

Long Term Care Facilities' Impact on Economic Activity in the United States

Final Report

Prepared for:

American Health Care Association
National Center for Assisted Living

Prepared by:

The Lewin Group, Inc.
Dobson | DaVanzo, LLC

June 4, 2008

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Table of Contents

EXECUTIVE SUMMARY	2
Introduction	2
Methodology	2
Key Findings	3
Discussion.....	3
I. INTRODUCTION.....	5
II. METHODOLOGY.....	7
III. ECONOMIC IMPACT OF LTC FACILITIES	8
IV. DISCUSSION	15

EXECUTIVE SUMMARY

Introduction

The Lewin Group was commissioned by the American Health Care Association (AHCA) and the National Center for Assisted Living (NCAL) to estimate the economic impact of LTC facilities on the U.S. and state economies. In 2007, the U.S. had approximately 16,000 certified nursing homes with 1.7 million beds and 1.4 million residents on any given day.¹ In 2004, the U.S. had approximately 46,000 assisted living facilities which included over 900,000 residents.² The importance of these facilities³ extends beyond the health care services they provide to patients. As an integral part of their respective local economies, LTC facilities create jobs and generate economic benefits for their communities and represent about 1.1 percent of the Gross Domestic Product (GDP)⁴, whereas total national health expenditures account for just over 16 percent of GDP. As the percentage of population 65 years and older increases, the number of LTC facility residents is likely to grow, reflecting increased demand for LTC services of all types.

Methodology

To achieve the study objective, The Lewin Group used the economic framework provided by IMPLAN (Impact Analysis for PLANning) software and database. IMPLAN is based on an input-output model which incorporates data for 508 industry sectors to estimate the economic impact of an industry on defined region or the entire nation. Using the IMPLAN software data, we estimated the total economic activity associated with the presence of LTC facilities for these jurisdictions. The economic impact of LTC facilities on the U.S. consists of three distinct effects – direct effect, indirect effect, and induced effect.

Economic Impact Definitions

- **Direct Effect** is the generated revenue, earnings, or employment for a particular industry. The direct effect prompts the purchase of additional inputs to meet the increased demand.
- **Indirect Effect** is the change in inter-industry purchases as other industries respond to the new demands of the directly affected industries. The indirect effect results when local businesses gear up to provide these inputs.
- **Induced Effect** is the change in the spending pattern of households caused by the change in household income from the direct and indirect effects. This tertiary increase in economic activity is a reflection of the increase in the area's household incomes.
- **Ripple Effect** is the sum of indirect and induced effects.
- **Total Effect** is the sum of direct, indirect, and induced effects.

¹ American Health Care Association, OSCAR Data Reports: Operational and Patient Characteristics for December 2007 available at http://www.ahcancal.org/research_data/oscar_data/Pages/default.aspx

² National Academy for State Health Policy and RTI International. (2007). Residential Care and Assisted Living Compendium: 2007. Prepared for the U.S. Department of Health and Human Services. <http://aspe.hhs.gov/daltcp/reports/2007/07alcom.htm>

³ Collectively referred to as long term care (LTC) facilities in this report.

⁴ Gross Domestic Product (GDP) is a measure of the nation's economic output

Key Findings

LTC facilities are an integral part of the U.S. economy, providing care for patients and families, as well as creating economic benefits for communities. The *direct* economic impact of LTC facilities on the U.S., estimated at \$144.3 billion, represents:

- 1.1% of the GDP⁵
- 1.0% of labor income
- 1.7% of employment

The economic contribution of LTC facilities extends well beyond direct employment, purchasing goods and services, and paying taxes. LTC facilities support other businesses through “ripple effects,” estimated at \$847.9 billion. These ripple effects, in addition to the direct effect, constitute the *total* economic impact on the U.S. economy which supports:

- 6.4% of the GDP
- 3.9% of labor income
- 4.7% of employment

In addition, LTC facilities generate a total of \$120.3 billion in taxes⁶:

- \$42.3 billion in state/local taxes
- \$78.1 billion in federal taxes

We also provide detailed economic impact at the state level. LTC facilities' total economic impact ranges from 0.7 percent of the GDP in the District of Columbia to 4.8 percent in Maine.

Discussion

LTC facilities will become relatively more important economic engines over time with the aging of the baby boomers. In addition, the role of LTC facilities in rural communities, where they are often one of the largest employers, is especially critical as this source of employment for care givers provides a stabilizing effect upon rural communities.

LTC facilities provide a disproportionate share of employment relative to their direct economic impact in that LTC facilities provide 1.7 percent of employment and 1.1 percent of direct economic impact. Finally, LTC facilities provide another important economic benefit in that they increase the labor productivity of informal care givers (i.e. individuals who provide care in the home, which is not paid for). If LTC facility spending is curtailed or otherwise constrained, current LTC facility residents need to be relocated to other forms of LTC; some of which may require more support from informal care givers. In conclusion, LTC facilities represent

⁵ Keehan, et al. (2008). “Health Spending Projections Through 2017: The Baby-Boom Generation Is Coming to Medicare.” *Health Affairs*, vol. 27 (2), w145-w155, reports that nursing homes accounted for .95% of GDP.

⁶ Note, total does not add due to rounding.

important economic assets to their communities and will become even more important as the baby boomers age and the demand for LTC services rises over the foreseeable future.

I. INTRODUCTION

The Lewin Group was commissioned by the American Health Care Association (AHCA) and the National Center for Assisted Living (NCAL) to estimate the economic impact of long term care (LTC) facilities on the U.S. and state economies. For purposes of this study, we define LTC facilities as nursing homes, assisted living facilities, and other residential care facilities.

In 2007, the U.S. had approximately 16,000 certified nursing homes with 1.7 million beds and 1.4 million residents on any given day and served populations needing short-term rehabilitation services, as well as long-term care.⁷ A study conducted for the U.S. Department of Health and Human Services and the Office of the Assistant Secretary for Planning and Evaluation showed that in 2004, there were approximately 36,000 assisted living facilities which included over 900,000 residents.⁸

The importance of LTC facilities extends beyond the health care services they provide to patients. LTC facilities are an integral part of local economies as they create jobs and generate economic benefits for their communities. LTC facilities represent about 1.1 percent of the Gross Domestic Product (GDP), a measure of the nation's economic output equaling approximately \$13.2 trillion. In 2006, LTC facilities provided 2.9 million jobs and generated \$144.3 billion in revenue. However, this direct impact of LTC facilities as employers and purchasers does not fully capture LTC facilities' entire contribution to the U.S. economy. In fact, LTC facilities further stimulate the economy by indirectly providing employment and revenue for other industries.

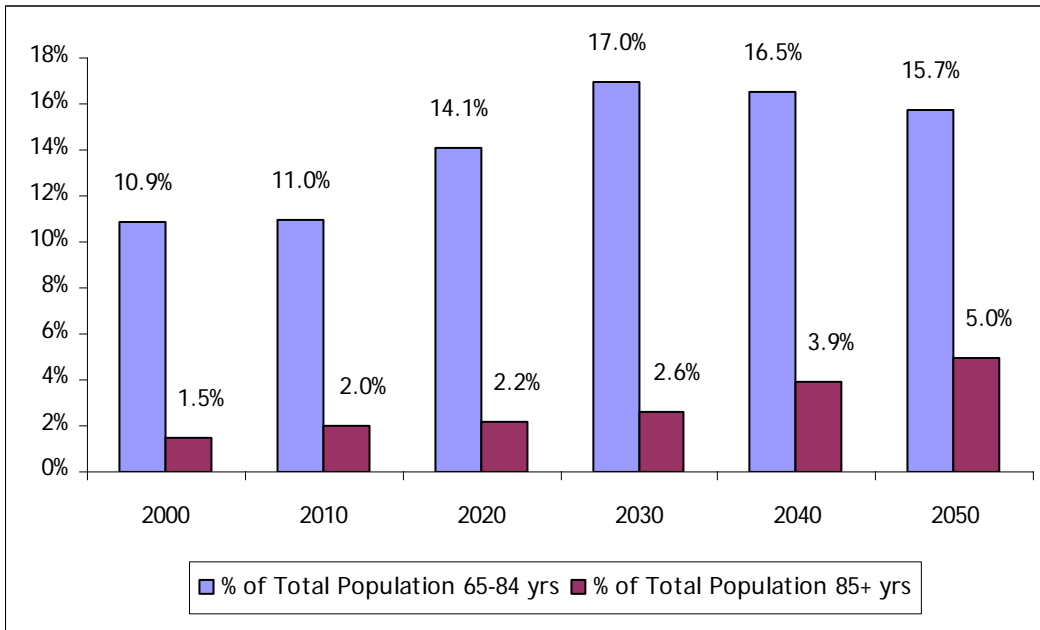
For example, when LTC facility employees spend their income on groceries or clothing, these purchases support the stimulation of other businesses and create additional jobs within the community. These "ripple effects" are modeled by economic multipliers and show how spending in one sector affects spending in the economy as a whole. Nationally, every dollar generated by a LTC facility supports approximately \$5 of additional economic activity, resulting in a total of approximately \$6 in economic activity. Each nursing home job supports approximately two additional jobs, resulting in a total of approximately three jobs. LTC facilities have varied economic impacts at the state level which are augmented by the federal match on state expenditures for Medicaid covered services.

Furthermore, as the percentage of population 65 years and older grows, the number of LTC facility residents will also grow, as well as the overall need for LTC beds. *Figure 1* below shows that the population of those 65 years and older is expected to make up 15.7 percent of the total population in 2050. More importantly, the population of those 85 years and older is expected to make up 5 percent of the total population in 2050. As the aging population grows, it is important to preserve and modernize the existing stock of LTC facilities so that future demand for their services may be met.

⁷ American Health Care Association, OSCAR Data Reports: Operational and Patient Characteristics for December 2007, available at http://www.ahcanca.org/research_data/oscar_data/Pages/default.aspx

⁸ National Academy for State Health Policy and RTI International. (2007). Residential Care and Assisted Living Compendium: 2007. Prepared for the U.S. Department of Health and Human Services. <http://aspe.hhs.gov/daltcp/reports/2007/07alcom.htm>

Figure 1: Percent of Population 65-84 years, 85+ years, 2000-2050



II. METHODOLOGY

To achieve the study objectives, Lewin used the economic framework provided by the IMPLAN (Impact Analysis for PLANning) software and database, commonly used for economic impact analyses. IMPLAN was first developed by the U.S. Department of Agriculture Forest Service and is now a product of the Minnesota IMPLAN Group, Inc. The IMPLAN model is based on an input-output model which incorporates data for 508 industry sectors to estimate the economic impact of an industry on a county, state, region, or the entire nation.⁹ Lewin used IMPLAN data files for every state and Congressional District, as well as the U.S. overall.

Using the IMPLAN software data¹⁰, we were able to estimate the total economic activity associated with the presence of LTC facilities for these jurisdictions.

The economic impact of LTC facilities on the U.S. consists of three distinct effects - direct effect, indirect effect, and induced effect.

Economic Impact Definitions

- **Direct Effect** is the generated revenue, earnings, or employment for a particular industry. The direct effect prompts the purchase of additional inputs to meet the increased demand.
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- **Induced Effect** is the change in the spending pattern of households caused by the change in household income from the direct and indirect effects. This tertiary increase in economic activity is a reflection of the increase in the area's household incomes.
- **Ripple Effect** is the sum of indirect and induced effects.
- **Total Effect** is the sum of direct, indirect, and induced effects.

These effects are best understood when an industry expands or contracts. If the industry expands, the overall economy is stimulated and gains economic benefits. If the industry contracts the overall economy loses economic benefits in terms of economic output, employment, labor income, and taxes paid. The employment impact of LTC facilities is particularly important in rural communities with few other employers serving to retain skilled labor during times of economic stress. Because LTC facilities are in large part publicly funded they tend to be counter cyclical as are health care services generally.

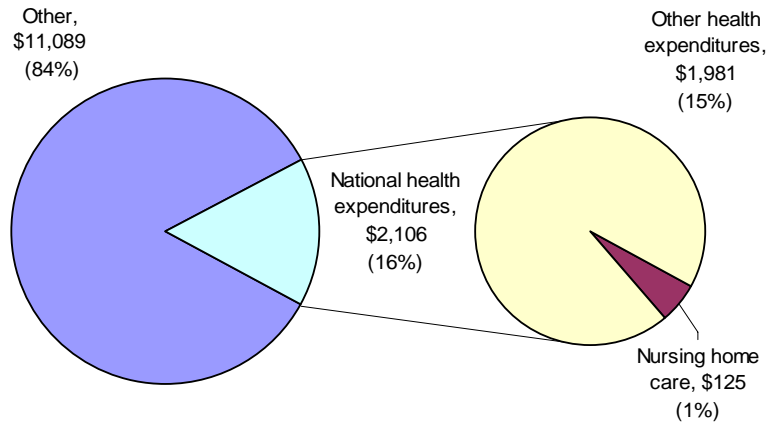
⁹ Certain data requests support analyses of other geographic areas such as Congressional Districts.

¹⁰ The Lewin Group consulted with IMPLAN representatives as to the proper use and interpretation of their system.

III. ECONOMIC IMPACT OF LTC FACILITIES

In 2006, national health expenditures represented 16.0 percent of the GDP. *Figure 2* shows how nursing home care relates to national health expenditures and in turn, the U.S. economy. Nursing home and home healthcare supports 5.9 percent of all health expenditures and almost 1 percent of the U.S. economy in 2006 dollars.¹¹

Figure 2: Nursing Home Care Expenditures in Relationship to Overall Health Expenditures and the National Economy, 2006 (in billions)



Source: Keehan, et al. (2008). "Health Spending Projections Through 2017: The Baby-Boom Generation Is Coming to Medicare." *Health Affairs*, vol. 27 (2), w145-w155.

LTC facilities are thus an integral part of the U.S. economy, providing care for patients and families, as well as creating economic benefits for communities. The *direct* economic impact of LTC facilities on the U.S., estimated at \$144.3 billion, represents:

- 1.1% of the GDP¹²
- 1.0% of labor income
- 1.7% of employment

¹¹ Keehan, et al. "(2008) Health Spending Projections Through 2017: The Baby-Boom Generation Is Coming to Medicare." *Health Affairs*, 27 (2) w145-w155. We present 2006 data as this was the most recent data the authors reported which are parallel to our IMPLAN analysis data. Also note that Figure 2 provides data only for nursing homes - it does not reflect data for all LTC facilities as this is how the data were reported in the Keehan paper.

¹² Keehan, et al. (2008). "Health Spending Projections Through 2017: The Baby-Boom Generation Is Coming to Medicare." *Health Affairs*, vol. 27 (2), w145-w155, reports that nursing homes accounted for .95% of GDP.

However, the economic contribution of LTC facilities extends well beyond direct employment, purchasing goods and services, and paying taxes. LTC facilities support other businesses through "ripple effects," estimated at \$847.9 billion. These ripple effects, in addition to the direct effect, constitute the *total* economic impact on the U.S. economy which supports:

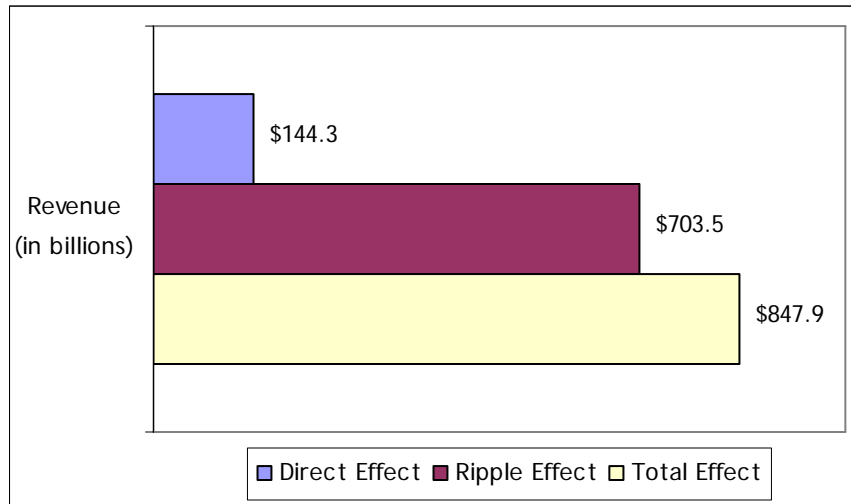
- 6.4% of the GDP
- 3.9% of labor income
- 4.7% of employment

In addition, LTC facilities generate a total of \$120.3 billion in taxes¹³:

- \$42.3 billion in state/local taxes
- \$78.1 billion in federal taxes

As shown below, LTC facilities generate \$144.3 billion (6.4%) in direct economic output and \$703.5 billion in ripple effects (indirect + induced effects), which in turn supports a total of \$847.9 billion in revenue for the U.S. economy. LTC facilities also provide for \$90.0 billion (3.9%) in direct labor income and \$243.4 billion in ripple effects, which in turn supports a total of \$333.4 billion in labor income for the U.S. economy. These findings are depicted in *Figure 3* and *Figure 4* below.

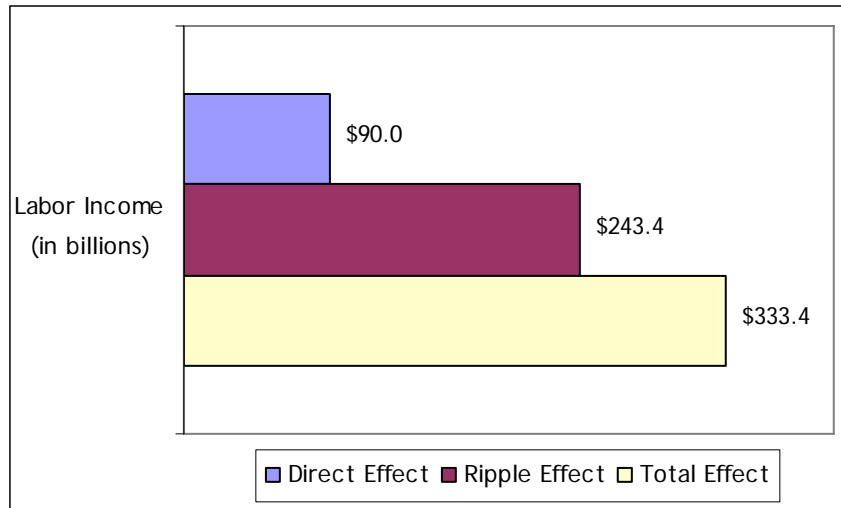
Figure 3: Economic Impact of LTC Facilities on Revenue



Source: Lewin analysis of IMPLAN data
 Note: Numbers may not add due to rounding.

¹³ Note, total does not add due to rounding.

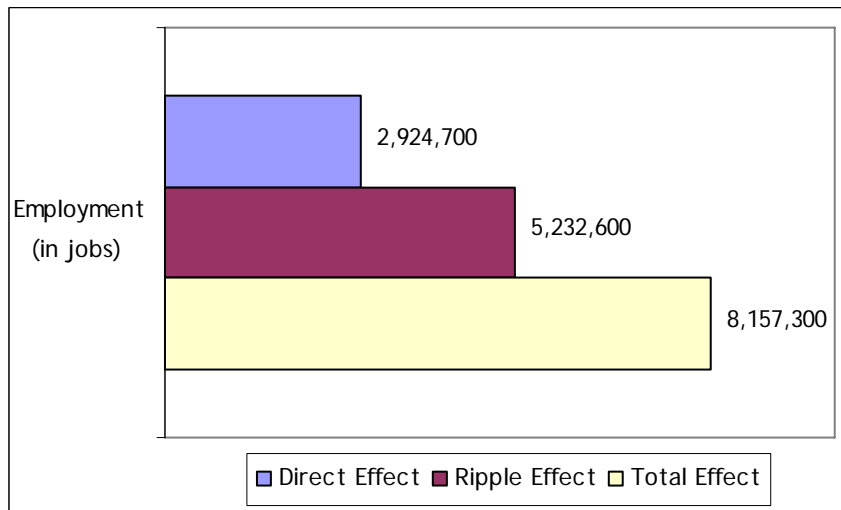
Figure 4: Economic Impact of LTC Facilities on Labor Income



Source: Lewin analysis of IMPLAN data
 Note: Numbers may not add due to rounding.

LTC facilities provide direct employment of 2.9 million jobs and ripple effects of 5.3 million jobs, which supports a total of approximately 8.2 million jobs in the U.S.

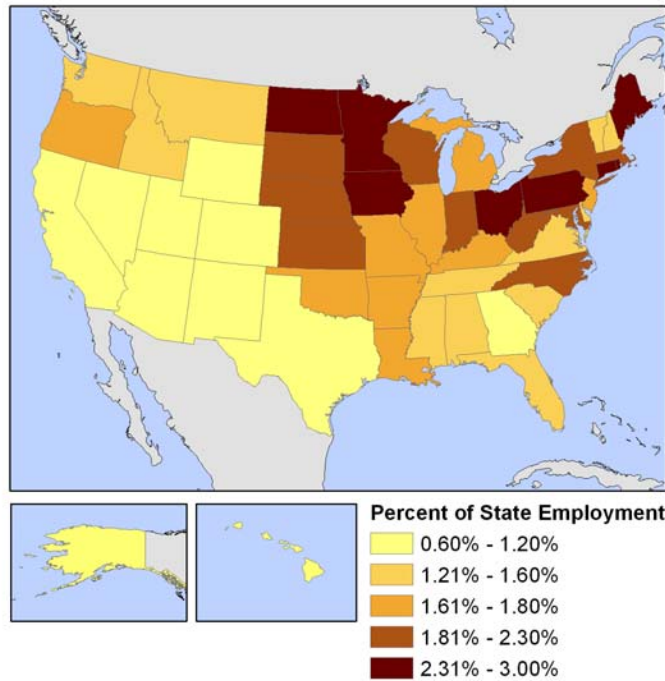
Figure 5: Economic Impact of LTC Facilities on Employment



Source: Lewin analysis of IMPLAN data
 Note: Numbers may not add due to rounding.

Figure 6 depicts the direct employment from LTC facilities (2.9 million jobs) as a percent of state employment. The Pacific and Mountain regions of the U.S. are less heavily concentrated with direct LTC facility employment when compared to the New England and East North Central regions.

Figure 6: LTC Employment as a Percent of State Employment



The figure below summarizes the breakdown of the direct, indirect, and induced effects of LTC facilities on output or revenue, employment, labor income, and taxes.

Figure 7: Summary of the Economic Impact of LTC Facilities on the U.S.

Impact	Direct	Indirect	Induced	Total	% of total activity	Multipliers
Output (in billions of dollars)	\$144.3	\$86.0	\$617.5	\$847.9	6.4%	5.88
Labor Income (in billions of dollars)	\$90.0	\$26.6	\$216.8	\$333.4	3.9%	3.70
Employment (jobs)	2,924,700	650,100	4,582,500	8,157,300	4.7%	2.79
		State/Local	Federal	Total		
Tax (in billions of dollars)		\$42.3	\$78.1	\$120.3	-	-

Source: Lewin analysis of IMPLAN data¹⁴
 Note: Numbers may not add due to rounding.

LTC facilities support other industries/sectors besides health and social services nationwide in terms of economic activity and employment. Specifically, LTC facilities support the

¹⁴ Labor Income is the sum of employee compensation and proprietary income. Multipliers describe the response of the economy to a stimulus. The notion of a multiplier rests upon the difference between the initial effect of a change in final demand and the total effects of that change.

industries/sectors of manufacturing, government & non NAICS¹⁵, and finance and insurance¹⁶ the most in terms of economic activity.

Figure 8: Nursing Home Total Impact on Employment and Economic Activity by Industry

Industry/Sector	Impact	
	Employment (jobs)	Economic activity (in billions)
Health & social services	3,429,700	\$187.2
Manufacturing	357,900	\$153.6
Government & non NAICS	628,600	\$78.3
Finance & insurance	246,800	\$52.4
Professional-scientific & tech services	351,000	\$47.3
Real estate & rental	255,900	\$47.2
Retail trade	543,300	\$37.9
Information	106,000	\$35.6
Construction	276,000	\$34.5
Other	1,962,100	\$173.8
Total	8,157,300	\$847.9

NAICS: North American Industry Classification System

Source: Lewin analysis of IMPLAN data

Note: Numbers may not add due to rounding.

LTC facilities are important sources of economic activities at the state level as well. *Figure 9* provides detail on state related economic impacts, as well as nursing home and assisted living facility characteristics. At the state level, the role of the Medicaid program in the financing of LTC facilities is important. Medicaid contributes to 43 percent of funding for nursing homes, while Medicaid patients represent 64 percent of patient days.¹⁷ The federal government matches state Medicaid expenditures using the federal Medicaid assistance percentage (FMAP) which is based on a three year average of per capita income of each state as compared to the national average. On the state level, the FMAP ranges from 50 percent to just over 75 percent. Thus, for every dollar a state spends of Medicaid covered LTC services, the federal government matches between \$0.50 and \$0.75. State expenditures on Medicaid covered LTC services draw additional funds to the state in terms of: 1) one related to the federal match rate; and 2) one related to the economic multipliers associated with total federal and state spending.

¹⁵ North American Industry Classification System

¹⁶ Excluding "other"

¹⁷ Keehan, et al. (2008). "Health Spending Projections Through 2017: The Baby-Boom Generation Is Coming to Medicare." *Health Affairs*, 27 (2), pg. w154.

Figure 9: Economic Impact of LTC Facilities and Other LTC Facility Characteristics, by State

State	Economic Impact of LTC Facilities						Nursing Home (NH) Characteristics*					Assisted Living (AL) Characteristics*		
	LTC Facility Revenue (in millions)	Effect of LTC Facility Revenue on Total Revenue (in millions)	Total LTC Revenue as a % of State GDP	LTC Facility Employment (jobs)	Effect of LTC Facility Jobs on Total Jobs	% of LTC Employment on Total State Employment	# of NHs	# of NH Beds	# of NH Beds/1,000 population >65 yrs	Distribution of Medicaid Spending on NHs	Percent Federal Matching Rate (FMAP)	# of AL Facilities	# of AL Beds	# of AL Beds/1,000 population >65 yrs
	Direct Effect	Total Effects		Direct Effect	Total Effects									
U.S.	\$144,300.0	\$847,900.0	6.4%	2,924,700	8,157,300	4.7%	15,808	1,714,911	46.03	40.9%	50.0%	38,412	972,579	26.10
AK	\$160.5	\$361.5	1.1%	2,820	4,690	1.1%	15	725	1.18	59.2%	58.0%	229	1,912	3.11
AL	\$1,873.4	\$4,078.9	2.5%	40,790	63,320	2.5%	230	26,544	581.72	32.0%	68.9%	307	9,509	208.39
AR	\$1,161.1	\$2,468.6	2.7%	27,010	41,450	2.7%	236	24,573	31.09	27.9%	73.4%	119	5,018	6.35
AZ	\$1,861.5	\$4,494.1	1.9%	37,810	61,680	1.8%	134	16,246	41.61	41.2%	66.5%	1,951	27,000	69.16
CA	\$12,100.0	\$33,100.0	1.9%	232,500	392,400	1.9%	1,268	124,146	31.58	51.7%	50.0%	7,471	161,586	41.10
CO	\$1,814.5	\$4,804.6	1.9%	35,720	61,280	2.0%	209	19,797	41.49	51.4%	50.0%	495	14,237	29.84
CT	\$3,400.0	\$7,800.0	3.8%	57,800	94,000	4.3%	244	30,003	63.78	33.7%	50.0%	163	2,808	5.97
DC	\$406.5	\$646.5	0.7%	7,040	8,730	1.1%	20	2,984	26.04	19.4%	70.0%	22	509	4.44
DE	\$402.6	\$783.0	1.8%	7,790	11,310	2.1%	44	4,799	67.28	31.8%	50.0%	32	1,804	25.29
FL	\$8,000.0	\$20,100.0	2.9%	160,000	272,800	2.6%	681	82,404	27.13	35.3%	58.8%	2,400	75,450	24.84
GA	\$2,600.0	\$6,500.0	1.7%	55,200	90,900	1.7%	362	40,189	44.02	34.7%	62.0%	1,860	26,500	29.03
HI	\$389.0	\$949.7	1.7%	7,480	12,830	1.5%	46	4,140	23.08	37.1%	57.6%	490	4,284	23.88
IA	\$2,181.7	\$4,750.3	4.1%	51,720	79,590	4.0%	453	38,877	229.81	37.1%	62.0%	227	10,800	63.84
ID	\$501.7	\$1,100.0	2.2%	11,650	18,400	2.0%	77	6,052	3.94	43.7%	70.4%	278	6,819	4.44
IL	\$6,000.0	\$15,800.0	2.6%	125,000	205,400	2.8%	795	102,877	131.18	29.8%	50.0%	346	16,800	21.42
IN	\$3,200.0	\$7,500.0	3.1%	67,700	108,500	3.0%	513	57,690	132.42	22.8%	62.6%	190	14,665	33.66
KS	\$1,550.8	\$3,589.4	3.0%	37,030	57,300	3.2%	350	26,081	72.91	58.2%	60.3%	169	7,186	20.09
KY	\$1,987.1	\$4,202.1	2.9%	39,200	62,230	2.6%	292	26,069	48.52	31.5%	69.6%	289	6,802	12.66
LA	\$1,637.9	\$3,560.0	2.2%	40,910	61,130	2.6%	283	35,793	68.39	29.4%	69.7%	105	4,889	9.34
MA	\$5,300.0	\$12,900.0	3.7%	92,100	151,900	3.7%	446	50,144	260.30	44.0%	50.0%	190	11,900	61.77
MD	\$3,500.0	\$9,200.0	3.5%	67,000	117,200	3.5%	234	29,173	44.84	37.8%	50.0%	1,366	20,093	30.89
ME	\$1,026.5	\$2,206.6	4.8%	22,450	35,600	4.4%	112	7,221	8.44	55.3%	63.3%	681	8,703	10.17
MI	\$4,400.0	\$9,900.0	2.5%	93,200	144,200	2.7%	421	47,183	37.42	34.7%	56.0%	4,706	46,095	36.56
MN	\$3,800.0	\$9,800.0	4.0%	87,300	142,100	4.1%	393	34,771	55.42	62.1%	50.0%	1,239	-	0.00
MO	\$2,800.0	\$6,900.0	3.1%	65,300	106,900	3.0%	514	54,432	150.29	42.7%	62.0%	616	21,166	58.44

*State-specific data was available only for certain LTC facilities (i.e., nursing homes).

Sources:

Revenue and employment data – Lewin analysis of IMPLAN 2006 data

Nursing home characteristics (# of beds and facilities) – AHCA 2007 OSCAR data

Population data – U.S. Census Bureau, 2006

Distribution of Medicaid spending on NHs FY 2006 - Urban Institute and Kaiser Commission on Medicaid and the Uninsured estimates based on data from Centers for Medicare and Medicaid Services-64 reports, July 2007.

Percent FMAP – FY2006: Federal Register, November 24, 2004 (Vol. 69, No. 226), pp. 68372, at <http://aspe.os.dhhs.gov/health/fmap06.htm>

Assisted living facility characteristics (# of AL facilities and AL beds) - National Academy for State Health Policy and RTI International. (2007). Residential Care and Assisted Living Compendium: 2007.

Prepared for the U.S. Department of Health and Human Services. <http://aspe.hhs.gov/daltcp/reports/2007/07alcom.htm>

Figure 9: Economic Impact of LTC Facilities and Other LTC Facility Characteristics, by State (cont.)

State	Economic Impact of LTC Facilities						Nursing Home (NH) Characteristics*					Assisted Living (AL) Characteristics*		
	LTC Facility Revenue (in millions)	Effect of LTC Facility Revenue on Total Revenue (in millions)	Total LTC Revenue as a % of State GDP	LTC Facility Employment (jobs)	Effect of LTC Facility Jobs on Total Jobs	% of LTC Employment on Total State Employment	# of NHs	# of NH Beds	# of NH Beds/1,000 population >65 yrs	Distribution of Medicaid Spending on NHs	Percent Federal Matching Rate (FMAP)	# of AL Facilities	# of AL Beds	# of AL Beds/1,000 population >65 yrs
	Direct Effect	Total Effects		Direct Effect	Total Effects									
MS	\$1,021.6	\$2,112.7	2.6%	22,860	34,780	2.3%	202	18,356	23.57	17.5%	75.9%	185	5,133	6.59
MT	\$390.7	\$846.2	2.4%	8,910	13,910	2.2%	92	7,145	54.71	44.5%	69.1%	184	4,351	33.32
NE	\$1,178.0	\$2,692.0	3.7%	26,570	42,940	3.5%	225	16,286	69.40	36.0%	57.9%	276	10,063	42.88
NV	\$485.3	\$1,053.5	0.9%	9,340	14,380	0.9%	48	5,675	20.49	43.2%	54.0%	258	3,941	14.23
NH	\$719.5	\$1,659.7	2.8%	13,620	22,340	2.7%	81	7,779	47.83	39.5%	50.0%	142	4,283	26.34
NJ	\$4,600.0	\$10,600.0	2.3%	82,000	129,000	2.6%	362	51,057	45.27	33.5%	50.0%	222	17,761	15.75
NM	\$621.4	\$1,467.7	2.3%	12,970	22,110	2.0%	72	6,912	28.49	67.7%	71.9%	284	-	0.00
NY	\$13,100.0	\$30,500.0	3.0%	229,400	364,100	3.4%	655	120,642	47.82	44.9%	50.0%	500	39,170	15.53
NC	\$4,300.0	\$10,000.0	2.9%	97,000	152,800	2.9%	422	44,002	40.86	46.5%	65.0%	1,307	41,642	38.67
ND	\$590.0	\$1,195.2	4.6%	13,990	20,830	4.3%	83	6,423	69.16	26.4%	64.7%	111	3,472	37.38
OH	\$7,500.0	\$16,800.0	3.7%	160,200	251,800	3.8%	958	93,214	60.84	28.2%	59.7%	1,205	44,005	28.72
OK	\$1,488.3	\$3,556.7	2.4%	34,540	55,780	2.7%	327	30,038	63.43	41.3%	68.1%	206	9,302	19.64
OR	\$1,969.7	\$4,729.3	3.2%	40,100	66,980	3.0%	138	12,468	26.07	73.2%	61.1%	429	22,130	46.28
PA	\$9,700.0	\$24,900.0	4.7%	188,400	320,200	4.5%	716	88,058	46.71	29.5%	54.4%	1,550	71,831	38.10
RI	\$927.1	\$1,941.0	4.7%	17,860	27,390	4.5%	86	8,780	59.34	45.6%	52.4%	63	3,574	24.15
SC	\$1,551.7	\$3,371.9	2.3%	35,190	54,010	2.3%	173	18,500	33.43	38.4%	69.5%	480	16,279	29.42
SD	\$521.5	\$1,177.8	4.1%	12,360	19,510	3.6%	110	6,553	58.94	37.9%	62.9%	157	3,578	32.18
TN	\$3,100.0	\$7,600.0	3.1%	53,700	95,200	2.6%	323	37,339	48.54	25.3%	63.7%	328	16,289	21.18
TX	\$7,200.0	\$19,200.0	1.7%	155,700	251,300	1.9%	1,144	125,621	53.81	46.9%	60.8%	1,433	45,853	19.64
UT	\$855.9	\$2,333.5	2.5%	19,500	34,160	2.2%	93	7,905	35.05	42.9%	70.1%	151	5,256	23.30
VT	\$335.9	\$715.9	3.1%	6,790	10,930	2.6%	40	3,320	40.02	27.7%	58.9%	118	2,610	31.46
VA	\$3,100.0	\$7,700.0	2.1%	62,800	104,500	2.2%	278	31,664	35.67	29.8%	50.0%	577	31,964	36.00
WA	\$2,900.0	\$7,100.0	2.4%	56,700	92,200	2.4%	243	22,408	30.35	60.8%	50.1%	551	26,829	36.34
WV	\$793.2	\$1,606.8	2.9%	17,600	26,660	2.9%	131	10,940	39.25	38.2%	72.8%	120	3,510	12.59
WI	\$3,100.0	\$7,200.0	3.2%	69,600	111,700	3.2%	395	37,861	52.29	47.7%	57.5%	1,599	31,782	43.90
WY	\$226.5	\$482.7	1.8%	4,520	7,090	1.9%	39	3,052	48.64	50.8%	52.9%	35	1,436	22.88

*State-specific data was available only for certain LTC facilities (i.e., nursing homes)

Sources:

Revenue and employment data - Lewin analysis of IMPLAN 2006 data

Nursing home characteristics (# of beds and facilities) - AHCA 2007 OSCAR data

Population data - U.S. Census Bureau, 2006

Distribution of Medicaid spending on NHs FY 2006 - Urban Institute and Kaiser Commission on Medicaid and the Uninsured estimates based on data from Centers for Medicare and Medicaid Services-64 reports, July 2007.

Percent FMAP - FY2006: Federal Register, November 24, 2004 (Vol. 69, No. 226), pp. 68372, at <http://aspe.os.dhhs.gov/health/fmap06.htm>

Assisted living facility characteristics (# of AL facilities and AL beds) - National Academy for State Health Policy and RTI International. (2007). Residential Care and Assisted Living Compendium: 2007. Prepared for the U.S. Department of Health and Human Services. <http://aspe.hhs.gov/daltcp/reports/2007/07alcom.htm>

IV. DISCUSSION

The nation's LTC facility population is currently rising and is likely to increase even more rapidly in the future, especially as the baby boomers reach 85 years of age. The Centers for Medicare and Medicaid Services (CMS) projects that nursing home expenditures will rise by 5.2 percent annually over the 2006-2017 time frame as compared to an annual increase in the GDP of 4.7 percent.¹⁸ Hence, LTC facilities will become relatively more important economic engines over time.

The role of LTC facilities in rural communities, where they are often one of the largest employers is especially critical as this source of employment provides a stabilizing effect upon rural communities. In addition, in rural areas, LTC facility closure is not likely to be replaced by other economic activities employing the same direct care labor force.

LTC facilities provide a disproportionate share of employment relative to their direct economic impact in that LTC facilities provide 1.7 percent of total employment and 1.1 percent of direct economic impact. When community LTC facilities close, the economic development of the region or the GDP may be affected if individuals and businesses relocate to other communities seeking healthcare alternatives and more viable economies. A significant change in the number of LTC facilities in a region would have a sizable economic impact on communities.

Finally, LTC facilities provide another important economic benefit in that they maintain the labor productivity of informal care givers (i.e. those who provide care in the home, which is not paid for). Informal care giving affects hours worked, quality of work, and the ability to change jobs (i.e., interviewing time, job adjustment period, etc.). The economic nature of informal care giving was estimated to be about 6 percent of the health care expenditures in 2004 or \$306.0 billion.¹⁹ If LTC facility spending is curtailed or otherwise constrained, current facility residents need to be relocated to other forms of LTC; some of which may require more support from informal care givers.

In conclusion, LTC facilities represent important economic assets to their communities and will become even more important as the baby boomers age and the demand for LTC services rises over the foreseeable future.

¹⁸ Keehan, S. et al. (2008). "Health Spending Projections Through 2017: The Baby-Boom Generation Is Coming to Medicare." *Health Affairs*. vol. 27 (2), w145-w155.

¹⁹ Arno, Peter, S. (2006). "Economic Value of Informal Caregiving." Presented at the Care Coordination and the Caregiver Forum, Department of Veteran Affairs.