

## Looking into the Future:

 How Much Seniors Housing Will Be Needed?

# Looking into the Future: How Much Seniors Housing Will Be Needed? <br> By: Beth Burnham Mace, Chief Economist, NIC and Anne Standish, Research Statistician, NIC 

A frequent question NIC receives is how much seniors housing will be needed for tomorrow's aging baby boomers. Using the most recent U.S. Census population projections, NIC has estimated the number of seniors housing units that will be needed through 2040. Since projections are as much art as they are science, we have also created a few scenarios that project needed new supply based on different penetration rates and different household age cohorts.

It is important to note however that these projections are based solely on demographics and do not consider consumer preferences. This is particularly important because the emerging cohort for seniors housing is the baby boomers and they are known as a generation that does not do things the same way as prior generations. Hence, future usage and penetration patterns may be different than todays.

## Methodology

First, we started with the most current U.S. Census population projections which forecast the number of individuals at each age (the number of 1-year old's, 2-year old's, etc.) through 2060. We then aggregated each age group into a time series for those individuals over 75 years of age, those over 80 and those over 85 years of age.

A few comments about the chart below include:

- The 75 plus population cohort grows from 22.6 million in 2019 to 28.6 million by 2025 to 34.5 million by 2030. In two decades, it doubles from today's levels to 44.2 million by 2039. As a share of the total U.S. population, this cohort grows from 6.8\% in 2019 to $11.9 \%$ in 2039.
- The 80 plus population cohort grows from 12.9 million in 2019 to more than double to 26.5 million by 2038.
- While smaller, the 85 plus population cohort nearly doubles from 6.6 million to 12.3 million by 2036. It does not equal today's 75 plus population any time in the projection period out to 2060.
- Much of the growth in these age cohorts stems from the movement of the Baby Boomers into retirement and beyond. The Baby Boomers were born between 1946 and 1964, making the oldest baby boomer 73 years old in 2019. The slope of the orange line in the chart shows
the impact of this burgeoning cohort and how it grows at an accelerating pace. This reflects the fact that growth in the baby boomer cohort accelerated between 1946 and 1957 when it peaked before the pace of growth slowed. As a result, growth in the 75 plus population will continue to accelerate through 2032 and for the 80 plus population cohort though 2039.
- Another way to look at this demographic data is to consider the fact that typical age of a resident in seniors housing is considered to be 83 or 84 . By 2030, the oldest baby boomer, born in 1946 will be 84 , the prime age for moving into seniors housing. Conversely, the youngest baby boomer born in 1964 will not be 84 until 2048 . This suggests that there will be great need for care and housing options for seniors housing for a very long time.


## US Senior Population Growth Projections by Age Bracket

United States | 2016-2060


Second, we converted the population estimates into households using a conversion ratio of 1.63 individuals per household for those over 75 years of age, 1.43 individuals per household for those over 80 years of age and 1.23 persons per household for those 85 years of age. This was based on the 2017 U.S. Census American Communities Survey estimates of households and population for each of these cohorts. We wanted to use households since that is typically considered the entity that rents a unit of senior housing. Population estimates would be more appropriate if bed counts were being estimated.

## Penetration Rates

Our base case scenario uses 80 plus households to estimate the number of incremental future seniors housing units that may be required. Based on our estimates of existing inventory and 80 plus households, the penetration rate is $18 \%$ ( 1.592 million units / 8.860 million households $=0.18$ ).

For the analysis described in this article, NIC uses households for three age cohorts- 75 plus, 80 plus and 85 plus. Due to different denominators, the penetration rates vary from $11.4 \%$ for 75 plus to $18 \%$ for 80 plus and $30 \%$ for 85 plus households.

Penetration rates can be calculated in a few ways. NIC has traditionally used households over 75 as the denominator and total inventory as the numerator. For this analysis, we use 80 plus households as the denominator to better capture the characteristics of today's residents. However, other analysts use population estimates for the denominator with 75 plus, 80 plus or 85 plus categorizations. And other analysts use occupied stock as opposed to total inventory. Probably there is no one perfect metric, but consistency for comparison purposes is important.

## Assumptions and Considerations

Before we discuss the results of the analysis, there are a few assumptions and considerations that need to be highlighted.

- First, we use the 80 plus household cohort as our base case as opposed to the 75 plus cohort. This is different than other analyses and we believe better reflects today's residents. We create a base case with an $18 \%$ penetration, a low penetration rate case with a $13 \%$ penetration rate and a high penetration rate case with a $23 \%$ penetration rate.
- Second, the age of senior housing residents may be increasing as individuals delay the move into assisted living until a specific activity of daily living is failing. If the age continues to rise for entry into seniors housing as has been the case in the past decade, the projections of new demand could be overstated in the near term.
- Third, we keep the penetration rates constant over time, which does not consider changing consumer preferences or technology changes. A constant penetration rate implies that buyer preferences are the same as today for today's product. However, penetration rates are likely to change. Declining numbers of caregivers will likely support higher penetration rates. Indeed, the combination of higher divorce rates and fewer adult children care givers will support further demand for seniors housing.
- Fourth, this analysis looks solely at potential demand in terms of penetration rates and demographics-pure demand, so to speak. It does not make any assumptions about absorption rates, lease up rates, consumer preferences, move-ins, move-outs nor occupancy.
- Fifth, our 2018 national inventory estimate is based on an $11.4 \%$ penetration rate applied to national household estimates. This may overstate or understate the results for the nation.
- Sixth, we scaled the NIC MAP® 99 Primary and Secondary markets' 2018 inventory growth to estimate the 2018 growth in inventory for the nation. The scaling factor used was $61 \%$, which is based on the ratio of households in the 99 markets versus the nation.
- Seventh, the estimates provided here are for the entire U.S. and based on national estimates of population projections as deemed reasonable by the U.S. Census Bureau. Based on data
from the second quarter of 2019, we know that some markets are overbuilt while others are more stable. This analysis does not take local market variation or local demand characteristics into account.
- Eighth, this analysis has broad generalities in terms of the number of units needed over fiveyear intervals. Based on demographic projections alone, a year-by-year analysis shows that in the near term fewer incremental units are needed in 2020 and 2021 than in 2018 when an estimated 48,600 units were added to the stock of seniors housing in the nation.


## Base Case Results

For the base case analysis, we used the 80 plus household cohort. Prior analyses have used 75 plus households. We believe that the age of residents in seniors housing has increased in the last decade, with many observers placing the typical age of a resident higher than 80 . Hence, the 80plus household cohort better represents today's residents. For purposes of sensitivity analysis, we also conducted scenarios using 75 plus household and 85 plus household projections.

For the 80 plus household cohort using an $18 \%$ penetration rate, there are approximately 881,000 additional units of inventory that will be needed to serve seniors between 2019 and 2030. Due to demographic patterns, the rate of change in demand accelerates further out, with a need for roughly 54,000 units per year required between 2020 and 2025; 95,000 between 2025 and 2030 and 105,000 between 2030 and 2040 (see charts below). In the immediate term, however, 31,000 units are needed in 2019; 36,000 in 2020; and 41,000 in 2021-fewer estimated units than were added to national inventory in 2018.

Seniors Housing Demand Projections - Units, Age 80+ Households*
United States | 2019-2040


[^0]Projected Annual Seniors Housing New Inventory - Age 80+ Households*
United States | 2018-2040
■ 18\% Penetration Rate

*To calculate the number of age $80+$ households, a conversion ratio of 1.43 people per household was applied to population estimates.
Source: U.S. Census, NIC Research

## Scenario Analysis

The first set of scenarios looks at different penetration rates for the 80 plus household cohort. If the penetration rate were to increase to $23 \%$ from $18 \%$, there would be an additional 247,000 units needed through 2030 compared with an 18\% penetration rate ( 1.1 million units versus 881,000 units). And at a $13 \%$ penetration rate, a total of 638,000 units would be needed through 2030 (244,000 fewer than in the base case scenario).

## Seniors Housing Demand Projections - Units, Age 80+ Households*

United States | 2019-2040

$$
-13 \% \quad-18 \% \quad-23 \%
$$

Penetration Rates

*To calculate the number of age $80+$ households, a conversion ratio of 1.43 people per household was applied to population estimates.
For sensitivity analysis, NIC used a lower penetration rate of $13 \%$ and a higher penetration rate of $23 \%$.

The chart below looks at the annual inventory growth needed for 5-year intervals through 2040 under these three penetration rate scenarios. As the chart indicates, for both the base case (18\% penetration rate) and the higher penetration rate scenario ( $23 \%$ penetration rate), the pace of annual inventory growth needs to be higher than the rate recently experienced in the U.S., i.e., more than the estimated 48,000 units that were added to the stock of seniors housing in 2018.

For the 2020-2025 period, nearly 70,000 units per year will need to be added to the stock of seniors housing in the $23 \%$ penetration rate scenario. This accelerates to 121,000 in the 2025 to 2030 period.

In the lower 13\% penetration rate case, roughly 39,000 units of new inventory per year would be needed between 2020 and 2025, fewer than the recent pace of inventory growth. It is not until 2023 that the demographically-driven demand would require more than today's pace of inventory growth-in that year, nearly 56,000 units of new inventory would be needed.

Projected Annual Seniors Housing New Inventory - Age 80+ Households*
United States | 2018-2040

*To calculate the number of age $80+$ households, a conversion ratio of 1.43 people per household was applied to population estimates.
For sensitivity analysis, NIC used a lower penetration rate of $13 \%$ and a higher penetration rate of $23 \%$.
Source: U.S. Census, NIC Research
A second set of scenarios center on the age of the residents. If today's inventory was used by only 85 plus households, the penetration rate would climb to $30 \%$. A higher penetration rate and fewer absolute households suggests fewer incremental units would be needed in the near term and more units would be needed in the long term. The chart below depicts this pattern.

In the 2020-2025 period, the 85 plus cohort would need an additional 32,000 units to be built each year to satisfy demand, fewer than were built in 2018. From 2025 to 2030, 73,000 units per year would need to be added and in the 2030 to 2035 period, this rises to 123,000 units.

For the 75 plus household base case and an $11.4 \%$ penetration rate, a total of 874,000 units would need to be built between now and 2030. In five-year intervals, this equates to 68,000 units between 2020 and 2025 and 80,000 between 2025 and 2030.

In the near term, fewer units are required and less inventory theoretically needs to be built for the 85 plus cohort than either the 75 plus or 80 plus cohort would suggest because there are simply fewer 85 plus households, even at a higher penetration rate of $30 \%$. This is the case until the 2030 period when annual incremental demand equals more than 120,000 units.

Projected Annual Seniors Housing New Inventory by Household Age Cohort*
United States | 2018-2040
$■ 75+\quad$ ■ 80+ $\quad 85+$

*Based on conversion ratios of 1.63 people per household age $75+$, 1.43 people per household age $80+$, and 1.23 people per household age $85+$ Penetration rates by age cohort: $11.4 \%$ for age $75+$, $18 \%$ for age $80+$, and $30 \%$ for $85+$.

## Conclusion

This analysis presents several scenarios that project future seniors housing needs at different penetration rates. In aggregate, the results show that significantly more housing will be needed for America's aging population if today's penetration rate is maintained or grows over the long term. Moreover, even if the penetration rate were to decline, sheer demographics will support future inventory growth, as the lower $13 \%$ penetration rate for the 80 plus household cohort scenario shows.

The timing of when new supply is needed is important to consider, however. Under the base case scenario of an $18 \%$ penetration rate for 80 plus households, incremental inventory growth slows to less than 32,000 units in 2019, 36,000 in 2020 and 41,000 in 2021. It is not until 2022 that the demographically driven demand estimates suggest that the pace of inventory growth needs to exceed the 2018 pace of supply growth. After 2021, the pace of incremental new supply accelerates and peaks at 135,000 units in 2027. If the typical age of entry a resident of seniors housing is 85 or higher, then the need for additional inventory grows more slowly in the near term and doesn't reach the 2018 pace of new supply growth until 2026.

As stated at the beginning of this article, it is also important to keep in mind that these estimates are solely based on demographic demand and do not consider changing consumer preferences regarding their housing and care needs.
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[^0]:    *To calculate the number of age $80+$ households, a conversion ratio of 1.43 people per household was applied to population estimates.

