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# **An Update of Demand for Senior Housing and Nursing Beds**

Hannibal, Missouri

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*Prepared for:*

**Mennonite Homes Association, Inc.**  
Hannibal, Missouri

*Prepared by:*

**CliftonLarsonAllen LLP**  
Minneapolis, Minnesota

January 26, 2016



**CliftonLarsonAllen**



January 26, 2016

## MEMORANDUM

**TO:** Mr. Paul Ewert, CEO  
Mennonite Homes Association, Inc.

**FROM:** CliftonLarsonAllen LLP

**SUBJECT:** Update of Demand for Senior Housing and Nursing Beds in Hannibal, Missouri

### Summary of Findings

CliftonLarsonAllen LLP (“CLA”) was engaged by Mennonite Homes Association, Inc. (“MHA” or “you”) to update demand estimates from a Market Assessment completed for MHA in 2011 (the “Original Study”). The Original Study assessed the potential for additional independent living and assisted living units on or near MHA’s Beth Haven campus (“Beth Haven”) or elsewhere in Hannibal, Missouri. The primary objectives of this Market Assessment are as follows:

1. Obtain an update of the Demand Analysis portion of the Market Assessment conducted for Beth Haven in 2011.
2. Update any observations/recommendations based on the new data collected.

The following are key findings from this study:

- The senior population and household base in the Market Area are projected to have moderate growth through 2021. Growth will be concentrated in the youngest senior age cohort, age 65-to-74, with minimal growth in the age 75+ cohorts. This is similar to what was projected in the Original Study.

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- Senior household incomes in the Market Area are similar to the State overall. Median senior household income is projected to grow slower than the rate of inflation (estimated at 3.0 percent annually). The combination of moderate senior household increases and low senior income growth will result in a stable income-qualified market for senior housing.
- Approximately three-quarters of seniors in the Market Area owned their homes in 2010, a slightly lower proportion compared to the State. Younger seniors have higher home-ownership rates than older seniors.
- Demand was calculated for independent living, assisted living, memory care and skilled nursing beds in the Market Area. Moderate demand was shown for independent living and assisted living at rent levels of \$1,750 per month or less for independent living and up to \$2,900 for assisted living. Demand was also shown for memory care units at \$4,050 per month. Detailed demand estimates are presented in the last section of this report.
- Development of additional independent living units appears supportable. We recommend that you consider an expansion of Pleasant View (apartments) to meet this demand. Demand is not strong, however, which would limit the potential for units built on a separate campus.
- Additional assisted living units are recommended as an expansion of Pleasant View, up to 35 units. We recommend a portion of these units be in a separate secured area for persons with memory impairments.
- Overall demand for nursing beds is negative; therefore, we suggest no further development of nursing beds in the Market Area. Any increase in nursing beds would need to capture market share from other existing nursing facilities in the area since a decline in overall demand is projected through 2021.

## **Introduction**

We have completed our update of demand for independent living, assisted living, memory care assisted living and nursing beds in Hannibal, Missouri, and have summarized our findings in this memorandum. Please note that this update should not be used in any way to finance a project. Once a specific housing concept has been identified, completion of a full Market Feasibility Study is recommended prior to making a final decision to proceed with the project. The results of a full Market Feasibility Study may be different from the results presented in this memorandum and these differences may be material.

CLA was engaged by MHA to update the demand estimates for market-rate independent living, assisted living, memory care assisted living and nursing beds in Hannibal presented as part of the Market Assessment completed by CLA in 2011. The primary objectives of this Market Assessment are as follows:

1. Obtain an update of the Demand Analysis portion of the Market Assessment conducted for Beth Haven in 2011.
2. Update any observations/recommendations based on the new data collected.

The following tasks were completed as part of this study:

1. Demographic Review
  - Updated data on senior (age 65-and-over) population and household growth through 2021, by age group within the senior cohort (age 65-to-74, age 75-to-84 and age 85-and-over).
  - Updated data on senior household incomes by age group for 2016 and 2021.
  - Reviewed data on senior household tenure (owner/renter status) by age group, from the 2010 U.S. census.
  - Reviewed data on caregiver ratios in the market area (females age 45-to-64 to total persons age 85-and-over).
  - Updated data on housing values in the market area.
2. Competitive Market Review
  - Using secondary sources and CLA's database of projects, presented an inventory of existing independent living, assisted living and memory care assisted living facilities in the market area.
  - Updated data on nursing beds in the market area including occupancy, daily rates and payer mix.
  - Updated data on pending independent living, assisted living and memory care assisted living in the market area.
3. Demand Analysis and Recommendations
  - Updated demand estimates for 2018 for senior housing using five rent levels: two for independent living, two for assisted living and one for memory care assisted living.
  - Using CLA's proprietary demand model for nursing beds, estimate demand for short-stay and long-stay beds in the market area.
  - Provided general suggestions for a senior housing concept to be developed by Beth Haven.
  - Prepared the Demand Analysis Report.

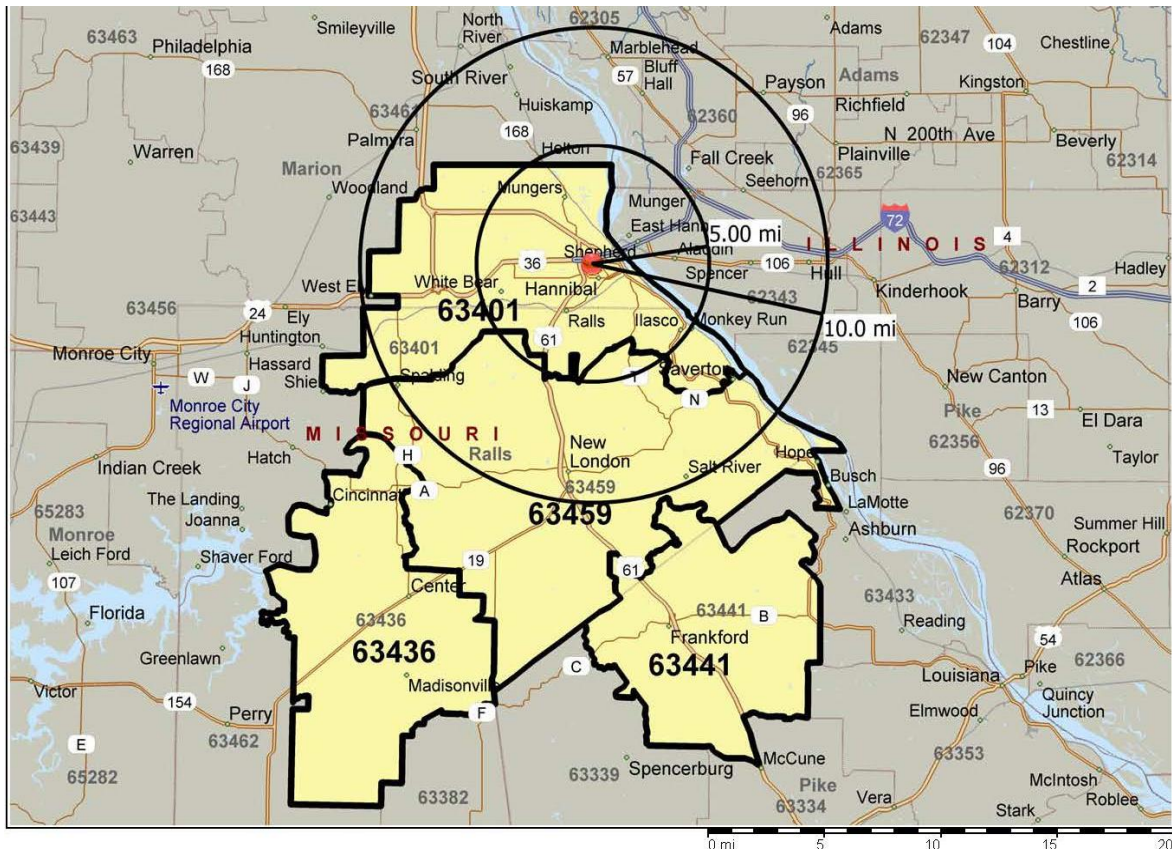
### Market Area Definition

A Market Area was defined for this study based on the estimated primary draw area of seniors interested in moving to senior housing in Hannibal. The Market Area uses ZIP code boundaries and is based on the ZIP codes of current residents at Beth Haven, geographic barriers, transportation patterns, discussion with representatives of MHA and our knowledge of the draw areas for senior housing. The following ZIP codes (with their respective US Postal Service names) were included in the Market Area:

- 63401, Hannibal
- 63436, Center
- 63441, Frankford
- 63459, New London

The Market Area is bordered on the east by the Mississippi River and extends approximately four miles to the north, 10 miles to the west and 15 to 20 miles to the south. Note that this Market Area is slightly different than the one used in 2011 as it excludes the Palmyra ZIP code, 63431, due to the lack of draw from this area to Beth Haven. The following presents a map of the Market Area:

### Market Area Map



## **Demographic Review**

In order to measure the market potential for additional senior housing and nursing beds, CLA updated key demographic data related to the senior population and household base in the Market Area. Tables 1 through 5 present this data.

For purposes of this analysis, “senior” refers to persons or householders who are at least 65 years old. Tables break information into three sub-groups within the senior cohort: age 65-to-74, 75-to-84 and age 85-and-over. Most tables show the information for the State of Missouri (or the “State”) for comparison purposes.

Data for 2000 and 2010 are from the U.S. Census Bureau (“U.S. Census”) while estimates for 2016 and projections for 2021 are from The Nielsen Company (“Nielsen”), formerly Claritas, Inc., a national demographic data services firm.

### Senior Population and Household Growth

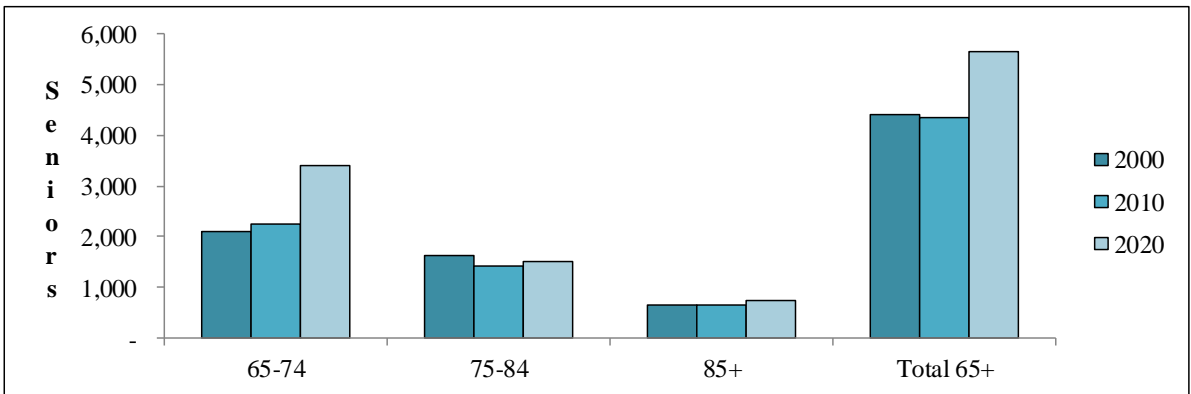
#### *Senior Population, 2000-2021*

- There were an estimated 4,357 persons age 65-and-over in the Market Area in 2010, about the same number as in 2000. This compares to an increase of 1.0 percent annually in Missouri during the same period.
- While there was an increase in the age 65-to-74 population, this was offset by a decline in the age 75-to-84 population during the 2000s. The age 85-and-over age cohort remained relatively stable (an increase of 5 persons). The decrease in the age 75-to-84 cohort reflects lower birthrates during the depression. Persons in this age cohort in 2010 were born between 1926 and 1935.
- Estimates for 2016 show stronger overall senior growth since 2010 with the youngest and oldest senior cohorts showing growth while the age 75-to-84 age group was relatively stable (loss of 20 persons).
- By 2021, all three senior age cohorts are projected to increase with the largest growth continuing to occur among the younger seniors, 3.8 percent annually from 2010 to 2021. This compares to annual increases of 0.4 percent for the age 75-to-84 cohort and 0.9 percent for the age 85-and-over cohort. It is the two older senior age groups that are the key markets for senior housing and services.
- The increase of 2.4 percent annually for the age 65-and-over population in the Market Area from 2010 to 2021 compares to 2.6 percent annually in Missouri.

**TABLE 1**  
**MARKET AREA SENIOR POPULATION GROWTH**  
**2000 - 2021**

	<b>Total Age 65 &amp; Over</b>				<b>Annual Percentage Change</b>	
	2000	2010	2016	2021	2000-2010	2010-2021
Market Area	4,392	4,357	4,991	5,647	-0.1%	2.4%
Missouri	755,379	838,294	972,976	1,117,112	1.0%	2.6%
	<b>Age 65-74</b>				<b>Annual Percentage Change</b>	
	2000	2010	2016	2021	2000-2010	2010-2021
Market Area	2,108	2,261	2,877	3,409	0.7%	3.8%
Missouri	393,226	450,490	558,617	667,816	1.4%	3.6%
	<b>Age 75 -84</b>				<b>Annual Percentage Change</b>	
	2000	2010	2016	2021	2000-2010	2010-2021
Market Area	1,626	1,433	1,413	1,503	-1.3%	0.4%
Missouri	263,582	274,025	287,729	316,045	0.4%	1.3%
	<b>Age 85 &amp; Over</b>				<b>Annual Percentage Change</b>	
	2000	2010	2016	2021	2000-2010	2010-2021
Market Area	658	663	701	735	0.1%	0.9%
Missouri	98,571	113,779	126,630	133,251	1.4%	1.4%

Sources: The Nielsen Company and U.S. Bureau of the Census



### *Senior Household Growth, 2000-2016*

Table 2 shows the number of senior households in the Market Area in 2000 and 2010 from the U.S. Census with estimates for 2016 and projections for 2021 from Nielsen. Households are a more important indicator of housing demand than population because households represent occupied housing units. The following are key points from the table:

- There were an estimated 2,864 senior households in the Market Area in 2010, a light decline from 2000. Missouri posted an increase of 11.5 percent during the decade (1.1 percent annually).
- Roughly half of Market Area senior households were age 65-to-74, 35.4 percent were age 75-to-84 and 14.4 percent were age 85 and over. The youngest and oldest age cohorts posted increases during the 2000s, while the age 75-to-84 cohort declined.
- The senior household base in the Market Area is projected to increase by 2.3 percent annually from 2010 to 2021 similar to the 2.5 percent annual increase projected for Missouri. None of the sub-age groups in the Market Area are projected to decline during this period, although the age 75-to-84 group is expected to remain relatively stable.
- From 2016 to 2021, younger senior households (age 65-to-74) are projected to have the highest household growth with the addition of 326 households. The two older age groups combined, the primary market for senior housing and services, are projected to increase by roughly 79 households during the five-year period.

We conclude from this data that the need for senior housing and services in the Market Area will increase very slightly through 2021, based on growth trends. Demand will likely grow dramatically later in the decade as the baby boom generation ages into their senior years. In 2021, the oldest baby-boomer will turn age 75.

### Overall Population and Household Growth

Table 3 shows the total number of persons and households in all age groups in the Market Area in 2000 and 2010 from the U.S. Census and estimated in 2016 and projected to 2021 by Nielsen. Also shown is the senior proportion of all persons and households in each year. Note that the percent increase shown in the table is the overall growth, not that annual increase as shown in Tables 1 and 2. The following are key points from the table:

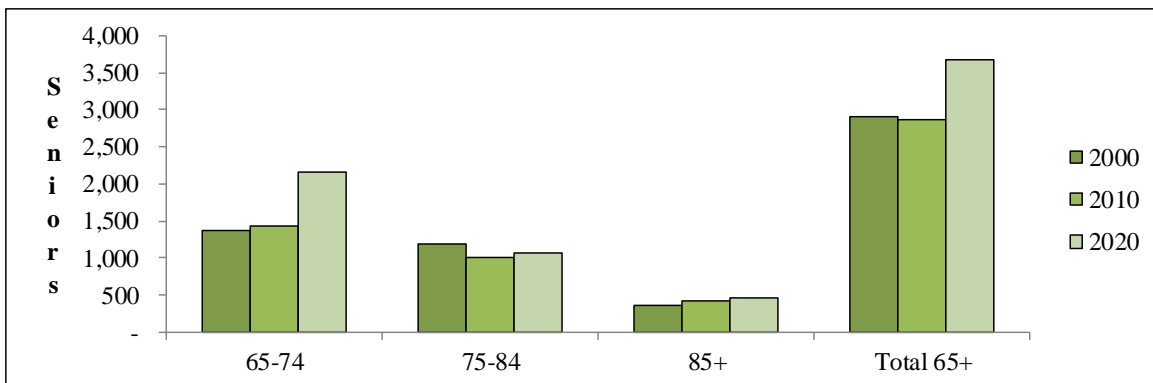
- The overall population of the Market Area (all age groups) was estimated to be 28,496 in 2010, an increase of 1.5 percent from 2000. The overall population of Missouri grew by 7.0 percent during the 2000s. The data for 2016 shows relative stability in the Market Area's population with a loss of just 126 persons since 2010.



**TABLE 2**  
**MARKET AREA SENIOR HOUSEHOLD GROWTH**  
**2000 - 2021**

	Total Age 65 & Over				Annual Percentage Change	
	2000	2010	2016	2021	2000-2010	2010-2021
Market Area	2,905	2,864	3,276	3,681	-0.1%	2.3%
Missouri	492,759	549,475	631,391	719,199	1.1%	2.5%
	Age 65-74				Annual Percentage Change	
	2000	2010	2016	2021	2000-2010	2010-2021
Market Area	1,361	1,438	1,828	2,154	0.6%	3.7%
Missouri	254,942	286,833	352,711	418,863	1.2%	3.5%
	Age 75 -84				Annual Percentage Change	
	2000	2010	2016	2021	2000-2010	2010-2021
Market Area	1,189	1,015	1,002	1,062	-1.6%	0.4%
Missouri	186,098	188,381	196,242	213,881	0.1%	1.2%
	Age 85 & Over				Annual Percentage Change	
	2000	2010	2016	2021	2000-2010	2010-2021
Market Area	355	411	446	465	1.5%	1.1%
Missouri	51,719	74,261	82,438	86,455	3.7%	1.4%

Sources: The Nielsen Company and U.S. Bureau of the Census



- A decline in overall population is project for the Market Area even as Missouri increases its popula- tion by nearly 100,000 from over the next five years.
- Household increases reflect the population growth with only a slight increase (310 households, or 2.8 percent) in the Market Area from 2000 to 2010 compared to an 8.1 percent increase in Mis- souri.

TABLE 3 MARKET AREA POPULATION AND HOUSEHOLD GROWTH 2000 - 2021								
	HISTORICAL		ESTIMATE/PROJECTION		CHANGE			
	U.S. Census		Nielsen		2000-2010		2010-2021	
	2000	2010	2016	2021	No.	Pct.	No.	Pct.
<b>Total Population</b>								
Market Area Total	28,074	28,496	28,370	28,461	422	1.5%	-35	-0.1%
Missouri	5,595,288	5,988,927	6,091,286	6,190,185	393,639	7.0%	201,258	3.4%
<b>Households</b>								
Market Area Total	11,005	11,315	11,323	11,393	310	2.8%	78	0.7%
Missouri	2,197,191	2,375,611	2,428,974	2,475,508	178,420	8.1%	99,897	4.2%
<b>AGE 75+ AS PERCENT OF TOTAL POPULATION/HOUSEHOLDS</b>								
	2000	2010	2016	2021				
<b>Population</b>								
Market Area Total	8.1%	7.4%	7.5%	7.9%				
Missouri	6.5%	6.5%	6.8%	7.3%				
<b>Households</b>								
Market Area Total	14.0%	12.6%	12.8%	13.4%				
Missouri	10.8%	11.1%	11.5%	12.1%				
Sources: U.S. Census, The Nielsen Company								

- A slower household increase is projected for the Market Area from 2016 to 2021, an increase of only 70 households.

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- The proportion of the population that is age 75 or older dropped from 2000 to 2010 but is projected to increase from 7.4 percent in 2010 to 7.9 percent in 2021. This is the result of faster growth of seniors compared to the overall population. A similar trend exists for Missouri overall, but the proportion of seniors age 75-and-over is slightly smaller in Missouri compared to the Market Area.
- Similarly, the proportion of senior households age 75-and-over in the Market Area is projected to increase from 12.6 percent in 2010 to 13.4 percent in 2021. Senior households age 75-and-over in Missouri are projected to increase from 11.1 percent in 2010 to 12.1 percent in 2021.

### Senior Household Income

Senior household incomes are an important factor in determining levels of demand at different rent levels. Table 4 presents data on senior household income as estimated by Nielsen for 2016 and projected to 2021. Each of the eight income categories is shown with a percentage of the total households in the three senior sub-groups. Data is also shown for the State overall for comparison purposes. This data is used later in this report to estimate demand for senior housing at different rent levels. The following are key points from the tables:

- Table 4 shows that in 2016 the estimated median income for all senior households in the Market Area (\$37,027) was similar to the State (\$37,776).
- Seniors' incomes decline with age due to fewer persons working and a larger number of one-person households, and thus fewer households with two pensions. In 2016, seniors age 65-to-74 were estimated to have a median income of \$43,918 compared to \$30,781 for seniors age 75-to-84 and \$22,813 for seniors age 85 and over.
- Among seniors age 75 and over, the key market for senior housing and services, 40.7 percent are estimated to have incomes of at least \$35,000 in 2016, and about one-quarter have incomes of at least \$50,000 in the Market Area. Numerically, 589 households 75-and-over have incomes of \$35,000 or more and 361 households have incomes of \$50,000 or more.
- Table 5 shows that by 2021, median senior household income in the Market Area is projected to increase to \$41,094. This increase of 11.0 percent is not projected to keep up with an assumed 3.0 percent annual inflation rate during the period (15.9 percent over five years).

**TABLE 4**  
**MARKET AREA SENIOR HOUSEHOLD INCOME**  
**2016**

	Market Area					Missouri				
	2016		2021		2016-2021	2016		2021		2016-2021
	Number	Percent	Number	Percent	Change	Number	Percent	Number	Percent	Change
<b>Age 65-74</b>										
Less than \$15,000	241	13.2%	245	11.4%	1.7%	43,184	12.2%	46,309	11.1%	7.2%
\$15,000 - 24,999	275	15.0%	290	13.5%	5.5%	47,630	13.5%	51,428	12.3%	8.0%
\$25,000 - 34,999	203	11.1%	217	10.1%	6.9%	46,409	13.2%	51,540	12.3%	11.1%
\$35,000 - 49,999	328	17.9%	363	16.9%	10.7%	62,349	17.7%	71,466	17.1%	14.6%
\$50,000 - 74,999	422	23.1%	513	23.8%	21.6%	67,507	19.1%	79,944	19.1%	18.4%
\$75,000 - 99,999	205	11.2%	270	12.5%	31.7%	35,202	10.0%	44,526	10.6%	26.5%
\$100,000 - 149,999	93	5.1%	148	6.9%	59.1%	30,124	8.5%	42,259	10.1%	40.3%
\$150,000 or More	61	3.3%	108	5.0%	77.0%	20,306	5.8%	31,391	7.5%	54.6%
Subtotal	1,828	100.0%	2,154	100.0%	17.8%	352,711	100.0%	418,863	100.0%	18.8%
Median Income *	\$ 43,918		\$ 48,430		10.3%	\$ 44,415		\$ 47,626		7.2%
<b>Age 75-84</b>										
Less than \$15,000	188	18.8%	179	16.9%	-4.8%	36,122	18.4%	36,420	17.0%	0.8%
\$15,000 - 24,999	239	23.9%	238	22.4%	-0.4%	42,076	21.4%	43,110	20.2%	2.5%
\$25,000 - 34,999	128	12.8%	131	12.3%	2.3%	31,702	16.2%	33,460	15.6%	5.5%
\$35,000 - 49,999	171	17.1%	176	16.6%	2.9%	34,219	17.4%	37,458	17.5%	9.5%
\$50,000 - 74,999	162	16.2%	188	17.7%	16.0%	26,305	13.4%	29,672	13.9%	12.8%
\$75,000 - 99,999	64	6.4%	76	7.2%	18.8%	11,843	6.0%	14,258	6.7%	20.4%
\$100,000 - 149,999	30	3.0%	46	4.3%	53.3%	8,132	4.1%	10,979	5.1%	35.0%
\$150,000 or More	20	2.0%	28	2.6%	40.0%	5,843	3.0%	8,524	4.0%	45.9%
Subtotal	1,002	100.0%	1,062	100.0%	6.0%	196,242	100.0%	213,881	100.0%	9.0%
Median Income *	\$ 30,781		\$ 33,702		9.5%	\$ 31,284		\$ 33,192		6.1%
<b>Age 85+</b>										
Less than \$15k	123	27.6%	121	26.0%	-1.6%	21,159	25.7%	20,838	24.1%	-1.5%
\$15,000 - 24,999	128	28.7%	124	26.7%	-3.1%	20,419	24.8%	20,518	23.7%	0.5%
\$25,000 - 34,999	53	11.9%	55	11.8%	3.8%	13,758	16.7%	14,228	16.5%	3.4%
\$35,000 - 49,999	57	12.8%	60	12.9%	5.3%	11,087	13.4%	11,807	13.7%	6.5%
\$50,000 - 74,999	56	12.6%	67	14.4%	19.6%	8,099	9.8%	8,908	10.3%	10.0%
\$75,000 - 99,999	10	2.2%	12	2.6%	20.0%	3,304	4.0%	3,908	4.5%	18.3%
\$100,000 - 149,999	11	2.5%	17	3.7%	54.5%	3,343	4.1%	4,357	5.0%	30.3%
\$150,000 or More	8	1.8%	9	1.9%	12.5%	1,269	1.5%	1,891	2.2%	49.0%
Subtotal	446	100.0%	465	100.0%	4.3%	82,438	100.0%	86,455	100.0%	4.9%
Median Income *	\$ 22,813		\$ 23,992		5.2%	\$ 24,824		\$ 26,315		6.0%
<b>Total Age 65+</b>										
Less than \$15,000	552	16.8%	545	14.8%	-1.3%	100,465	15.9%	103,567	14.4%	3.1%
\$15,000 - 24,999	642	19.6%	652	17.7%	1.6%	110,125	17.4%	115,056	16.0%	4.5%
\$25,000 - 34,999	384	11.7%	403	10.9%	4.9%	91,869	14.6%	99,228	13.8%	8.0%
\$35,000 - 49,999	556	17.0%	599	16.3%	7.7%	107,655	17.1%	120,731	16.8%	12.1%
\$50,000 - 74,999	640	19.5%	768	20.9%	20.0%	101,911	16.1%	118,524	16.5%	16.3%
\$75,000 - 99,999	279	8.5%	358	9.7%	28.3%	50,349	8.0%	62,692	8.7%	24.5%
\$100,000 - 149,999	134	4.1%	211	5.7%	57.5%	41,599	6.6%	57,595	8.0%	38.5%
\$150,000 or More	89	2.7%	145	3.9%	62.9%	27,418	4.3%	41,806	5.8%	52.5%
Total	3,276	100.0%	3,681	100.0%	12.4%	631,391	100.0%	719,199	100.0%	13.9%
Median Income *	\$ 37,027		\$ 41,094		11.0%	\$ 37,776		\$ 40,772		7.9%

Note: Percentages may not add up to 100.0 due to rounding.  
\* Some medians are estimated based on weighted averages of median incomes of sub-groups.

### Senior Household Tenure

The owner/renter status of households is important to the demand for senior housing since seniors who own their homes have an untapped source of income from the investment potential of the equity in their homes. According to national data, more than 70 percent of senior homeowners have no debt on their home. Upon the sale of the home, seniors can invest the proceeds and use the income dollar for dollar to support alternative housing.

Table 5 shows the number of seniors who owned and rented their housing in 2010 in the three sub-groups of the senior population for the Market Area from the 2010 U.S. Census. The following are key points from the table:

- Among all Market Area senior households, 75.5 percent owned their housing in 2010. The proportion of homeowners has likely not changed significantly since 2010. The ownership rate was slightly higher in the State, 79.6 percent.
- The rate of home-ownership declines with age. This is because as seniors get older they are more likely to move to multi-family housing (usually rental) in order to shed the responsibilities of home-maintenance. In the Market Area, 80.5 percent of seniors age 65-to-74 owned their housing compared to 73.2 percent of seniors age 75-to-84 and 63.5 percent of seniors age 85-and-over.
- The senior homeowner proportion was slightly lower in the Market Area compared to the State in all age cohorts.

### Housing Values

Housing values are an important indicator of affordability of senior housing. Seniors who own their homes have an important source of alternative income from the proceeds of the sale of their home. These proceeds can be invested to produce income or if necessary, the use of the principal, to support payments for housing and services.

The single-family housing market has been in a period of decline, although recent indicators have shown mixed trends nationally. With lower housing values, seniors have less income potential from the sale of their home and declining market activity may make it more difficult for seniors to sell once they decide to move.

The following are values for all owner-occupied housing in the Market Area, according to Nielsen, Inc.

#### *Market Area*

- 2000: \$63,929
- 2016: \$105,938

#### *State of Missouri*

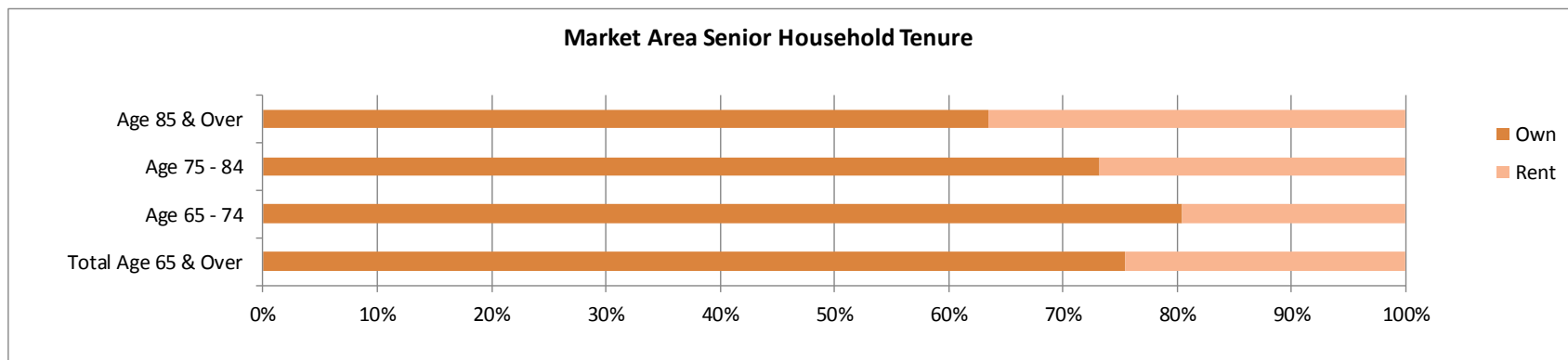
- 2000: \$87,329
- 2016: \$145,185

**TABLE 5  
MARKET AREA SENIOR HOUSEHOLD TENURE  
2010**

	Total Age 65 & Over			Age 65 - 74			Age 75 - 84			Age 85 & Over		
	Total	Own	Rent	Total	Own	Rent	Total	Own	Rent	Total	Own	Rent
<b>Number:</b>												
Market Area	2,864	2,161	703	1,438	1,157	281	1,015	743	272	411	261	150
Missouri	549,475	437,316	112,159	286,833	237,805	49,028	188,381	149,928	38,453	74,261	49,583	24,678
<b>Percent:</b>												
Market Area	100.0	75.5%	24.5%	100.0	80.5%	19.5%	100.0	73.2%	26.8%	100.0	63.5%	36.5%
Missouri	100.0	79.6%	20.4%	100.0	82.9%	17.1%	100.0	79.6%	20.4%	100.0	66.8%	33.2%

Note: Percentages may not add up to 100.0 due to rounding

Source: 2010 U.S. Census



CLA also reviewed real estate data from Melissadata.com, a business information web site. on listing prices. Data was available only for the Hannibal ZIP code which showed a median selling price of \$127,832 for the previous 14 months. While this is higher than the estimated values from Nielsen, CLA used the Nielsen data to be conservative.

**Senior Housing Market Review**

Competitive Senior Living Buildings in the Market Area

There is very little market-rate senior housing in the Market Area although there are quite a few independent living buildings for low-income seniors. As in the Original Study, CLA identified only two independent living buildings in the Market Area without income restrictions, including Pleasant View. In addition, there are only three assisted living buildings in the Market Area, and one of these currently has all low-income residents receiving Medicaid funding. While this may reflect the lower incomes of seniors in the Market Area compared to the State of Missouri (and surely compared to wealthier communities), it may also indicate an unmet need for seniors with higher incomes who desire alternative housing but who currently have no options in Hannibal or surrounding communities.

Table 6 presents data on the market-rate senior living buildings in the Market Area.

<b>TABLE 6</b>			
<b>COMPETITIVE SENIOR HOUSING SUPPLY - MARKET AREA</b>			
<b>2016</b>			
Community Name	Number of Units		
	Independent	Assisted	Memory Care
Pleasant View	9	35	0
Levering Regional Health*	0	35	0
Luther Manor**	19	0	0
<b>Total</b>	<b>28</b>	<b>70</b>	<b>0</b>

\* Levering Regional Health residents are currently all low-income with housing/services paid by Medicaid. Since historically there have been a few private-pay residents, we have included 5 units in the competitive supply.

\*\* Luther Manor's independent living units have very low rents and are thus not included in the competitive supply.

Source: CLA's database and Internet research

The table shows that there are 28 independent living units in the Market Area although the 19 units at Luther Manor have very low rents. For purposes of our demand analysis, we have included only the 9 units at Pleasant View as part of the competitive supply.

Table 6 also shows a total of 70 assisted living units, 35 at Pleasant View and 35 at Levering Regional Health Center (“Levering”). Levering caters to a low-income population and currently all 35 units are occupied by persons receiving Medicaid funding. Historically, Levering has had some persons paying privately and therefore we have included five units in the competitive assisted living supply.

#### Competitive Nursing Facilities in the Market Area

Table 7 presents data on the five nursing facilities in the Market Area including Beth Haven. The data was collected through phone interviews with the staff of each facility. The following are key points from the table:

- The five nursing homes have a total of 512 beds (based upon our survey), all of which are Medicare certified. The occupancy of at these facilities is 92.0 percent, slightly lower than the 93.0 percent occupancy level considered acceptable for nursing facilities.
- Daily room rates are similar at the facilities where rate information was available: \$140 to \$148 per day for semi-private rooms and \$146 to \$155 for private rooms. Note that the rates for Luther Manor are effective March 1, 2016.
- Three of the facilities have special units: Beth Haven has an Alzheimer’s/dementia unit with 20 beds, Willow Care Center has a wing that was remodeled as a rehab area with 12 beds and Westview Nursing Home has a 12-bed psychiatric unit. Levering also has a behavioral unit but it is open to all ages.



**TABLE 7  
NURSING FACILITIES IN THE MARKET AREA  
JANUARY 2016**

<u>SNFs in the PMA</u>	<u>Year Opened</u>	<u>Miles from the Project</u>	<u>Number of Beds in Service</u>	<u>Current Occ.</u>	<u>Room (Beds) by Type</u>	<u>Double Room Daily Rate</u>	<u>Single Room Daily Rate</u>	<u>Separate Specialty Unit</u>
Beth Haven 2500 Pleasant Street Hannibal, MO 63401 Mennonite Homes	1970s	-	102	97.1%	26 (26) Private 38 (76) Semi-Private	\$148.00	\$155.00	Yes, 20 MC Beds
Levering Regional Health Care Ctr. 1734 Market Street Hannibal, MO 63401 Reliant Care	1991/2010 1901	1.8	179	99.4%	* (*) Private * (*) Semi-Private	\$145.00	\$147.00	Behavioral unit, all ages
Luther Manor 3170 Highway 61 North Hannibal, MO 63401	1972	0.7	60	93.3%	8 (8) Private 26 (52) Semi-Private	\$140-\$145 <sup>(1)</sup>	\$146-\$151 <sup>(1)</sup>	None
Willow Care Center 328 Munger Lane Hannibal, MO 63401	1979	1.1	111	72.1%	15 (15) Private 48 (96) Semi-Private	\$145.00	\$155.00	Rehab to Home-12
Westview Nursing Home 301 West Dunlop Street Center, MO 63436 Reliant Care	1980s	19.4	60	98.3%	2 (2) Private 29 (58) Semi-Private	WND	WND	24-bed psych
<b>TOTAL/OCCUPANCY</b>			<u>512</u>	<u>92.2%</u>				

Notes:

MC - Memory Care

\* - Information not available at the time of research.

WND = Would not disclose.

Source: CliftonLarsonAllen

Payer Mix

Data on payer mix from Medicare cost reports, as compiled by Definitive.com is shown in Table 8. The table shows an overall occupancy of 86.5 percent in 2014, lower than the data collected by CLA in January 2016. In addition, we believe that data on Medicaid residents for Levering and Westview Nursing Home may have been miscoded as both facilities accept Medicaid and past data shows a significant proportion of Medicaid residents.

TABLE 8 SKILLED NURSING FACILITY PAYER MIX 2014						
Facility Name	Total Number of Beds	Calculated Occupancy	Total Number of Days	Medicare Percent of Total	Medicaid Percent of Total	Other Percent of Total
Beth Haven Nursing Home	105	93.1%	35,668	7.3%	47.1%	45.7%
Luther Manor Ret & Nsg Center	64	89.8%	20,969	10.2%	46.0%	43.7%
Levering Regional Health Care Center	179	93.7%	61,195	2.9%	0.0%	97.1%
Westview Nursing Home	60	89.0%	19,494	3.9%	0.0%	96.1%
Willow Care Center	111	65.6%	26,560	11.8%	60.8%	27.4%
Total / Weighted Average	519	86.5%	163,886	6.4%	26.0%	67.7%

Source: Definitive.com

Pending Senior Housing

CLA identified one pending senior housing development in the Market Area, the revitalization of the former St. Elizabeth’s Hospital in Hannibal. This project has stalled, however, and may not move ahead for some time. In addition, it would likely be geared to seniors with low or moderate incomes and therefore not competitive with market-rate units.

**Senior Housing Demand Analysis**

Demand for independent, assisted living and memory care units was estimated for 2016 and 2021 based upon the proportion of the age/income-qualified market likely to move to senior housing in the Market Area using several alternative minimum monthly rent levels. These minimum monthly rent levels were the one used in the Original Study trended by 3.0 percent annually to 2016 and round to the nearest \$50.

Demand for the proposed units was measured by applying a maximum penetration rate to the qualified market for each of the selected minimum monthly rent levels. For independent senior housing, a penetration rate of 10.0 percent was used, and for assisted living and memory care, 30.0 percent was used. Existing competitive units were subtracted from gross demand resulting in demand available for new construction.

These demand calculations are summarized in Table 9. The detailed calculations are shown in Appendices A-1 through A-14.

<b>TABLE 8</b>			
<b>MARKET AREA DEMAND SUMMARY</b>			
<b>2016 - 2021</b>			
	<b>Demand</b>		
	<b>2016</b>	<b>2018</b>	<b>2021</b>
<b>INDEPENDENT SENIOR HOUSING:</b>			
\$1,450/Month in 2016 dollars	64	64	64
\$1,750/Month in 2016 dollars	51	50	50
\$2,300/Month in 2016 dollars	29	29	29
\$1,450/Month in 2016 dollars with a \$116,000 entry fee	45	45	46
<b>ASSISTED LIVING SENIOR HOUSING:</b>			
\$2,900/Month in 2016 dollars	47	48	50
\$3,500/Month in 2016 dollars	29	29	29
<b>MEMORY CARE SENIOR HOUSING:</b>			
\$4,050/Month in 2016 dollars	34	35	35
Note: Demand at the higher monthly rates is included in the lower monthly rates. Demand is net of existing units; that is, it is demand available for new construction.			
Source: CliftonLarsonAllen LLP			

Independent Living Units

- Demand for market-rate independent living units with minimum rents of \$1,450 per month (2016 dollars) was estimated at 64 units in 2016 and in 2021.
- Demand for market-rate independent living units with minimum rents of \$1,750 per month (2016 dollars) was estimated at 51 units in 2016 and 50 units in 2021.

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- Demand for market-rate independent living units with minimum rents of \$2,300 per month (2016 dollars) was estimated at 29 units in 2016 and in 2021.
- Demand for market-rate independent living units with minimum rents of \$1,450 per month (2016 dollars) with an \$116,000 entry fee was estimated at 45 units in 2016 and 46 units in 2021.

#### Assisted Living/Memory Care Units

- Demand for market-rate assisted living units with minimum rents of \$2,900 per month (2016 dollars) was estimated at 47 units in 2016 and 50 units in 2021.
- Demand for market-rate assisted living units with minimum rents of \$3,500 per month (2016 dollars) was estimated at 29 units in 2016 and in 2021.
- Demand for market-rate memory care units with minimum rents of \$4,050 per month (2016 dollars) was estimated at 34 units in 2016 and 35 units in 2021.

The demand estimates are similar to those from the Original Study. We excluded the lowest rent level used in the Original Study as it is unlikely that those rents (\$1,150 per month) could support new construction.

It is important to note that demand will likely increase after 2020 when the oldest baby boomers start turning age 75.

#### **Demand Methodology**

Demand for independent senior housing and assisted living units was calculated for each of the minimum monthly rent ranges using the following methodology:

##### Independent Senior Housing Demand Methodology

- Senior households age 75-and-over will be the primary market for the independent units. This is conservative assumption and it is likely that there will be some householders under the age of 75 who will move to a new senior housing development.
- A senior will utilize 50 percent of their income for independent housing (this is reasonable considering the level of services available to residents).

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- Senior homeowners will have additional income potential from the untapped equity in their home. These households are then multiplied by the home-ownership rate to determine the number of homeowners who could afford the minimum rent through the resale of their home.
- Additional income to be used for alternative housing was calculated using the following assumptions:
  1. The value of a senior's home is approximately 90 percent of the estimated value of all homes in 2016 based upon data from Nielsen.
  2. Selling costs are approximately 6 percent of the sales price of the home.
  3. Average annual investment return is 3.5 percent, net of a 20 percent tax rate on earnings.
  4. It is assumed there is no mortgage outstanding on the single-family home. National data shows that more than 70 percent of seniors have no debt on their home.
  5. These households are then multiplied by the home-ownership rate to determine the number of homeowners who could afford the minimum rent through the resale of their home.
- It is assumed the number of senior households is evenly distributed within the income categories.
- A penetration rate of 10 percent is applied to the qualified market to determine the unit potential for independent living. In a healthy senior housing market, this penetration rate is considered reasonable since they relate specifically to the age/income qualified group for the specific types of senior housing, not senior households overall.
- Approximately 10 percent of the demand will come from households outside of the Market Area who are 1) living near to, but outside of the Market Area, 2) returning to the area from retirement communities, or 3) moving to be near adult children.
- 2016 minimum monthly rents were inflated by 3 percent annually to 2021 to reflect estimated rents in 2021 dollars.
- In calculating demand for the units at the various minimum monthly rent levels, competitive senior units were subtracted from gross demand to estimate net demand for new units. Pending projects were not included in the subtraction from gross demand.

#### Assisted Living and Memory Care Senior Housing Demand Methodology

- A senior will utilize 80 percent of their income for assisted living senior housing and 90 percent for memory care senior housing (this is reasonable considering the level of services included in the monthly fee).
- For assisted living demand, a different proportion of income-qualified households within each age group are applied to determine the number of seniors that need assistance with activities of daily living (ADL). The PAN (personal assistance need) index was developed based upon national surveys

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of seniors' needs. These proportions used are 5.7 percent (for persons age 65-to-74 needing assistance with three or more ADLs), 30.8 percent for seniors age 75-to-84, and 50.8 percent for seniors age 85-and-over (for persons needing assistance with one or two ADLs or more). The higher threshold for ADL need is used for the youngest senior age cohort to reflect that most seniors in this age cohort are married and would have a spouse to assist them with personal assistance.

- For memory care, the proportion of persons with dementia in each age group is used: 3.2 percent for seniors age 65-to-74, 17.6 percent for seniors age 75-to-84 and 32.8 percent for seniors age 85-and-over.
- It is assumed the number of senior households is evenly distributed within the income categories.
- A penetration rate of 30 percent is applied to the age/income/ADL qualified market to determine the unit potential for assisted living. This is the group that is unable to receive support in their home, either because they live alone, or because their spouse and/or other family members are unable to provide the level of care needed.
- Approximately 10 percent of the demand for assisted living and memory care will come from households from outside the IL/AL Market Area who are 1) living near to, but outside of the IL/AL Market Area, 2) returning to the area from retirement communities or 3) moving to be near adult children.
- 2016 minimum monthly rents were inflated by 3 percent annually to 2021 to reflect estimated rents in 2021 dollars.
- It should be noted that the demand for memory care units overlaps with the demand calculated for assisted living units.

### **Nursing Bed Demand Analysis**

Demand for nursing beds has been declining overall nationally as more seniors with less acute medical needs are accessing other forms of care. The increase in assisted living facilities beginning in the late 1980s and the more recent rise in the use of home health care has allowed a large portion of the senior population to transition from nursing homes to these care alternatives after a shorter stay in a nursing home or to stay out of a nursing home altogether.

One way to assess the potential for nursing beds is to compare the beds-per-thousand ratios for the population age 65-and-over and age 85-and-over in the Market Area with ratios in other areas, i.e., the State of Missouri and the U.S. Table 10 shows these ratios.

TABLE 10 MARKET AREA NURSING BEDS PER THOUSAND POPULATION AGE 65+ and AGE 85+ 2016 & 2021					
2016 SNF BEDS PER 1,000					
	SNF Beds	Population <sup>(1)</sup>		Age 65 + Beds/1,000	Age 85 + Beds/1,000
		Age 65 +	Age 85 +		
Market Area	512 <sup>(2)</sup>	4,991	701	102.6	730.4
Missouri	52,984 <sup>(3)</sup>	972,976	126,630	54.5	418.4
United States	1,662,757 <sup>(3)</sup>	48,622,044	6,232,138	34.2	266.8
2021 SNF BEDS PER 1,000 <sup>(4)</sup>					
	SNF Beds	Population <sup>(1)</sup>		Age 65 + Beds/1,000	Age 85 + Beds/1,000
		Age 65 +	Age 85 +		
Market Area	512 <sup>(2)</sup>	5,647	735	90.7	696.6
Missouri	52,984 <sup>(4)</sup>	1,117,112	133,251	47.4	397.6
United States	1,662,757 <sup>(4)</sup>	57,178,608	6,584,425	29.1	252.5

Source: CLA, The Nielsen Company, LTC Stats: Nursing Facility Operational Characteristics Report  
Notes to Table:  
(1) Population data from The Nielsen Company  
(2) Assuming same bed count in 2016 and 2021.  
(3) Total nursing home beds are based upon data from the American Health Care Association, "LTC Stats: Nursing Facility Operational Characteristics Report", Certified Beds: March 2015.  
(4) Assumes no significant changes in the number of SNF beds from 2015 to 2020 for Missouri and U.S.

The table shows that bed ratios in the Market Area are much higher than in either Missouri or the United States. This might indicate an excess number of beds in the Market Area.

CLA has developed a skilled nursing demand model based on Medicare discharge data, change in senior population and the impact of demand influencers such as the change in caregivers and substitution of assisted living for nursing care. The following tables summarize the estimated demand for nursing facility beds in the Market Area in 2016 taking into consideration the estimated impact on demand of projected population growth and other demand influencers. Table 11 shows a mid-range demand scenario.

The assumptions used in this scenario are:

- A decline in hospital use rates of 8.5 percent annually (based upon changes over the past five years);

- A decline of 20 percent in average length of stay for short-stay residents (based upon comparison to national data and recent trends as a result of health care reform);
- No change in average length of stay for long-stay residents;
- An 8 percent substitution rate for assisted living based upon the case mix index locally and the availability of assisted living alternatives in the Market Area.

<b>TABLE 9 ESTIMATED BED DEMAND: SHORT- and LONG-STAY 2016 - 2021</b>			
<b>Baseline Supply &amp; Demand</b>	<u>Short Stay</u>	<u>Long Stay</u>	<u>Total Beds</u>
Current Bed Supply in the Market Area	55	464	519
Current Bed Demand at Stabilized Occupancy	52	423	475
<b>Net Bed (Excess) Need in 2016</b>	<b>(3)</b>	<b>(41)</b>	<b>(44)</b>
<b>Demand in 2021</b>	<u>Short Stay</u>	<u>Long Stay</u>	<u>Total Beds</u>
Projected Bed Need in 2021 Based on Population	61	454	515
<b>Total Beds in 2021 Demand/(Excess) based on Population Change</b>	<b>6</b>	<b>(10)</b>	<b>(4)</b>
<b>Environmental Impact Sensitivity Analysis</b>	<u>Short Stay</u>	<u>Long Stay</u>	<u>Total Beds</u>
▲ -8.5% Change in Hospital Utilization Rate	(2)	(12)	(13)
▲ -20.0% Change in Average Length of Short Stay	(13)	-	(13)
▲ 0.0% Change in Average Length of Long Stay	-	-	-
▲ -8.0% Change in Hospital Discharge Rate to SNF	-	0	0
▲ 0.0% Change in Substitutes Available Short Stay *	-	-	-
▲ 8.0% Change in Substitutes Available Long Stay *	-	(40)	(40)
<b>Estimated Environmental Impacts</b>	<b>(20)</b>	<b>(51)</b>	<b>(72)</b>
<b>Total Bed Demand in 2021</b>	<b>(17)</b>	<b>(102)</b>	<b>(119)</b>
*Include Home Care and/or Other Service Alternatives			

Source: CliftonLarsonAllen

Under this scenario, there would be a net decline in demand of 75 nursing beds by 2021: a decline in demand of 14 short-stay beds (resulting in an oversupply of 17 beds in 2021 compared to 3 beds today) and a decrease in demand of 61 long-stay beds (resulting in an oversupply of 102 beds in 2021 compared to an oversupply of 41 beds today).



## **Summary and Recommendations**

### Market Observations

- There is very modest senior population and household growth occurring in the Market Area.
- Senior household incomes are similar to those in Missouri.
- There is very little senior housing in the Market Area and nearly all that does exist is for low income seniors.
- There appears to be demand for additional market-rate senior housing, but at more moderate rent levels.
- There is no demand for additional nursing beds in the Market Area and, in fact, likely a need for fewer nursing beds over the next five years as indicated in the Original Study.

### Development Suggestions

Based on the research conducted for this study, there appears to be market support for additional independent living, assisted living and memory care units in Hannibal. The potential for development over the next three years is suggested as follows:

- 30-to-35 units of independent living
- 20-to-25 units of assisted living
- 20 memory care assisted living units

The ability to fill these units will be based in part on a healthy economy and housing market, however, based on the demand estimates and assuming that 60 percent of 2018 demand is developed, these numbers are reasonable.

For the Original Study we provided suggestions that included development of a possible new campus elsewhere in Hannibal. While this might still be appropriate if a good location could be found, we believe it is more prudent to consider expansion of Pleasant View.

## APPENDIX A – Detailed Demand Estimates

**APPENDIX A-1**  
**MARKET AREA INDEPENDENT LIVING DEMAND CALCULATION**  
**MARKET-RATE SENIOR HOUSING**  
**MINIMUM RENTS OF \$1,150/Month in 2016 dollars**  
**2016**

**Age/Income-Qualified Market**

	<b>Age 65 to 74</b>	<b>Age 75 and Over</b>
Households with incomes of \$22,600 - \$27,599	N/A	135
Multiplied by the home-ownership rate (2010): Total income-qualified homeowners	_____	x $\frac{70.4\%}{95}$
Add households with incomes of \$27,600 or more:		+ 723
Include renters and home owners Total income-qualified homeowners	_____	x $\frac{100.0\%}{723}$
Total		= 818
Proportion age-qualified:		100% 818

Total age/income qualified:	818	
Total Households available for independent senior housing	818	
Primary potential demand (assuming a penetration rate of 10%-10%):	82	- 82
Add: An allowance for residents outside of the market area at 10%	9	9
Subtotal	91	91
Subtract: Competitive units in the market area:	(9)	- (9)
<b>Total Market Area Demand for Independent Units (Net)</b>	<b>82</b>	<b>82</b>
<b>Average Market Area Demand for Independent Units</b>	<b>82</b>	<b>82</b>

Source: The Nielsen Company  
2010 Census  
CliftonLarsonAllen LLP

**APPENDIX A-2**  
**MARKET AREA INDEPENDENT LIVING DEMAND CALCULATION**  
**MARKET-RATE SENIOR HOUSING**  
**MINIMUM RENTS OF \$1,150/Month in 2016 dollars**  
**2021**

**Age/Income-Qualified Market**

	Age 65 to 74	Age 75 and Over
Households with incomes of \$26,200 - \$31,999	N/A	108
Multiplied by the home-ownership rate (2010): Total income-qualified homeowners	_____	x $\frac{70.4\%}{76}$
Add households with incomes of \$32,000 or more:		+ 735
Include renters and home owners Total income-qualified homeowners	_____	x $\frac{100.0\%}{735}$
Total	_____	= 811
Proportion age-qualified:		100% 811

Total age/income qualified:	811
Total Households available for independent senior housing	811
Primary potential demand (assuming a penetration rate of 10%-10%):	81 - 81
Add: An allowance for residents outside of the market area at 10%	9      9
Subtotal	90      90
Subtract: Competitive units in the market area:	(9) - (9)
<b>Total Market Area Demand for Independent Units (Net)</b>	<b>81      81</b>
<b>Average Market Area Demand for Independent Units</b>	<b>81</b>

Source: The Nielsen Company  
2010 Census  
CliftonLarsonAllen LLP

**APPENDIX A-3**  
**MARKET AREA INDEPENDENT LIVING DEMAND CALCULATION**  
**MARKET-RATE SENIOR HOUSING**  
**MINIMUM RENTS OF \$1,450/Month in 2016 dollars**  
**2016**

**Age/Income-Qualified Market**

	Age 65 to 74	Age 75 and Over
Households with incomes of \$29,800 - \$34,799	N/A	91
Multiplied by the home-ownership rate (2010): Total income-qualified homeowners		x $\frac{70.4\%}{64}$
Add households with incomes of \$34,800 or more:		+ 593
Include renters and home owners Total income-qualified homeowners		x $\frac{100.0\%}{593}$
Total		= 656
Proportion age-qualified:		100% 656

Total age/income qualified:	656
Total Households available for independent senior housing	656
Primary potential demand (assuming a penetration rate of 10%-10%):	66 - 66
Add: An allowance for residents outside of the market area at 10%	<u>7</u> <u>7</u>
Subtotal	73      73
Subtract: Competitive units in the market area:	<u>(9)</u> - <u>(9)</u>
<b>Total Market Area Demand for Independent Units (Net)</b>	<b><u>64</u>      <u>64</u></b>
<b>Average Market Area Demand for Independent Units</b>	<b><u><u>64</u></u></b>

Source: The Nielsen Company  
2010 Census  
CliftonLarsonAllen LLP

**APPENDIX A-4**  
**MARKET AREA INDEPENDENT LIVING DEMAND CALCULATION**  
**MARKET-RATE SENIOR HOUSING**  
**MINIMUM RENTS OF \$1,450/Month in 2016 dollars**  
**2021**

**Age/Income-Qualified Market**

	<b>Age 65 to 74</b>	<b>Age 75 and Over</b>
Households with incomes of \$34,500 - \$40,299	N/A	93
Multiplied by the home-ownership rate (2010): Total income-qualified homeowners	<hr/>	x 70.4% <hr/> 65
Add households with incomes of \$40,300 or more:		+ 596
Include renters and home owners Total income-qualified homeowners	<hr/>	x 100.0% <hr/> 596
Total		= 661
Proportion age-qualified:		100% 661

Total age/income qualified:	661	
Total Households available for independent senior housing	661	
Primary potential demand (assuming a penetration rate of 10%-10%):	66	- 66
Add: An allowance for residents outside of the market area at 10%	<hr/> 7	<hr/> 7
Subtotal	73	73
Subtract: Competitive units in the market area:	<hr/> (9)	<hr/> (9)
<b>Total Market Area Demand for Independent Units (Net)</b>	<hr/> <b>64</b>	<hr/> <b>64</b>
<b>Average Market Area Demand for Independent Units</b>		<hr/> <b>64</b> <hr/>

Source: The Nielsen Company  
2010 Census  
CliftonLarsonAllen LLP

**APPENDIX A-5**  
**MARKET AREA INDEPENDENT LIVING DEMAND CALCULATION**  
**MARKET-RATE SENIOR HOUSING**  
**MINIMUM RENTS OF \$1,750/Month in 2016 dollars**  
**2016**

**Age/Income-Qualified Market**

	<b>Age 65 to 74</b>	<b>Age 75 and Over</b>
Households with incomes of \$37,000 - \$41,999	N/A	76
Multiplied by the home-ownership rate (2010): Total income-qualified homeowners	_____	x <u>70.4%</u> 54
Add households with incomes of \$42,000 or more:		+ 483
Include renters and home owners Total income-qualified homeowners	_____	x <u>100.0%</u> 483
Total	_____	= 536
Proportion age-qualified:		100% 536

Total age/income qualified:	536	
Total Households available for independent senior housing	536	
Primary potential demand (assuming a penetration rate of 10%-10%):	54	- 54
Add: An allowance for residents outside of the market area at 10%	<u>6</u>	<u>6</u>
Subtotal	60	60
Subtract: Competitive units in the market area:	<u>(9)</u>	<u>(9)</u>
<b>Total Market Area Demand for Independent Units (Net)</b>	<u><b>51</b></u>	<u><b>51</b></u>
<b>Average Market Area Demand for Independent Units</b>		<u><u><b>51</b></u></u>

Source: The Nielsen Company  
2010 Census  
CliftonLarsonAllen LLP

**APPENDIX A-6**  
**MARKET AREA INDEPENDENT LIVING DEMAND CALCULATION**  
**MARKET-RATE SENIOR HOUSING**  
**MINIMUM RENTS OF \$1,750/Month in 2016 dollars**  
**2021**

**Age/Income-Qualified Market**

	<b>Age 65 to 74</b>	<b>Age 75 and Over</b>
Households with incomes of \$42,900 - \$48,699	N/A	91
Multiplied by the home-ownership rate (2010): Total income-qualified homeowners	_____	x <u>70.4%</u> 64
Add households with incomes of \$48,700 or more:		+ 463
Include renters and home owners Total income-qualified homeowners	_____	x <u>100.0%</u> 463
Total	_____	= 528
Proportion age-qualified:		100% 528

Total age/income qualified:	528	
Total Households available for independent senior housing	528	
Primary potential demand (assuming a penetration rate of 10%-10%):	53	- 53
Add: An allowance for residents outside of the market area at 10%	<u>6</u>	<u>6</u>
Subtotal	59	59
Subtract: Competitive units in the market area:	<u>(9)</u>	<u>(9)</u>
<b>Total Market Area Demand for Independent Units (Net)</b>	<u><b>50</b></u>	<u><b>50</b></u>
<b>Average Market Area Demand for Independent Units</b>		<u><u><b>50</b></u></u>

Source: The Nielsen Company  
2010 Census  
CliftonLarsonAllen LLP



**APPENDIX A-7**  
**MARKET AREA INDEPENDENT LIVING DEMAND CALCULATION**  
**MARKET-RATE SENIOR HOUSING**  
**MINIMUM RENTS OF \$2,300/Month in 2016 dollars**  
**2016**

**Age/Income-Qualified Market**

	<b>Age 65 to 74</b>	<b>Age 75 and Over</b>
Households with incomes of \$50,200 - \$55,199	N/A	44
Multiplied by the home-ownership rate (2010): Total income-qualified homeowners	_____	x <u>70.4%</u> 31
Add households with incomes of \$55,200 or more:		+ 316
Include renters and home owners Total income-qualified homeowners	_____	x <u>100.0%</u> 316
Total	_____	= 346
Proportion age-qualified:		100% 346

Total age/income qualified:	346	
Total Households available for independent senior housing	346	
Primary potential demand (assuming a penetration rate of 10%-10%):	35	- 35
Add: An allowance for residents outside of the market area at 10%	<u>4</u>	<u>4</u>
Subtotal	38	38
Subtract: Competitive units in the market area:	<u>(9)</u>	<u>(9)</u>
<b>Total Market Area Demand for Independent Units (Net)</b>	<u><b>29</b></u>	<u><b>29</b></u>
<b>Average Market Area Demand for Independent Units</b>	<u><u><b>29</b></u></u>	

Source: The Nielsen Company  
2010 Census  
CliftonLarsonAllen LLP

**APPENDIX A-8**  
**MARKET AREA INDEPENDENT LIVING DEMAND CALCULATION**  
**MARKET-RATE SENIOR HOUSING**  
**MINIMUM RENTS OF \$2,300/Month in 2016 dollars**  
**2021**

**Age/Income-Qualified Market**

	<b>Age 65 to 74</b>	<b>Age 75 and Over</b>
Households with incomes of \$58,200 - \$63,999	N/A	59
Multiplied by the home-ownership rate (2010): Total income-qualified homeowners	_____	x <u>70.4%</u> 42
Add households with incomes of \$64,000 or more:		+ 300
Include renters and home owners Total income-qualified homeowners	_____	x <u>100.0%</u> 300
Total	_____	= 342
Proportion age-qualified:		100% 342

Total age/income qualified:	342	
Total Households available for independent senior housing	342	
Primary potential demand (assuming a penetration rate of 10%-10%):	34	- 34
Add: An allowance for residents outside of the market area at 10%	<u>4</u>	<u>4</u>
Subtotal	38	38
Subtract: Competitive units in the market area:	<u>(9)</u>	<u>(9)</u>
<b>Total Market Area Demand for Independent Units (Net)</b>	<u><b>29</b></u>	<u><b>29</b></u>
<b>Average Market Area Demand for Independent Units</b>	<u><u><b>29</b></u></u>	

Source: The Nielsen Company  
2010 Census  
CliftonLarsonAllen LLP

**APPENDIX A-9**  
**MARKET AREA INDEPENDENT LIVING DEMAND CALCULATION**  
**MARKET-RATE SENIOR HOUSING**  
**MINIMUM RENTS OF \$1,450/Month in 2016 dollars with a \$116,000 entry fee**  
**2016**

**Age/Income-Qualified Market**

	<b>Age 65 to 74</b>	<b>Age 75 and Over</b>
Households with incomes of \$30,200 - \$33,099	N/A	52
Multiplied by the home-ownership rate (2010): Total income-qualified homeowners	_____	x $\frac{70.4\%}{37}$
Add households with incomes of \$33,100 or more:		+ 623
Include renters and home owners Total income-qualified homeowners	_____	x $\frac{100.0\%}{623}$
Total	_____	= 660
Proportion age-qualified:		100% 660

Total age/income qualified:	660	
Total Households available for independent senior housing	660	
Primary potential demand (assuming a penetration rate of 10%-10%):	66	- 66
Add: An allowance for residents outside of the market area at 10%	7	7
Subtotal	73	73
Subtract: Competitive units in the market area:	(28)	(28)
<b>Total Market Area Demand for Independent Units (Net)</b>	<b>45</b>	<b>45</b>
<b>Average Market Area Demand for Independent Units</b>	<b>45</b>	<b>45</b>

Source: The Nielsen Company  
2010 Census  
CliftonLarsonAllen LLP

**APPENDIX A-10**  
**MARKET AREA INDEPENDENT LIVING DEMAND CALCULATION**  
**MARKET-RATE SENIOR HOUSING**  
**MINIMUM RENTS OF \$1,450/Month in 2016 dollars with a \$116,000 entry fee**  
**2021**

**Age/Income-Qualified Market**

	<b>Age 65 to 74</b>	<b>Age 75 and Over</b>
Households with incomes of \$35,100 - \$38,299	N/A	50
Multiplied by the home-ownership rate (2010): Total income-qualified homeowners	_____	x $\frac{70.4\%}{35}$
Add households with incomes of \$38,300 or more:		+ 627
Include renters and home owners Total income-qualified homeowners	_____	x $\frac{100.0\%}{627}$
Total	_____	= 663
Proportion age-qualified:		100% 663

Total age/income qualified:	663	
Total Households available for independent senior housing	663	
Primary potential demand (assuming a penetration rate of 10%-10%):	66	- 66
Add: An allowance for residents outside of the market area at 10%	7	7
Subtotal	74	74
Subtract: Competitive units in the market area:	(28)	(28)
<b>Total Market Area Demand for Independent Units (Net)</b>	<b>46</b>	<b>46</b>
<b>Average Market Area Demand for Independent Units</b>	<b>46</b>	<b>46</b>

Source: The Nielsen Company  
2010 Census  
CliftonLarsonAllen LLP

**APPENDIX A-11**  
**MARKET AREA ASSISTED LIVING DEMAND**  
**MINIMUM RENTS OF \$2,900/Month in 2016 dollars**  
**2016**

**AGE 65 - 74**

a. Households with incomes of \$38,700 or more		1,028	
b. Estimated households with incomes of \$35,900 - \$38,699	61		
c. Times home-ownership rate, (2010)	x 80.5%		
d. Equals homeowners w/incomes \$35,900 - \$38,699		49	
e. Total income-qualified households		1,077	
f. Times percent who need assistance	x 5.7%		61

**AGE 75 - 84**

a. Households with incomes of \$38,700 or more		405	
b. Estimated households with incomes of \$35,900 - \$38,699	32		
c. Times home-ownership rate, (2010)	x 73.2%		
d. Equals homeowners w/incomes \$35,900 - \$38,700		23	
e. Total income-qualified households		428	
f. Times percent who need assistance	x 30.8%		132

**AGE 85+**

a. Households with incomes of \$38,700 or more		128	
b. Estimated households with incomes of \$35,900 - \$38,699	11		
c. Times home-ownership rate, (2010)	x 63.5%		
d. Equals homeowners w/incomes \$35,900 - \$38,700		7	
e. Total income-qualified households		135	
f. Times percent who need assistance	x 50.8%		68

Total Assisted Living Market Base		262	
Multiplied by penetration potential @ 30%			x 30.0%
Equals current total demand from local seniors		79	
Add: Demand from outside market area/@10%			9
Equals total assisted living demand		87	
Minus: Existing Assisted Living Units/Beds		(40)	
<b>Total Demand for Assisted Living Units</b>		<b>47</b>	

Source: The Nielsen Company  
U.S. Bureau of the Census  
CliftonLarsonAllen LLP



**APPENDIX A-12**  
**MARKET AREA ASSISTED LIVING DEMAND**  
**MINIMUM RENTS OF \$2,900/Month in 2016 dollars**  
**2021**

**AGE 65 - 74**

a. Households with incomes of \$44,800 or more		1,165
b. Estimated households with incomes of \$41,600 - \$44,799	77	
c. Times home-ownership rate, (2010)	x <u>80.5%</u>	
d. Equals homeowners w/incomes \$41,600 - \$44,799		<u>62</u>
e. Total income-qualified households		1,227
f. Times percent who need assistance	x <u>5.7%</u>	<u>70</u>

**AGE 75 - 84**

a. Households with incomes of \$44,800 or more		399
b. Estimated households with incomes of \$41,600 - \$44,799	38	
c. Times home-ownership rate, (2010)	x <u>73.2%</u>	
d. Equals homeowners w/incomes \$41,600 - \$44,799		<u>27</u>
e. Total income-qualified households		426
f. Times percent who need assistance	x <u>30.8%</u>	<u>131</u>

**AGE 85+**

a. Households with incomes of \$44,800 or more		126
b. Estimated households with incomes of \$41,600 - \$44,799	13	
c. Times home-ownership rate, (2010)	x <u>63.5%</u>	
d. Equals homeowners w/incomes \$41,600 - \$44,799		<u>8</u>
e. Total income-qualified households		134
f. Times percent who need assistance	x <u>50.8%</u>	<u>68</u>

Total Assisted Living Market Base		269
Multiplied by penetration potential @ 30%	x <u>30.0%</u>	
Equals current total demand from local seniors		<u>81</u>
Add: Demand from outside market area/@10%		<u>9</u>
Equals total assisted living demand		90
Minus: Existing Assisted Living Units/Beds		<u>(40)</u>
<b>Total Demand for Assisted Living Units</b>		<b><u><u>50</u></u></b>

Source: The Nielsen Company  
U.S. Bureau of the Census  
CliftonLarsonAllen LLP





**APPENDIX A-13**  
**MARKET AREA ASSISTED LIVING DEMAND**  
**MINIMUM RENTS OF \$3,500/Month in 2016 dollars**  
**2016**

**AGE 65 - 74**

a. Households with incomes of \$46,700 or more		853
b. Estimated households with incomes of \$43,900 - \$46,699	61	
c. Times home-ownership rate, (2010)	x <u>80.5%</u>	
d. Equals homeowners w/incomes \$43,900 - \$46,699		49
e. Total income-qualified households		902
f. Times percent who need assistance	x <u>5.7%</u>	51

**AGE 75 - 84**

a. Households with incomes of \$46,700 or more		314
b. Estimated households with incomes of \$43,900 - \$46,699	32	
c. Times home-ownership rate, (2010)	x <u>73.2%</u>	
d. Equals homeowners w/incomes \$43,900 - \$46,699		23
e. Total income-qualified households		337
f. Times percent who need assistance	x <u>30.8%</u>	104

**AGE 85+**

a. Households with incomes of \$46,700 or more		98
b. Estimated households with incomes of \$43,900 - \$46,699	11	
c. Times home-ownership rate, (2010)	x <u>63.5%</u>	
d. Equals homeowners w/incomes \$43,900 - \$46,699		7
e. Total income-qualified households		104
f. Times percent who need assistance	x <u>50.8%</u>	53

Total Assisted Living Market Base		208
Multiplied by penetration potential @ 30%	x <u>30.0%</u>	
Equals current total demand from local seniors		62
Add: Demand from outside market area/@10%		7
Equals total assisted living demand		69
Minus: Existing Assisted Living Units/Beds		(40)
<b>Total Demand for Assisted Living Units</b>		<b>29</b>

Source: The Nielsen Company  
U.S. Bureau of the Census  
CliftonLarsonAllen LLP



**APPENDIX A-14**  
**MARKET AREA ASSISTED LIVING DEMAND**  
**MINIMUM RENTS OF \$3,500/Month in 2016 dollars**  
**2021**

**AGE 65 - 74**

a. Households with incomes of \$54,100 or more		955
b. Estimated households with incomes of \$50,900 - \$54,099	66	
c. Times home-ownership rate, (2010)	x <u>80.5%</u>	
d. Equals homeowners w/incomes \$50,900 - \$54,099		<u>53</u>
e. Total income-qualified households		1,008
f. Times percent who need assistance	x <u>5.7%</u>	<u>57</u>

**AGE 75 - 84**

a. Households with incomes of \$54,100 or more		307
b. Estimated households with incomes of \$50,900 - \$54,099	24	
c. Times home-ownership rate, (2010)	x <u>73.2%</u>	
d. Equals homeowners w/incomes \$50,900 - \$54,099		<u>18</u>
e. Total income-qualified households		325
f. Times percent who need assistance	x <u>30.8%</u>	<u>100</u>

**AGE 85+**

a. Households with incomes of \$54,100 or more		94
b. Estimated households with incomes of \$50,900 - \$54,099	9	
c. Times home-ownership rate, (2010)	x <u>63.5%</u>	
d. Equals homeowners w/incomes \$50,900 - \$54,099		<u>5</u>
e. Total income-qualified households		99
f. Times percent who need assistance	x <u>50.8%</u>	<u>51</u>

Total Assisted Living Market Base		208
Multiplied by penetration potential @ 30%	x <u>30.0%</u>	
Equals current total demand from local seniors		<u>62</u>
Add: Demand from outside market area/@10%		<u>7</u>
Equals total assisted living demand		69
Minus: Existing Assisted Living Units/Beds		<u>(40)</u>
<b>Total Demand for Assisted Living Units</b>		<b><u><u>29</u></u></b>

Source: The Nielsen Company  
U.S. Bureau of the Census  
CliftonLarsonAllen LLP



**APPENDIX A-15**  
**MARKET AREA MEMORY CARE DEMAND CALCULATION**  
**MINIMUM RENTS OF \$4,050/Month in 2016 dollars**  
**2016**

**AGE 65 - 74**

a. Households with incomes of \$54,000 or more	713	
b. Estimated households with incomes of \$51,200 - \$53,999	47	
c. Times home-ownership rate, (2010)	x 80.5%	
d. Equals homeowners w/incomes \$51,200 - \$53,999	38	
e. Total income-qualified households	752	
f. Times percent who need assistance	x 3.0%	23

**AGE 75 - 84**

a. Households with incomes of \$54,000 or more	250	
b. Estimated households with incomes of \$51,200 - \$53,999	18	
c. Times home-ownership rate, (2010)	x 73.2%	
d. Equals homeowners w/incomes \$51,200 - \$53,999	13	
e. Total income-qualified households	263	
f. Times percent who need assistance	x 18.7%	49

**AGE 85+**

a. Households with incomes of \$54,000 or more	76	
b. Estimated households with incomes of \$51,200 - \$53,999	6	
c. Times home-ownership rate, (2010)	x 63.5%	
d. Equals homeowners w/incomes \$51,200 - \$53,999	4	
e. Total income-qualified households	80	
f. Times percent who need assistance	x 47.0%	38

Total Alzheimer's/dementia Market Base		109
Multiplied by penetration potential @ 30%	x 30.0%	33
Equals current total demand from local seniors		33
Add: Demand from outside market area/@10%		4
Equals total memory care demand		36
Minus: Existing memory care beds		(2)
<b>Total Demand for Memory Care Units</b>		<b>34</b>

Source: The Nielsen Company  
U.S. Bureau of the Census  
CliftonLarsonAllen LLP



**APPENDIX A-16**  
**MARKET AREA MEMORY CARE DEMAND CALCULATION**  
**MINIMUM RENTS OF \$4,050/Month in 2016 dollars**  
**2021**

**AGE 65 - 74**

a. Households with incomes of \$62,600 or more	780	
b. Estimated households with incomes of \$59,400 - \$62,599	66	
c. Times home-ownership rate, (2010)	x 80.5%	
d. Equals homeowners w/incomes \$59,400 - \$62,599	53	
e. Total income-qualified households	833	
f. Times percent who need assistance	x 3.0%	25

**AGE 75 - 84**

a. Households with incomes of \$62,600 or more	243	
b. Estimated households with incomes of \$59,400 - \$62,599	24	
c. Times home-ownership rate, (2010)	x 73.2%	
d. Equals homeowners w/incomes \$59,400 - \$62,599	18	
e. Total income-qualified households	261	
f. Times percent who need assistance	x 18.7%	49

**AGE 85+**

a. Households with incomes of \$62,600 or more	71	
b. Estimated households with incomes of \$59,400 - \$62,599	9	
c. Times home-ownership rate, (2010)	x 63.5%	
d. Equals homeowners w/incomes \$59,400 - \$62,599	5	
e. Total income-qualified households	77	
f. Times percent who need assistance	x 47.0%	36

Total Alzheimer's/dementia Market Base		110
Multiplied by penetration potential @ 30%	x 30.0%	33
Equals current total demand from local seniors		33
Add: Demand from outside market area/@10%		4
Equals total memory care demand		37
Minus: Existing memory care beds		(2)
<b>Total Demand for Memory Care Units</b>		<b>35</b>

Source: The Nielsen Company  
U.S. Bureau of the Census  
CliftonLarsonAllen LLP