Fall 2016

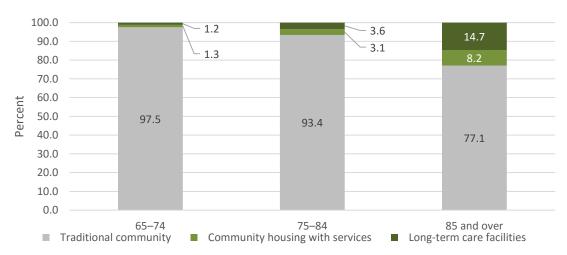
The 75+ vs. 80+ Benchmark Choice – Is the Demand for Senior Living Overstated?

The American Seniors Housing Association (ASHA) recently engaged Senior Housing Analytics and Rockwood Pacific to prepare an ASHA special issue brief titled **A Projection of U.S. Seniors Housing Demand 2015-2040**. This brief was an update to a prior brief on the same topic written by Senior Housing Analytics in 2013. It is becoming generally recognized that most seniors don't move into service-enriched senior housing such as independent living (IL), assisted living (AL), memory care (MC) or nursing care (NC) until they are very close to, or older than, 80. Accordingly, in our current demand estimate, we shifted the underlying basis for estimating demand from the 75+ age cohort to the 80+ age cohort. We refer to this as the 75+ versus 80+ benchmark choice. This choice would appear to have significant negative implications on the size and growth of the market for service-enriched senior housing. Is the market for service-enriched senior housing being overstated?

Background on Age Thresholds

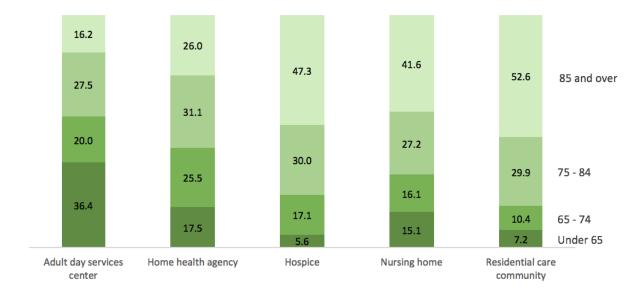
When Wall Street first starting focusing on service-enriched business models in the 1990's, underpinning many business and investment cases was the size and growth of the 65+ population segment. But very few older adults between age 65 and 75 utilize service-enriched senior housing.

Percentage distribution of Medicare beneficiaries age 65 and over residing in selected residential settings, by age group, 2013^{1}



From the alternate vantage point of the profile of residents within existing communities, Center for Disease Control and Prevention (CDC) data indicates that a majority of residential care community residents are over age 85.

Percent population of long-term care service users, by sector and age group: United States 2013 and 2014 ²



The CDC data is consistent with the findings of a study sponsored by the Center for Retirement Research at Boston College in 2012, which found that the median age of entry for independent living and assisted living was age 83.7 and 84.8 respectively. 3 A prior study co-sponsored by several major industry associations including ASHA, NIC

and LeadingAge provided a breakout of age of residents in assisted living by quartiles; with the youngest quartile age of 82.6.4 So even moving beyond median figures, the case for reducing the focus on the 75-79 age cohort is strong. And yet, much of the industry analysis, including our own, has been grounded in the age 75+ cohort. ⁵

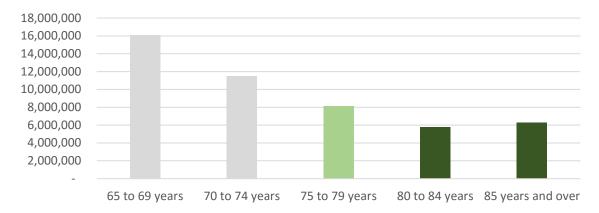
Changing the basis from age 75+ to age 80+ appears to be a big deal; in 2015 this would have resulted in the removal of 8 million potential users of enhanced senior living services, a 40% reduction.

Recalibrating Penetration Ratios

Changing the basis from age 75+ to age 80+ appears to be a big deal; in 2015 this would have resulted in the removal of 8 million potential users of enhanced senior living services, a 40% reduction.



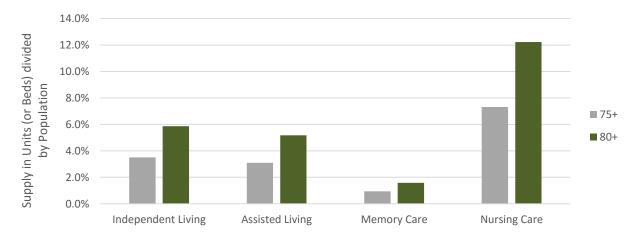
U.S. Population Count by Age Cohorts - 2015 Estimates 6



Fortunately, unlike the early 1990's when analysts were charged with sizing new market segments, many of these segments have now matured and high quality information on occupancy rates, rent levels and rent growth rates are available from the National Investment Center (NIC). According to these "first-order" metrics, many senior living segments are performing well even without the benefit of the eight million older adults younger than 80 but older than 75. In other words, to a large extent these eight million older adults were never customers.

One solution is to merely "recalibrate" penetration ratios; just add about 50% to our prior notion of an acceptable 75+ benchmark to get to the comparable 80+ penetration figure.

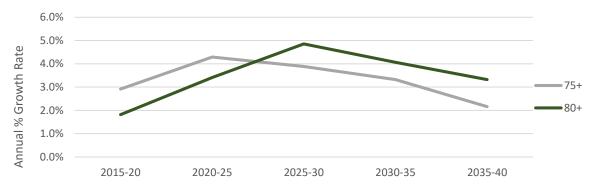
2015 Penetration Ratios – USA 7



This might appear acceptable, however, there are significant implications of this *75+ v. 80+ benchmark choice* on future growth rates. From a vantage point grounded in an 80+ perspective, the near term growth rates are materially slower through 2025.



USA Annual Growth Rates - 75+ v. 80+8

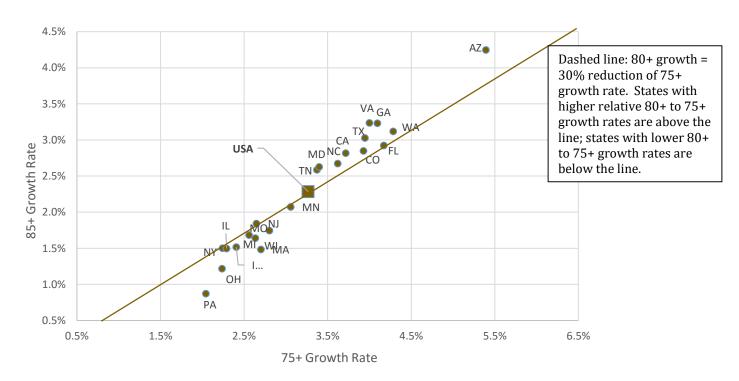


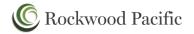
Accordingly, decision makers need to be mindful not to overestimate demand growth by focusing on the younger age cohort, especially in markets that are currently experiencing high supply growth.

Local Variations

What are the implications of the **75+ versus 80+ benchmark choice** at the state level? The US Census no longer provides long-term state-by-state population forecasts, but in 2005 they prepared a long-term population estimate by state and by age.

Projected Annual Growth Rate | Select States | 2015 to 2025 9

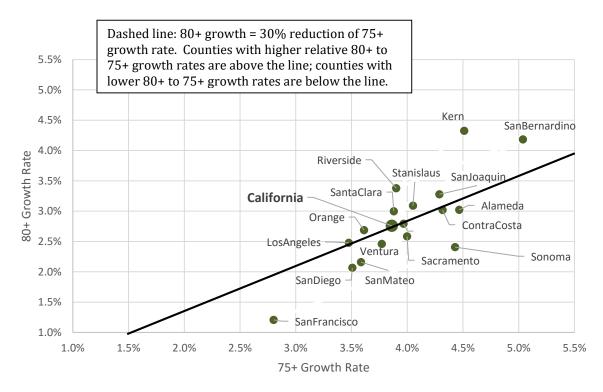




In general, we expect to apply a one-third discount to the growth rates when changing from the 75+ benchmark to the 80+ benchmark. However, this discount is lower for faster growing states, and conversely, is higher for slower growing states. For example, for fast growing Arizona, the comparable discount rate is only 20%. For slower growing states such as Pennsylvania and Ohio, the discount rate is closer to 50%.

More current long-term population forecasts by age cohorts are generally available at the state level either by government agencies or universities. In California, the Department of Revenue of the State of California periodically prepares long-term population forecasts to support statewide planning processes.





As expected, with regard to the **75+ v. 80+ benchmark choice**, there is more variation at the county level than the state level. However, as with the states, none of the larger California counties are expected to have an 80+ growth rate in excess of its 75+ growth rate. Also, similar to the analysis of state population data, there is some correlation between overall growth rates and the relative implications of the **75+ v. 80+ benchmark choice**. Once again, changing from a 75+ to an 80+ benchmark has relatively minor impacts in faster growing counties such as Kern where the applicable discount rate is less than 5%. Again, conversely, in slower growing counties such as San Francisco and San Diego, the applicable discount rate is closer to 50%. ¹¹



Incidentally, there is a correlation between the "age" of a place currently, as measured by the percentage of the population that is over the age of 75 or over the age of 80, and the forecast rate of growth for these respective age categories. San Francisco County, with the highest portion of 75+ and 80+ population, and the lowest future growth rates, is a good illustration of this relationship (See Exhibit B).

Conclusion

The 75+ v. 80+ benchmark choice has implications regarding the rate of growth, resulting in more modest, albeit still strong, population growth rates for older adults. As a rule of thumb, the 75+ v. 80+ benchmark choice implies that benchmark penetration ratios should

... relatively slow growing markets may be even more slow growing than currently recognized.

rise by about 50% and growth rates over the next decade should decline by about a third. Interestingly, the implications of the 7*5+ v. 80+ benchmark choice* on future growth rates vary, with locations that have high forecasted growth in their 75+ age cohort expected to experience relatively high growth in the 80+ age cohorts. Conversely, and worthy of special attention, relatively slow growing markets may be even more slow growing than currently recognized. Accordingly, in light of increases in supply growth, investors, developers and operators should be particularly careful about expanding supply in slower growing markets.

Incidentally, similar to the shift from the 65+ to 75+ benchmark choice, we are expecting a similar shift from 75+ to 80+ as the benchmark of choice for service-enriched housing; but we don't expect this shift to occur quickly.

ABOUT THE CONTRIBUTORS

Francesco Rockwood, a principal at Rockwood Pacific, was the primary author of this paper. Rockwood Pacific provides real estate decision support and transaction services to mission-based organizations committed to serving older adults. Rockwood Pacific is affiliated with Senior Housing Analytics.

Phil Downey, a principal at Senior Housing Analytics, provided guidance and peer review of the approach and conclusions utilized in the paper. Phil is a principal at Senior Housing Analytics, a firm specializing in senior living market analysis. Senior Housing Analytics is affiliated with Rockwood Pacific.

Sarah Rockwood, a research associate with Rockwood Pacific, provided research and analysis of the demographic data utilized in this paper. Sarah is an undergraduate at the University of California at Berkeley.



EXHIBIT A Projected Annual Growth Rate | Select US States | 2015 to 2025 9

	75+POP	75+POP	75+ POP /		80+POP	80+POP	85+ POP /		80+ Growth~
State	2015	2025	Total POP	75_Growth	2015	2025	Total POP	80_Growth	75+ Growth
VA	490,146	725,482	5.8%	4.0%	291,976	401,536	3.4%	3.2%	81%
GA	464,081	693,234	4.5%	4.1%	268,757	369,440	2.6%	3.2%	79%
ΑZ	469,881	794,452	6.3%	5.4%	275,046	416,931	3.7%	4.2%	79%
MD	358,838	501,195	5.8%	3.4%	219,443	284,426	3.5%	2.6%	77%
TN	399,051	555,927	6.1%	3.4%	234,665	302,970	3.6%	2.6%	77%
TX	1,287,287	1,895,501	4.8%	3.9%	769,140	1,036,493	2.9%	3.0%	77%
CA	2,256,368	3,249,984	5.6%	3.7%	1,387,208	1,831,435	3.5%	2.8%	76%
NC	564,633	805,790	5.6%	3.6%	337,197	438,990	3.4%	2.7%	74%
WA	398,677	606,498	5.7%	4.3%	246,374	334,947	3.5%	3.1%	73%
CO	258,100	379,433	5.1%	3.9%	158,391	209,766	3.1%	2.8%	73%
FL	1,788,964	2,692,231	8.4%	4.2%	1,110,329	1,481,348	5.2%	2.9%	70%
NJ	624,860	811,485	6.8%	2.6%	392,116	470,703	4.2%	1.8%	70%
MN	345,589	467,020	6.1%	3.1%	218,448	268,187	3.9%	2.1%	68%
NY	1,354,496	1,690,554	6.9%	2.2%	857,652	995,524	4.4%	1.5%	67%
MO	404,093	520,275	6.7%	2.6%	247,986	293,064	4.1%	1.7%	66%
IL	798,614	1,001,564	6.1%	2.3%	498,406	578,224	3.8%	1.5%	65%
IN	398,206	505,053	6.1%	2.4%	245,462	285,363	3.8%	1.5%	63%
MI	654,363	848,693	6.2%	2.6%	406,370	478,261	3.8%	1.6%	62%
WI	394,932	520,628	6.7%	2.8%	249,260	296,327	4.2%	1.7%	62%
MA	458,487	598,501	6.8%	2.7%	295,211	342,034	4.4%	1.5%	55%
ОН	786,077	980,583	6.8%	2.2%	486,691	549,388	4.2%	1.2%	55%
PA	990,021	1,211,882	7.8%	2.0%	635,588	693,294	5.0%	0.9%	43%
USA	20,182,395	27,836,157	6.3%	3.3%	12,421,536	15,568,533	3.9%	2.3%	70%



EXHIBIT B Projected Annual Growth Rate | Select California Counties | 2015 to 2025 10

									80+
									Growth~
	75+POP	75+POP	75+ POP /		80+POP	80+POP	85+ POP /		75+
County	2015	2025	Total POP	75_Growth	2015	2025	Total POP	80_Growth	Growth
Kern	37,040	57,581	4.1%	4.5%	20,929	31,961	2.3%	4.3%	96%
Riverside	137,684	201,879	5.9%	3.9%	80,958	112,866	3.5%	3.4%	87%
SanBernardino	88,797	145,164	4.2%	5.0%	51,312	77,306	2.4%	4.2%	83%
SantaClara	106,135	155,289	5.6%	3.9%	63,962	85,943	3.4%	3.0%	77%
SanJoaquin	35,489	54,010	4.9%	4.3%	21,245	29,331	2.9%	3.3%	76%
Stanislaus	27,440	40,818	5.1%	4.1%	16,344	22,157	3.0%	3.1%	76%
Orange	184,678	263,363	5.9%	3.6%	112,135	146,158	3.6%	2.7%	74%
LosAngeles	555,690	782,092	5.5%	3.5%	339,173	433,199	3.3%	2.5%	71%
Fresno	47,056	69,432	4.8%	4.0%	28,655	37,738	2.9%	2.8%	70%
ContraCosta	67,194	102,544	6.1%	4.3%	40,559	54,606	3.7%	3.0%	70%
Alameda	87,378	135,252	5.5%	4.5%	53,209	71,649	3.3%	3.0%	68%
Ventura	49,943	72,317	5.9%	3.8%	30,655	39,086	3.6%	2.5%	65%
Sacramento	81,029	119,928	5.5%	4.0%	49,454	63,820	3.4%	2.6%	65%
SanMateo	51,415	73,125	6.8%	3.6%	31,898	39,488	4.2%	2.2%	60%
SanDiego	184,443	260,356	5.7%	3.5%	115,365	141,530	3.6%	2.1%	59%
Sonoma	33,396	51,515	6.7%	4.4%	20,703	26,258	4.1%	2.4%	54%
SanFrancisco	59,614	78,588	7.0%	2.8%	37,639	42,433	4.4%	1.2%	43%
California	2,204,835	3,220,802	5.7%	3.9%	1,337,352	1,755,284	3.4%	2.8%	71%





¹ Centers for Medicare & Medicaid Services, Medicare Current Beneficiary Survey, Access to Care. Community housing with services applies to respondents who reported they lived in retirement communities or apartments, senior citizen housing, continuing care retirement facilities, assisted living facilities, staged living communities, board and care facilities/homes, or similar situations and those who reported they had access to one or more of the following services through their place of residence: meal preparation, cleaning or housekeeping services, laundry services, or help with medications. Respondents were asked about access to these services, but not whether they actually used the services. A residence (or unit) is considered a long-term care facility if it is certified by Medicare or Medicaid; or has 3 or more beds, is licensed as a nursing home or other long-term care facility, and provides at least one personal care service; or provides 24-hour, 7-day-a-week supervision by a non-family, paid caregiver.

² Center for Disease Control and Prevention (CDC) Long Term Care Providers and Service Users in the United States: Data from the National Study of Long Term Care Providers, 2013-2014 (February 2016 report).

³ Residents in Seniors Housing and Care Communities: Overview of The *Residents Financial Survey*, Norma B. Coe and April Yanyuan Wu, Center for Retirement Research at Boston College, April 2012.

⁴ 2009 Overview of Assisted Living, A collaborative research project of AAHSA, ASHA, ALFA, NCAL & NIC. AASHA subsequently changed its name to LeadingAge.

⁵ A common approach utilized by several market feasibility consultants is to apply different utilization rates by age cohort categories. After all, some residents of service-enriched senior housing are indeed younger than 75, some even younger than 65. However, the trade-off in greater precision comes at the expense of greater complexity that undermines efforts to compare and communicate comparisons between markets and comparisons within markets over time.

⁶ US Census; Estimate for 2015 as of 2014.

⁷ Based on NIC unit count estimates for entire US as of 2015; note that unit counts reflect estimated number of units in each service category rather than number of units by predominant service offering. Supply counts in units for IL, AL and MC and in beds for NC. Population estimates per US Census (2015 population estimate as of 2014).

⁸ US Census forecast as of 2014.

⁹ Limited to states with a total population of at least 5 million in 2015. US Census, Population Division. State Projections of Population for Five-Year Age Groups and Selected Age Groups by Sex: July, 1 2004 to 2030 (File 2). Interim State Population Projections, 2005. This is the most recent long-term state-level detailed population forecast posted by the US Census for public access. The forecasted relationships between the age cohorts generally align with more current US Census data.

¹⁰ California counties with a population of at least 500,000 as of 2015. California Department of Finance, State and County Population Projections by Race/Ethnicity and Age (5-year groups), P-2 Report, December 2014.

¹¹ We have not addressed the wealth effects in this paper, but a significant compensating factor for San Francisco is the increased wealth due to high and increasing home values.