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# THE GREAT SENIOR SHORT-SALE OR WHY POLICY INERTIA WILL SHORT CHANGE MILLIONS OF AMERICA'S SENIORS 

Arthur C. Nelson*

Technically: A "short sale" is a sale of real estate in which the net proceeds fall short of paying the debts secured by the property.

As applied: Selling one's home for much less than one hoped, perhaps less than its inflation adjusted purchase price, or not being able to sell at all.

This article in the Festschrift issue dedicated to Professor Julian Conrad Juergensmeyer will show that sweeping demographic changes will occur between the late 2010s and 2040. Tens of millions of baby boomers (born between 1946 and 1964) as well as Gen-Xers (born between 1965 and 1980) will become empty nesters and singles. Many, perhaps most of them, will want to exchange their larger homes on a larger lots for smaller homes on smaller lots or attached homes. Tens of millions of millennials-born between 1981 and 1997-will be forming households with children but may not want to buy boomers' homes, opting instead for smaller homes on smaller lots or attached homes, especially those in walkable communities. The newest generation-Gen Z born between 1998 and 2015-will become starter home households seeking mostly attached homes. ${ }^{1}$ In effect, this article is a nearly century-long sweep of massive demographic changes affecting housing demand between the end of World War II and the middle of the TwentyFirst century.

Is America prepared for the change ahead? (No.) Will there be a market sufficient for millions of America's senior households to sell their homes? (No.) Do policies exist to facilitate the change ahead? (No.) Will policy inertia make millions of America's seniors worse off? (Yes.)

But first a perspective.
The eminent demographer Dowell Myers ${ }^{2}$ often opens his presentations asking if anyone can predict America's economic future 10 years from then. There

[^0]are no takers. Then he asks how old everyone will be in 10 years; everyone knows and that is the point. This rhetorical question implies volumes about policy. As some grow older they will form households and raise children. Others will become empty nesters. Still others will retire, move into smaller housing units, and even pass away. These stages of life are reasonably predictable and their implications for housing reasonably clear. ${ }^{3}$

Let us answer Professor Myers' question in the context of America's future housing demand. During the 10 year period between 2020 and 2030, the number of Americans aged 65 years and older will increase by 17 million, from 56 million to 73 million persons or 30 percent. ${ }^{4}$ However, those 17 million people are equivalent to 74 percent of the nation's total population growth of 23 million people, from 333 million to 356 million.

Even more impressive are projections of households by the Harvard Joint Center for Housing Studies over the 10-year period 2018 to $2028 .{ }^{5}$ While the total number of households will increase by 12 million- 128 million to 140 million, 11 million or the equivalent ${ }^{6}$ of 92 percent of them will be households with householders ${ }^{7}$ aged 65 years or more, growing from 33 million to 44 million. Trends beyond Professor Myers' rhetorical 10 years are more impressive as will be shown.

I organize my discussion in three parts:

- Demand, Supply and the Imminent Housing Mismatch
- Too Many Homes for Too Few Buyers
- Policy Inertia is not Acceptable

In the first part—Demand, Supply and the Imminent Housing Mismatch-I open with "The Past in the Context of Emerging and Trends" where I outline big changes to the household demographic composition of America from the end of World War II to the 2040s. I continue by showing that "As Householders Age,

[^1]Average Household Size Falls and This Changes the Nature of Future Housing Demand." For instance, going forward, senior households will actually require more housing units than younger ones, though different kinds of housing units such as small homes on smaller lots or attached homes. While "The Future is not the Past"-the theme of the next section-few people grasp the magnitude of the massive trend away from larger homes on larger lots because of demographic trends. These trends will lead to "Glacial Demographic Changes That Will Carve out New Housing Markets." I say glacial because as massive as the changes in the housing market will be over time, they will be imperceptible in any given year. I will then show the "Nature of Current Supply" focusing on the distribution of occupied housing units by householder age (under 35 years of age, between 45 and 64 , and 65 and older) as well as household type (one or more adult person households with and without children, and single person households). This will lead to the "Nature of Emerging Preference Homes in for Walkable Communities" where I will show that to about mid-century if not beyond, the entire new demand for homes will be for those in walkable communities because of generational differences in preferences.

The second part-Too Many Senior Homes for Too Few Younger Buyerspresents data and preference survey results that estimates the nature and extent of the imminent excess supply of homes owned by seniors compared to the supply of buyers. I will start by showing that the "Sheer Number of Senior Sellers Dwarfs the Supply of Younger Buyers." This is despite what I call "The Misguided Romanticism of Aging in Place." If seniors can hold off selling their homes, the argument goes, the potential glut of seniors selling their homes can be attenuated as younger generations replace older ones. This is unlikely. While we may fantasize about living in our home the rest of our lives, our home can become our prison. I will distinguish between aging-in-place voluntarily and aging-in-place involuntarily. One reason that seniors may choose to age-in-place involuntarily is that "Millennials on the Sidelines." It is not that Millennials or Gen-Zers do not want to buy homes, it is that the home buying system is rigged against them. Even so, would younger generations even want to buy homes owned by boomers and Gen Xers? This question is made even more poignant in "Mismatch between Supply and Demand by Housing Type" where I will show that by 2038 there may be as many as 18 million more homes on large lots than the market wants. Aging-in-place or not, the sheer number of seniors leaving their homes will simply overrun the number of younger generation buyers. But these dire outcomes will not occur everywhere. There will be a "Geographic Mismatch" meaning that some areas will suffer far more than others, yet some areas will easily absorb homes offered for sale by seniors.

The third part—Policy Inertia is not Acceptable-argues that doing nothing is not an option for the harm it will inflict on millions of America's seniors. It ${ }^{8}$ of the imminent senior short sale calamity. Therein lies the problem: these policies need to be implemented soon because getting ahead of glacial demographic change requires time. While I worry that aging in place romanticism is misguided, "Make Aging in Place Work" is plausible in some situations. It requires in part leveraging the housing market itself to make aging in place financially feasible. This leads to "Right-Sizing Housing Supply in Growing Markets" where I outline ways in which the under-supply of needed housing is produced in places where there is market demand. In contrast, in vast swaths of America, "Right-Sizing Weak Markets" is needed, perhaps more desperately. I have mentioned that home ownership is stacked against younger generations, we need to "Rethink Mortgage Underwriting." After all, if part of the problem leading to the great senior sell-off is the dearth of younger home buyers because of post Great Recession era mortgage underwriting constraints, sensible relaxation of underwriting standards may help if done in ways that are smart.

I proceed to Part 1, which starts with a basic lesson in economics.

## Part 1: Demand, Supply and the Imminent Housing Mismatch

The study of economics is about the relationship between demand for a good or service, and its supply. The greater the demand relative to supply, the higher the price. If the mismatch is large, "excess" profits are earned-excess meaning profits over and above the normal rate of return needed to sustain an enterprise. In a competitive market, excess profits are reinvested to increase supply and lower costs. At some point, equilibrium is achieved where supply is commensurate with demand with respect costs of production including normal profits. The reverse is also true. If demand slackens in the face of increasing supply, prices must fall but if prices fall too much, firms leave the market-perhaps going bankrupt. If demand is negative, prices tend to chase the market down, even to below zero. In housing markets, the result is lower costs, higher vacancy rates, and overall disinvestment in the market-and likely foreclosures and bankruptcies. Of course there are complications. In a growing market, prices can rise for favored housing but fall for disfavored kinds. These demand and supply relationships with respect to housing will be reviewed in this part. I will begin by comparing housing market situations of that past with emerging trends. I will then show that housing demand is shifting away from homes serving the needs of households with children

[^2]to non-child and single person households. I will note that housing markets change slowly, almost glacially, but also unquestionably. Added to the mix is that each successive generation seems to have its own housing preferences that are not always the same as prior ones. This can lead to a mismatch between current housing supply and the emerging demand for housing; this is especially the case with respect to increasing demand for homes in walkable communities.

## The Past in the Context of Emerging Trends

A large part of America's household demographic changes have their root in the "Baby Boom." "Boomers" were born between 1946 and 1964. In 1946, there were about 141 million Americans. With more than 76 million babies born during this period, boomer babies increased the population by more than half ( 54 percent) of the 1946 population. No generation before or since has been as large proportionate to the base year of the generation. In contrast, as illustrated in Figure 1 , the 54 million babies comprising Gen X increased the base by 28 percent or barely more than a quarter while the 67 million babies comprising the Millennial ${ }^{9}$ generation increased their base by about 29 percent. ${ }^{10}$

America's households, and along with it housing demand, swelled by 18 million (from 38 million to 56 million), nearly doubling the number of households and making it the largest numerical and percentage increase during any comparable period in the nation's history. ${ }^{11}$ Cities at the time were unable to meet this unprecedented demand in such a short period of time. For their part, the Federal Housing Administration (FHA) and the Federal National Mortgage Association, or Fannie Mae, both founded during the 1930s under the Roosevelt Administration, had honed their housing finance apparatuses to make home mortgage financing

[^3]accessible and efficient. ${ }^{12}$ In addition, newly formed households wanted something different: safer places than cities were perceived to be, open spaces, clean air, healthier environments, yards for children to play in, and new homes with modern appliances. For their part, suburban communities were poised to accommodate the needs of millions of baby boom households. ${ }^{13}$ The Federal-Aid Highway Act of 1956 which poured trillions of dollars into new highways within and between metropolitan areas and the Clean Water Act of 1972 which financed hundreds of billions of dollars in water treatment facilities facilitated the suburbanization of America. ${ }^{14}$ The term "growth machine" is used to characterize a socio-politicaleconomic coalition of developers, property owners, contractors, labor, financial institutions, and others who benefitted from suburban growth during this period of time. ${ }^{15}$ By 1970, suburbs had more people than central cities.

When boomers grew up and formed households of their own, they typically chose to settle in the landscapes with which they were familiar: suburbs. Because they also enjoyed unprecedented incomes and housing finance options, boomers led the national wave to home ownership which peaked at $69 \%$ in 2005. The height of the boomer-driven surge in housing demand, especially for owner-occupied single family detached homes, occurred during the period 1990 through 2010. ${ }^{16}$ Between those years, the housing demand for mostly boomer households with children accounted for 82 percent of the market for new housing. Indeed, to meet

[^4]this demand, 85 percent of all new homes built were single family detached homes. ${ }^{17}$

The past does not predict the future especially when it comes to demographic trends. Instead, demographic analysis can predict the nature of future housing needs as will be shown next.


Figure 1
Generation shares of population base
Source: Adapted from Urban Institute (2015).

[^5]
## As Householders Age, Average Household Size Falls and This Changes the Nature of Future Housing Demand

Housing demand is driven by many elements but the chief non-economic reasons are householder age and average household size.

Consider first household size by householder age which is illustrated in Figure 2. ${ }^{18}$ I create four groups of households. The youngest are starter home households where householders are under 30 years of age. They are dominated by singles and young couples usually without children, and average about 2.5 persons per occupied residential unit.

Next are households in the peak housing space part of the household life cycle. These are households with children, often including children returning to or staying in home longer than in the past. ${ }^{19}$ These households typically want larger homes and larger lots. ${ }^{20}$ Householders range from 30 to 49 years of age with average household size peaking at about 3.4 persons.

Empty nesting households with householders ranging about 50 to 64 years of age, are often those that do not move soon after their children leave. Their household size ranges about 2.30 persons or about the size of starter home households. ${ }^{21}$

Then, there are downsizing households whose children have left and adults are decoupling for various reasons. These households are often looking to downsize into smaller homes on smaller lots, often in locations more accessible to services than their current homes. Average household size is below 2.0 persons and even below 1.5 persons among householders over 80 years of age. Unfortunately for many millions of them, and society as a whole, they choose to "age in place" even when they should not for reasons discussed later. What this means is that as boomers age and as the population of new generations is lagging as a share of total population, the nation's supply of empty nesting and downsizing households will

[^6]dominate the housing market well into the 2030s and 2040s. The nature of housing demand going forward will be nothing like the past.


Figure 2
Average household size by householder age with respect to household life stage
Source: Adapted from America's Families and Living Arrangements: 2016, Table AVG1. Average Number of People Per Household, By Race And Hispanic Origin, Marital Status, Age, And Education Of Householder: 2016.

## The Future is not the Past

It goes without saying that the future is not the past yet one wonders when it comes to perspectives of public policy makers and even real estate analysts.

In 2020, America had about 120 million occupied housing units, adding a little more than one million units per year since 2010. In the best years, during the middle 2000s, America added about two million homes annually. Counting replacements for homes destroyed or demolished each year, about 1.5 million new homes have been needed since the Great Recession; ${ }^{22}$ it would seem that new housing supply is lagging demand.

At the same time the nature of housing demand changes. The kinds of homes built in the 1960s were out of fashion in the 1980s which in turn were out of fashion in the 2000s which went out of fashion in the 2020s. The reason is changing demographics-few senior households need or want "McMansions," ${ }^{23}$ and changing preferences-as will be shown later, the market increasingly favors walkable communities. I will address both challengers here in the context of changing housing supply to meet demand in growing markets with special reference to senior households.

At its heart, housing demand is a function of household size and income. Larger households need more space than smaller ones, and if they can afford larger homes they will buy them. The combination of larger homes and larger lots also means looking farther into the countryside where land is abundant and cheap. This leads to "urban sprawl" ${ }^{24}$ which I characterize as the inefficient use of land relative

[^7]to demand that is facilitated by externalities and inefficient public facility pricing. ${ }^{25}$ What happens when demand changes fundamentally such as when tens of millions of homes are built to meet the needs of one generation but do not meet the needs of the next? To help answer this, I divide the housing market crudely into three generic types:

- Starter home households where householders are under 35 years of age who demand apartment, townhouse, condominium, and smaller home/smaller lot housing;
- Peak demand households where householders are between 35 and 64 years of age who demand larger homes (including McMansions) on larger lots; and
- Downsizing households where householders are 65 years of age or older who demand smaller homes on smaller lots, various attached forms.

I then estimate the change in the number of households for each category for the equal 30 -year intervals of 1980 to 2010, and 2010 to 2040. I chose the period 1980 to 2010 because 1980 was when older boomers were in their early to middle 30s while 2010 was the year before boomers began turning 65 (in 2011) thereby becoming seniors, and the end of the Great Recession of 2007-2009. I chose the end year of 2040 because the youngest boomers would be in their 70s and nearly all Gen Xers would be considered seniors. Results are reported in Table 1 and illustrated in Figure 3.

Table 1 shows some startling trends that are illustrated in Figure 3:

- Between 1980 and 2010, 28 million or three quarters ( 75 percent) of the change on demand for housing were attributable to households in their peak housing demand period. Yet, between 2010 and 2040, there will be an increase of fewer than seven million peak housing demand households and they will account for less than a fifth ( 19 percent) of the peak housing demand. (See highlighted figures in Table 10 for the row labeled "35-64 (Peak)".) In other words, the period 2010 to 2040 will see 21 million fewer peak housing demand households than seen during the period 1980 to 2010 .
- In contrast, whereas downsizing households (mostly parents of boomers) grew by nine million or 24 percent between 1980 and 2010,

[^8]they will grow by 26 million between 2010 and 2040, accounting for 77 percent of the change. (See highlighted figures in Table 10 for the row labeled ">64 (Downsizing)".) Put differently, the period 2010 to 2040 will see 17 million more downsizing households than seen during the period 1980 to 2010.

- In all three years (1980, 2010, 2040), younger "starter home" households comprised about 25 to 26 million of all households but they accounted for very small shares of the change in households between periods.

Clearly, as demographics change, so will the nature of America's future housing market. Put differently, if nearly 80 percent of the future demand for housing will be driven by seniors downsizing their homes, we cannot repeat the past where quarters of all new homes built are for larger households looking for housing and yard space. Indeed, changes are already evident as will be seen next.

Table 1
Change in Households by Householder Age and Demand Category, 19802010 and 2010-2040

| Householder <br> Age and <br> Housing Type <br> Category | Households 1980 | Households 2010 | Change 19802010 | $\begin{aligned} & \text { Share } \\ & 1980- \\ & 2010 \end{aligned}$ | Households 2040 | $\begin{aligned} & \text { Change } \\ & 2010- \\ & 2040 \end{aligned}$ | $\begin{aligned} & \text { Share } \\ & 2010- \\ & 2040 \end{aligned}$ | Change <br> Between <br> Periods |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| <35 (Starter) | 25,073 | 25,490 | 417 | 1\% | 26,718 | 1,228 | 4\% | 811 |
| 35-64 (Peak) | 39,159 | 66,778 | 27,619 | 75\% | 73,358 | 6,580 | 19\% | $(21,039)$ |
| >64 <br> (Downsizing) | 16,544 | 25,270 | 8,726 | 24\% | 51,383 | 26,113 | 77\% | 17,387 |
| Total | 80,776 | 117,538 | 36,762 |  | 151,459 | 33,921 |  | $(2,841)$ |

Note: "<" means less than and ">" means greater than.
Source: Data for 1980 and 2010 from the Current Population Survey of the
Census Bureau. Data for 2040 extrapolated from Harvard Joint Center for
Housing Studies, UPDATED HOUSEHOLD GROWTH PROJECTIONS: 20182028 AND 2028-2038.


Figure 3
Housing demand by starter home, peak demand, and downsizing households between 1980 and 2010, and between 2010 and 2040
Note: Percentages are shares of change within each time period.
Source: Data for 1980 and 2010 from the Current Population Survey of the Census Bureau. Data for 2040 extrapolated from Harvard Joint Center for Housing Studies, UPDATED HOUSEHOLD GROWTH PROJECTIONS: 20182028 AND 2028-2038.

Housing supply is notoriously slow to change. For one thing, the typical home built since World War II lasts on average about 150 to 200 years. ${ }^{26}$ (In contrast, many types of nonresidential structures last just 20 years, or less, with an average of about 45 years. ${ }^{27}$ ) For another, the nation loses less than half of one percent of its housing stock annually meaning that in recent years the nation's growth in households exceeds both new home construction and homes lost through

[^9]fire, flooding, removal for redevelopment and other forms of demolition. ${ }^{28}$ In other words, for the most part, the housing market is not capable of adapting quickly to changes in demand associated with demographic, economic or other changes.

That said, changes are afoot as seen from American Housing Survey (AHS) data for 2011 and 2017, the most recent year for which data were available for this article. The year 2011 was chosen because (a) the AHS is published every odd year, (b) it is the first full year of recovery after the Great Recession of 2007-2009, and (c) it is the first year in which boomers began turning 65. Table 2 shows that the distribution of occupied housing by attached and detached types is changing remarkably, in these ways:

- Single family detached units accounted for just 44 percent of the net change in share of occupied housing units between 2011 and 2017 or roughly about the half the rate seen during the 2000 s;
- While attached units gained 59 percent share (as manufactured home share fell three percent), townhouses and structure with more than five units (typically apartment and condominium buildings) each accounted for 58 percent of the net change among attached units; but
- There was a reduction in the number of "plex" units-2-, 3- and 4plexes principally for the reasons that as a class those structures are the oldest and thus more prone to being lost. ${ }^{29}$

[^10]Table 2
Housing Type Trends during 2010s

| Metric | $\mathbf{2 0 1 1}$ | $\mathbf{2 0 1 7}$ | Change | Overall <br> Share | Attached <br> Share |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Total Occupied Units | 114,833 | 121,600 | 6,767 |  |  |
| Single Family Detached | 73,866 | 76,830 | 2,964 | $44 \%$ |  |
| Attached Housing | 33,953 | 37,926 | 3,973 | $59 \%$ |  |
| $\quad$ Townhouse | 6,660 | 8,958 | 2,298 |  | $58 \%$ |
| $\quad$ Plex units (2-4 units in |  |  |  |  |  |
| structure) | 8,973 | 8,363 | $(610)$ |  | $-15 \%$ |
| $\quad$ or more units in structure | 18,320 | 20,605 | 2,285 |  | $58 \%$ |
| Manufactured Home, Other | 7,013 | 6,802 | -211 | $-3 \%$ |  |
| Totals may not sum due to rounding |  |  |  |  |  |

Figures in thousands.
Source: American Housing Survey

There is something else going on: The share of new detached homes to all new homes has been declining in recent decades, as shown in Figure 4. From the 1920s into the 1950s, detached homes increased from 57 percent to 77 percent of the share of all new occupied dwellings, falling steadily back to 57 percent in the 1980s. Housing finance innovations in the 1990s and 2000s led in part to an excess supply of new detached homes into the 2000s but in the 2010s, the new detached home share fell to 56 percent or below the level seen a century earlier. As the supply of detached homes wanes, the supply of attached homes increases. These trends are expected to continue for the foreseeable future, as I will show later.

As obvious as these trends seem, one can use the same data I do albeit disingenuously to make a counter-factual point. Notably, much has been made in the popular media about the ever increasing size of new single family dwelling that has grown from about 1,500 square feet to more than 2,500 square feet from the middle 1970s into the 2010s. This is seen as a good thing by Mark J. Perry of the American Enterprise Institute: ${ }^{30}$

[^11]We hear all the time about stagnating wages and household incomes, the decline/demise/disappearance of the middle class, rising income inequality, and lots of other narratives of gloom and doom for the average American. But when it comes to the new houses that Americans are buying and living in, we see a much brighter picture of life in the US. The new houses that today's generation of homeowners are buying are larger by 1,000 square feet compared to the average new houses our parents or grandparents might have purchased in the 1970s, and have almost twice the living space per person compared to the new houses built 42 years ago.

Let us examine the data in Table 3. While 94 percent of all new homes built in the 1970s were less than 3,000 square feet, only 27 percent of new homes built into the 2010s were. Indeed, there were nearly as many homes over 3,000 square feet built annually in the 1970s as there were into the 2010s-about 100,000. But in the 1970s they accounted for just six percent of the total share. Put differently, there were (a) 3.1 times more homes built in the 1970s under 1,000 square feet than into the 2010s, (b) 7.0 times more homes built between 1,000 and 2,000 square feet, and (c) 3.6 times more homes built between 2,000 and 3,000 square feet. The bottom line is that as fewer people were able to buy new homes in the 2010s than in the 1970s, those who could bought larger ones. This is an indicator of growing income and wealth inequality in America. ${ }^{31}$

Will there be a market for all these large new homes a few decades from now? I address this question in Part 3. For now, I address Professor Myers' rhetorical question relating to how America's housing market will be reshaped by predictable demographic changes.

[^12]

Figure 4
New detached dwelling share of all new dwellings by decade
Source: American Housing Survey

Table 3
Distribution of Detached Homes by Size, 1970s and 2010s

| House Size | 1970-1979 | Share | 2016-2017 | Share | Ratio 1970s <br> to 2010s |  |
| :--- | ---: | ---: | ---: | ---: | ---: | :---: |
| Under 1,000 | 188 | $27 \%$ | 61 | $16 \%$ | 3.1 |  |
| 1,000 to 2,000 | 867 | $47 \%$ | 123 | $33 \%$ | 7.0 |  |
| 2,000 to 3,000 | 330 | $20 \%$ | 92 | $24 \%$ | 3.6 |  |
| 3,000 or more | 99 | $6 \%$ | 101 | $27 \%$ | 1.0 |  |
| Total units | 1,483 |  | 376 |  |  |  |
| Median Size | 1,500 |  | 2,500 |  |  |  |

Figures in thousands.
Source: American Housing Survey for units; Census for median new house size, rounded.

## Glacial Demographic Changes That Will Carve out New Housing Markets

There are two things that are certain about demographic changes. First, they come slowly-year to year changes are nearly imperceptible. Second, over time, like a glacier, they will reshape everything.

Using data from the Harvard Joint Center for Housing Studies (JCHS), ${ }^{32}$ the nature of changes that are coming are reported in three tables. Table 4 presents broad changes in the distribution of households by householder age between 2018 and 2038. ${ }^{33}$ Three householder age categories are used: under 35 years of age; between 35 and 64 years of age; and more than 64 years of age (being 65 years old or older). Table 4 shows three important trends.

First, starter home households-those with householders under 35 years of age-will account for less than one percent of the increase in total households. Inasmuch as apartment and other forms of rental housing are driven by the formation of starter home households, this segment of market demand may soften into the last 2030s.

Second, accounting for about 20 percent, the growth in peak housing demand households-those with householders between 35 and 64 years of agewill be the lowest it has been at any time in America's history. Inasmuch as larger homes on larger lots dominated America's housing construction from the end of World War II to about 2010, these numbers suggest a sea-change looms favoring housing that is other than larger homes on larger lots.

Third, downsizing households-those with households more than 64 years old-will account for 80 percent of the change in households.

But there is more. Consider multi-adult households with two or more persons more than 18 years of age. These can be newly formed households before child-rearing as well as empty-nesting and downsizing households. Table 5 shows that 93 percent of the change in these households from 2018 to 2038 will be of downsizing age. Put differently, whereas growth in pre-child, multi-adult householders under 35 years of age is strong predictor of future demand for larger homes on larger lots, we see from Table 5 that there will be no growth in those households through the 2030s.

[^13]The trend among single-person households is more dramatic. Table 6 shows that virtually all the growth among those households will be among downsizing householders (those 64 years and older) mostly as partners separate or pass on.

Table 4
Distribution of Change in Households by Householder Age, 2018-2038

| Householders (HHers) | $\mathbf{2 0 1 8}$ | $\mathbf{2 0 3 8}$ | Change | Share |
| :--- | ---: | ---: | ---: | ---: |
| HHers < 35 (starter HHs) | 26,499 | 26,695 | 197 | $<1 \%$ |
| HHers $35-64$ (peak housing HHs | 68,439 | 72,695 | 4,255 | $20 \%$ |
| HHers $>64$ (downsizing HHs) | 32,869 | 50,156 | 17,286 | $80 \%$ |
| Total | 127,807 | 149,546 | 21,739 |  |

Figures in thousands.
Figures may not sum due to rounding.
Source: Adapted from Harvard JCHS (2019) projections 2018-2038.

Table 5
Distribution of Change in Multi-Adult Households by Householder Age, 2018-2038

| Multi-Adult Households (HHs) | 2018 | 2038 | Change | Share |
| :---: | :---: | :---: | :---: | :---: |
| HHs < 35 (starter HHs) | 10,089 | 10,113 | 25 | 0\% |
| HHs 35-64 (peak housing HHs) | 29,467 | 30,091 | 624 | 7\% |
| $\mathrm{HHs}>64$ (downsizing HHs) | 18,554 | 27,069 | 8,514 | 93\% |
| Total | 58,110 | 67,273 | 9,163 |  |

Figures in thousands.
Figures may not sum due to rounding.
Source: Adapted from Harvard JCHS (2019) projections 2018-2038.

Table 6

## Distribution of Change in Single Person Households by Householder Age, 2018-2038

| Single Person Households (HHs) | 2018 | 2038 | Change | Share |
| :---: | :---: | :---: | :---: | :---: |
| HHs < 35 (starter HHs) | 5,849 | 5,697 | -152 | -2\% |
| HHs 35-64 (peak housing HHs) | 15,007 | 15,153 | 146 | 2\% |
| HHs > 64 (downsizing HHs) | 13,884 | 22,402 | 8,518 | 100\% |
| Total | 34,739 | 43,252 | 8,512 |  |

Figures in thousands.
Figures may not sum due to rounding.
Source: Adapted from Harvard JCHS (2019) projections 2018-2038.

What does this mean for home ownership into the late 2030s? The Harvard JCHS includes projections of tenure (owner or renter) from 2018 to 2038 for three scenarios: ${ }^{34}$

- The "base" scenario, which holds homeownership rates constant at their 2018 where the homeownership rate changes little from 64.3 percent in 2018 to 64.1 percent.
- The "high" scenario where homeownership rates bounded to their longer-term, mostly pre-Great Recession (2007-2009) averages where homeownership grows to 65.6 percent in 2038.
- The "low" scenario where the homeownership rate falls to 62.6 percent in 2038.

I choose the low scenario for several reasons. One is insights gained from the Urban Institute's projections of homeownership rates to 2030 show a range of 62.0 percent to 62.2 percent, ${ }^{35}$ both lower than the 2020 homeownership rate of about 64.0 percent. ${ }^{36}$ Their projections recognize that (a) nearly all household

[^14]growth in the U.S. going forward will be other than White non-Hispanic and (b) homeownership rates of Hispanic (all races) and Black (only) households has been relatively constant even through the 2000s when the national ownership rate reached historic highs. Moreover, using three very different techniques, three studies published by HUD showed that because of demographic shifts, the homeownership rate in 2050 is projected to fall to about 54 percent. ${ }^{37}$ Indeed, the "low" scenario of the Harvard JCHS is higher than all four of these other studies which makes its numbers less dramatic than those projections. ${ }^{38}$

There are two other reasons. A key one is that millennials may be sitting on the sidelines and deferring home buying ${ }^{39}$ because they: (a) witnessed first-hand the trauma of family and friends facing foreclosure, short-sale, bankruptcy and related effects of the Great Recession; ${ }^{40}$ (b) have high student debt that is the highest ever ${ }^{41}$ largely because states have cut subsidies for public college education by up to half or more in real dollar terms; ${ }^{42}$ and (c) are concerned about economic insecurity making renting a more rational option than buying. ${ }^{43}$

[^15]The other is the Tax Cut and Jobs Act that reduces the desirability of homeownership generally by: (a) capping mortgage interest and property tax deductions from taxable income; (b) removing home refinancing loan interest deductibility from taxable income-one consequence being compromising the ability of parents to support their children's college education; and (c) requiring workers to pay taxes on moving expenses paid by employers thereby reducing cash they need to buy a home in a new location if not have the worker decline the relocation opportunity. ${ }^{44}$

Given the weight of the evidence, the Harvard JCHS homeownership low scenario is used with results reported in Table 7. These trends are not favorable to sustaining homeownership rates over time. Consider:

- Though increasing by just 200,000 households, there will be a net decrease in starter homeowner householders (householders under 35 years of age) of more than one-half million homes as nearly three quarters of a million of them choose to rent.
- Nearly all the change in the number of peak space demand households (householders between 35 and 64 years of age) will be renters.
- About 72 percent of the change in downsizing households (householders more than 64 years of age) will be homeowners but that is mostly because they already owned a home before reaching the householder age category.
- All of the net change in the number of householders who are under 65 years of age will be attributed to renting.

Here is the problem: Mathematically, with 13 million more senior home owners between 2018 and 2038 than all other households combined, there are not enough younger or "upsizing" households to acquire homes of aging or "downsizing" households even if millions of seniors are able to age in place. And it gets worse as will be shown.

[^16]Table 7
Distribution of Low Scenario Tenure Change by Householder Age, 2018-2038

| Householder Age and Tenure | 2018 | 2038 | Change | Share |
| :---: | :---: | :---: | :---: | :---: |
| All Householders | 127,807 | 149,546 | 21,739 |  |
| Owner | 82,210 | 93,662 | 11,452 | 53\% |
| Renter | 45,597 | 55,883 | 10,286 | 47\% |
| Ownership Rate | 64.3\% | 62.6\% |  |  |
| Householders <35 | 26,499 | 26,695 | 196 |  |
| Owner | 9,25 | 8,713 | (543) | -277\% |
| Renter | 17,243 | 17,983 | 740 | 377\% |
| Ownership Rate | 34.9\% | 32.6\% |  |  |
| Householders 35-64 | 68,439 | 72,695 | 4,256 |  |
| Owner | 47,042 | 46,813 | (229) | -5\% |
| Renter | 21,397 | 25,882 | 4,485 | 105\% |
| Ownership Rate | 68.7\% | 64.4\% |  |  |
| Householders >64 | 32,869 | 50,156 | 17,287 |  |
| Owner | 25,912 | 38,438 | 12,526 | 72\% |
| Renter | 6,958 | 11,718 | 4,760 | 28\% |
| Ownership Rate | 78.8\% | 76.6\% |  |  |
| Householders < 65 | 94,938 | 99,390 | 4,452 |  |
| Owner | 56,298 | 55,526 | (772) | -17\% |
| Renter | 38,640 | 43,864 | 5,224 | 117\% |
| Ownership Rate | 59.3\% | 55.9\% |  |  |
| Change in senior home | rs to all ot |  | 13,298 |  |

Figures in thousands.
Figures may not sum due to rounding.
Source: Adapted from Harvard JCHS (2019) projections 2018-2038.

## Nature of Current Supply

In this section, I review the nature of the current supply of housing with special reference to housing occupied by households based on householder age and type. The next and last section of this Part will show the rise in the demand for homes in walkable communities. (Part 2 will show the mismatch between the current supply housing and the future demand for walkable communities.)

Table 8 shows the distribution of occupied housing units by householder age and type for 2017, the most recent year data were available for this study. ${ }^{45}$ Of all occupied units, 69 percent were detached single family (including manufactured homes) while 31 percent were various forms of attached housing such as townhomes, apartments, condominiums, cooperatives and others. As one may expect, the propensity for a householder to occupy a detached unit increases with age that is until householders are more than 64 years of age, where the propensity to occupy an attached unit increases.

The bottom part of Table 8 shows the distribution of households by type with respect to occupied detached and attached units. Not surprisingly, households with children occupied detached units at a much higher rate than households without children but there is a nuance. Subtracting single person households whose occupancy of detached and attached units is about equal, multi-adult households without children occupied detached units at the highest rate. I surmise that they include millions of households who are empty nesters after their boomer and Gen X children left home.

Table 8 is the baseline supply against which future demand is compared. The next section addresses the nature of changing demand for housing in walkable communities.

[^17]Table 8
Distribution of Occupied Housing Units by Householder Age and Type, 2017

| Metric | All Units | Detached <br> Units | Attached <br> Units | Detached <br> Units ShareAttached |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Householder (HHer) | 114,514 | 79,289 | 35,225 | $69 \%$ | $31 \%$ |
| Age | 20,613 | 9,515 | 11,098 | $46 \%$ | $54 \%$ |
| HHer $<35$ | 28,629 | 19,822 | 8,806 | $69 \%$ | $31 \%$ |
| HHer 35-49 | 34,354 | 26,165 | 8,189 | $76 \%$ | $24 \%$ |
| HHer 50-64 | 30,919 | 22,994 | 7,925 | $74 \%$ | $26 \%$ |
| HHer $>64$ | 114,514 | 79,289 | 35,225 | $69 \%$ | $31 \%$ |
| Household (HH) Type | 36,644 | 26,958 | 9,686 | $74 \%$ | $26 \%$ |
| HHs with Children | 77,870 | 52,331 | 25,539 | $67 \%$ | $33 \%$ |
| HHs w/o Children | 30,919 | 15,858 | 15,061 | $51 \%$ | $49 \%$ |
| 1-Person HHs | 46,951 | 36,473 | 10,478 | $78 \%$ | $22 \%$ |
| Multi-Adult HHs |  |  |  |  |  |

Figures in thousands.
Multi-adult HHs means those without children.
Figures may not sum due to rounding.
Source: American Housing Survey for 2017.

## Nature of Emerging Preference for Homes in Walkable Communities

America's housing market is being driven by an increasing preference for living in walkable communities with mixed uses. ${ }^{46}$ I use the word "preference" instead of "demand" because demand implies what people want in the absence of choices while preferences are based on what people prefer when given reasonably plausible choices.

What is a walkable community? After all, most people probably live where they can walk to something if just for leisure. A walkable community is one where a person can walk or bicycle safely to such destinations as shopping, restaurants, services, school, and work within about 10 to 15 minutes. ${ }^{47}$ While there is no metric that tracks walkable communities nationally or the change in the number of people living in those communities over time, some insights are available from the American Housing Survey for 2013. Table 8 shows the overall weighted average share of households living in homes that are walkable to grocery stores, personal services, retail shopping, entertainment, health care services and personal banking is 22 percent. ${ }^{48}$ The share among householders by household age ranges from a high of 29 percent among those under 35 years of age to 20 percent among those between 35 and 64 years of age, to a low of 13 percent among those age 65 years and over. Also shown in Table 8 and not surprising is that the youngest householder category has the lowest share of households living in detached homes-45 percent-compared to 70 percent or more of the households in the older age categories.

To understand Americans' preference for living in walkable communities, I turn to the National Association of Realtors’ (NAR) Community Preference Survey. It was conducted first in 2004 and then every odd numbered year since 2011.4 ${ }^{49}$ Among the first questions asked by the NAR is the kind of home in which

[^18]a respondent would choose to live with choices being a single-family detached home, townhome, apartment, condominium or other. More than 70 percent of respondents choose the single-family detached home. The survey then confronts respondents with reasonably plausible choices in two sets of questions. Respondents choose between (a) small detached lots ${ }^{50}$ in walkable communities or conventional lots that are auto-dependent and (b) attached homes (such as townhouses, condominiums and apartments) in walkable communities or conventional auto-dependent ones. Those stated preference questions are reported in Figure 5.

However, this tells us only two things. First, it tells us only the kind of detached home a respondent would choose between large lot drive-only and small lot walkable options. Second, it tells us only which option the respondent would choose between attached walkable and detached drivable choices. We do not know how respondents are distributed by household type and householder age with respect to preferences for large lot drivable only homes, small lot homes in walkable communities, or attached homes also in attached communities. I reanalyze the NAR's raw survey data to do so. Key distributions are reported in Tables 9 and 10 in several ways. One is for the distribution of preference for large lot drive-only, small lot walkable, and attached walkable communities. I will use these distributions to estimate the preference for walkable communities later. Another is for purely detached homes. The last distribution is for purely homes in walkable communities. These distributions are interpreted as follows:

- The percentages in the rows of the first three numerical columns sum to 100 percent (or close because of rounding);
- The fourth numerical column shows the percent of households preferring a detached home (the sum of the first and third numerical columns) over an attached home regardless of walkability; and
- The last column shows the percent of households preferring to live in a walkable community regardless of the kind of home (the sum of the second and third numerical columns).

[^19]This analysis is important because it will show that the emerging preference for homes is working against the current supply of larger homes on larger lots.

Using a special set of questions included in the 2013 version of the American Housing Survey, I was able to compare the existing supply of walkable communities by householder age to demand based on the NAR survey. Results are reported in Table 9. The bottom line is whereas about 72 percent of households want to live in a walkable community only 22 percent do.

## Table 9 <br> Share of Households by Householder Age Who Live in Walkable Communities

| Householder Age | Walkable Community <br> Supply | Walkable Community <br> Demand |
| :--- | :---: | :---: |
| $<35$ Years of Age | $29 \%$ | $73 \%$ |
| 35 to 64 Years of Age | $20 \%$ | $67 \%$ |
| $>64$ Years of Age | $13 \%$ | $74 \%$ |
| All | $22 \%$ | $72 \%$ |

Source: American Housing Survey for 2013 for supply and NAR (2017) for demand.
Imagine for a moment that you are moving to another community. These questions are about the kind of community where you would like to live. Please select the community where you would prefer to live.
Choosing between detached homes on small or conventional lots
COMMUNITY A. Houses with large yards and you have to drive to the places where you need to go.
COMMUNITY B. Houses with small yards, and it is easy to walk to the places you need to go.
Choosing between attached homes or conventional lots
COMMUNITY A. Own or rent an apartment or townhouse, and you have an easy walk to shops and restaurants and have a shorter commute to work.
COMMUNITY B. Own or rent a detached, single-family house, and you have to drive to shops and restaurants and have a longer commute to work
The text is verbatim from the survey instrument. The response choices are rotated during the actual survey.

Figure 5
NAR Community Preference Survey stated preference questions relating to choosing between home types and walkable versus drivable communities Source: National Association of Realtors.

Table 10

## Distribution of Community Preferences by Type of Home based on Demographic Characteristics

| Household (HH) <br> Type by Age and Householder Age | Large Lot Home Drive Only to Places | Small Lot Home Walkable to Places | Attached Home Walkable to Places | Detached Home Preference | Walkable Home Preference |
| :---: | :---: | :---: | :---: | :---: | :---: |
| HHs with Children | 42\% | 28\% | 29\% | 71\% | 58\% |
| Under 35 years | 40\% | 22\% | 37\% | 63\% | 60\% |
| Between 35-64 years | 43\% | 31\% | 27\% | 73\% | 57\% |
| 65 Years and Older | 43\% | 33\% | 23\% | 77\% | 57\% |
| Multi-Adult HHs w/o Children | 37\% | 28\% | 35\% | 65\% | 63\% |
| Under 35 years | 37\% | 25\% | 39\% | 61\% | 63\% |
| Between 35-64 years | 36\% | 31\% | 33\% | 67\% | 64\% |
| 65 Years and Older | 41\% | 26\% | 33\% | 67\% | 59\% |
| Single Person HHs | 24\% | 37\% | 38\% | 62\% | 76\% |
| Under 35 years | 24\% | 37\% | 39\% | 61\% | 76\% |
| Between 35-64 years | 24\% | 39\% | 37\% | 63\% | 76\% |
| 65 Years and Older | 22\% | 39\% | 38\% | 62\% | 78\% |
| All Households | 30\% | 36\% | 35\% | 65\% | 70\% |
| Under 35 years | 27\% | 34\% | 39\% | 61\% | 73\% |
| Between 35-64 years | 33\% | 35\% | 32\% | 68\% | 67\% |
| 65 Years and | 26\% | 41\% | 33\% | 67\% | 74\% |

Units in thousands of units.
Figures may not sum due to rounding. Source: Adapted from National Association of Realtors (2017).

Not surprisingly, the largest preference shares are for any kind of detached home, whether drive-only or walkable to places, ranging from 62 percent for single person households to 71 percent for households with children. But, with one exception, people prefer to live in walkable communities by larger shares. Among all households, the walkable preference is 70 percent reaching a high of 76 percent for single person households though falling to 63 percent for multi-adult households without children. The exception is households with children where most ( 58 percent) still prefer to live in walkable communities.

From the perspective of households with householders 65 or more years of age, only 26 percent prefer large lot homes in drive only communities while 74 percent prefer to live in walkable communities. Indeed, among all age groups, senior households prefer detached homes in drive only communities the least of all age groups yet that is exactly where most of them live.

Table 11 uses the distributions in Table 10 to project preferences for the kind of homes for the same household types and age groups. In 2038, more than 105 million of America's nearly 150 million households, or 70 percent, would prefer to live in walkable communities. Yet only about a fifth of households lived in walkable communities in the 2010s. ${ }^{51}$

Mathematically, even if all new housing units built from this Festschrift to 2038 were in walkable communities-increasing from about 28 million to 63 million, a little more than half the preference for homes in walkable communities would be met. More impressive is that of the 50 million senior households in 2038, 74 percent or 37 million of them prefer to live in a walkable community. Yet, they are the ones who dominate non-walkable suburbia.

There will soon be too many sellers for too few buyers across large swaths of America, as will be shown in Part 2.

[^20]Table 11
Preferred Housing Units by Type of Home based on Demographic Characteristics, 2018

| Household (HH) Type by Householder Age | $\begin{gathered} \text { Projected } \\ 2038 \end{gathered}$ | Large Lot Home Not Walkable to Places | Small Lot Home Walkable to Places | Attached Home Walkable to Places |
| :---: | :---: | :---: | :---: | :---: |
| HHs with Children | 39,021 | 16,387 | 11,092 | 11,542 |
| Under 35 years | 10,885 | 4,398 | 2,419 | 4,068 |
| Between 35-64 years | 27,450 | 11,686 | 8,426 | 7,338 |
| 65 Years and Older | 685 | 298 | 228 | 159 |
| Multi-Adult HHs w/o Children | 67,273 | 25,644 | 18,863 | 22,766 |
| Under 35 years | 10,113 | 3,705 | 2,504 | 3,905 |
| Between 35-64 years | 30,091 | 10,833 | 9,328 | 9,930 |
| 65 Years and Older | 27,069 | 11,098 | 7,038 | 8,932 |
| Single Person HHs | 43,252 | 9,979 | 16,845 | 16,428 |
| Under 35 years | 5,697 | 1,367 | 2,108 | 2,222 |
| Between 35-64 years | 15,153 | 3,636 | 5,910 | 5,607 |
| 65 Years and Older | 22,402 | 4,978 | 8,825 | 8,599 |
| All Households | 149,546 | 44,216 | 55,121 | 50,209 |
| Under 35 years | 26,695 | 7,208 | 9,076 | 10,411 |
| Between 35-64 years | 72,695 | 23,989 | 25,443 | 23,262 |
| 65 Years and Older | 50,156 | 13,041 | 20,564 | 16,551 |

## Part 2: Too Many Senior Homes for Too Few Younger Buyers

In normal times, younger generations replace older generations' homes. Those times may be over for four reasons: (1) the sheer number of boomers who may be selling their homes is simply larger than the number of those who may want to buy them; (2) seniors may choose to live in their homes many years or decades longer than seen historically as they "age in place"; (3) millennials may be on the sidelines and not interested in buying boomers' homes anyway; and (4) there is a large geographic mismatch between where seniors who want to sell their homes are and younger generations who would normally be expected to buy those homes are located. All this adds up to perhaps more than 10 million seniors being unable to sell their homes between this Festschrift and about 2040.

## Sheer Number of Senior Sellers Dwarfs the Supply of Younger Buyers

Here I will restate numbers presented above differently to make a point. Between 2018 and 2038, seniors will account for 80 percent of the net change in total households while younger generations will account for just 20 percent. There are two dynamics at work. For one thing, seniors are mostly boomers who, as of this Festschrift, still accounts for the largest share of America's generations. ${ }^{52}$ As they age, the average household size of boomers gets smaller because partners separate or pass on with the overall effect that the demand for boomer housing actually increases compared to that of Millennials who are partnering and having children. The other dynamic is that seniors are not actually adding to the population because they are already here and just simply aging into another age category.

Now consider a thought experiment. What if all seniors disappeared overnight. Who is left to buy their homes? And will buyers even want those homes considering their features and that they are mostly in non-walkable communities? The U.S. is still growing of course but there will come a time when seniors exit their homes in very large numbers about the same time either by moving someplace else or passing on. When they do, there may be a glut in the range of 15 million to

[^21]18 million homes until younger generations increase in numbers sufficiently to offset senior exits. ${ }^{53}$

The silver lining of the looming glut of housing is that prices will be driven down and homeownership will be made more affordable (or less unaffordable) for those who are in the market. On the other hand, the looming glut may trigger the next recession. ${ }^{54,55}$

## The Misguided Romanticism of Aging in Place

One solution to the dampening the prospect of seniors glutting the market with homes to sell is to find ways for seniors to stay in their homes longer-aging in place. The idea is that if enough seniors age in place long enough, fewer senior homes will be on the market at any given point thereby giving younger generations more time to acquire the means to acquire them. ${ }^{56}$ That strategy may be limited to those millions of seniors able to age in place or who live in areas where markets are robust enough to absorb senior sales, but not millions more.

The American Association of Retired Persons (AARP) estimates that nearly 80 percent of Americans over 50 years of age want to "age in place" meaning, at the extreme, that they want to live in their homes until they are carried out dead. ${ }^{57}$ This romanticism is advocated by the AARP and advanced through various policies

[^22]aimed at supporting seniors in their homes ${ }^{58}$ in my view perhaps longer than may be reasonable. ${ }^{59}$ I hypothesize that there are two kinds of seniors who age in place: those who age-in-place voluntarily and those who age-in-place involuntarily.

Those who age-in-place voluntarily would seem to be in good health, have the financial means to maintain their property, enjoy mobility, and have important social networks. ${ }^{60}$ The AARP offers numerous guides for this population. ${ }^{61}$ Key issues arise when seniors lose mobility, cannot maintain their home or property, and need in-home or even live-in care. With federal, state, regional and local tax support, transportation agencies provide some mobility options ${ }^{62}$ while public agencies, private providers and nonprofits arrange in-home care including companionship ${ }^{63}$ and a range of providers offer home and yard maintenance and repair. ${ }^{64}$

While many millions of seniors wish to and can age in place voluntarily other millions will age in place involuntarily and not in their best interest. ${ }^{65}$ For

[^23]those millions, there simply are no affordable options other than staying in a home that does not meet their needs. ${ }^{66}$ For one thing, other than aging in place involuntarily, there are few options for seniors to relocate to more appropriate housing because land use regulations prevent creating those options. ${ }^{67}$ Another is that home owner associations regulate the size, tenure, and renovations of homes in ways that may prevent seniors from adjusting their homes to allow them to do so. ${ }^{68}$

Eventually, however, seniors will leave their homes. The question is: who will buy them?

## Millennials on the Sidelines

To say that the Great Recession of 2007-2009 affected America's housing market may be an understatement. ${ }^{69}$ Among the casualties are Millennials who not only faced bleak job opportunities early in their careers but their incomes lagged. ${ }^{70}$ At least one commentator worries that being in debt, without savings, and incomes

[^24]still stunted from the Great Recession, "The Next Recession Will Destroy Millennials", ${ }^{71}$ The COVI-19 drive recession of the early 2020s comes to mind. ${ }^{72}$

Even for those who want to buy homes, mortgage underwriting after the Great Recession made it more difficult to buy homes. ${ }^{73}$ Moreover, as of 2016, students loans were required to be factored into mortgage underwriting whereas before they were excluded. ${ }^{74}$ It is as though, whereas the home buying system was rigged FOR boomers and Gen Xers, it is now rigged AGAINST Millennials and likely Gen Zers. One consequence is that at the time of this Festschrift, Millennial home ownership remained about 10 points below similarly aged cohorts. ${ }^{75}$

Millennials may also have different attitudes toward buying homes than older generations. Paraphrasing the Urban Institute's findings about Millennial ${ }^{76}$ homeownership, they include preference for living in more urban (and higher cost) areas, deferred marriage and child rearing, economic uncertainty associated with the trauma of the Great Recession-including distrusting home ownership as a wise investment. To this I would add my experience as a college professor since the 1980s where Millennials and Gen Zers want to be settled in their life including employment, geographic location and family before buying a home.

## Mismatch between Supply and Demand by Housing Type

There is another problem: The growing mismatch between the type of housing the market appears to prefer in 2038 compared to the supply in 2017 (the most recent year for which data are available).

Part 1 estimated the demand for housing between attached, small and large lot types based on their walkability. Here, I focus on the 2038 preference for generic types of housing compared to the 2017 supply. Table 12 shows the distribution of occupied homes by attached (including townhomes), small lot (those under onesixth of an acre but excluding townhomes), and large lot being all other detached

[^25]homes. ${ }^{77}$ For 2017, I estimate there were about 30 million attached homes, 29 million small lot homes, and 63 million large lot homes. From Table 11, we know the 2038 preference based on the NAR's community preference survey will be for 52 million, 54 million, and 45 million occupied homes, respectively. In other words, between 2017 and 2038 there will need to be:

- 23 million more attached homes and
- 25 million more small lot homes but
- 18 million fewer large lot homes.

This trend is illustrated in Figure 12.
Inasmuch as it seems unlikely that about one million large lot homes per year will somehow be converted into small lot or attached homes, there will likely be millions more homes on large lots in 2038 than the market would seem to need. While I will show in Part 3 that some of the projected excess supply may indeed be converted especially into "plexes," the magnitude of the excess supply is unlikely to be overcome. It is not that the market was unresponsive to pressing needs in the past-indeed it was quite responsive in meeting the demand for larger homes on larger lots to meet the needs of boomer and Gen X households. Between 1980 and 2010, that demand was met through the construction of about 28 million homes of which I estimate about 20 million were built on large lots. The problem is that those same boomer and Gen X households are downsizing resulting in an excess supply of large lot homes in 2038 that will be hard to overcome because of their location, configuration, and sheer volume. ${ }^{78}$

[^26]Table 12
Housing Supply 2017, Preference 2038 and Absorption 2017-38 for Occupied Attached, Small Lot and Large Lot Homes

| House Type | Supply 2017 | Demand 2038 | Absorption |
| :--- | ---: | ---: | ---: |
| Attached | 29,726 | 52,341 | 22,615 |
| Small Lot | 28,921 | 53,837 | 24,916 |
| Large Lot | 62,913 | 44,864 | $(18,049)$ |
| Total | 121,560 | 149,546 | 27,986 |

Source: Data for 2017 adapted from American Housing Survey. Data for 2038 from Table 11.


Figure 6
Housing supply 2017 from AHS, demand 2038 from NAR and change, "absorption" 2017-38 for occupied attached, small lot and large lot homes

## Geographic Mismatch

Not all areas will be impacted the same during the Great Senior Short Sale. Many thriving areas will benefit from the ready supply of homes to meet the needs of younger generations even if modifications are needed (see Part 3). Others will be adversely affected. Still others may be devastated.

Figure 7 illustrates the counties where population is projected to decline from this Festschrift through the 2030s, or the growth in the number of those becoming seniors will be equivalent to 75 percent or more of the counties' growth. In all, more than half of the counties in the contiguous states are at risk. Ongoing research will estimate the number of seniors for whom there may be insufficient buyers of their homes but preliminary analysis shows it is about half of the 15 million to 18 million shortfall of younger generation buyers to seniors exiting their homes noted earlier. The other half may be in counties not designated by the census as core based statistical areas (CBSAs), ${ }^{79}$ and exurban and suburban fringe areas for which long term housing market demand is weak. ${ }^{80}$

Should we really worry about millions of seniors who seem certain to be trapped in homes they cannot sell, or in millions of cases be unable to rent their homes to others? After all, if there is no market for their homes, why intervene to bail them out of decisions they made years or decades ago? But if intervention is chosen, what are some of the options?

[^27]

Figure 7
Counties at risk for senior short sale
Source: Data from Woods and Poole Economics. Graphic by Robert Hibberd.

## Part 3: Policy Inertia is not an Option

... the exit of Boomer homeowners will occur on such a massive scale that it could alter the long-term demand-supply balance in ways that are negative for the home sales market and home prices. Dowell Myers ${ }^{81}$

Without policy intervention, the great senior short sale is imminent. By the end of the 2030s, the prospect of millions of seniors being unable to sell their homes for what they hoped based on experience or even at all would seem likely to dominate policy discussions. In the meantime, glacial demographic change will be barely perceptible year over year-until it is too late. Proactive policies are needed now, some of which may be unpopular. They include: (1) making aging in place work where it makes sense; (2) right-sizing supply in strong markets; (3) rightsizing supply in weak markets; and (4) rethinking mortgage underwriting. While doing nothing is an option, that assures that millions of America's seniors are essentially abandoned by their own country which really is not an option, in my view.

## Make Aging in Place Work

I expressed reservations about aging-in-place earlier. On the other hand, to minimize the impending glut of housing it may be useful to keep seniors in their homes for as long as possible. This is a double edged sword. One side of the blade would advance policies and public investment to sustain seniors in their housing but the other side means depriving younger households of the very housing they may need to meet their housing needs.

One way to accommodate both needs is to use the existing housing stock more efficiently. Joe Cortright of City Observatory observes the U.S. has 40 million more bedrooms in its housing stock than people-the highest excess capacity ever. ${ }^{82}$ As seen in Table 13, the figures for detached homes is even more pronounced with the average home having 20 percent more bedrooms than people. These bedrooms could be unleashed to help seniors age in place with households who could share their home with others who can assume a range of property management and caregiving services. ${ }^{83}$

[^28]There are two impediments to unleashing this pent up supply: land use regulations and home owner associations but both may be remedied through state legislation. For instance, in 2019, Oregon adopted House Bill 2001 that eliminated single family detached unit zoning by allowing up to four residential units on single family lots in jurisdictions housing most of the state's residents. ${ }^{84}$ Because it is a state law, it is possible that covenants, conditions and restrictions prohibiting anything but single family homes would be inconsistent with state law and thus unenforceable. ${ }^{85}$ Minneapolis adopted a similar citywide ordinance also in 2019. ${ }^{86}$ As of this writing several states are also exploring this option.

But there is more than can be done to help seniors through the pending glut of homes, as will be outlined next.

Table 13
Empty Bedrooms and Bedrooms per Person, 2017

| Metric | All Units | Detached | Attached |
| :--- | ---: | ---: | ---: |
| Units | 114,514 | 79,289 | 35,225 |
| People | 286,776 | 212,935 | 73,841 |
| Persons per Unit | 2.5 | 2.7 | 2.1 |
| Bedrooms | 323,536 | 256,603 | 66,933 |
| Empty Bedrooms | 36,760 | 43,668 | $(6,908)$ |
| Bedrooms per Person | 1.1 | 1.2 | 0.9 |

Figures may not sum due to rounding.
Source. American Housing Survey for 2017.

[^29]Right-Sizing Housing Supply in Growing Markets
Crudely, there three kinds of markets:

- Those that are growing faster than the national average and in which seniors are unlikely to face short sales;
- Those that are growing albeit unevenly with potentially large swaths of weak submarkets especially at the suburban fringe; and
- Those that are stagnating or declining, perhaps facing devastating losses.

I am not worried (much) about robust markets except that their supply of senior-friendly housing needs to be increased perhaps in ways already underway in some cities and states. I will focus here on the middle market here and then weak markets next.

Just because a market is growing does not mean its housing stock matches market demand at the present time or may not meet emerging demand for years or even decades.

Moreover, growing markets are not usually growing everywhere. Older areas, especially suburbs built for one kind of household-those with children, and with few housing choices-may be the most at risk to being able to sell their home for a reasonable price lest they choose to age in place perhaps involuntarily. ${ }^{87}$ I will focus on locally weak markets in otherwise regionally growing ones.

There are two overall strategies in these markets: Make more efficient use of the existing stock of housing, and retrofit urban landscapes, especially suburbs, to meet people's increasing demand for more livable communities.

[^30]I noted earlier that millions of homes appear to have "excess" bedrooms (admittedly open to interpretation by the household). Table 14 provides another angle. As the age of the householder increases, so does the average space occupied per person with those 65 years of age and over occupying by far the largest amount of space. Remember earlier when I mentioned that the supply of "plex" housing was falling and that as a class it was also the oldest? In fact, a very large share of plex housing is housing built for one generation that was converted to meet the housing needs of the next. This was because early zoning laws in many cities allowed multiplex residential units in most if not all low density residential areas. ${ }^{88}$

Legislation by Minneapolis and Oregon in 2009 essentially return much residential zoning to what it was before the 1950s. An example of efforts that can be expected elsewhere is Seattle. Receiving no national attention-being outshown by Minneapolis and Oregon, on July 1, 2019, the Seattle City Council adopted an ordinance that went into effect immediately. Key features include: ${ }^{89}$

- Increasing the allowed size of backyard cottages from 800 square feet to 1,000 square feet;
- Adds an additional 1-2 feet in building height thereby allowing for more usable space in the units' interiors;
- Allowing two accessory dwelling units (ADUs) on a property instead of one resulting in a total of three units through a combination of new units within the house and a separate detached unit;
- Eliminating the rule that a property owner has to live somewhere on site; and
- Removing an off-street parking requirement, potentially lowering the total cost of building new ADUs.

The city estimates that these changes will increase supply of what are locally called "backyard cottages" by about 2,400 units within a decade and decrease the projected number of teardowns of existing homes by about 450 units.

[^31]Table 14
Housing Space per Person by Householder Age, 2017

| Householder Age | Square Feet <br> per Person |
| :--- | :---: |
| Under 25 years old | 475 |
| 25 to 29 years old | 500 |
| 30 to 34 years old | 500 |
| 35 to 44 years old | 520 |
| 45 to 54 years old | 650 |
| 55 to 64 years old | 833 |
| 65 years old and over | 951 |

Source. American Housing Survey for 2017.

Though novel in the present era, cities such as Minneapolis and Seattle and states such as Oregon, Virginia and Washington ${ }^{90}$ may be followed by much of America soon. These policies can aid seniors in a number of ways that allow them to age in place responsibly. Underused parts of homes can be used by other households who themselves pay rent, provide services to the senior household, and become eyes on the property.

Though directed at infill areas, these and related policies can be applied to McMansions in distant, low density suburbs. I estimate that about five million seniors live in McMansions across the U.S., mostly in suburban fringe and exurban areas. ${ }^{91}$ In some ways these are among the most vulnerable housing for seniors

[^32]because on the whole the market for them is not what it was before the Great Recession. ${ }^{92}$ One commentator observes: ${ }^{93}$
(McMansion) Conversions would diversify the single-family subdivisions where McMansions are usually located, creating more choices for more people ... and addressing the growing demand for smaller, more efficient housing.
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Apartments and condos in ex-McMansions could also appeal to renters who can't otherwise afford to live in suburbia - and to Boomers who might be lonely and want communal living with neighbors, says Dunham-Jones.

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In 2017, former U.S. surgeon general Vivek Murthy declared that the country was suffering from a loneliness epidemic, she notes. "A lot of that is people living out in the middle of a big house, in the middle of nowhere."

There is a second area in which housing supply can be right-sized in growing markets and that is simply making suburban landscapes more attractive and livable. Various commentators call it "retrofitting suburbs." ${ }^{94}$ Key elements of this genre of literature include recycling declining or even dead retail centers into

[^33]mixed use development including residential development, ${ }^{95}$ redeveloping excess parking into economically productive real estate, ${ }^{96}$ reducing over-zoned supplies of commercial land especially along commercial corridors while also adding more residential development, ${ }^{97}$ creating "complete streets," ${ }^{98}$ expanding rail transit to attract mixed use development in and near transit oriented development, ${ }^{99}$ and expanding the supply of "missing middle housing," ${ }^{100}$ among many other efforts. Doing so will make suburbs attractive to those who want walkable communities along with diverse housing choices, and especially more mobility options. The end result is that seniors who might have been trapped in homes in unattractive suburban locations may see their home values stabilize or improve as their neighborhoods become more attractive to younger generations.

But what about weak markets where there is little and even negative housing demand?

[^34]
## Right-Sizing Weak Markets

Weak markets are those with stagnant or often declining growth. My colleague, Robert Hibbard, ${ }^{101}$ and I estimate that more than 40 percent $(1,241)$ of U.S. counties are losing population. Another 14 percent (429 counties) are or will become "senior dominant" where more than 75 percent of all householders are 65 years of age or older. In 2020, these counties accounted for nearly 80 million or about a quarter ( 24 percent) of the nation's 330 million residents. ${ }^{102}$ These are places where seniors have the greatest risk of facing short-sales. What can be done?

As Draconian as it seems, one approach to addressing the senior short-sale problem in these counties is to "right-size" housing supply by having government agencies acquire and remove excess housing supply. The market will do this anyway so not get ahead of what is inevitable?

This is more or less the approach used in Flint, Michigan after a General Motors plant closed and suppliers moved out of the city. Faced with decreasing population, increasing vacancies, declining property tax values, and blight in many parts of the city, it acquired vacant units through tax foreclosures and then tore them down. This had the effect of reducing excess supply relative to demand, and also gave neighborhoods more green spaces. Eventually, supply roughly met demand such that housing prices stabilized and in some cases increased. ${ }^{103}$ But this still meant thousands of households including seniors lost their entire investment in their homes.

There is a better way.
The Canadian province of Newfoundland and Labrador (NL) has been engaged in "resettlement" programs since 1954. At its heart, the program is designed to resettle isolated communities from peripheral areas to more central ones

[^35]where publicly provided facilities and services can be more efficiently provided. ${ }^{104}$ In its current form, NL will pay each household up to $\mathrm{C} \$ 270,000^{105}$ to relocate from a qualifying "sending" (my term) community to a qualifying "receiving" (my term) community provided that at least 90 percent of the voting residents approve. ${ }^{106}$ Given that the share of NL's senior population has about doubled between 2000 and 2020 while its share of population under 20 has fallen by more than 60 percent, ${ }^{107}$ I suspect, though cannot confirm, that this program may be especially attractive to seniors. ${ }^{108}$

The U.S. has similar precedence for buying out properties in targeted areas though for different reasons relating to hazard mitigation, ${ }^{109}$ farmland preservation, and wetland preservation.

The Federal Emergency Management Agency (FEMA) has three programs that directly or indirectly acquire property in or near hazardous areas: Hazard Mitigation Grant Program (HMGP); Pre-Disaster Mitigation; and Flood Mitigation Assistance. ${ }^{110}$ Through 2018, the HMGP, which requires an approved local mitigation plan, has provided more than $\$ 14$ billion in matching grants for:

- Acquisition, demolition, relocation, reconstruction, or elevation of homes-this program engages especially the National Flood Insurance

[^36]Program with an increasing focus on mitigating future damages along coastal areas associated with sea-level rise;

- Wind, wildfire, or earthquake-related structural retrofits of residences; and
- Local mitigation of flood and drought via projects include flood storage, green infrastructure, floodplain restoration, and related.

To at least one set of commentators:
Evidence clearly demonstrates that flood mitigation through acquisition and demolition or relocation of buildings on at-risk properties saves money overall for society, and is the best way to protect people and property from harm. ${ }^{111}$

The United States Department of Agriculture (USDA) operates the Agricultural Conservation Easement Program (ACEP). It enables the purchase of farmland and wetland easements in areas meeting USDA criteria. Between 2014 and 2019, about $\$ 2.5$ billion was expended to preserve nearly 400,000 acres of land. ${ }^{112}$ The easements are not in perpetuity, however, as they expire after 30 years. ${ }^{113}$

To be sure, there are other federal acquisition and demolition programs, and many states have their own programs. The point being made here is that billions of dollars are already spent each year by federal agencies to acquire and even demolish structures to preserve and in many cases expand the supply of agricultural land, wetlands, and other open spaces.

We should not wait to foreclose abandoned homes after markers have collapsed. Local, state and federal agencies should agree that it is in their collective financial self-interest to identify areas where reasonable offers should be made to buy out people's interests in properties. These can include fire and flood hazard areas, areas where acquisition of land can create contiguous swaths of land for habitat and environmental enhancement, and even expansion of such working landscapes as farms and forests that could recreate some element of the local

[^37]economic base-in many cases perhaps going back to the communities’ own resource-based economic roots. ${ }^{114}$

## Rethinking Mortgage Underwriting

The Great Recession of 2007-2009 was driven largely by the collapse of the Housing Bubble of the 2000s. It was driven firstly by local government permitting of mostly residential development in excess of market demand. ${ }^{115}$ This excessive permitting was fueled in large part by subprime mortgages wherein borrowers who otherwise could not qualify for loans ${ }^{116,117}$ failed to make payments and were indeed foreclosed. ${ }^{118}$ The mortgage underwriting system over-reacted; in addition to increasing oversight on subprime and adjustable rate mortgages (ARMs), lenders increased underwriting requirements to levels not seen for decades. Millennials and younger generations are now held to higher underwriting standards than their parents or grandparents. This will naturally affect the ability of boomers to sell their homes even in strong markets. While I cannot claim expertise in underwriting procedures and federal housing finance policy, my review of literature suggests

[^38]several actions that can be taken soon to increase the supply of potential buyers for senior homes.

One solution is relaxing mortgage underwriting requirements in ways that do not lead to subprime lending, ARMs and the like. Thankfully, by the 2020s this might be happening in earnest. ${ }^{119}$

Another is changing conventional mortgage lending ratios. The Federal Housing Administration (FHA) has been a leader in this since the Great Depression. Born in 1934, it provides insurance to lenders covering the difference between a 20 percent down payment and what actually offered as a down payment-as low as five percent then and zero in later years. Though attractive to them, banks needed to relax their lending standards which were then usually 50 percent down with 10 years to pay off the balance. FHA was a game changer in the U.S. mortgage market.

By the 2020s, FHA allows down payments as low as 3.5 percent with moderate, though not high, credit scores. But it also requires mortgage insurance equaling the difference between what a 20 percent down payment would have been and the actual down payment. This can raise costs to the buyer. But debt thresholds have changed from 30 percent debt-to-income ratio to up to 43 percent, allowing more people to assume higher home mortgages and associated costs. ${ }^{120}$

In many markets, however, FHA's mortgage limits are too low especially in areas where the Great Senior Short-Sale may be most pronounced. In 2020 for "low cost" areas the FHA mortgage limit was $\$ 331,760$ but it was $\$ 765,600$ in "high cost" ones. ${ }^{121}$ While the low cost limit may be reasonable for Manhattan, Kansas, home of Kansas State University, ${ }^{122}$ the high cost it is not reasonable for Los Angeles, California. ${ }^{123}$ What this also means for many high costs areas is that seniors may not be able to sell their homes to younger generations because of FHA limits, though there are other lending sources albeit usually at higher cost. For the benefit of both seniors who will be wanting to sell their homes perhaps by the millions annually beginning in the 2020s, and the younger generations who may want to buy them, FHA limits should be raised.

[^39]On the other hand, it is important to note that FHA's limit for 4-plexes in high cost areas was $\$ 1,472,550$ in 2020 . Inasmuch as younger generations have household sizes that are smaller than older ones, and that larger homes may be converted into multiple residential units by-right in a growing number of cities and states-up to 4-plexes in some cases, one can imagine the combination of new laws and FHA loan limits could soften some of the short sale concern. That said, many markets remain out of reach of even these higher FHA loan limits for multiplex units and they should be raised.

There is another phenomenon: the use of innovative technologies to disrupt mortgage processing. For instance, many online real estate listing services that are free to the public include the opportunity for home owners to sell directly to them thereby avoiding real estate commissions and other costs ${ }^{124}$ as well as buying homes directly from them. ${ }^{125}$ In some states, there are services that include a comparatively low flat fee for listing homes, virtual home tours, thousands of dollars in closing costs refunds, and efficient access to prospective mortgage lenders. ${ }^{126}$ In fact, in 2019, about a third of all home buyers bought their homes "sight unseen." ${ }^{127}$ Despite improving market efficiency and reducing costs, many of these technologies are not allowed in many states but need to be.

These disruptions combined with more flexible mortgage underwriting and changing attitudes about single-family detached residential zoning can help stave off the Great Senior Short-Sale, but will they be enough?

[^40]
## Policy Inertia Will Lead Us to the Great Senior Short Sale

The top-rated television program in the 1950s was I Love Lucy, airing from 1951 through 1957. ${ }^{128}$ It was about a couple living in New York City (Manhattan) who later had a son. The family with their boomer child moved to the suburbs near the end of the last season. Leave it to Beaver (1957-1963), ${ }^{129}$ the Donna Reed Show (1958-66) ${ }^{130}$ and My Three Sons (1960-1975) ${ }^{131}$ followed the Lucy show and were all about boomer children being raised in the suburbs. ${ }^{132}$ And then came Friends (1994-2004), a top-rated program that was all about non-boomers choosing to live in the city. ${ }^{133}$ Over its 10 seasons, none of the characters partnered, had children, moved to the suburbs or bought a house or a car.

Therein lies the challenge. It is not that Friends was about Gen Xers' rejection of boomers' life path but that Friends imprinted on millions of millennials who followed them over a decade extending across their formative childhoods. ${ }^{134}$ Then came the Great Recession that derailed millennials' careers and stacked the economic deck against them. ${ }^{135}$ Along the way, millennials' and younger generations' views about lifestyle, social interaction, community livability and even the function of homes diverged from those of boomers or even Gen Xers. Though an over-statement, it is as though the kind of large homes on large lots in isolated, uniformly designed suburbs sought by boomers is exactly what millennials and perhaps Gen Zers eschew.

As Professor Myers has predicted and I have amplified, there will be a mismatch in what boomers as seniors want to sell and what younger generations

[^41]want. There is also the troubling prospect that there will simply be no market for millions of seniors' homes across large swaths of the American landscapeincluding the fringes of otherwise growing regions. There is a difference between aging-in-place voluntarily if one has the means and aging- in-place involuntarily because one has limited choices.

There is certainly important progress along many fronts. There is a small though perhaps growing movement to write single-family detached zoning off the proverbial books. There are efforts to expand mobility options and in other ways retrofit suburbs to be more attractive to younger generations. And though there is growing flexibility in mortgage financing, punitive post-Great Recession mortgage policies still remain and have starved a whole generation of their appetite to buy homes.

More broadly, we need to rethink the role of the Federal Housing Act of $1949{ }^{136}$ in meeting the nation's housing needs. Perhaps Congress can adopt a suite of carrots and sticks to encourage state and local governments to increase housing supply in ways noted above as well as address imminent senior short sales in weak markets. That is a separate conversation, however.

All these strategies and more are needed to dampen the impact of the imminent Great Senior Short Sale. Every year of delay undermines the ability of millions of seniors to prepare for it. In the end, we cannot let policy inertia short change millions of America's seniors.

[^42]
[^0]:    ${ }^{1}$ Generation Alpha, who will be born between 2016 and about 2031, will not have a substantial effect on housing markets until after 2040.

    * Professor of Urban Planning and Real Estate Development, University of Arizona and Presidential Professor Emeritus of City and Metropolitan Planning, University of Utah. See also https://en.wikipedia.org/wiki/Arthur_C._Nelson.

[^1]:    ${ }^{2} \mathrm{https}: / /$ priceschool.usc.edu/people/dowell-myers/
    ${ }^{3}$ For example, see Julia O. Beamish, Rosemary Carucci Goss \& JoAnn Emmel, Lifestyle Influences on Housing Preferences, HOUSING AND SOCIETY, 28:1-2, 1-28 (2001).
    ${ }^{4}$ Figures are derived from WOODS \& POOLE, COMPLETE ECONOMICS AND DEMOGRAPHIC DATA SOURCE 2020.
    ${ }^{5}$ Jonathan Spader, TENURE PROJECTIONS OF HOMEOWNER AND RENTER HOUSEHOLDS FOR 2018-2038 (2019).
    ${ }^{6}$ I say "equivalent" because those households are mostly already living in the US.
    ${ }^{7}$ A householder is a person who owns or rents a house and is otherwise considered the head of a household. This concept is used throughout the article.

[^2]:    ${ }^{8}$ These numbers are adapted from Laurie Goodman, Rolf Pendall and Jun Zhu, HEADSHIP AND HOMEOWNERSHIP: WHAT DOES THE FUTURE HOLD? (2015).

[^3]:    ${ }^{9}$ These numbers are adapted from Laurie Goodman, Rolf Pendall and Jun Zhu, HEADSHIP AND HOMEOWNERSHIP: WHAT DOES THE FUTURE HOLD? (2015).
    ${ }^{10}$ The idea of giving a label to any generation began with the baby boom but even then labeling future generations was not common until about the 1990s. "Gen X" was assigned arbitrarily to those born afterward while "Gen Y" was assigned to those born after Gen X. Yet, while there is consensus on the baby boom generation period, there is little consensus on when Gen X stopped (somewhere between 1979 and 1982) or where Gen Y started or ended (somewhere between 1995 and 1999). Moreover, while the term Gen Y was used for more than a decade, popular media renamed it the "millennial" generation even though none of them were actually born in the $21^{\text {st }}$ century. Arguably, Gen Z should be the millennial generation since it was born substantially in the $21^{\text {st }}$ century and the label for Gen Y should never have been changed. Such is the non-logical power of media.
    ${ }^{11}$ This claim is based on analysis of U.S. Census Bureau, 1890-1930, U.S. Census of Population: 1950, Vol. IV, Special Reports, General Characteristics of Families; 1940-1998, Current Population Reports, Series P-20, Nos. 176 and 251; and Current Population Reports, Series P20515.

[^4]:    ${ }^{12}$ Before the Great Depression, homes were purchased typically with half down and balance paid over five years. The FHA and Fannie Mae made it possible to finance homes over 20 years with as little as $20 \%$ down. FHA actually allowed smaller down payments but this required paying mortgage insurance to guarantee the mortgage lender that the mortgage would be honored if the borrow failed to make the payments. Fannie Mae played a special, unique role in this. Because banks have limited assets, they could quickly run out of money to make mortgages. Fannie Mae solved this by buying the mortgages (called "paper") from the banks thereby infusing banks with more money to lend. Fannie Mae got the money it needed to buy the paper from people (often wealthy families) and firms who lent it money with repayment guaranteed by the "full faith and credit" of the federal government. This housing finance model transformed international finance.
    ${ }^{13}$ Duany, Andres, Elizabeth Plater-Zyberk, and Jeff Speck. SUBURBAN NATION: THE RISE OF SPRAWL AND THE DECLINE OF THE AMERICAN DREAM (2000). New York: North Point Press.
    ${ }^{14}$ See Arthur C. Nelson, RESHAPING METROPOLITAN AMERICA (2013).
    ${ }^{15}$ Molotch, Harvey. 1976. The City as a Growth Machine: Toward a Political Economy of Place. AMERICAN JOURNAL OF SOCIOLOGY 82(2): 309-332.
    ${ }^{16}$ Although the Great Recession of 2008-2009 led to millions of foreclosures, the aftermath of the Great Recession was not realized fully until the early 2010s.

[^5]:    ${ }^{17}$ Housing change figures for 1990 and 2000 are based on the Census of Housing while the share of housing built on detached lots is based on the American Housing Survey for 1991 and 2011.

[^6]:    ${ }^{18}$ Analysis is based on the Current Population Survey's (CPS), America's Families and Living Arrangements: 2016, retrieved from https://www.census.gov/data/tables/2016/demo/families/cps2016.html. Though these data are from 2016 the household sizes for individual householder age groups has not changed much from the 2010 census.
    ${ }^{19}$ Jonathan Vespa, Jobs, Marriage and Kids Come Later in Life, retrieved from https://www.census.gov/library/stories/2017/08/young-adults.html.
    ${ }^{20}$ Id., RESHAPING METROPOLITAN AMERICA.
    ${ }^{21}$ Readers will notice that later analysis defines starter home households as those with householders under 35 years of age, peak housing demand households as those with householders between 35 and 64 years of age, and downsizing households as those with householders age 65 years and older.

[^7]:    ${ }^{22}$ Actually, because the nation is producing about one million homes per year but the need is 1.5 million homes annually, there is a growing backlog of demand resulting in declining vacancy rates, increasing prices and rents, and more households occupying the same unit. Some have argued that the nation needs to increase housing production to two million homes per year to about 2050. See Paul Emrath, MORE NEW HOMES NEEDED TO REPLACE OLDER STOCK (2018), National Association of Home Builders. Retrieved March 23, 2020 from https://www.nahbclassic.org/generic.aspx?sectionID=734\&genericContentID=263243.
    ${ }^{23}$ WIKIPEDIA characterizes "McMansion is a pejorative term for a large "mass-produced" dwelling, often constructed with low-quality materials and craftsmanship, using a mishmash of architectural symbols to evoke connotations of wealth or taste." They are usually on larger lotsoften one-half acre or more, comprising more than 3,000 square feet of living area, and often more bathrooms than bedrooms. https://en.wikipedia.org/wiki/McMansion.
    ${ }^{24}$ The ENCYCLOPEDIA BRITANNICA describes urban sprawl, or simply sprawl, as "the rapid expansion of the geographic extent of cities and towns, often characterized by low-density residential housing, single-use zoning, and increased reliance on the private automobile for transportation. Urban sprawl is caused in part by the need to accommodate a rising urban population; however, in many metropolitan areas it results from a desire for increased living space and other residential amenities. https://en.wikipedia.org/wiki/McMansion

[^8]:    ${ }^{25}$ See Arthur C. Nelson and James B. Duncan, GROWTH MANAGEMENT PRINCIPLES AND PRACTICE (1995).

[^9]:    ${ }^{26}$ See Arthur C. Nelson, RESHAPING METROPOLITAN AMERICA (2013).
    ${ }^{27}$ Arthur C. Nelson, RESHAPING METROPOLITAN AMERICA (2013).

[^10]:    ${ }^{28}$ See Paul Emrath, MORE NEW HOMES NEEDED TO REPLACE OLDER STOCK (2018), National Association of Home Builders. Retrieved March 23, 2020 from https://www.nahbclassic.org/generic.aspx?sectionID=734\&genericContentID=263243.
    ${ }^{29}$ AHS data show that while the median age of all housing units is 40 years that of plexes is 52 years. In contrast, the median age of detached homes is 42 years while townhomes are 36 years, units in structures of 5-19 units is 38 years and unit in structures of more than 20 units is 40 years

[^11]:    ${ }^{30}$ See New U.S. homes today are 1,000 square feet larger than in 1973 and living space per person has nearly doubled from the American Enterprise Institute retrieved October 19, 2019 from

[^12]:    https://www.aei.org/carpe-diem/new-us-homes-today-are-1000-square-feet-larger-than-in-1973-and-living-space-per-person-has-nearly-doubled/
    ${ }^{31}$ See WHAT WEALTH INEQUALITY IN AMERICA LOOKS LIKE: KEY FACTS \& FIGURES from the Federal Reserve Bank of St. Louis, retrieved October 19, 2019 from https://www.stlouisfed.org/open-vault/2019/august/wealth-inequality-in-america-facts-figures.

[^13]:    ${ }^{32}$ Id., TENURE PROJECTIONS in passim.
    ${ }^{33}$ As a reminder to the reader, in Table 1, I extrapolated TENURE PROJECTION figures from 2038 to 2040 meaning figures in subsequent tables are not directly comparable.

[^14]:    ${ }^{34}$ Id., TENURE PROJECTIONS at unpaginated 3.
    ${ }^{35}$ Id., HEADSHIP AND HOMEOWNERSHIP.
    ${ }^{36}$ See data from the St. Louis Federal Reserve at https://fred.stlouisfed.org/series/RHORUSQ156N.

[^15]:    ${ }^{37}$ Those studies are: Arthur C. Nelson, On the Plausibility of a 53-Percent Homeownership Rate by 2050, JOURNAL OF POLICY DEVELOPMENT AND RESEARCH 18(1) 125-129 (2016); Dowell Myers and Hyojung Lee, Cohort Momentum and Future Homeownership: The Outlook to 2050, CITYSCAPE: A JOURNAL OF POLICY DEVELOPMENT AND RESEARCH 18(1) 131143 (2016); and Arthur Acolin, Laurie S. Goodman, Susan M. Wachter, A Renter or Homeowner Nation? CITYSCAPE: A JOURNAL OF POLICY DEVELOPMENT AND RESEARCH 18(1) 145-157 (2016).
    ${ }^{38}$ Mathematically, using the Harvard JCHS low scenario, extrapolation of the ownership change from 2018 to 2038 forward to 2050 results in a 62 percent homeownership rare in 2050, considerably higher than the referenced studies.
    ${ }^{39}$ For background trends, see National Association of Realtors, HOME BUYER AND SELLER GENERATIONAL TRENDS (2020). Though millennials are buying homes in larger numbers than in the past, the share of millennials owning homes is substantially lower than same age of prior generations.
    ${ }^{40}$ Still-wounded millennials share horror stories from the 2008 financial crisis, MARKET WATCH (Sept. 28, 2018), https://www.marketwatch.com/story/heartbreak-and-panic-attacks-millennials-still-deeply-wounded-from-2008-financial-crisis-2018-09-26.
    ${ }^{41}$ Scott Berridge, Millennials after the Great Recession, MONTHY LABOR REVUEW (September 20104); see also HOME BUYER AND SELLER GENERATIONAL TRENDS.
    ${ }^{42}$ Michael Mitchell, Michael Leachman, Kathleen Masterson, and Samantha Waxman, UNKEPT PROMISES: STATE CUTS TO HIGHER EDUCATION THREATEN ACCESS AND EQUITY (October 2018).
    ${ }^{43}$ For an interesting discourse, see Why don't more millennials buy homes? QUORA (2017), https://www.quora.com/Why-dont-more-millennials-buy-homes

[^16]:    ${ }^{44}$ For a review, see William G. Gale, Hilary Gelfond, Aaron Krupkin, Mark J. Mazur, and Eric Toder, EFFECTS OF THE TAX CUTS AND JOBS ACT: A PRELIMINARY ANALYSIS (2018).

[^17]:    ${ }^{45}$ See AMERICAN HOUSING SURVEY FOR THE UNITED STATES, 2017 (2018).

[^18]:    ${ }^{46}$ See Dan Parolek with Arthur C. Nelson, MISSING MIDDLE HOUSING (2020).
    ${ }^{47}$ See Christopher B. Leinberger and Patrick Lynch, FOOT TRAFFIC AHEAD: RANKING WALKABLE URBANISM IN AMERICA'S LARGEST METROS (2014).
    ${ }^{48}$ Unfortunately, the survey does not specify restaurants which could be subsumed within entertainment or retail shopping. The survey also included a category for schools and work but without separating them.
    ${ }^{49}$ This is a stated preference survey meaning that respondents are forced to choose between roughly equally attractive options. Other housing related studies are simply preferences: Would you prefer marble or Formica counter tops? The difference between preference and statedpreference surveys is this: A preference survey would ask if you prefer to live to be 80 or 100 while a stated preference survey would have you choose now between being healthy and active until 80 when you keel over and die suddenly without pain or live to 100 after 20 years of dementia and incontinence.

[^19]:    ${ }^{50}$ Though surveys often ask respondents to choose between small and large or conventional lots, respondents are not given parameters leaving them to define the terms in their local context. A "small lot" in Atlanta on one-quarter acre can be viewed as a large lot in Los Angeles. Nonetheless, in most contexts outside New York City, Los Angeles, and the Bay Area, small lot can be characterized as being one-eighth of an acre or less which is the smallest lot category published by the AHS.

[^20]:    ${ }^{51}$ See Id., MISSING MIDDLE HOUSING.

[^21]:    ${ }^{52}$ This claim depends on when one considers the years in which Millennials were born. I use 1981 through 1996-indeed I prefer to call them Gen-Y since none were actually born in the $21^{\text {st }}$ century. See https://www.pewresearch.org/fact-tank/2019/01/17/where-millennials-end-and-generation-z-begins/. Others consider Millennials to have been born between 1980 and 1999adding four more years to that generation. Under this scenario, Millennials outnumbered boomers at the time of this Festschrift. See https://money.cnn.com/interactive/economy/diversity-millennials-boomers/.

[^22]:    ${ }^{53}$ In THE COMING EXODUS OF OLDER HOMEOWNERS (2018) Dowell Myers and Patrick Simmons estimate that about 35 million boomers will exit their homes between 2016 and 2036 yet data provided by the Harvard JCHS indicates that total new, younger households will grow by fewer than 20 million (see
    http://www.jchs.harvard.edu/sites/default/files/household_growth_projections2016_jchs.pdf and https://webcache.googleusercontent.com/search?q=cache:eGsLWXaZY8sJ:https://www.jchs.harv ard.edu/research-areas/working-papers/updated-household-growth-projections-2018-2028-and-$2028-2038+\& \mathrm{~cd}=1 \& \mathrm{hl}=\mathrm{en} \& \mathrm{ct}=\mathrm{clnk} \& \mathrm{gl}=\mathrm{us}$ ) leaving a deficit in the range of 15 million housing units and as will be seen later perhaps as high at 18 million homes.
    ${ }^{54}$ See Annie Lowrey, THE NEXT RECESSION WILL DESTROY MILLENNIALS (2019).
    ${ }^{55}$ As this issue of the Journal of Urban Law and Policy went to press, COVID-19 had put more than 30 million American workers out of work, about 20 percent of the total workforce. The Federal Reserve Board warns that unemployment may not return to pre-COVID-19 levels for many years.
    ${ }^{56}$ Dowell Myers, IMMIGRANTS AND BOOMERS: FORGING A NEW SOCIAL CONTRACT FOR THE FUTURE OF AMERICA (2007).
    ${ }^{57}$ See https://www.aarp.org/research/topics/community/info-2018/2018-home-communitypreference.html.

[^23]:    ${ }^{58}$ For a review of the suite of such policies, many of which are state, regional and local policies, see https://www.nia.nih.gov/health/aging-place-growing-older-home. See especially AARPs' 2018 HOME AND COMMUNITY PREFERENCES SURVEY (2018).
    ${ }^{59}$ See the Annotated Questionnaire for AARPs’ 2018 HOME AND COMMUNITY PREFERENCES SURVEY (2018) found at https://www.aarp.org/research/topics/community/info-2018/2018-home-communitypreference.html. The Annotated Questionnaire reveals that the survey itself is seriously flawed in that it does not ask people older than 50 about their preferences for aging in place. For instance people in their 50 s and 60 s are usually healthy and do not see the need to relocate. But when they become empty nesters and older, and lack mobility options and are in declining heath, I hypothesize that large shares of such households want relocation options. The survey is not designed to explore relocation preferences of such seniors.
    ${ }^{60}$ For a review of how one may age in place generally and especially absent good health, immobility, and weak social networks, see Aaron D. Murphy, AGING IN PLACE (2014). See also https://www.agingwisely.com/pros-and-cons-of-aging-in-place/
    ${ }^{61}$ See the AARP's THE CENTER FOR AGING IN PLACE WEBSITE at https://www.aarp.org/livable-communities/learn/civic-community/info-12-2012/the-center-for-aging-in-place-website.html.
    ${ }^{62}$ See a review of options at https://www.agingcare.com/articles/finding-transportation-services-for-seniors-104572.htm. See also HUD PROGRAMS SUPPORT AGING IN PLACE, https://www.huduser.gov/portal/periodicals/em/fall13/highlight1_sidebar.html.
    ${ }^{63}$ For a review of a sample of private providers and services, see https://www.consumeraffairs.com/health/in-home-care/\#.
    ${ }^{64}$ For a review of services and providers, see https://www.aginginplace.org/10-resources-for-living-independently-as-a-senior/.
    ${ }^{65}$ For a review, see https://www.seniorliving.com/article/nine-reasons-aging-place-may-not-be-right-you, https://www.forbes.com/sites/nextavenue/2015/03/23/do-you-really-want-to-age-in-

[^24]:    place/\#4e345fd98ec4, https://www.agingcare.com/articles/is-aging-in-place-always-the-best-option-for-seniors-185858.htm, and Stephen M. Golant, AGING IN THE RIGHT PLACE (2015).
    ${ }^{66}$ The American Association of Retired Persons (AARP) offers many ways in which seniors' homes can be retrofitted to meet their needs (see https://www.aarp.org/livable-communities/housing/info-2016/aging-friendly-renovation-improvements.html). Retrofitting can be expensive, however, and often requires building permits, contracting, and inspections not to mention unforeseen costs or even discovering that modern building codes may prevent it.
    ${ }^{67}$ For a succinct review of local land use controls as impediments to expanding the choices for downsizing senior households, and households generally, see Sanford Ikeda and Emily Washington, HOW LAND-USE REGULATION UNDERMINES AFFORDABLE HOUSING (2015).
    ${ }^{68}$ The literature on the exclusive nature of home owner associations is extensive. See Wyatt Clarke and Matthew Freedman, THE RISE AND EFFECTS OF HOMEOWNERS ASSOCIATIONS (2019) for a current review and assessment.
    ${ }^{69}$ See Arthur C. Nelson, John Travis Marshall, Julian Conrad Juergensmeyer and James C. Nicholas, MARKET DEMAND BASED PLANNING AND PERMITTING (2017) for a review of the causes and consequences of permitting more development than the market can absorb, often leading to recessions including the Great Recession, as well as their planning and permitting proposals to prevent future real estate related recessions.
    ${ }^{70}$ See Tami Luhby, MILLENNIALS BORN IN 1980S MAY NEVER RECOVER FROM THE GREAT RECESSION (2018), https://money.cnn.com/2018/05/22/news/economy/1980s-millennials-great-recession-study/index.html.

[^25]:    ${ }^{71}$ Annie Lowrey, The Next Recession Will Destroy Millennials, ATLANTIC (2019).
    ${ }^{72}$ A recession, related to the COVID-19 pandemic, was declared officially on June 5, 2020, by the National Bureau of Economic Research. See https://www.nber.org/cycles/june2020.html.
    ${ }^{73}$ See Robert M. Couch, THE GREAT RECESSION'S MOST UNFORTUNATE VICTIM: HOMEOWNERSHIP (2013).
    ${ }^{74}$ See HUD, MORTGAGEE LETTER 2016-08.
    ${ }^{75}$ Census, Census, HOMEOWNERSHIP REMAINS BELOW 2006 LEVELS FOR ALL AGE GROUPS (2018), https://www.census.gov/library/stories/2018/08/homeownership-by-age.html.
    ${ }^{76}$ Jung Choi, Jun Zhu, Laurie Goodman and Bhargavi Ganesh, MILLENNIAL HOMEOWNERSHIP WHY IS IT SO LOW, AND HOW CAN WE INCREASE IT? (2018)

[^26]:    ${ }^{77}$ For details on how the types are defined, see Arthur C. Nelson, Leadership in a New Era, JOURNAL OF THE AMERICAN PLANNING ASSOCIATION (2006).
    ${ }^{78}$ See Arthur C. Nelson, RESHAPING METROPOLITAN AMERICA (2013).

[^27]:    ${ }^{79}$ See https://www.census.gov/topics/housing/housing-patterns/about/core-based-statisticalareas.html
    ${ }^{80}$ See Arthur C. Nelson, RESHAPING METROPOLITAN AMERICA (2013).

[^28]:    ${ }^{81}$ Id., THE COMING EXODUS OF OLDER HOMEOWNERS.
    ${ }^{82}$ Joe Cortright, HOUSING: A SHORTAGE OF CITIES http://cityobservatory.org/housing_cortright/.
    ${ }^{83}$ See Gabriela Sandoval and Ricardo G. Huerta Niño, PROMOTING FAMILY ECONOMIC SECURITY IN THE SAN FRANCISCO BAY AREA REGION (2015).

[^29]:    ${ }^{84}$ For a detailed examination of history of single family zoning and the politics behind Oregon's law, see Daniel Herriges, MAKING NORMAL NEIGHBORHOODS LEGAL AGAIN (2019).
    ${ }^{85}$ This is only conjecture and in need of legal review.
    ${ }^{86} \mathrm{https}: / /$ minneapolis2040.com/topics/housing/.

[^30]:    ${ }^{87}$ This is a loaded proposition because after all what is "reasonable"? I will not define it here but offer a framework. It would be the price a household paid within the past two decades (more or less). I estimate that in most metropolitan areas, housing values have not increased near ot certainly not greater than inflation for decades. (Anecdotally, we sold our home on a half-acre in "Dunwoody," a desirable suburb of Atlanta, Georgia, in 2002 that Zillow estimates may be worth about what we sold it for nearly 20 years earlier.) Also, the sensible seller would include concessions if there is deferred maintenance. Finally, economists consider home ownership a form of rent such that the total money paid for mortgages, taxes, insurance, maintenance and upgrades would be roughly equivalent to the rent that would have been paid anyway. However, to the extent that a home sale generates return net of all costs, this can be considered reasonable outcome though perhaps not reasonable to the seller.

[^31]:    ${ }^{88}$ See Daniel Herriges, MAKING NORMAL NEIGHBORHOODS LEGAL AGAIN (2019), retrieved April 24, 2020 from https://www.strongtowns.org/journal/2019/7/3/making-normal-neighborhoods-legal-again.
    ${ }^{89}$ See COUNCILMEMBER O'BRIEN CELEBRATES COUNCIL VOTE TO EASE RESTRICTIONS ON BACKYARD COTTAGES, Seattle City Council, retrieved on April 24, 2020 from https://council.seattle.gov/2019/07/01/councilmember-obrien-celebrates-council-vote-to-ease-restrictions-on-backyard-cottages/.

[^32]:    ${ }^{90}$ See Kristin Capps, WITH NEW DEMOCRATIC MAJORITY, VIRGINIA SEES A PUSH FOR DENSER HOUSING (2019), retrieved April 24, 2020 from
    https://www.citylab.com/equity/2019/12/virginia-legislature-statewide-upzoning-law-codesordinance/602818/ and WASHINGTON STATE TO CONSIDER BAN ON SINGLE FAMILY ZONING retrieved April 24, 2020 from https://www.usnews.com/news/best-
    states/washington/articles/2020-02-18/washington-state-to-consider-ban-on-single-family-zoning.
    ${ }^{91}$ These estimates come from Table 2, 2017 National - Rooms, Size, and Amenities - All Occupied Units, US Census AMERICAN HOUSING SURVEY.

[^33]:    ${ }^{92}$ See Pamela N. Danziger, Real Estate Market Is Hot, Except At The High-End: Disruption Coming In the Luxury Home Market, FORBES (2018), retrieved April 24, 2020 from https://www.forbes.com/sites/pamdanziger/2018/04/17/real-estate-market-is-hot-except-at-the-high-end-disruption-coming-in-the-luxury-home-market/\#259690793b5a.
    ${ }^{93}$ Kara Baskin, BIG, UGLY, AND GREEN: RETHINKING THE MCMANSION FOR THE CLIMATE CHANGE ERA (2020). Retrieved April 24, 2020 from https://expmag.com/2020/02/big-ugly-and-green-rethinking-the-memansion-for-the-climate-change-era/.
    ${ }^{94}$ For leading examples, see Ellen Dunham-Jones, and June Williamson, RETROFITTING SUBURBIA (2011), June Williamson, DESIGNING SUBURBAN FUTURES: NEW MODELS FROM BUILD A BETTER BURB (2013), Arthur C. Nelson RESHAPING METROPOLITAN AMERICA (2013), and Emily Talen, ed., RETROFITTING SPRAWL: ADDRESSING SEVENTY YEARS OF FAILED URBAN FORM (2015).

[^34]:    ${ }^{95}$ For instance, see Alana Semueals, A New Life for Dead Malls (2015), ATLANTIC retrieved April 25, 2020 from https://www.theatlantic.com/business/archive/2015/03/a-new-life-for-deadmalls/387001/.
    ${ }^{96}$ For a recent assessment of this opportunity, see Tom Acitelli, Parking Lots, Once Asphalt Wasteland, Become Golden Opportunities, THE NEW YORK TIMES (2019) retrieved April 25, 2020 from https://www.nytimes.com/2019/12/03/business/parking-lot-death-redevelopment.html
    ${ }^{97}$ Perhaps the best guide for this practice is ICF International \& Freedman Tung \& Sasaki, RESTRUCTURING THE COMMERCIAL STRIP: A PRACTICAL GUIDE FOR PLANNING THE REVITALIZATION OF DETERIORATING STRIP CORRIDORS (2015).
    ${ }^{98}$ See National Complete Streets Coalition, Smart Growth America, https://smartgrowthamerica.org/program/national-complete-streets-coalition/
    ${ }^{99}$ For a multifaceted statistical analysis demonstrating these outcomes, see Arthur C. Nelson and Robert Hibberd, The Influence of Rail Transit on Development Patterns in the Mountain MegaRegion with Implications for Transit and Land Use Planning, TRANSPORTATION RESEARCH RECORD (2020.
    ${ }^{100}$ See Dan Parolek with Arthur C. Nelson, MISSING MIDDLE HOUSING: THINKING BIG AND BUILDING SMALL TO RESPOND TO TODAY'S HOUSING CRISIS (2020).

[^35]:    ${ }^{101}$ Doctoral candidate in Geography with minor in Urban Planning at the University of Arizona.
    ${ }^{102}$ These figures are adapted from Woods \& Poole Economics, COMPLETE ECONOMIC AND DEMOGRAPHIC DATABASE (2020).
    ${ }^{103}$ For a series of reports on this and related approaches to stabilizing neighborhoods in "rustbelt" areas, see https://www.communityprogress.net/neighborhood-stabilization-pages-99.php.

[^36]:    ${ }^{104}$ The program is not without controversy. From an objective public finance perspective, the program estimates the extent to which resettling communities saves more money than it would cost. More than 30,000 people representing about five percent of the total, from more than 300 communities have been resettled. For detailed reviews through the middle 1970s, see Charles Cullum, Rural Communities in Decline: the Newfoundland Experience, EKISTICS (1976) and RESETTLEMENT IN NEWFOUNDLAND (nd) retrieved April 25, 2020 from https://people.uwec.edu/ivogeler/Travel/Canada/Resettlement.html. For the period into the 2010s see 'The Government Game': resettlement then and now (2013), retrieved April 25, 2020 from http://activehistory.ca/2013/06/the-government-game-resettlement-then-and-now/.
    ${ }^{105}$ About US $\$ 200,000$ at this writing.
    ${ }^{106}$ For details, see https://www.mae.gov.nl.ca/faq/faq_relocation.html.
    ${ }^{107}$ Adapted from Statistics Canada, Table 17-10-0005-01 (previously CANSIM table 051-0001).
    ${ }^{108}$ I do not have data to show whether relocated seniors buy or rent, or move into congregate care facilities or with family.
    ${ }^{109}$ For a review of state, local and federal relationships implementing many kinds of hazard mitigation programs, see Thomas Ruppert, John Fergus, and Enio Russe-Garcia, Managing Property Buyouts at the Local Level: Seeking Benefits and Limiting Harms, ENVIRONMENTAL LAW REPORTER (2018).
    ${ }^{110}$ These programs are summarized in Joseph DeAngelis, Haley Briel, and Michael Lauer, PLANNING FOR INFRASTRUCTURE RESILIENCE (2019).

[^37]:    ${ }^{111}$ Id. Thomas Ruppert, John Fergus, and Enio Russe-Garcia at 48, footnotes excluded.
    ${ }^{112}$ From https://www.nrcs.usda.gov/Internet/NRCS_RCA/reports/srpt_cp_acep.html.
    ${ }^{113} \mathrm{https}: / / \mathrm{www} . n r c s . u s d a . g o v / \mathrm{wps} /$ portal/nrcs/main/national/programs/easements/acep/.

[^38]:    ${ }^{114}$ Data from the American Housing Survey show that more than 13 million homes sit on lots ranging from one to five acres and another three million homes sit on lots of five to 10 acres. I estimate the total land area of these lots is roughly comparable to the state of Nebraska which is comprised of 77,000 square miles of land. As a former planning director of a rural county, I know first-hand that subdividing farm and forest land into small acreages reduces the supply of land for local agriculture and forestry leading to erosion of the local resource economy.
    ${ }^{115}$ These dynamics are chronicled in Arthur C. Nelson, John Travis Marshall, Julian Conrad Juergensmeyer and James C. Nicholas in MARKET DEMAND BASED PLANNING AND PERMITTING (2017).
    ${ }^{116}$ These included no credit score, no proof of ability to repay debt, and even no job. See https://www.federalreservehistory.org/essays/subprime_mortgage_crisis. A key element was also fraudulent appraisals wherein an appraiser linked to a lender would offer an appraisal higher than the market thereby allowing the lender to make a loan often higher than the market justified.
    ${ }^{117}$ Our cat was actually pre-approved for a $\$ 500,000$ mortgage in 2005 with better terms than my wife and I had on our home then in Alexandria, Virginia.
    ${ }^{118}$ A key element of this were adjustable rate mortgages (ARMs) wherein a borrower would agree to a below-market rate mortgage for a limited period but the rate would adjust based on a common benchmark - at the time usually the London Inter-bank Offered Rate (LIBOR) that was later fined for rigging rates (see https://www.theguardian.com/business/2017/jan/18/libor-scandal-the-bankers-who-fixed-the-worlds-most-important-number). As ARMs rose, in some cases from a 3.0 percent annual percentage rate to many times more, higher mortgage payments could not be serviced thereby triggering foreclosures and leading in large part to financial meltdown (see https://www.britannica.com/topic/adjustable-rate-mortgage).

[^39]:    ${ }^{119}$ For example, see https://www.housingwire.com/articles/fha-va-join-fannie-freddie-in-relaxing-appraisal-and-income-verification-standards/ and https://www.nerdwallet.com/article/mortgages/fha-loan-requirements.
    ${ }^{120}$ For current underwriting standards, see https://www.fha.com/fha_loan_requirements retrieved April 25, 2020.
    ${ }^{121}$ From https://www.fha.com/fha_article?id=2854 retrieved April 25, 2020.
    ${ }^{122}$ My first academic position.
    ${ }^{123}$ Where our daughter lives and cannot afford to buy a home even with her parent's help.

[^40]:    ${ }^{124}$ One service is Zillow.com. See https://www.zillow.com/z/offers/faq/.
    ${ }^{125}$ Zillow.com offers this service as well. See https://www.zillow.com/marketing/zillow-ownedhomes/.
    ${ }^{126}$ For example, Homie services markets in Arizona, Nevada and Utah. See https://www.homie.com/.
    ${ }^{127}$ https://www.aceableagent.com/blog/its-true-people-are-buying-homes-sight-unseen/.

[^41]:    ${ }^{128}$ For a review, see https://en.wikipedia.org/wiki/I_Love_Lucy.
    ${ }^{129}$ See https://en.wikipedia.org/wiki/Leave_It_to_Beaver.
    ${ }^{130}$ See https://en.wikipedia.org/wiki/The_Donna_Reed_Show.
    ${ }^{131}$ See https://en.wikipedia.org/wiki/My_Three_Sons.
    ${ }^{132}$ Two other popular programs, The Adventures of Ozzie and Harriett (1952-66) and Father Knows Best (1954-60) focused on children born mostly before the Baby Boom era. See, respectively, https://en.wikipedia.org/wiki/The_Adventures_of_Ozzie_and_Harriet and https://en.wikipedia.org/wiki/Father_Knows_Best.
    ${ }^{133}$ See https://en.wikipedia.org/wiki/Friends. The cast is comprised mostly of Gen Xers.
    ${ }^{134}$ One can only imagine the effect Friends had on the impressionable, developing minds of millions of millennials who followed it perhaps religiously. I am not alone; for an elaboration, see https://exploringyourmind.com/friends-defined-a-generation/.
    ${ }^{135}$ See Daniel Kurt, HOW THE FINANCIAL CRISIS AFFECTED MILLENNIALS (2018), retrieved April 26, 2020 from https://www.investopedia.com/insights/how-financial-crisis-affected-millennials/.

[^42]:    ${ }^{136}$ Housing Act of 1949, Public Law 81-171.

