular are shaping the new American city: changes in age structure, including aging of the massive baby boom generation; and the revival of large-scale immigration. How future decades will differ from the past depends on many factors, but substantial insight can be gained by understanding these underlying demographic forces, how they have played out over the past century, and how they will unfold in the early decades of the current century.

This article presents a thesis of long swings in population structure that alter demands on the built environment in systematic ways. In some periods, the population factor that is most of importance is the burgeoning demand of young adults, while in others we see the increased importance of retirees. Population impacts on urban areas can be considerable; in some decades

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central city decline is accelerated, while in others gentrification and urban revitalization are spurred. Several commentators have urged that the coming decades be seen as a new era in urban development (A. Nelson 2004; Leinberger 2008). Is this supported by the population changes that are in process today?

We seek to demonstrate that long demographic swings support and demarcate some of the most significant episodes in the American city. Often invisible to actors struggling in the moment of change, burgeoning demographic demand, or its disappearance, greatly amplifies the effects of economic changes or new infrastructure investment, such as the interstate highway system. To foresee the future condition of the American city, it is imperative to understand how demographic changes have shaped major urban episodes over the past half century and how they are likely to do so in the foreseeable future.

First, we identify three major episodes since 1950 and a fourth on the horizon today. We then introduce the two major population factors used to analyze the episodes: immigration, including its midcentury curtailment and revival, and the changing age structure dominated by the giant baby boom generation. Other population factors are important, but to provide greater clarity we focus discussion on these two primary factors. We describe how immigration and the aging of baby boomers are directly connected to changes in the built environment via major mechanisms of housing demography: household formation, entry into home ownership, upward mobility over the life cycle, and eventual exit from the housing market. We next interpret how swings in population factors help explain the dominant trends in successive urban eras. The final era to be discussed—not yet observable by policy makers or investors—likely will unfold over the next three decades as the baby boomers make their final housing adjustments and their housing becomes available for new occupants and uses.

Major Urban Episodes

A number of important episodes have occurred across large urban areas in the United States during the twentieth and twenty-first centuries. All lasted for more

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than a decade—some for thirty years or more—and became accepted as part of the enduring urban condition. Some merited sustained discussion of corrective action by citizens and policy makers. These episodes may have been most clearly evidenced in the older industrial cities of the northeastern and midwestern states, but elements have been revealed in virtually all cities in the nation. In the following sections, each episode will be analyzed in terms of the underlying demographic swings and their interaction with the housing market.

Urban decline and abandonment—1950 to 1980

Following the Great Depression and World War II, most cities experienced a loss of population, a thinning out that drained the cities of consumer spending and economic investment. The dominant question among planners and urban land economists was what was to be done about declining old neighborhoods, a question so effectively reviewed and assessed by Frieden (1964). The depopulation of older urban areas had begun much earlier and was a concern first expressed during the 1930s by urban land economists such as Homer Hoyt and Miles Colean. Several of the nation's largest and most important cities had experienced long-term declines from their peak populations around 1910. The decline was exacerbated in the post-World War II years when middle-class migration to new housing subdivisions in the suburbs removed a great many families with children, leaving behind smaller households and depleting central city populations. Large areas of cities, especially New York, became what came to be known in the 1950s as “gray areas” and spurred the search for a means of urban renewal (Hoover and Vernon 1959). As the urban decline intensified, a growing problem of housing abandonment began to accompany the spread of gray areas, with its worst manifestations occurring in the South Bronx during the 1970s.

This episode of urban decline and abandonment is often assumed simply to reflect the results of rising incomes and prosperity that enabled the middle class to enjoy a better lifestyle. Location of newer and more modern housing in the suburbs, encouraged by improved highway access and a shift of jobs to the suburbs, combined to make urban decline the predominant condition of the postwar era. Without disputing the importance of those factors, we show that the underlying demographic shifts of immigration and age structure played a crucial role that is often overlooked in explanations of urban decline and subsequent revival.

Gentrification, rising prices, and loss of housing affordability—1970 to 2008

Amid the decline, a new phenomenon emerged in the form of gentrification, which was seen both as an antidote to urban decline and as a problem. Bursting forth in the early 1970s, in-migrations of young professionals began to revitalize old neighborhoods while displacing older working-class occupants. At first, the gentrification phenomenon was highly localized, concentrating near university campuses or centers of white-collar employment that attracted young, highly educated workers (Berry 1985). Over time, increasing numbers of neighborhoods

have experienced revitalization and reuse by residents of a higher economic class, most often because the in-movers were priced out of their accustomed zones of residence and spilled into new neighborhoods. Accompanying this spatial phenomenon as an underlying causal driver was the new problem of rising housing prices and declining housing affordability.

The rapid increases in real housing prices after 1970 represented a sharp change from their relative stability in the immediate postwar decades. The Kaiser Commission report that followed the riots of the 1960s had found great problems of housing dilapidation and distress (U.S. President's Commission on Urban Housing 1969). Barely ten years later, the Joint Center for Housing Studies presented new calculations of housing needs showing that lack of affordability and high rent burdens now rivaled poor quality as the nation's top housing problem (Frieden et al. 1977). As prices escalated, indicators of physical housing deficiencies had simply withered away. For example, the percentage of homes lacking complete plumbing fell from more than 40 percent before World War II to less than 1 percent by 1980 (Clemmer and Simonson 1983).

From the late 1970s forward, the housing affordability problem steadily increased to a peak around 2006, during the great housing price boom. This problem was based on the growing gap between housing prices and incomes: both renters and home owners spent increasing fractions of their income on housing. In real terms, between 1970 and 2000 (prior to the great housing price boom and crash of the 2000s), median house values increased by 83.2 percent and gross rents by 45.1 percent (U.S. Census Bureau 2008c). Over the same period, the median household income rose by only 26.2 percent.

The interpretation we offer is that a major underpinning to this process of rising housing prices was the entry into the housing market of the baby boom generation, whose sheer size triggered the onset of gentrification. Baby boomers then swelled demand in successively higher price brackets as they aged and the population wave moved up the ladder of housing size and quality. While most attention has focused on financial instruments that may have overstimulated this demand, we offer an alternate explanation that highlights the role of the decades-long demographic surge and the expectation it created of ever-rising house prices.

Sprawl and reduced apartment construction—1991 to 2006

A different trend involves construction slanted toward housing built at lower densities. In a sense, urban decentralization and dispersal to lower density suburbs have been a centuries-long process (Jackson 1985). We highlight a particular chapter in this process when there was a *sharp reduction in apartment construction*. Beginning in the late 1950s, there was a sustained rise in the share of new construction in apartments in both central cities and suburbs, so that nationwide 35.1 percent of permits for new construction during the 1960s were for individual housing units in apartment buildings containing at least five units, followed by 35.8 percent of permits in the 1970s and 32.8 percent in the 1980s. However, the share of apartments fell to 19.2 percent in the 1990s and remained low until it

began to rise in 2007, reaching 25.7 percent (Schafer 1974; U.S. Census Bureau 2008b). This decline was accompanied by steadily increasing suburbanization and greater urban sprawl in metropolitan regions. It is not a coincidence that apartment building was sharply reduced at the very time when concerns about housing affordability and fighting urban sprawl may have been at their greatest. Recently, some analysts have suggested there is a resurgence of interest in living in central cities, or more generally in higher-density neighborhoods, and that there is an impending revival of more compact urban form (Birch 2002; Myers and Gearin 2001; Leinberger 2007). We demonstrate below how much these density trends have been driven by consumer preferences that are founded in the changing age structure of the population.

The baby boomer sell-off and its ripple effects—roughly 2015 to 2040

Looking ahead to the next two decades and beyond, following the eventual recovery from the mid-2000s housing crash, the next dominant episode will be heavily affected by the aging of the baby boomers. As introduced in Myers and Ryu (2008), and elaborated in Pitkin and Myers (2008), the eventual housing sell-off among the boomers will create a substantial imbalance of supply relative to demand, particularly in states where there is not a substantial, growing younger generation or large immigrant inflows to absorb the homes for sale. This has little to do with the well-known misforecast of baby boomer decline in housing demand proposed twenty years prematurely by Mankiw and Weil (1989). Understanding the potential impacts of the demographic swings is of crucial importance (Pitkin and Myers 1994; Myers 1990). Some of the adverse trends identified in previous urban episodes could manifest themselves again in the future. However, with foresight and action, there is scope to modify or mitigate the more problematic consequences of the baby boomer sell-off.

Demographic Swings

A venerable tradition of scholarship has investigated the cycles of demographic change in the United States and other countries, seeking to show how these correlate with long swings in the economy and urban development. After considering the major findings in this literature, we examine the more recent evidence on demographic changes.

The research tradition on long swings in population growth and their impacts

The literature on long swings in growth has sought to explain the ups and downs in growth cycles that involve three main factors: economic growth, population growth, and new construction. Researchers have sought to explain both the

periodicity of these cycles and the interrelation of their main elements. Simon Kuznets postulated a twenty-year-long swing in the rhythm of expansion and contraction in economic time series, confirming this with empirical analysis of nineteenth- and early-twentieth-century data. The key linkage among the different factors is that economic growth induces migration (both immigration and internal migration) to supply required labor force (Kuznets and Rubin 1954; Thomas [1954]1973). That in turn creates demand for new housing construction. Since migrants are typically young adults, they also have children, whose modal age is spaced twenty-five years from their parents. Thus, the ensuing age structure builds in potential for future growth pulses in later years when children come of age, form their own households, and create concentrated growth in consumer demand that fuels a new cycle of economic expansion.

The hypothesis of long swings that prevailed in the mid-twentieth century provided a rich framework for analysis as scholars worked out the implications. Richard Easterlin (1968) supplied an especially lucid account of how economic growth induces population change and, in turn, the economic effects of these demographic swings. The interrelations of population and economy are not fixed but depend on age structure and are mediated by the labor force participation rates of men and women, which can expand or contract in response to economic demands. Easterlin is best known for his hypothesis that explained the postwar baby boom as the result of unusually rapid economic gains by young men. Those were enabled, of course, by the rapid postwar economic expansion, but three additional factors were also important: (1) significantly higher education levels for this young generation than for its predecessors, (2) legislative restrictions enacted in the 1920s that prevented immigration from rising in response to the renewed opportunities brought by economic growth and thereby supported higher wages, and (3) a diminishment of the farm population previously available to move to cities and fill economic needs during economic expansions. Subsequently, the large generation of baby boom children that resulted has had its own enduring economic impacts, generating pulses of demand at each stage in its life cycle over the following sixty years.

The deepest investigation into population change and building cycles is that of Burnham Campbell (1966), who, like Easterlin, emphasized age structure. Campbell highlighted the mediating effect of household formation rates (housing units occupied per capita in each age group) and home ownership rates (housing units owned per household of each age group). If these factors expanded or contracted, they could substantially alter the expected demand from a given quantity of population growth. Campbell also drew attention to the historic importance of immigration, which he estimated accounted for more than 60 percent of the additions in rental housing in the first fifteen years of the twentieth century (p. 117). Indeed, he estimated that the housing boom of the 1920s would have been substantially undercut but for the addition of immigrants in the first part of the decade. As it was, there was substantial overbuilding relative to required additions, and Campbell noted the large inventory of units standing vacant on the eve of the Great Depression. In terms of the broader economic impacts of demographic-driven

housing demand, Campbell also suggested how concentrated age effects could have disproportionate impacts on the economy at large: because of the need for complementary goods (furnishings and consumer durables), “an increase in first-time ownership from one period to the next is likely to have an even greater impact on the rest of the economy than an increase in new household formations” (p. 120). Furthermore, because older households typically advance to more expensive housing, “the more concentrated required additions are at the center of the life cycle, the greater the contribution of residential construction to total investment expenditures will tend to be” (p. 121).

In summary, the hypothesis of long swings has produced a great many insights on interrelated trends. These swings carried forward the legacies of the past and the inherent momentum stored in stocks of long-lived households and housing. Once built, housing lasts for many decades, and its location and many of its characteristics remain fixed. Population is mobile and flows through the housing stock, but the characteristics of the population are continuously changing, if for no other reason than the aging process. The arrival of larger or smaller cohorts at key ages of housing demand can have substantial impacts on the housing market as a whole. Growth in specific population segments often has acute impacts on sectors of the built environment that are particularly demanded by the given group. The net impact on the cities depends of course on changes in all other segments as well. Nonetheless, in each decade, particular population segments wield disproportionate influence. Although the patterns of growth vary by decade, the sequence of changes across decades is not random. Looking forward, it is possible to place potential urban changes of future decades in this long historical context.

Age structure changes by decade

The rate of growth in the U.S. population has varied markedly from decade to decade. During the 1930s, only 9 million residents were added, but that surged to 29.2 million during the 1950s, an increment not matched again until the 1990s, when the nation’s population expanded by 32.6 million (see Table 1). More variable than the total growth in population is the pace of growth experienced in each age group. Three key age groups are highlighted in Table 1. Of these, the most important is ages twenty-five to thirty-four, because it contains the young adults most likely to form new households and poised to enter into home buying.

Growth in young adults proceeded at the rate of 1.6 to 2.5 million per decade in the 1920s, 1930s, and 1940s; however, in the 1950s, there was a decline of 1 million residents in the twenty-five- to thirty-four-year-old age group. Growth returned to the previous pace in the 1960s, but in the 1970s the giant baby boom generation (born 1946 to 1964) fully entered the twenty-five to thirty-four age group and pushed growth of the age group to 12.1 million. In the 1980s, growth again proceeded at more than twice its previous level—an increase of 5.8 million—as the even-larger second half of the baby boom entered the age group. Subsequently, in the 1990s, the number of young adults declined by 3.4 million.

TABLE 1
NET CHANGES IN AGE STRUCTURE EACH DECADE

	Age Group							Total
	Under 15	15-24	25-34	35-44	45-54	55-64	65+	
Growth in resident population each decade in millions, by age group, United States								
1920-30	2.2	3.7	1.6	2.9	2.6	1.9	1.8	16.6
1930-40	-3.1	1.5	2.4	1.2	2.5	2.2	2.3	9.0
1940-50	7.9	-1.8	2.5	3.1	1.8	2.7	3.3	19.6
1950-60	15.3	2.3	-1.0	2.7	3.2	2.3	4.3	29.0
1960-70	1.9	12.0	2.4	-1.1	2.7	3.1	3.4	24.4
1970-80	-6.6	6.0	12.1	2.7	-0.6	3.1	5.6	22.2
1980-90	2.9	-5.6	5.8	12.0	2.5	-0.7	5.5	22.4
1990-00	6.1	2.4	-3.4	7.4	12.8	3.3	3.8	32.6
2000-10	1.6	3.7	1.8	-4.0	6.8	11.8	5.2	26.7
2010-20	5.5	-0.8	3.4	1.7	-3.9	6.5	14.4	26.9
2020-30	4.2	4.4	-0.1	3.9	2.0	-3.4	16.8	27.8
As percentage of end-of-decade total U.S. population								
1920-30	1.80	2.98	1.32	2.35	2.11	1.51	1.44	13.50
1930-40	-2.32	1.17	1.82	0.87	1.86	1.68	1.76	6.85
1940-50	5.19	-1.17	1.64	2.07	1.22	1.76	2.20	12.90
1950-60	8.45	1.28	-0.56	1.47	1.76	1.25	2.39	16.04
1960-70	0.91	5.83	1.17	-0.52	1.34	1.49	1.67	11.89
1970-80	-2.93	2.62	5.33	1.17	-0.25	1.35	2.46	9.76
1980-90	1.14	-2.23	2.32	4.80	0.99	-0.26	2.22	8.97
1990-00	2.18	0.86	-1.19	2.61	4.55	1.18	1.36	11.55
2000-10	0.52	1.18	0.58	-1.31	2.19	3.80	1.67	8.65
2010-20	1.64	-0.23	1.02	0.50	-1.16	1.95	4.28	8.00
2020-30	1.15	1.21	-0.04	1.06	0.54	-0.92	4.63	7.64

Diagonal lines in Table 1 demarcate the passage of cohorts from one age group to the next across the decades. The 12 million gain accompanying the front half of the baby boom generation is continued in successive age groups that it enters. Similarly, the 1 million loss that was recorded in the twenty-five to thirty-four age group in the 1950s is echoed in successively older age groups in later decades, as is the 3.4 million decline registered in the 1990s. Once established by birth and augmented by migration through the young adult years, the relative sizes of cohorts ripple forward with substantial consequence for the older age groups they will come to fill.

Immigration and population growth

Immigration has the potential to substantially expand the number of adults occupying housing and populating urban neighborhoods. As evidence of this, consider the population growth shown in Table 1 for the twenty-five to thirty-four age group in the 1990s. Although a decline of 3.4 million was recorded, this was not as deep as the 5.6 million decline observed in the previous decade, when the same birth cohort was age fifteen to twenty-four. The reason the decline was 2 million less was that immigrants swelled the cohort's numbers. Although immigrants can be of all ages, recent arrivals are heavily concentrated in their twenties. Thus, it behooves us to track the fluctuation in number of immigrants across the decades if we wish to make sense of changes in housing demand in urban areas.

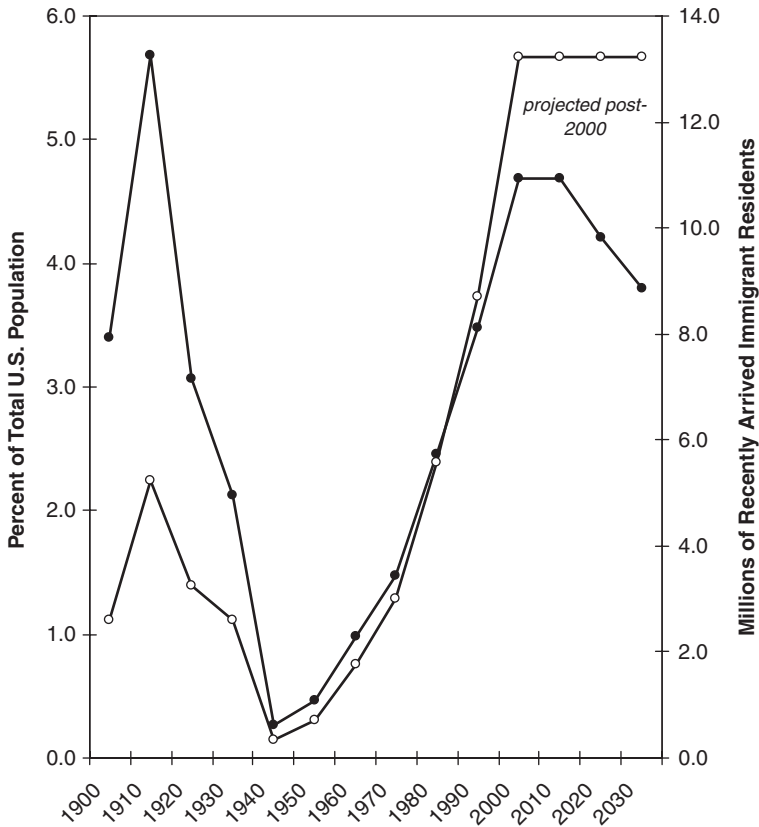
The outstanding features of immigration in the twentieth century are its steep decline and recovery that define a forty-year hiatus between the immigration restrictions imposed in 1924 and the major immigration reform act of 1965. As shown in Figure 1, the midcentury decline and rebound in number of recent immigrant arrivals was of dramatic proportions in both absolute numbers and as a percentage of the total U.S. population. The twenty-year low point, from 1930 to 1950, is evidenced by the extremely low number of immigrant residents who had arrived in the decades preceding 1940 and 1950. Even in the decades preceding 1960 and 1970, the recovery of immigrant arrivals was relatively modest. In effect, the closing of the door to immigration created a major hiatus in the flow of new residents in the middle of the century.

Entrances, exits, and demographic growth in households

The gross annual impacts on housing demand of demographic change due to birth cohort sizes, immigration, aging, and mortality are summarized in Figure 2. These demographic increases in households (equivalent to occupied housing units) are calculated by applying constant (1990) age- and nativity-specific headship rates (ratio of householders per capita) to the population in each *year*.¹ The top line in Figure 2 shows total entries to the housing market, largely driven by young adults. The flow of entries to the housing market rose steadily from 1.3 million per year in the early 1960s to a peak of 2.4 million in 1984. This rise was largely but not entirely caused by the maturing of the baby boom cohorts, the youngest of whom reached age twenty in 1984. In addition, after about 1975, a growing segment of new households, added on top of the native-born entries, accrued from the entry of immigrants. Enough new immigrants entered to form 164,000 households in 1984, up from 45,000 in 1958 (indicated by the shaded area between the top and second lines in the figure).

With the arrival of the smaller "baby bust" generation in the housing market, total new entries declined from 1985 to 1996. New entries have since increased, and this trend is projected to continue in the next two decades.² The share of new entries comprised by immigrants rose to 21 percent in 2001 and has since been stable near that level. What has restrained growth of the housing market in the

FIGURE 1
MIDCENTURY DECLINE IN NUMBER OF RECENT IMMIGRANTS

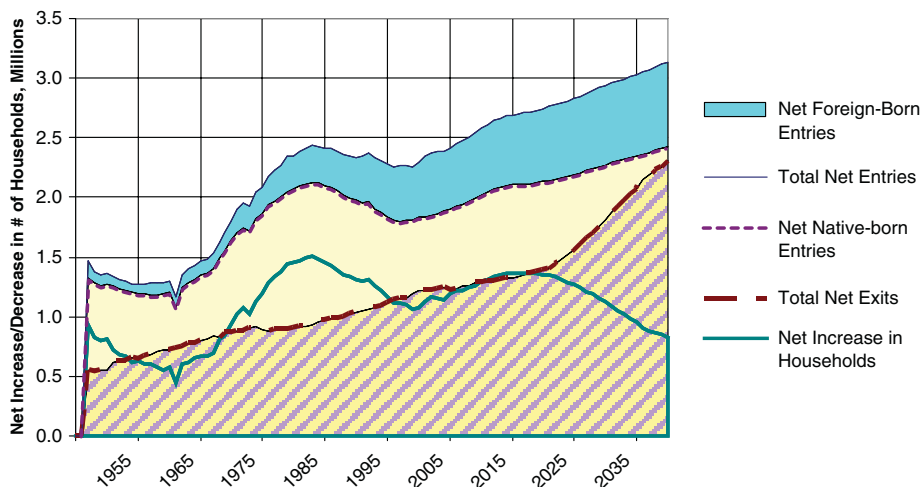


SOURCE: Authors' compilation from data reported by the Immigration and Naturalization Service and from tabulations of the Integrated Public Use Microdata Samples.

NOTE: hollow circles = Number of recent immigrants in decade (right scale), solid dots = Immigrants as percent of population (left scale)

face of these rising entries is the steady growth in the number of demographic exits from the housing market by older cohorts as they dissolve households and die (lower hatched line in Figure 2). The net result of the exits and entries, or the total household formations due to population change and aging, shown by the lower solid line, has risen and fallen parallel to total entries. However, exits are projected to increase substantially after 2020 as the baby boom generation begins to age out of the housing market in large numbers. The sharp rise in exits produces a steep decline in annual demographic household growth even though new formations keep rising.

FIGURE 2
NET GAINS/LOSSES OF HOUSEHOLDS DUE TO POPULATION CHANGE,
ANNUAL ESTIMATES AND PROJECTIONS, 1950-2040

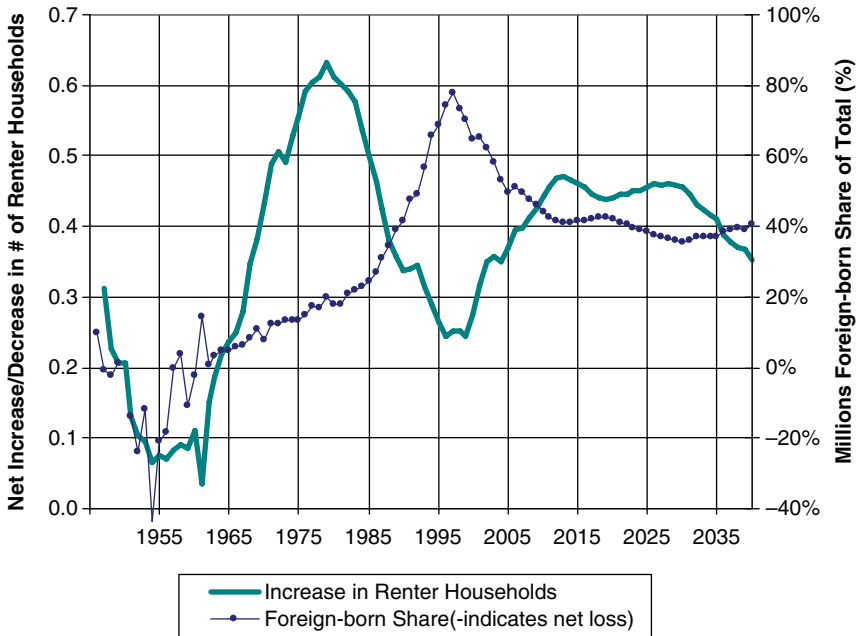


The observed (actual) growth in the number of households differs from the purely demographic additions as headship rates have fluctuated due to variations in incomes, prices, and terms of housing finance. Actual increases in households exceeded demographic additions by an average of 42 percent (370,000 per year) between 1950 and 1980 and 11 percent during the 1990s. However, in the 1980s and 2000s, actual additions fell *below* demographic growth in households by 18 to 19 percent.

The implications of these household growth trends for urban changes become especially clear when the growth is broken out by tenure, based on constant 1990 tenure (ownership) rates for different ages and nativity. Demographic additions to renter households (see Figure 3) averaged below 150,000 per year from 1950 through the early 1960s, as abandonment became endemic, but then soared to over 500,000 per year during the 1970s through 1985, the period when apartment construction spread to the suburbs. Rental household additions then plunged by more than half by the mid-1990s, during which time apartment construction plummeted and sprawl became a major concern. Meanwhile, immigration has made up an especially large share in the growth of renter households: the foreign-born share of demographic additions to rental demand has been over 40 percent since 1986 and has helped to offset the dearth of native-born young adults in the 1990s.

Major swings in demographic additions to owner households have lagged those for renter households by several years, rising from 437,000 in 1967 to a peak of just under 1 million per year from 1986 to 1992 (see Figure 4). This

FIGURE 3
 RENTER HOUSEHOLDS: NET GAINS/LOSSES DUE TO POPULATION CHANGE,
 ANNUAL ESTIMATES AND PROJECTIONS, 1950-2040



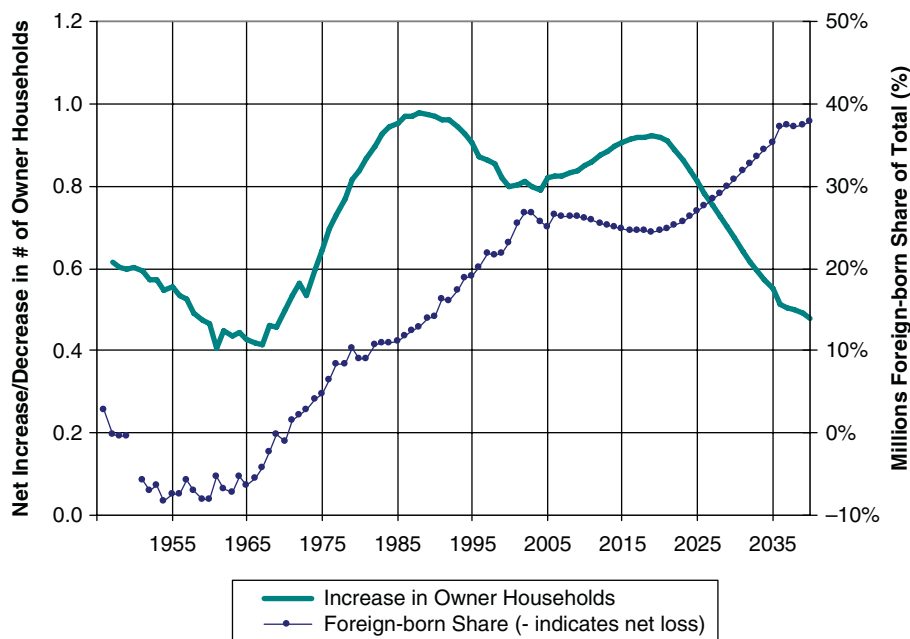
twenty-year increase coincided with increases in house prices, persistent decreases in home ownership affordability, and rising concerns about gentrification in central city neighborhoods. Demographic increases in owner households, at constant tenure rates, then fell until 2002 and have since stabilized in the range of 800,000 to 850,000 per year. Although actual owner additions greatly exceeded purely demographic additions during the boom from 1995 to 2005, home ownership sharply contracted after 2005 and may now return to the conservative levels indicated by past demographic benchmarks. Meanwhile, the foreign-born share of population additions to owner households rose steadily through 2002 and has since leveled off at between 27 and 28 percent of the total, consistent with the decadal analysis of Myers and Liu (2005, Table 2). With the impending exit of older and mostly native born households, however, the foreign-born share seems destined again to rise substantially and approach 40 percent by 2040.

Interpretation: Episodes and Turning Points

Depopulation and decline of old neighborhoods

The peak urban populations of the nation's large cities in the early twentieth century were the product of mass immigration after 1880. After restrictions were

FIGURE 4
OWNER HOUSEHOLDS: NET GAINS/LOSSES DUE TO POPULATION CHANGE,
ANNUAL ESTIMATES AND PROJECTIONS, 1950-2040



imposed in 1924, this inflow was sharply curtailed (as shown in Figure 1). The growth in rental housing demand substantially slowed in the later 1920s (Campbell 1966), and by 1940, substantial population losses accrued in cities. Frieden (1964) reports that the population of the Lower East Side of Manhattan fell from a peak of 541,000 in 1910 to 205,000 in 1940, and the number of housing units declined from a high of 108,000 to 71,000 through abandonment of the worst units. Frieden explains this as a process of upward mobility and nonreplacement. “As these [original immigrant] residents moved on to better housing, no further immigrant waves replaced them, with the exception of a small influx of Puerto Ricans” (p. 125).³ Homer Hoyt observed a similar process in the 1930s in Chicago, and in a prescient essay on “Urban Decentralization,” Hoyt (1940) warned that suburbanization would rob cities of their residents, who no longer could be replaced by waves of new immigrants.

The Great Depression and war years substantially delayed the full impact of the lost immigrants, but after World War II, the middle-class flight to the suburbs made the lack of central city replacements more apparent. The loss of immigrants was accompanied by a net decline in the number of young adults in the nation (Table 1). During the 1940s, there had been a 2.5 million growth in the twenty-five to thirty-four age group, but that larger cohort passed into the

thirty-five to forty-four age group by the end of the 1950s. Many young adults were now engaged in suburban family rearing. Following behind them was a cohort of twenty-five- to thirty-four-year-olds that was 1 million smaller, too small to easily replace the departed upwardly mobile families. Thus, the age structure shift and loss of new immigrants together meant that a suburbanizing middle class left urban neighborhoods depopulated and vulnerable to housing abandonment.

The turning points marking this episode are not sharply defined. Urban depopulation was a long-standing trend, even preceding the accumulated deficit of immigration that began in the 1920s, but its effects were substantially delayed by the Great Depression and World War II. This urban episode commenced with pent-up force as soon as home building was resumed in earnest in the suburbs after the war (and reinforced by the arrival of an undersized cohort in the young adult ages). The downturn began to weaken with the arrival of larger cohorts in young adulthood and the onset of renewed immigration and gentrification, all of which had immediate impact after 1970. However, broad-based urban revival was slow to come, and the end of the episode is not clearly delineated.

Gentrification and decades of upsizing

The malaise of abandonment and urban decline was a long-running episode of the urban condition, but it began to turn around after 1970. Broad changes in the demographic conditions were rapidly developing. Foremost, the front half of the baby boom generation was entering adulthood. In the decade of the 1970s, the twenty-five to thirty-four age group expanded by 12.1 million, nearly six times the growth of this age group in the preceding decade (as shown in Table 1). These young adults sought housing, and it cannot be overemphasized what a shock this was to urban housing markets accustomed for decades to population losses. The annual demographic increase in rental households surged from 250,000 in 1965 to 600,000 in 1980, while the annual increase in owner households five years later leaped from 450,000 to 1 million (as shown in Figures 3 and 4).

Gentrification of former working-class neighborhoods by younger and predominantly professional newcomers attracted widespread notice in the early 1970s. Although these were at first, in Brian Berry's (1985) apt phrase, "islands of renewal in seas of decay," this trend began to swell into a broad-based "incumbent upgrading" (Clay 1979). The acceleration of this new settlement pattern was due to the sheer numbers of maturing baby boomers rather than increased preferences on their part for central city locations (K. Nelson 1988). The ongoing migration to the suburbs continued without reversal as numerous young home seekers penetrated all neighborhoods.

Added to the impact of native-born baby boomers was the revival of immigration, which was concentrated in a few established gateway cities. Nowhere was the impact greater than on the revitalization of New York, which had been filled with declining neighborhoods:

One of the more beneficial of the New Immigration's social reshapings is the restoration of life to the decaying and depopulating neighborhoods in many of America's ebbing

industrial cities. As with the labor supply, demographic renewal achieved much of what the official urban renewal programs tried to do, but so often failed. (Winnick 1990, xiii)

The housing impact of the baby boomers continued to build after their entrance to the housing market when they traded up to progressively larger and more expensive homes. The buying power of young adults was enhanced by their higher education and earning capacity, as well as by the rise of women's participation in the labor force, which increased the number of well-educated two-earner couples. After passage of the Equal Credit Opportunity Act of 1974, mortgage lenders were required to count wives' and husbands' earnings equally for mortgage qualification, and a major upsurge was recorded in families' reliance on wives' earnings to qualify for higher-priced home purchases (Myers 1985). The added buying power multiplied the impact of larger cohorts, enabling them to bid up prices and in the process create greater home equity for existing owners.

Beginning in 1970 and continuing for thirty years, demographic forces favored trading up by both first-time and repeat home buyers. As the population entering the age for home buying continually expanded or remained at high levels, sellers found a ready demand for resale of recently purchased houses. These conditions created opportunities for capital gains that supported continued upsizing by repeat buyers, driving the trend to construction of larger new houses and culminating in the proliferation of McMansions during the 1990s. Between 1973 and 2007, the size of the average newly built home steadily increased, growing from 1,525 to 2,277 square feet, and the proportion with at least two and a half bathrooms increased from 19 to 59 percent (U.S. Census Bureau 2008a). Federal income tax law accelerated this upward climb of housing consumption because capital gains could be deferred as long as a more expensive house was purchased for each change in primary residence. This tax-favored investment was reinforced by the 1997 change in the federal tax code that exempted up to \$500,000 of capital gains⁴ from sales of owner-occupied houses.

Turning points are clear-cut for this episode. Gentrification appeared quite abruptly after 1970. The driver appears to have been the sudden arrival of a cohort in young adult years 48 percent larger than its immediate predecessor. Without enough supply of housing in locations typically desired by people of that age, young households simply overflowed into neighboring precincts and bid up prices in a rapid spiral. Meanwhile, after 1975, housing prices and affordability problems escalated, and the baby boomers' upward surge through the housing market created rising demand for owned homes, and later spurred self-fulfilling expectations of rising prices that continued until the climax of the 2002 to 2006 housing bubble and the crash of 2008. This likely marks the end of a thirty-nine-year-long episode.

Collapse of apartment construction, sprawl, and urban revival

In the face of mounting problems of housing affordability, it might seem surprising that apartment construction retreated so greatly as a share of new housing construction, falling from more than 35 percent of construction in the 1960s and

1970s to less than 20 percent in the 1990s and early 2000s. But apartments were not always as prominent in the nation's home building as they became after 1960. In fact, Schafer's (1974) study of apartment construction documented an earlier boom in apartment construction in the 1920s, attributing that to immigration, and suggested that its subsequent decline in the 1930s, 1940s, and early 1950s was due to the curtailment of immigration after the restrictions of 1924 (consistent with observations of Hoyt, Campbell, and others). The rise in apartment construction that began in 1956, despite continued low immigration, was explained as much by changing age structure as by the desire to build new communities in the suburbs (pp. 9-10). Schafer highlighted the role of young adults in supporting new construction. Indeed, our analysis of 1980 census data shows that more than a quarter of renter households under age thirty-five were tenants in a recently built apartment, and such households comprised 51 percent of all tenants in new apartments.⁵ Based on projected declines of young adults due to the aging of the baby boom, Schafer projected that a decline in construction would begin in 1987, with a revival to ensue after 2000 (p. 120).

The subsequent revival of immigration to high levels was not foreseeable by Schafer or others. Indeed, the upsurge in new arrivals shown in Figure 1 might have been expected to spur an increase in rental demand and new apartment construction in cities attracting the new immigrants. The fact that this did not occur until 2006⁶ suggests that increased immigration alone was not a sufficient driver to reshape new construction.

The crucial added impetus for higher-density construction has come from the long-anticipated shift in age structure. As the decadal flow of new immigrant residents increased by 4.5 million during the 1990s compared to the 1980s, the number of people ages twenty-five to thirty-four declined by 3 million.⁷ In the current decade, that age group finally began to grow by 1.8 million, and that was backed by another 2.4 million growth at ages fifteen to twenty-four. Even though immigration has stopped rising and has maintained a more constant flow since 2000, the growing numbers of young adults are creating demand for new rental construction. As shown in Figure 3, the annual demographic increase in rental households is accelerating from 250,000 per year in 2000 to an expected 450,000 per year in 2010. Meanwhile, the age shifts of the baby boomers have taken them into a life cycle stage where higher-density housing also is preferred. According to a 1999 national survey, the share of adults age fifty-five and older who would prefer to purchase a centrally located town home rather than a large single-family house in a distant suburb is nearly three times greater than that of younger adults (24 vs. 9 percent of adults under age thirty-five [Myers and Gearin 2001, 643]). Thus, the aging of the massive baby boom generation is shifting the home buying preferences of a major portion of the housing market toward units built in attached structures of higher density.

Turning points for apartment construction closely followed swings in the population of young adults. The upturn in apartment building in the late 1950s reflected an upturn in young people. The high rates of apartment construction over the subsequent three decades began to taper off in the latter 1980s and

ended abruptly during the 1991 recession, when the volume of apartment construction plunged simultaneously with the arrival of an undersized cohort in the key ages of the twenties. The expected rebound of apartment construction ensued after 2000, although this was delayed by the escalation of home ownership rates for young adults during the housing boom, which drew into home buying middle-class renters who otherwise were prime candidates to support new apartment construction. The eventual housing crash in 2008, following one year of substantially stronger apartment building in 2007, could signal a revival of apartment living. This revival will be fueled by the larger-size cohorts now entering their twenties.

Baby boomer sell-off and its ripple effects

After recovery from the crash of 2008, what will constitute “normal” housing demand? The first of the baby boomers will reach age sixty-five in 2011, and the aging of the rest will soon swell the ranks of elderly home owners. As shown in Figure 2, total demographic exits from the housing market due to sale without repurchase are expected to escalate from 1.3 million per year in 2015 to 2.4 million per year in 2040. In the same time frame, the number of entrants grows much more slowly, and the net effect is a shrinking rate of growth in the number of households. The demographic increase in owners is expected to be about 900,000 per year in 2015, but that shrinks to 475,000 per year in 2040 (Figure 4), near the low point recorded in 1965 before the baby boomers’ entry into the housing market. Consideration must be given to how the housing market will adjust to this prolonged period of declining demand.

The baby boomer sell-off and market response is likely to be very uneven across the nation. Substantial variations in the baby boomer sell-off are to be expected by region of the country. Myers and Ryu (2008) recently analyzed housing sell-offs on a state-by-state basis and found that older households in midwestern and northeastern states begin selling out of the housing market at younger ages, on average, than they do in the South and West.⁸ (In fact, in four states—Florida, Arizona, Nevada, and South Carolina—people age sixty-five to sixty-nine substantially increase their purchases over their sales, due to retirement in-migration.) States in the South and West also generally have greater growth projected among young adults and, thus, have proportionally more young buyers to absorb the baby boomer sell-off. The pattern of excess homes for sale also is expected to vary within urban areas, with demand swelling in areas that are especially attractive to the multitudes of baby boomers. Those areas are assumed to be more centrally located near shopping and services and to consist of smaller and more densely configured housing units, albeit characterized by greater amenities than lower-cost apartment housing. Home builders likely will struggle for survival in a shrinking market by offering newly built housing that fits unmet needs, whether in new locations that are attracting growth from declining areas or in retirement niches that are likely to flourish as boomers retire. The net result in many metropolitan areas may be a surplus of available housing, and the challenge

is to foresee which homes will be least desirable in the future housing market and will remain vacant pending sale or be converted to rental use. Chris Leinberger (2008) has inferred that new slums will form in the suburbs where large quantities of less desirable, larger, and less accessible homes are located. The foreclosure crisis of 2008 and 2009 affords a preview of conditions when many homes are left empty.

Turning points for this future episode are uncertain. What Myers and Ryu (2008) termed the “generational housing bubble” may have already been burst by the housing bust and financial crash of 2008, although stabilization and slow recovery is generally forecast after 2010. Nonetheless, the onset of sustained decline in the market for large baby boomer homes will resume thereafter, likely occurring first in northeastern or midwestern cities, where recovery from the bust will be slowed by lack of demand. This is a long-term condition (the baby boom lasted eighteen years), and after 2020 the nation as a whole will enter this condition. The ripple effects from the baby boomer sell-off will be considerable. Combined with the coming crisis of peak oil and the uncertain impacts of efforts to limit global warming, these effects portend a major reworking of housing and location trends and an end to the decades-long trends of growing house sizes, rising prices, and worsening affordability. This change in trend may have been accelerated by the current financial crisis. However, the episode of baby boomer sell-off will continue to build until 2040, by which time the large flow of older sellers will have largely subsided.

Conclusion

The rise and fall of population growth in specific groups clearly has great impact on housing and city neighborhoods. Yet, urban scholars in recent decades have been curiously inattentive to the strong linkages between major episodes in the urban condition and such demographic forces. A panel of urban experts surveyed for the Fannie Mae Foundation failed to recognize demographic swings as one of the top ten influences shaping either the past or future American metropolis (Fishman 2000). The potent role of demographic swings on housing demand and urban fortunes was overlooked, even though it undergirded a number of the factors on Fishman’s (2000) list of important influences in the past half century. For example, urban renewal (number four on the list) was precipitated not simply by the withdrawal of upwardly mobile residents but equally by the failure of replacements to arrive. This policy might never have been pursued had large numbers of new immigrants been pressing into many cities. Conversely, the post-1980 revitalizing impacts of renewed immigration were also overlooked. The expert panel did recognize the likely influence of the baby boomers, on the future of the metropolis but not the past.

This inattentiveness to the influence of long population swings on urban conditions is consequential and begs explanation. One explanation could be that actors in the moment fail to observe changes in long-term trends because their attention is captivated by short-term, more volatile changes such as economic cycles or changes in political administrations. It also is likely that the absence of policy levers to regulate population has caused urban experts to relegate demographics to the background relative to other factors that can be influenced by policies such as land use and environmental regulation, taxation, or infrastructure investments. By contrast, it is well recognized that demography plays a central role in determining the soundness of the Social Security system. In the present article, we have highlighted the substantial linkages between long population swings and housing trends shaping the urban condition. In light of the recent general failure of mortgage lenders, borrowers, and regulators alike to appreciate the risks of pushing home buying and investments far above demographic trends, and given the looming exit of the baby boomers from the housing market, the argument can now be made for bringing demographic considerations into the foreground of housing and urban policy analysis.

Notes

1. A consistent time series of annual population estimates by age and nativity (native- and foreign-born) was developed to smooth out discontinuities due to abrupt shifts in census coverage (undercount) in each decennial census. This was carried out by one of the authors (Pitkin) using standard procedures of demographic analysis of births and deaths, by age, as well as estimated net and gross immigration in each year. These demographic changes are applied to base populations known to have minimal coverage error (undercount), and therefore, the estimated populations and annual changes are consistent and unaffected by changes in population coverage, as occurs when estimates are benchmarked to decennial census counts with varying levels of population coverage. The analysis was then carried forward into the future so that a seamless, annual time series was constructed for the years 1950 to 2040.

2. Population is projected forward from 2006 based on the following assumptions: 1.2 million annual net immigration, births at the same levels as the Census Bureau 2008 population projections; and death rates extrapolated forward from 1990-2000 to 2020 and held constant thereafter.

3. Much of this exodus from the Lower East Side occurred in the 1920s through individual movement to new apartment housing built in the Bronx (Ford 1994, 209-10).

4. Per married couple.

5. Authors' calculation from the Integrated Public Use Microdata Sample. Recently built units are defined as less than ten years old at time of the census (i.e., built since the previous census).

6. In 2006, the multifamily share of new construction rose to 25.1 percent, after languishing below 19 percent for the 1990s and the 2000s (U.S. Census Bureau 2008b).

7. The increased flow is measured by the difference between the number of recently arrived immigrant residents in 2000 (13.2 million) and 1990 (8.7 million), depicted in Figure 1. The declines at ages 25 to 34 are from Table 1.

8. Annual per capita home buying and selling rates by age group were constructed for each state by Myers and Ryu (2008). Data were calibrated for the period of 1995 through 2000, before the accelerated home buying of the great boom from 2002 to 2006, and they are presumed to represent a "normal" pattern of owner-occupied home buying and selling useful for describing demographically expected changes in demand. When these rates were applied to past and future age structure, and expected sales were subtracted from home purchases, a date could be estimated when the number of sellers will potentially exceed buyers in each state.

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