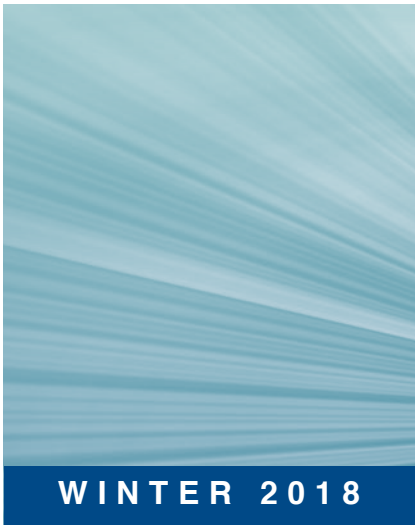
SPECIAL ISSUE

brief



State by State 75+ Population Growth Forecast

AMERICAN SENIORS HOUSING ASSOCIATION
Living Longer Better

SENIOR HOUSING ANALYTICS

Rockwood Pacific

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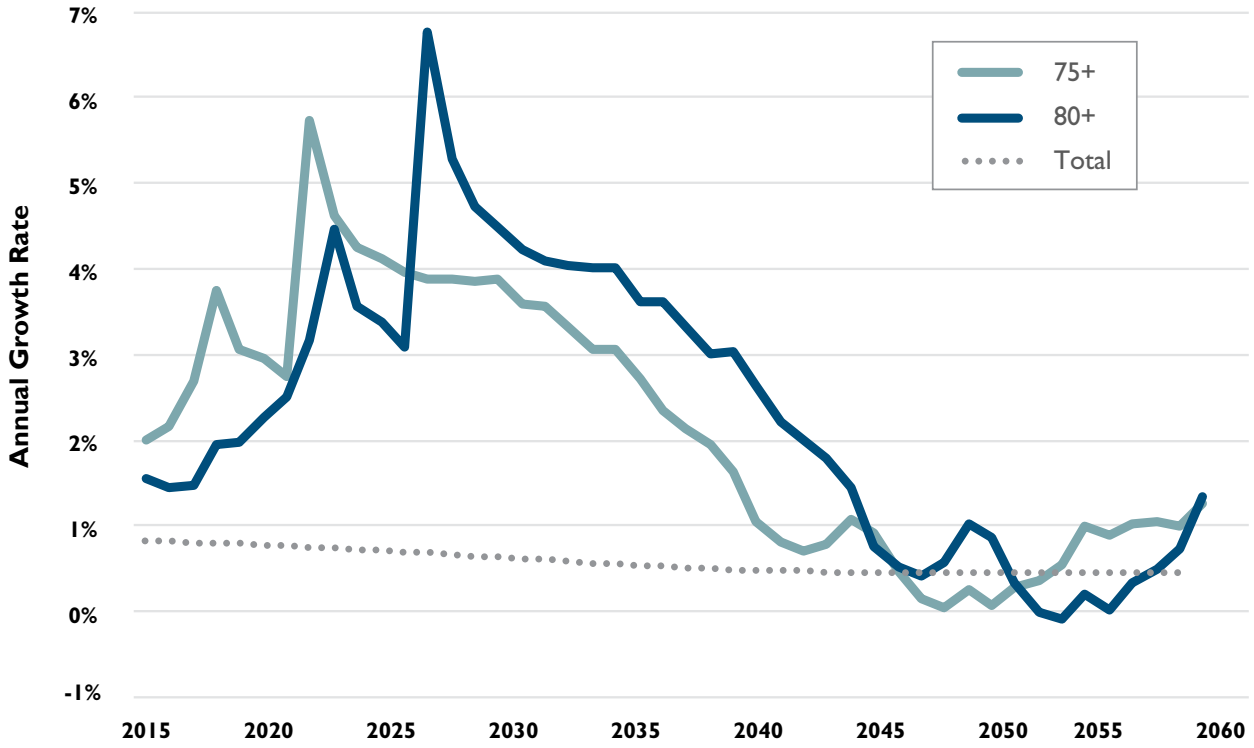
State by State 75+ Population Growth Forecast

Population growth of older adults in the U.S. deservedly garners a great deal of attention from decision makers addressing the housing and services needs of aging Americans.[1] The 75+ population is already growing at twice the rate of the overall population and is expected to approach 6 times the overall rate before 2025.

Because many are living healthier longer, industry research indicates the 80+ population cohort is a more accurate market-sizing assumption vs. 75+.[2] The 80+ cohort is smaller and its growth rate is slower until 2027 when it exceeds the 75+ cohort growth rate and has extraordinary annual growth.

Chart 1: Projected annual growth rate of 75+ and 80+ and total United States population[3]



OFFICIAL STATE BY STATE PROJECTIONS

The US Census Bureau (hereafter "US Census") published its first set of state population projections in 1952 and released an interim set of state-by-state projections in 2005 but since then has not produced any state-by-state projections.[4] Fortunately, high-quality, projections are generally available for each state from either a government agency or university department, but the resources devoted to producing such forecasts within each state vary widely (See Appendix 1).[5] In addition to developing projections for the State of Virginia, the University of Virginia Weldon Cooper Center for Public Service Demographics Research Group has developed and makes available age-sex forecasts for all states (the "UVA Projections").[6] Based on our research, this appears to be the most current official state-by-state forecast, and accordingly, will be the primary source for figures utilized in this report.

STATE BY STATE 75+ GROWTH

Not surprisingly the larger states are projected to have the largest magnitude of 75+ population growth (See Appendix 2).

The largest tile below corresponds to an additional 1.2 million 75+ persons projected in the Golden State between 2020 and 2030. The smallest tile corresponds to the approximately 20,000 75+ older adults expected to be added to Wyoming.

Chart 2: Allocation of the projected increase of ~ 10 million 75+ persons between 2020 and 2030 by state; the tile size is proportionate to share of each state[7]

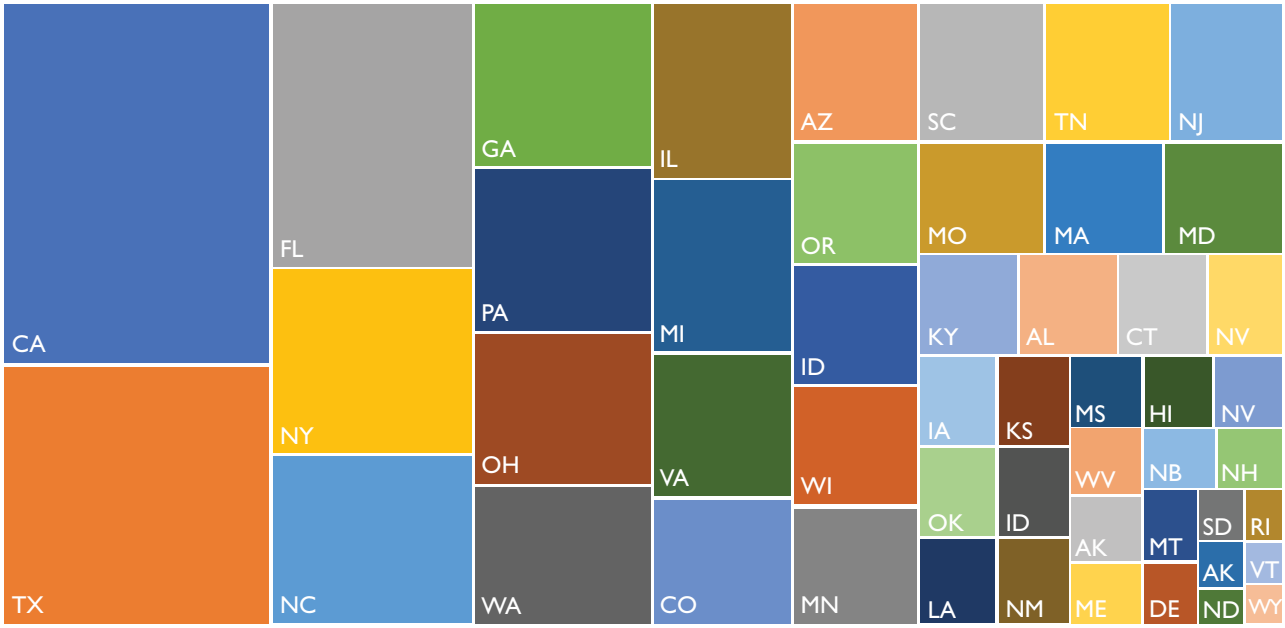
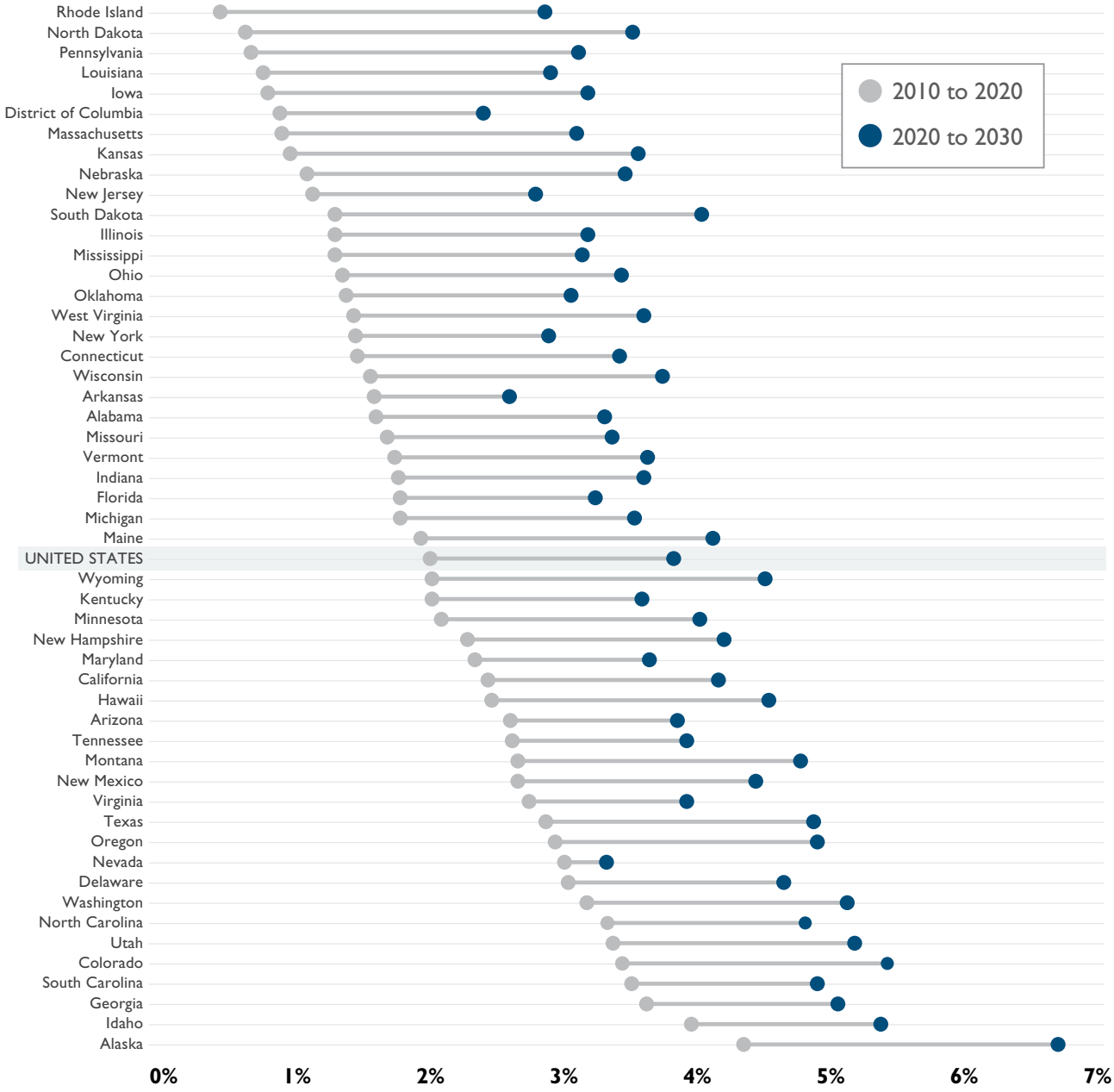


Chart 3: Projected annual growth rate of 75+ population by state[8]

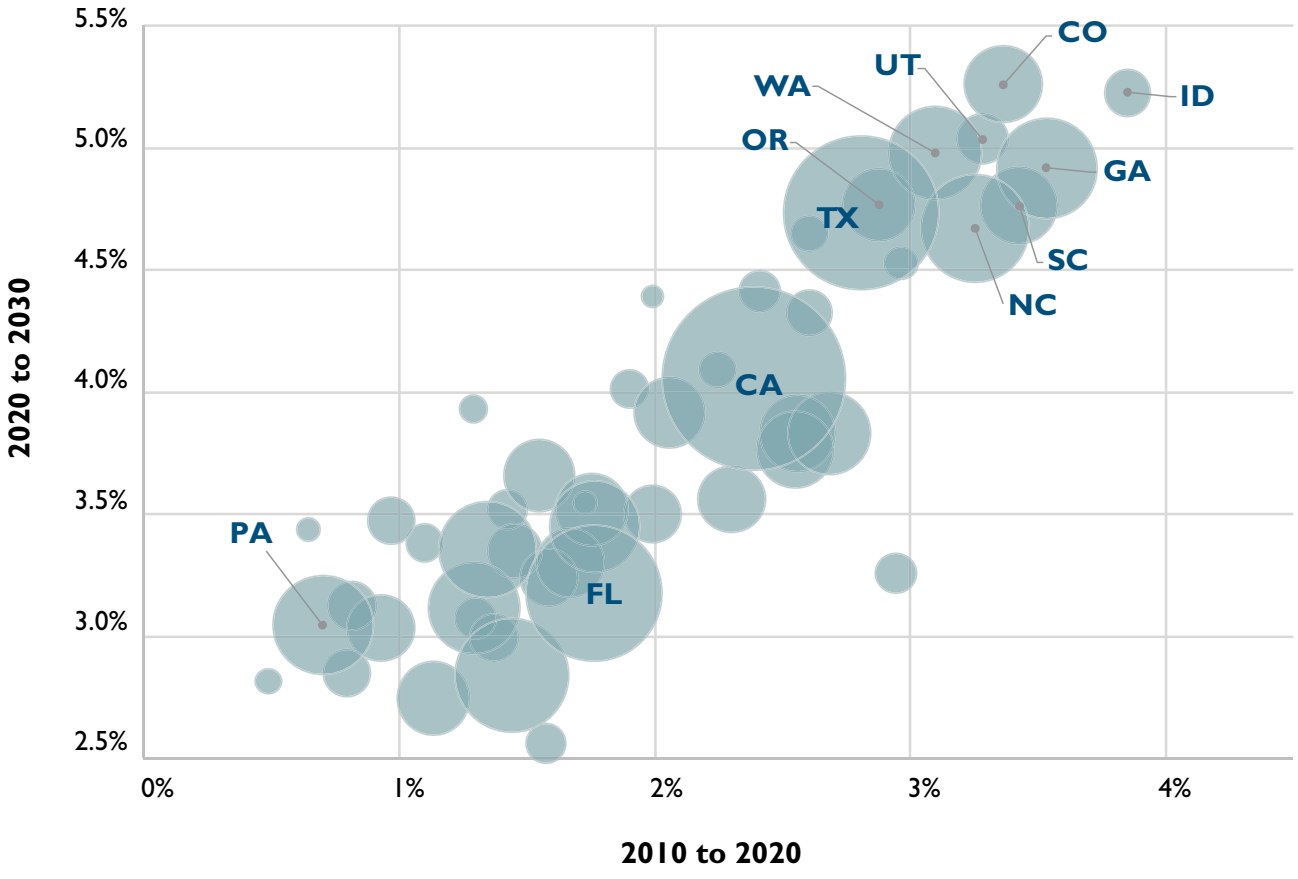


From 2010 to 2020, the annual average 75+ population growth rate for the United States is 2.0%. The corresponding growth rates for individual states vary widely with the fastest near-term and long-term growth rates in Alaska and the slowest near-term and longer-term growth rates in Rhode Island and the District of Columbia respectively. (See Appendix 2).

Among larger states, the fastest near-term growth is expected in Georgia and the slowest growth in Pennsylvania. In the next decade, many of the states with the highest growth rates are in the West (Alaska, Colorado, Idaho, Utah and Washington).

Another view of the same information highlights that North Carolina, Texas and California are particularly attractive both in terms of the absolute change in the 75+ older adult population as well as the rate of population growth.

Chart 4: Bubble chart of projected annual growth in 75+ population by state; bubbles sized to the absolute change in 75+ older adults from 2020 to 2030[9]

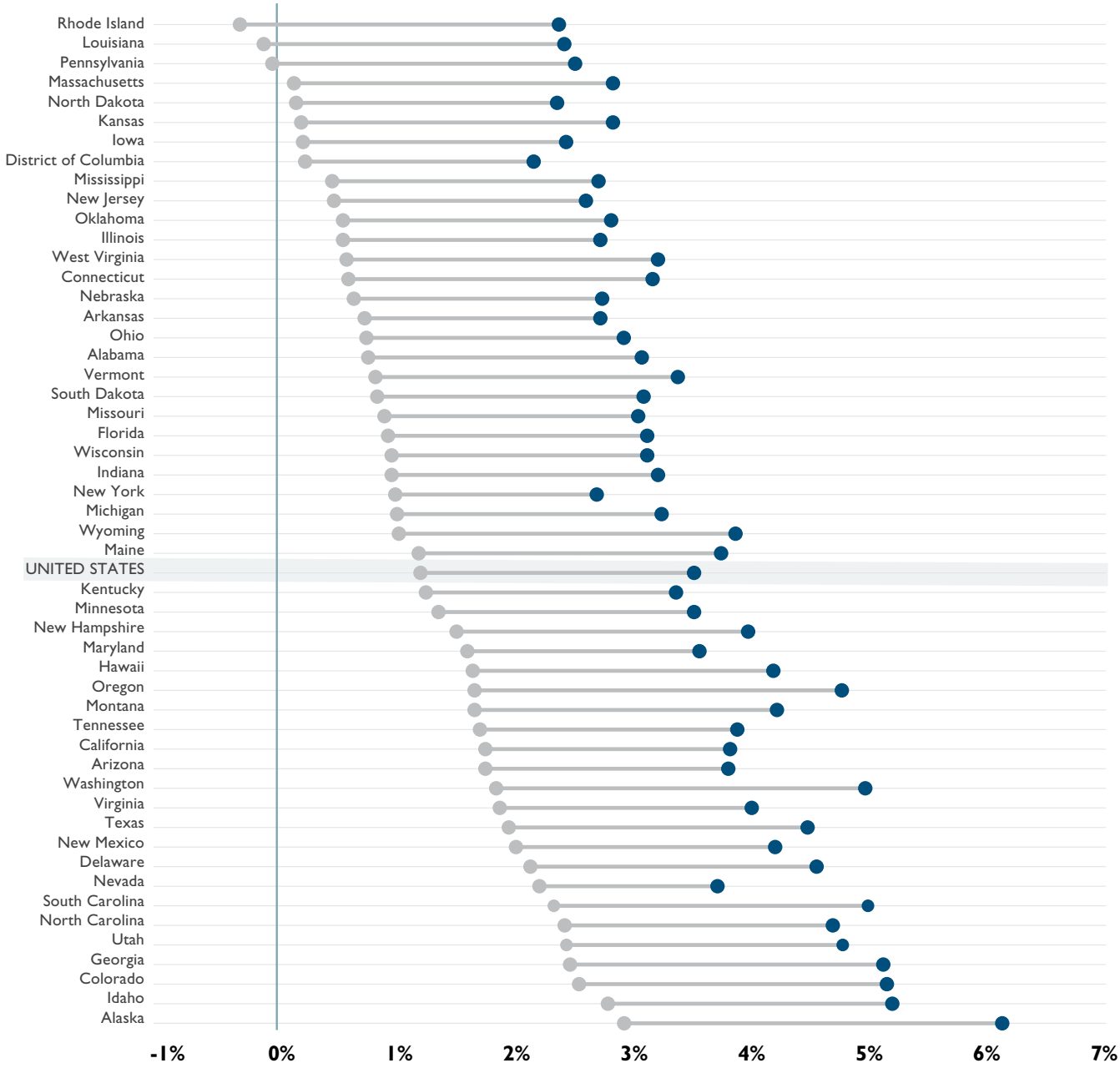


IMPLICATIONS OF AN 80+ THRESHOLD

As stated previously, we believe that 80+ may be a more appropriate threshold for many types of senior housing. Applying this higher threshold results in lower growth rates overall but does not materially change the relative ranking of states and Alaska is still expected to experience the highest growth rates while Rhode Island and the District of Columbia are expected to have the lowest near-term and long-term growth rates respectively (See Appendix 3).

Note that utilizing this higher age threshold results in negative growth for Rhode Island, Louisiana and Pennsylvania. Also, at the other end of the spectrum, Colorado jumps ahead of Georgia.

Chart 5: Projected annual growth rate of 80+ by state[10]

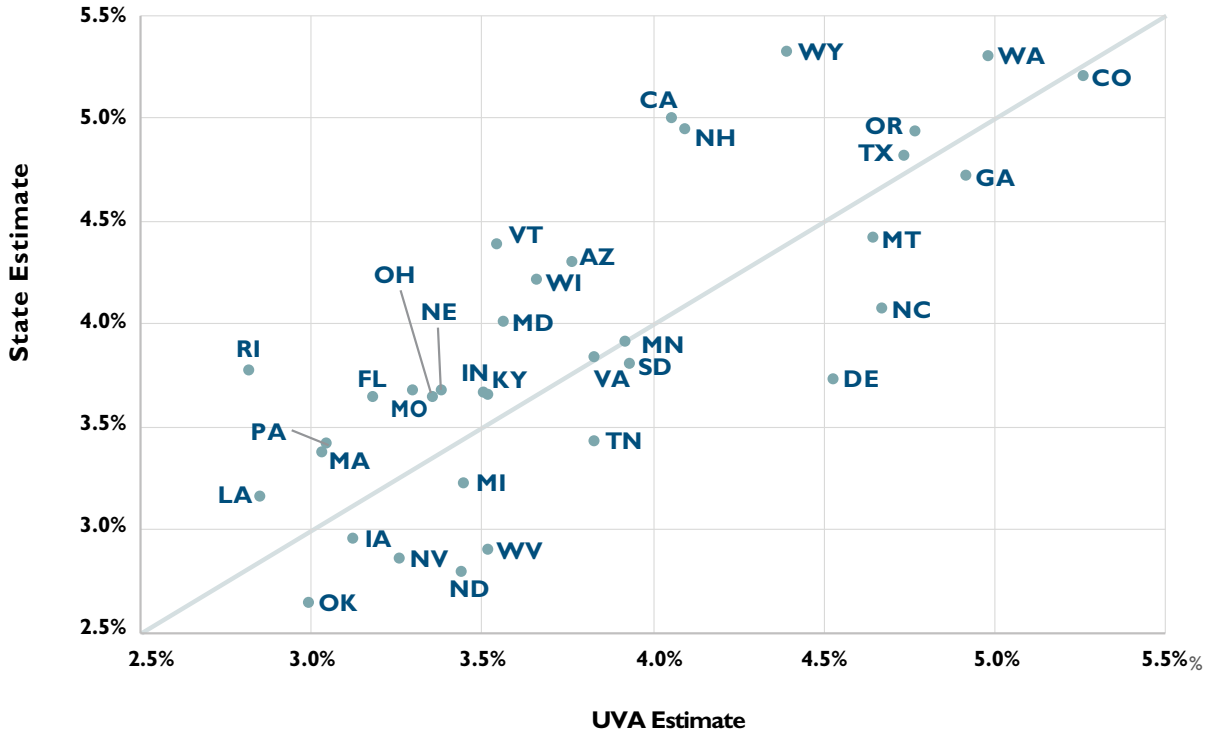


ALTERNATIVE APPROACHES

All the figures thus far have been based on the UVA projections, which assume that the historical "graduation rates" of younger adults into older age cohorts will persist.[11] A major advantage of this approach is that it can be readily applied across many geographies. Also, for better and worse, it reduces the role of subjective expert judgement. However, many state-specific projections, such as California and Florida, utilize more involved projection methods involving more expert judgement.[12]

In comparison to the UVA projections, the official state projections that were readily available for 2020 and 2030 do not deviate in a consistent manner. In other words, there does not appear to be a general pattern in which state-specific projections are generally higher, or lower, than the UVA projections (see Appendix 4).[13]

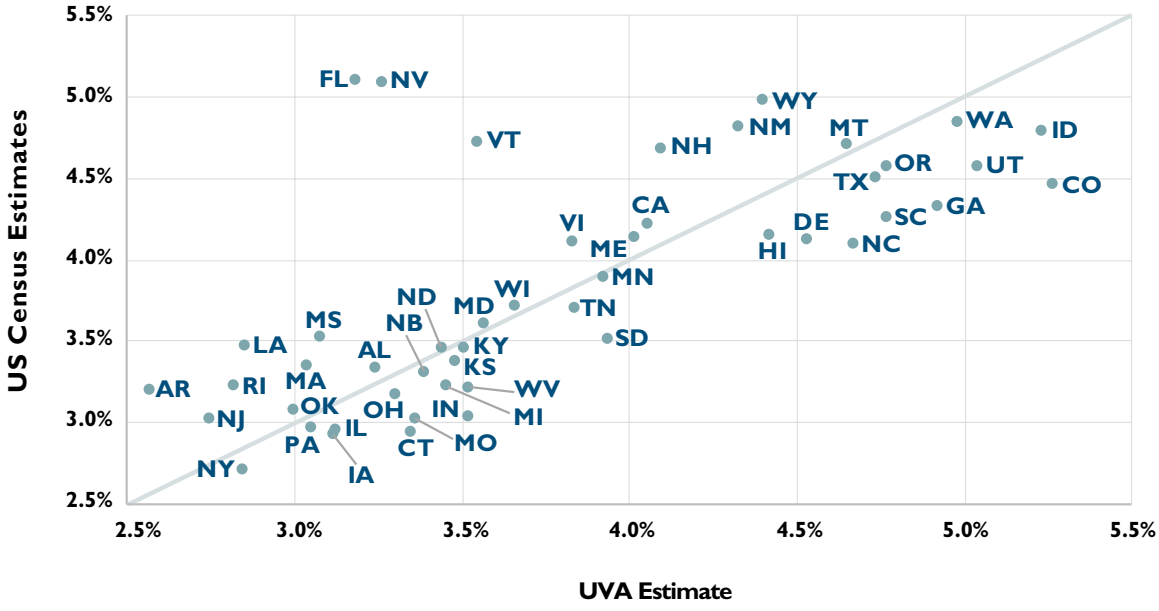
Chart 6: Annual growth rate of 75+ persons from 2020 to 2030
Comparison of UVA to state-specific sources[15]



As stated previously, the US Census has not published a state-by-state projection since 2005 while the UVA projections utilized in this report were updated in 2016.[14] In comparison to the more current UVA projections, the older US Census projections anticipated much higher growth rates for Florida and Nevada (see Appendix 5).

Alternatively, UVA's projections are relatively more bullish on growth prospects for North Carolina, South Carolina, Georgia and Colorado than the 2005 US Census projections.

Chart 7: Annual growth rate of 75+ between 2020 and 2030
Comparison of UVA to older US Census projection[16]

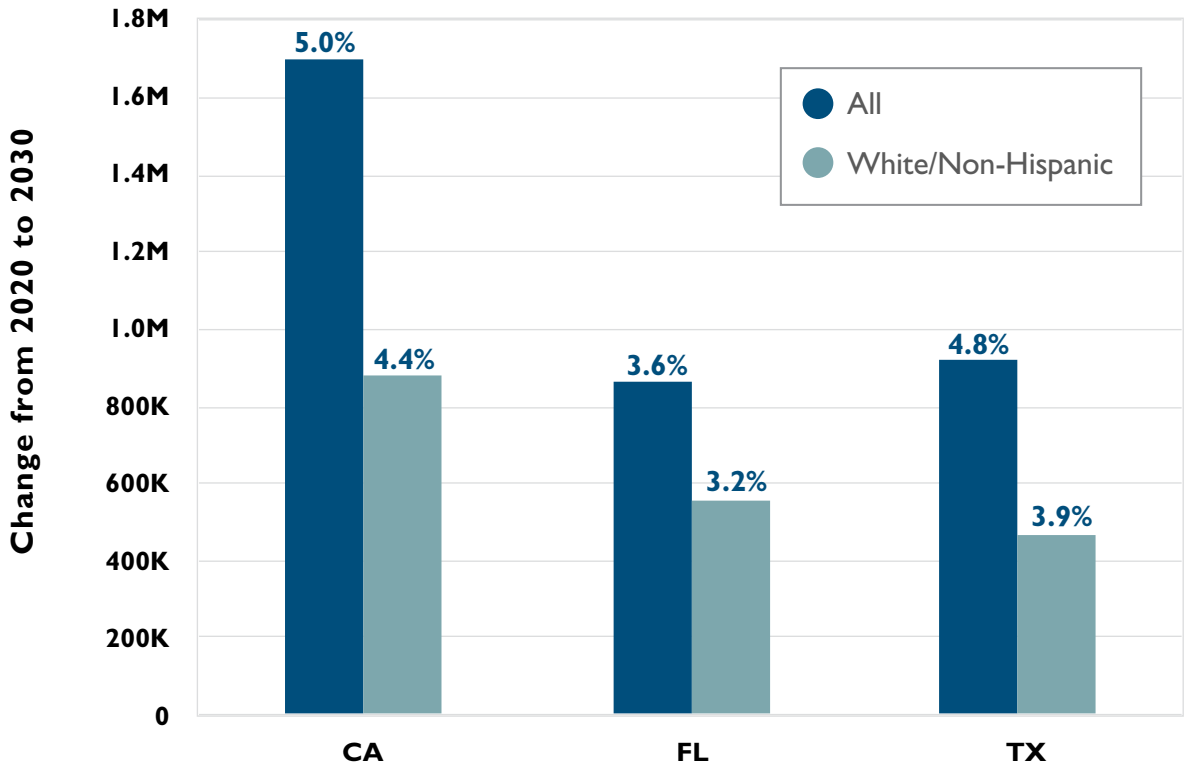


ETHNIC CATEGORIES

Ideally senior housing providers will be successful in refining and broadening their product and service offering to appeal to all ethnic categories, and this will be especially important considering the trend of non-white ethnic categories comprising a significant and growing share of the population, even among older adults.

For several of the larger states, the projected annual growth rates for white non-Hispanic older adults are materially lower than the growth rates for the older adult population overall, but are still strong.

Chart 8: Expected change in 75+ between 2020 and 2030 for all ethnic groups and white non-Hispanic and the applicable average annual growth rates[17]



CLOSING COMMENTS

The deeper one dives into the mechanics of population projections, the greater the appreciation of the uncertainty, especially regarding longer-term assumptions for migration and mortality ratios. For instance, while mortality rates have been generally improving in large part due to the decline in smoking, these improvements are being off-set by the rising incidence of obesity.[18]

Changes in education, income and wealth levels, ethnic composition, morbidity ratios, technology and new/emerging alternatives will change how population growth translates into changes in the demand for senior housing, however, given that growth rates are almost universally strong and getting stronger across the U.S., the prospect for continued growth in demand is favorable in almost every state.

APPENDIX I
Roster of Sources for State Projections[19]

State	Research Source	Federal-State Cooperative Program for Population Estimates Source
AL	Center for Business and Economic Research, The University of Alabama	AL Department of Economic and Community Affairs
AK	AK Department of Labor and Workforce Development, Research and Analysis Section	AK Department of Labor and Workforce Development, Research and Analysis Section
AZ	Office of Economic Opp/AZ Department of Admin, Office of Employment & Pop. Stats	Office of Economic Opportunity, State of Arizona
AR	Arkansas Economic Development Institute, UALR (new name as of 7/17)	Institute for Economic Advancement, College of Business, UALR
CA	CA Department of Finance	CA Department of Finance
CO	Colorado Department of Local Affairs	CO Department of Local Affairs
CN	University of Connecticut / Connecticut State Data Center	CN Department of Public Health, Division of Health Surveillance and Planning
DE	State of Delaware, Office of State Planning Coordination	Center for Applied Demography and Survey Research, University of DE
DC	DC Office of Planning	DC Office of Planning
FL	Bureau of Economic & Business research, UF	Bureau of Economic & Business research, UF
GA	Governor's Office of Planning & Budget	Governor's Office of Planning & Budget
HI	State of Hawaii Department of Business, Economic Development & Tourism	State of Hawaii Department of Bus., Econ. Dev. & Tourism, Research & Econ. Analysis
ID	Idaho Department of Labor	Division of Financial Management, State of Idaho
IL	IL Health Facilities and Services Review Board	IIL Center for Health Statistics, IL Department of Public Health
IN	Indiana Business Research Center at IU's Kelley School of Business	Indiana Business Research Center at IU's Kelley School of Business
IA	State Data Center of Iowa	State Library of Iowa Main Library
KS	KU Inst. for Policy & Soc. Research / Cntr. for Econ. Dev. & Bus. Research Wichita SU	KS Division of the Budget
KY	Kentucky State Data Center, University of Louisville	Kentucky State Data Center, University of Louisville
LA	State of Louisiana, Office of Information Technology, Division of Administration/LSU	LSU, College of Humanities and Social Sciences; LSU AgCenter
ME	State of Maine Office of Policy and Management	Maine Department of Health and Human Services, Maine CDC
MD	MD Department of Planning, Maryland State Data Center	MD Vital Statistics Administration, Department of Health and Mental Hygiene
MS	Umass Donahue Institute Population Estimate Program	Umass Donahue Institute, Economic and Public Policy Research Unit
MI	Michigan.gov/U.S. Census Bureau, Interim Population Projections:2005	Department of Tech., Mgmt., and Budget/LMISI; Bureau of Labor Market Info.& Strat.
MIN	Minnesota State Demographic Center, Department of Administration	Minnesota State Demographic Center, Department of Administration
MS	Mississippi Institute of Higher Learning/Office of Policy Research and Planning	Center for Population Studies, University of MS
MO	MO Office of Administration, Division of Budget and Planning	MO Office of Administration, Division of Budget and Planning
MT	MT Department of Commerce	Bureau of Business and Economic Research, University of MT
NE	Center for Public Affairs Research, University of Nebraska Omaha	NE Department of Natural Resources
NV	Nevada State Demographer's Office	Nevada State Demographer, Nevada Department of Taxation
NH	NH Office of Strategic Initiatives	NH Office of Energy and Planning
NJ	NJ Department of Labor and Workforce Development	NJ Department of Labor and Workforce Dev., Division of Econ. & Demographic Research
NM	Bureau of Business & Economic Research | University of New Mexico	Geospatial and Population Studies, University of NM
NY	Cornell University Program on Applied Demographics	Cornell University Program on Applied Demographics
NC	NC Office of State Budget and Management	NC Office of State Budget and Management
ND	North Dakota Census Office, ND Department of Commerce	North Dakota Census Office, ND Department of Commerce
OH	Ohio Development Services Agency	Ohio Development Services Agency
OK	OK Department of Commerce	OK Department of Commerce
OR	Office of Economic Analysis, Department of Administrative Services, State of Oregon	Population Research Center, Portland State University
PA	The Institute of State and Regional Affairs, Penn State Harrisburg/Center for Rural PA	Pennsylvania State Data Center
RI	RI Statewide Planning Program	RI Statewide Planning Program
SC	South Carolina Revenue and Fiscal Affairs Office	South Carolina Revenue and Fiscal Affairs Office
SD	SD Department of Labor and Regulation/SDSU's Census Data Center	Department Of Sociology and Rural Studies, SDSU
TN	University of TN Knoxville/TN State Data Center – Boyd Center for Bus. & Econ. Research	Tennessee State Data Center - Boyd Center for Business & Economic Research
TX	Texas Demographic Center, University of Texas at San Antonio	Texas Demographic Center, University of Texas at San Antonio
UT	Kem C. Gardner Policy Institute, The University of Utah	Governor's Office of Management & Budget, Demographic and Economic Analysis
VT	VT Agency of Commerce and Community Development	Center for Rural Studies, Vermont State Data Center, University of VT
VA	UVA Weldon Cooper Center for Public Service, Demographics Research Group	UVA Weldon Cooper Center for Public Service, Demographics Research Group
WA	WA Office of Financial Management	WA Office of Financial Management, Forecasting Division
WV	Bureau of Business and Economic Research, College of Bus. and Econ., WVU	WV Bureau of Business and Economic Research, WVU
WI	WI Department of Administration, Demographic Services Center	Office of Health Informatics, WI Department of Health Services
WY	Wyoming Department of Administration and Information, Economic Analysis Division	WY Department of Administration and Information, Division of Economic Analysis
All	UVA Weldon Cooper Center for Public Service, Demographics Research Group	

APPENDIX 2
UVA Projections for 75+ Older Adults

UVA 75+ State by State Projections: Population 2010, 2020, 2030; Change in Population from 2010 – 2020, 2020 – 2030; Growth Rates 2010 – 2020, 2020 – 2030; sorted alphabetically

75+ POP							
	CENSUS	UVA					
State	2010	2020	2030	2010-2020	2020-2030	10-20 Gr Rt	20-30 Gr Rt
Alabama	287,291	336,171	462,520	48,880	126,349	1.6%	3.2%
Alaska	19,588	29,645	55,621	10,057	25,976	4.2%	6.5%
Arizona	383,939	493,928	714,892	109,989	220,964	2.6%	3.8%
Arkansas	185,379	216,705	279,131	31,326	62,426	1.6%	2.6%
California	1,971,178	2,495,408	3,713,395	524,230	1,217,987	2.4%	4.1%
Colorado	239,665	333,703	557,273	94,038	223,570	3.4%	5.3%
Connecticut	251,615	290,634	403,995	39,019	113,361	1.5%	3.3%
Delaware	56,824	76,102	118,529	19,278	42,427	3.0%	4.5%
District of Columbia	31,840	34,869	44,104	3,029	9,235	0.9%	2.4%
Florida	1,531,662	1,824,055	2,494,427	292,393	670,372	1.8%	3.2%
Georgia	425,606	602,301	973,429	176,695	371,128	3.5%	4.9%
Hawaii	94,615	120,095	185,005	25,480	64,911	2.4%	4.4%
Idaho	85,134	124,221	206,775	39,087	82,554	3.9%	5.2%
Illinois	759,678	863,675	1,173,685	103,997	310,010	1.3%	3.1%
Indiana	388,773	462,638	653,949	73,865	191,311	1.8%	3.5%
Iowa	228,232	247,523	336,698	19,291	89,175	0.8%	3.1%
Kansas	185,727	204,486	287,791	18,759	83,304	1.0%	3.5%
Kentucky	252,913	308,087	434,770	55,174	126,683	2.0%	3.5%
Louisiana	245,863	266,074	352,463	20,211	86,388	0.8%	2.9%
Maine	98,429	118,849	176,168	20,420	57,319	1.9%	4.0%
Maryland	321,285	403,407	572,465	82,122	169,059	2.3%	3.6%
Massachusetts	446,264	489,436	660,079	43,172	170,642	0.9%	3.0%
Michigan	636,821	758,561	1,064,954	121,740	306,393	1.8%	3.5%
Minnesota	328,694	402,886	591,707	74,192	188,820	2.1%	3.9%
Mississippi	165,938	188,813	255,623	22,875	66,810	1.3%	3.1%
Missouri	387,804	457,619	633,234	69,815	175,614	1.7%	3.3%
Montana	66,000	85,357	134,460	19,357	49,103	2.6%	4.6%
Nebraska	123,551	137,803	192,217	14,252	54,413	1.1%	3.4%
Nevada	126,578	169,221	233,217	42,643	63,997	2.9%	3.3%
New Hampshire	81,506	101,778	152,029	20,272	50,252	2.2%	4.1%
New Jersey	574,559	643,090	843,325	68,531	200,234	1.1%	2.7%
New Mexico	118,461	153,220	233,977	34,759	80,757	2.6%	4.3%
New York	1,257,341	1,450,807	1,920,220	193,466	469,413	1.4%	2.8%
North Carolina	536,512	738,912	1,166,437	202,400	427,526	3.3%	4.7%
North Dakota	50,604	53,967	75,678	3,363	21,711	0.6%	3.4%
Ohio	771,781	882,194	1,227,438	110,413	345,244	1.3%	3.4%
Oklahoma	226,247	259,228	348,250	32,981	89,023	1.4%	3.0%
Oregon	243,492	323,366	515,252	79,874	191,886	2.9%	4.8%
Pennsylvania	979,769	1,050,710	1,418,560	70,941	367,850	0.7%	3.0%
Rhode Island	78,002	81,890	108,125	3,888	26,235	0.5%	2.8%
South Carolina	262,831	368,171	586,382	105,340	218,211	3.4%	4.8%
South Dakota	58,954	67,016	98,565	8,062	31,549	1.3%	3.9%
Tennessee	366,388	471,701	687,159	105,313	215,459	2.6%	3.8%
Texas	1,129,630	1,489,754	2,366,237	360,124	876,482	2.8%	4.7%
United States	18,554,555	22,570,940	32,563,622	4,016,385	9,992,682	2.0%	3.7%
Utah	111,238	153,647	251,162	42,409	97,514	3.3%	5.0%
Vermont	41,540	49,300	69,865	7,760	20,565	1.7%	3.5%
Virginia	427,133	556,528	810,549	129,395	254,020	2.7%	3.8%
Washington	370,457	502,615	817,277	132,158	314,662	3.1%	5.0%
West Virginia	133,884	154,191	217,931	20,307	63,740	1.4%	3.5%
Wisconsin	376,818	439,409	629,475	62,591	190,066	1.5%	3.7%
Wyoming	30,522	37,173	57,154	6,651	19,981	2.0%	4.4%

APPENDIX 3
UVA Projections for 80+ Older Adults

UVA 80+ State by State Projections: Population 2010, 2020, 2030; Change in Population from 2010 – 2020, 2020 – 2030; Growth Rates 2010 – 2020, 2020 – 2030; sorted alphabetically

80+ POP							
	CENSUS	UVA					
State	2010	2020	2030	2010-2020	2020-2030	10-20 Gr Rt	20-30 Gr Rt
Alabama	164,455	176,401	237,763	11,946	61,362	0.7%	3.0%
Alaska	10,696	14,200	25,672	3,504	11,472	2.9%	6.1%
Arizona	221,678	262,377	380,093	40,699	117,717	1.7%	3.8%
Arkansas	107,638	115,144	150,118	7,506	34,974	0.7%	2.7%
California	1,204,207	1,424,335	2,066,916	220,128	642,581	1.7%	3.8%
Colorado	142,757	182,702	300,969	39,945	118,267	2.5%	5.1%
Connecticut	162,363	171,164	232,938	8,801	61,774	0.5%	3.1%
Delaware	32,939	40,473	62,994	7,534	22,521	2.1%	4.5%
District of Columbia	20,020	20,358	25,118	338	4,760	0.2%	2.1%
Florida	916,148	998,738	1,353,331	82,590	354,593	0.9%	3.1%
Georgia	242,871	308,476	506,766	65,605	198,290	2.4%	5.1%
Hawaii	59,940	70,175	105,398	10,235	35,223	1.6%	4.2%
Idaho	50,856	66,589	110,228	15,733	43,639	2.7%	5.2%
Illinois	470,293	493,899	643,366	23,606	149,466	0.5%	2.7%
Indiana	236,930	259,233	354,131	22,303	94,898	0.9%	3.2%
Iowa	144,845	147,146	186,350	2,301	39,203	0.2%	2.4%
Kansas	116,261	117,986	155,298	1,725	37,312	0.1%	2.8%
Kentucky	147,521	166,089	230,382	18,568	64,293	1.2%	3.3%
Louisiana	142,987	140,339	177,573	-2,648	37,234	-0.2%	2.4%
Maine	59,535	66,566	95,839	7,031	29,272	1.1%	3.7%
Maryland	196,706	229,160	323,972	32,454	94,812	1.5%	3.5%
Massachusetts	283,672	285,979	376,375	2,307	90,396	0.1%	2.8%
Michigan	392,736	431,299	591,418	38,563	160,119	0.9%	3.2%
Minnesota	206,580	234,921	330,558	28,341	95,636	1.3%	3.5%
Mississippi	96,062	99,962	130,127	3,900	30,164	0.4%	2.7%
Missouri	232,533	252,956	340,059	20,423	87,103	0.8%	3.0%
Montana	40,363	47,345	71,373	6,982	24,029	1.6%	4.2%
Nebraska	77,116	81,634	106,581	4,518	24,947	0.6%	2.7%
Nevada	69,075	85,488	122,755	16,413	37,267	2.2%	3.7%
New Hampshire	49,732	57,467	84,529	7,735	27,062	1.5%	3.9%
New Jersey	358,844	373,910	481,610	15,066	107,700	0.4%	2.6%
New Mexico	68,231	82,846	124,643	14,615	41,797	2.0%	4.2%
New York	782,534	858,595	1,114,903	76,061	256,308	0.9%	2.6%
North Carolina	312,857	395,469	623,608	82,612	228,139	2.4%	4.7%
North Dakota	32,236	32,531	40,902	295	8,371	0.1%	2.3%
Ohio	474,262	507,799	674,994	33,537	167,195	0.7%	2.9%
Oklahoma	131,196	137,746	181,198	6,550	43,452	0.5%	2.8%
Oregon	151,891	178,063	283,009	26,172	104,947	1.6%	4.7%
Pennsylvania	617,437	611,269	779,852	-6,168	168,583	-0.1%	2.5%
Rhode Island	51,357	49,447	62,264	-1,910	12,818	-0.4%	2.3%
South Carolina	149,583	187,611	304,303	38,028	116,692	2.3%	5.0%
South Dakota	37,230	40,209	54,287	2,979	14,078	0.8%	3.0%
Tennessee	211,871	249,621	363,960	37,750	114,339	1.7%	3.8%
Texas	652,385	787,252	1,216,336	134,867	429,084	1.9%	4.4%
United States	11,236,760	12,588,274	17,736,361	1,351,514	5,148,087	1.1%	3.5%
Utah	65,403	82,822	131,626	17,419	48,803	2.4%	4.7%
Vermont	25,580	27,590	38,308	2,010	10,718	0.8%	3.3%
Virginia	253,204	303,431	448,153	50,227	144,722	1.8%	4.0%
Washington	228,389	272,667	441,411	44,278	168,744	1.8%	4.9%
West Virginia	79,159	83,394	113,966	4,235	30,572	0.5%	3.2%
Wisconsin	235,566	257,554	349,142	21,988	91,588	0.9%	3.1%
Wyoming	18,030	19,850	28,899	1,820	9,050	1.0%	3.8%

APPENDIX 4

UVA vs. State Specific Projections for 75+ Older Adults in Select States

State-specific vs. UVA 75+ State by State Projections for Select States: Population 2020, 2030; Change in Population from 2020 – 2030; Growth Rates 2020 – 2030; sorted alphabetically

	75+ POP							
	STATE		UVA		STATE	UVA	STATE	UVA
State	2020	2030	2020	2030	2020–2030	2020–2030	20–30 Gr Rt	20–30 Gr Rt
Alaska	31,654	61,236	29,645	55,621	29,582	25,976	6.8%	6.5%
Arizona	536,220	815,269	493,928	714,892	279,049	220,964	4.3%	3.8%
California	2,700,233	4,394,892	2,495,408	3,713,395	1,694,659	1,217,987	5.0%	4.1%
Colorado	346,767	575,381	333,703	557,273	228,614	223,570	5.2%	5.3%
Delaware	79,416	114,538	76,102	118,529	35,122	42,427	3.7%	4.5%
Florida	1,984,877	2,839,149	1,824,055	2,494,427	854,272	670,372	3.6%	3.2%
Georgia	642,918	1,019,095	602,301	973,429	376,178	371,128	4.7%	4.9%
Indiana	447,184	640,204	462,638	653,949	193,020	191,311	3.7%	3.5%
Iowa	248,856	333,096	247,523	336,698	84,240	89,175	3.0%	3.1%
Kentucky	304,242	435,834	308,087	434,770	131,592	126,683	3.7%	3.5%
Louisiana	279,910	382,010	266,074	352,463	102,100	86,388	3.2%	2.9%
Maryland	402,051	595,799	403,407	572,465	193,748	169,059	4.0%	3.6%
Massachusetts	533,542	743,551	489,436	660,079	210,009	170,642	3.4%	3.0%
Michigan	720,748	990,283	758,561	1,064,954	269,535	306,393	3.2%	3.5%
Minnesota	403,118	591,657	402,886	591,707	188,539	188,820	3.9%	3.9%
Missouri	458,993	658,501	457,619	633,234	199,508	175,614	3.7%	3.3%
Montana	87,654	135,051	85,357	134,460	47,397	49,103	4.4%	4.6%
Nebraska	133,256	191,091	137,803	192,217	57,835	54,413	3.7%	3.4%
Nevada	168,158	222,819	169,221	233,217	54,661	63,997	2.9%	3.3%
New Hampshire	109,860	177,951	101,778	152,029	68,091	50,252	4.9%	4.1%
New York	1,296,814	1,630,159	1,450,807	1,920,220	333,345	469,413	2.3%	2.8%
North Carolina	726,582	1,082,558	738,912	1,166,437	355,976	427,526	4.1%	4.7%
North Dakota	52,051	68,570	53,967	75,678	16,519	21,711	2.8%	3.4%
Ohio	884,777	1,265,724	882,194	1,227,438	380,947	345,244	3.6%	3.4%
Oklahoma	298,459	387,365	259,228	348,250	88,906	89,023	2.6%	3.0%
Oregon	312,673	506,056	323,366	515,252	193,383	191,886	4.9%	4.8%
Pennsylvania	1,087,322	1,520,824	1,050,710	1,418,560	433,502	367,850	3.4%	3.0%
Rhode Island	78,259	113,275	81,890	108,125	35,016	26,235	3.8%	2.8%
South Dakota	79,008	114,820	67,016	98,565	35,812	31,549	3.8%	3.9%
Tennessee	494,776	693,248	471,701	687,159	198,472	215,459	3.4%	3.8%
Texas	1,530,443	2,448,136	1,489,754	2,366,237	917,693	876,482	4.8%	4.7%
Utah	155,549	266,027	153,647	251,162	110,479	97,514	5.5%	5.0%
Vermont	51,478	79,019	49,300	69,865	27,541	20,565	4.4%	3.5%
Virginia	556,528	810,549	556,528	810,549	254,021	254,020	3.8%	3.8%
Washington	500,729	839,219	502,615	817,277	338,490	314,662	5.3%	5.0%
West Virginia	144,286	192,062	154,191	217,931	47,776	63,740	2.9%	3.5%
Wisconsin	438,900	663,040	439,409	629,475	224,140	190,066	4.2%	3.7%
Wyoming	40,089	67,299	37,173	57,154	27,210	19,981	5.3%	4.4%

APPENDIX 5
UVA vs. U.S. Census Projections for 75+ Older Adults

US Census (as of 2005) vs. UVA 75+ State by State Projections for Select States: Population 2020, 2030; Change in Population from 2020 – 2030; Growth Rates 2020 – 2030; sorted alphabetically

	75+ POP							
	CENSUS		UVA		CENSUS	UVA	CENSUS	UVA
State	2020	2030	2020	2030	2020–2030	2020–2030	20–30 Gr Rt	20–30 Gr Rt
Alabama	345,990	480,562	336,171	462,520	134,572	126,349	3.3%	3.2%
Alaska	34,972	62,964	29,645	55,621	27,992	25,976	6.1%	6.5%
Arizona	589,596	1,053,595	493,928	714,892	463,999	220,964	6.0%	3.8%
Arkansas	216,292	296,253	216,705	279,131	79,961	62,426	3.2%	2.6%
California	2,615,662	3,955,975	2,495,408	3,713,395	1,340,313	1,217,987	4.2%	4.1%
Colorado	300,465	465,181	333,703	557,273	164,716	223,570	4.5%	5.3%
Connecticut	298,683	398,961	290,634	403,995	100,278	113,361	2.9%	3.3%
Delaware	71,344	106,807	76,102	118,529	35,463	42,427	4.1%	4.5%
District of Columbia	26,918	28,797	34,869	44,104	1,879	9,235	0.7%	2.4%
Florida	2,105,651	3,463,128	1,824,055	2,494,427	1,357,477	670,372	5.1%	3.2%
Georgia	550,126	839,884	602,301	973,429	289,758	371,128	4.3%	4.9%
Hawaii	111,492	167,500	120,095	185,005	56,008	64,911	4.2%	4.4%
Idaho	108,146	172,695	124,221	206,775	64,549	82,554	4.8%	5.2%
Illinois	864,692	1,153,235	863,675	1,173,685	288,543	310,010	2.9%	3.1%
Indiana	433,233	584,148	462,638	653,949	150,915	191,311	3.0%	3.5%
Iowa	248,856	333,096	247,523	336,698	84,240	89,175	3.0%	3.1%
Kansas	209,957	292,442	204,486	287,791	82,485	83,304	3.4%	3.5%
Kentucky	289,534	406,602	308,087	434,770	117,068	126,683	3.5%	3.5%
Louisiana	316,161	444,444	266,074	352,463	128,283	86,388	3.5%	2.9%
Maine	122,378	183,527	118,849	176,168	61,149	57,319	4.1%	4.0%
Maryland	412,965	588,623	403,407	572,465	175,658	169,059	3.6%	3.6%
Massachusetts	503,162	699,290	489,436	660,079	196,128	170,642	3.3%	3.0%
Michigan	720,748	990,283	758,561	1,064,954	269,535	306,393	3.2%	3.5%
Minnesota	386,898	566,446	402,886	591,707	179,548	188,820	3.9%	3.9%
Mississippi	197,048	278,672	188,813	255,623	81,624	66,810	3.5%	3.1%
Missouri	444,579	607,432	457,619	633,234	162,853	175,614	3.2%	3.3%
Montana	85,657	135,754	85,357	134,460	50,097	49,103	4.7%	4.6%
Nebraska	134,930	186,810	137,803	192,217	51,880	54,413	3.3%	3.4%
Nevada	198,547	326,224	169,221	233,217	127,677	63,997	5.1%	3.3%
New Hampshire	103,510	163,585	101,778	152,029	60,075	50,252	4.7%	4.1%
New Jersey	692,308	932,271	643,090	843,325	239,963	200,234	3.0%	2.7%
New Mexico	169,338	271,210	153,220	233,977	101,872	80,757	4.8%	4.3%
New York	1,464,486	1,913,756	1,450,807	1,920,220	449,270	469,413	2.7%	2.8%
North Carolina	651,940	974,355	738,912	1,166,437	322,415	427,526	4.1%	4.7%
North Dakota	54,661	76,823	53,967	75,678	22,162	21,711	3.5%	3.4%
Ohio	840,494	1,131,789	882,194	1,227,438	291,295	345,244	3.0%	3.4%
Oklahoma	261,743	354,485	259,228	348,250	92,742	89,023	3.1%	3.0%
Oregon	279,887	437,802	323,366	515,252	157,915	191,886	4.6%	4.8%
Pennsylvania	1,048,873	1,404,885	1,050,710	1,418,560	356,012	367,850	3.0%	3.0%
Rhode Island	87,153	119,758	81,890	108,125	32,605	26,235	3.2%	2.8%
South Carolina	343,554	521,625	368,171	586,382	178,071	218,211	4.3%	4.8%
South Dakota	65,202	92,095	67,016	98,565	26,893	31,549	3.5%	3.9%
Tennessee	456,977	656,876	471,701	687,159	199,899	215,459	3.7%	3.8%
Texas	1,511,677	2,348,603	1,489,754	2,366,237	836,926	876,482	4.5%	4.7%
Utah	139,588	218,369	153,647	251,162	78,781	97,514	4.6%	5.0%
Vermont	54,696	86,725	49,300	69,865	32,029	20,565	4.7%	3.5%
Virginia	581,159	869,929	556,528	810,549	288,770	254,020	4.1%	3.8%
Washington	472,601	758,387	502,615	817,277	285,786	314,662	4.8%	5.0%
West Virginia	149,887	205,735	154,191	217,931	55,848	63,740	3.2%	3.5%
Wisconsin	435,050	626,812	439,409	629,475	191,762	190,066	3.7%	3.7%
Wyoming	43,266	70,333	37,173	57,154	27,067	19,981	5.0%	4.4%

ENDNOTES

[1] While older adults are expected to comprise a significantly greater portion of the population over the next several decades, this change is relatively modest in comparison to many other developed counties, notably Japan. See *An Aging Nation: The Older Population in the United States*, Current Population Reports, Jennifer Ortman, Victoria A. Velkoff and Howard Hogan, US Census (May 2014).

[2] See *The 75+ v. 80+ Benchmark Choice, Is the Demand for Senior Living Overstated*, Francesco Rockwood, Phil Downey, Sarah Rockwood, Rockwood Pacific TOPICS (FALL 2016). http://www.rockwoodpacific.com/wp-content/uploads/2016/08/TOPICS_07_Age_80_AUG_2016__.pdf

[3] US Census, 2014 National Population Projections Datasets. The Population Projections Program produces projections of the United States resident population by age, sex, race, Hispanic origin, and nativity. The 2014 National Projections are based on the July 1, 2013 population estimates, which are based on the 2010 Census, and provide projections of the population for July 1, 2014 to July 1, 2060. The projections were produced using a cohort-component method and are based on assumptions about future births, deaths, and net international migration. The Census Bureau releases new national projections periodically. https://www.census.gov/data/datasets/2014/demo/popproj/2014-popproj.html

[4] For an excellent overview of the history of state-by-state projections, see *A Practitioner's Guide to State and Local Population Projections*, Stanley K. Smith, Jeff Tayman, and David A. Swanson (2013).

[5] We have not utilized non-public sources in part due to limitations on their use as well as limited transparency regarding their methodologies; we believe that open, transparent approaches to population projections will win out over non-transparent, "black box" approaches employed by private data vendors.

[6] Most of the figures in this report rely on projections by the University of Virginia Weldon Cooper Center for Public Service Demographics Research Group as of 2016. UVA uses a combination of exponential growth, linear extrapolation, and Hamilton-Perry method to derive the projections. Additional information on UVA's projections and methodology is available here: http://demographics.coopercenter.org/national-population-projections/

[7] Projected increase in 75+ population from 2020 to 2030 based on applicable UVA projections; excludes Washington D.C.

[8] Geometric average growth rates for 2010–2020 (grey dots) and 2020–2030 (blue dots) are based on UVA state-by-state population projections; applicable 2010 estimates per US Census as extracted via the IPUMS National Historical Geographic Information System: Version 12.0 [Database]; Steven Manson, Jonathan Schroeder, David Van Riper, and Steven Ruggles. Minneapolis: University of Minnesota. 2017. http://doi.org/10.18128/D050.V12.0

[9] x-axis: geometric average growth rate from 2010 to 2020; *y*-axis: geometric average growth rate from 2020 to 2030; bubble sizes proportionate to expected increase in 75+ population from 2020 to 2030; all figures based on UVA projections; applicable 2010 population estimates per US Census; excludes low population states with growth rates outside of the chart ranges.

[10] Geometric average growth rates for 2010–2020 (grey dots) and 2020–2030 (blue dots) are based on UVA state-by-state population projections.

[11] More precisely, UVA's primary methodology is based on the Perry-Hamilton approach which is a reduced form of the cohort-component method. This method effectively considers the net effect of historical mortality and migration patterns.

[12] While practically all states utilize some version of the cohort-component method, several states enhance the application of this method by incorporating elements of trend extrapolation, structural and/or micro-simulations in deriving age-specific mortality and migration ratios (due to the focus on this paper, we have set-aside issues related to projecting fertility ratios).

[13] In the case of Virginia, the UVA projections and the state-specific projections are the same.

[14] The 2005 US Census projections are available via the Centers for Disease Control and Prevention CDC Wonder portal: https://wonder.cdc.gov/population-projections.html

[15] UVA projections in comparison to official state projections (see Appendix 4); only includes states for which official state projections were readily available for 2020 and 2030.

[16] Based on state-by-state population counts by age cohorts from the University of Virginia Weldon Cooper Center for Public Service Demographics Research Group.

[17] California projections prepared by Demographic Research Unit, California Department of Finance (February 2017), Florida projections prepared by the Bureau of Economic and Business Research, University of Florida (June 2017), and Texas projections prepared by the Texas Demographic Center (2014), housed at the University of Texas at San Antonio (previously the Texas State Data Center). In the case of Texas, White Non-Hispanic figures in the chart correspond with counts for Anglo population.

[18] *What is happening to U.S. Mortality Rates* by Anqi Chen, Alicia H. Munnell, and Geoffrey T. Sanzenbacher, Center for Retirement Research at Boston College (September 2017): http://crr.bc.edu/wp-content/uploads/2017/09/IB_17-17.pdf. As an aside, it is noteworthy that the mortality rates have actually deteriorated for middle-age white non-Hispanic non-college educated men, a significant portion of the overall population; given that our primary focus is on 75+ older adults, it will be some time before this change affects the population considered herein [see *Rising morbidity and mortality in midlife among white non-Hispanic Americans in the 21st century* By Anne Case and Angus Deaton, Proceedings of the National Academy of Sciences of the United States of America (Dec, 2015)].

[19] Representatives from each state and the Census Bureau have formed the Federal-State Cooperative Program for Population Estimates (FSCPE) to share information related to developing population projections.

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Francesco Rockwood, a principal at Rockwood Pacific, was the primary author of this paper. Rockwood Pacific is a professional real estate services firm serving mission-based organizations committed to advancing wellness and longevity for older adults through better housing and better health care. Services provided include decision support, development services, financial advisory, and real estate transaction services. Rockwood Pacific is affiliated with Senior Housing Analytics.

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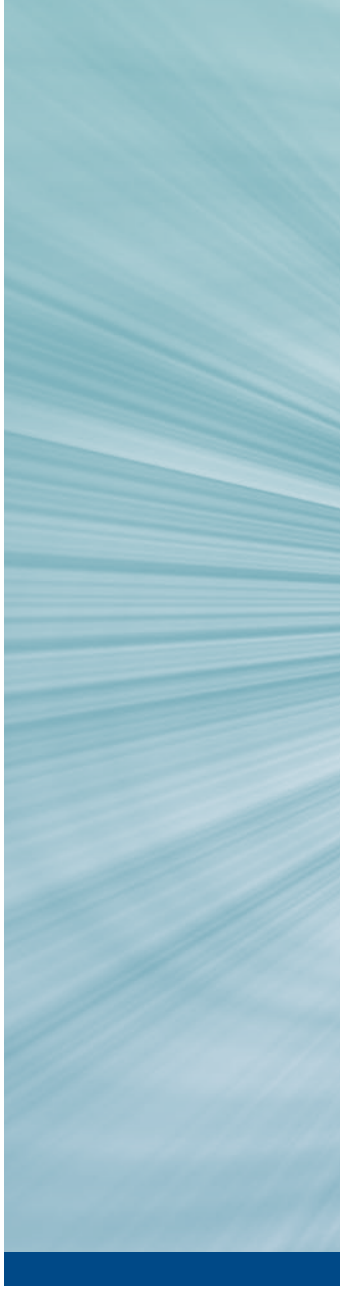

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