

**Feasibility Assessment of the Expansion of the Harmony Manor
Skilled Nursing Facility at Humboldt General Hospital,
Winnemucca Nevada**



**Feasibility Assessment of the Expansion of the Harmony Manor Skilled Nursing Facility at
Humboldt General Hospital, Winnemucca Nevada**

Shannon Price
John Packham
And
Steve Boline

Shannon Price is a Research Analyst in the University Center for Economic Development and Department of Resource Economics at the University of Nevada, Reno.

John Packham is the Director of the Nevada Rural Hospital Flexibility Program, Nevada Office of Rural Health, University of Nevada School of Medicine.

Steve Boline is the Regional Chief Financial Officer on Nevada Rural Hospital Partners.

October 2007

**UNIVERSITY
OF NEVADA
RENO**

The University of Nevada, Reno is an Equal Opportunity/Affirmative Action employer and does not discriminate on the basis of race, color, religion, sex, age, creed, national origin, veteran status, physical or mental disability, and in accordance with university policy, sexual orientation, in any program or activity it operates. The University of Nevada employs only United States citizens and aliens lawfully authorized to work in the United States.

This publication, *Feasibility Assessment of the Expansion of the Harmony Manor Skilled Nursing Facility at Humboldt General Hospital, Winnemucca Nevada*, was published by the University Center for Economic Development in the Department of Resource Economics at the University of Nevada, Reno. Funding for this publication was provided by the Medicare Rural Hospital Flexibility Program and the Federal Office of Rural Health Policy. This publication's statements, findings, conclusions, recommendations, and/or data represent solely the findings and views of the authors and do not necessarily represent the views of the Medicare Rural Hospital Flexibility Program, the Federal Office of Rural Health Policy, U.S. Department of Commerce, the Economic Development Administration, University of Nevada, Reno, or any reference sources used or quoted by this study. Reference to research projects, programs, books, magazines, or newspaper articles does not imply an endorsement or recommendation by the authors unless otherwise stated. Correspondence regarding this document should be sent to:

Thomas R. Harris, Director
University Center for Economic Development
University of Nevada, Reno
Department of Resource Economics
Mail Stop 204
Reno, Nevada 89557-0105
Phone: 775/784-6499



UCED
University of Nevada, Reno
Nevada Cooperative Extension
Department of Resource Economics

Feasibility Assessment of the Expansion of the Harmony Manor Skilled Nursing Facility at Humboldt General Hospital, Winnemucca, Nevada

Overview

This report provides a feasibility assessment of a hypothetical expansion of skilled nursing beds at the Harmony Manor Skilled Nursing Facility at Humboldt General Hospital in Winnemucca, Nevada (hereafter, “Harmony Manor”). The first part of the report provides an analysis of the demand for long-term care services in Humboldt County, Nevada. It provides information on projected inpatient days and occupancy for the years 2010, 2015, and 2020. The analysis utilizes historical data on long-term care utilization from the Nevada Division of Health Care Financing and Policy’s (Nevada Medicaid) quarterly reports submitted by Nevada facilities for the period 2000 to 2005. The analysis also utilizes demographic estimates and projections developed by the Nevada State Demographer’s Office. The estimates contained in this report are premised on the assumption that the number of residents aged 65 and over and change in that subpopulation are the principal determinants of demand for long-term care in Humboldt County. The report presents estimated demand scenarios utilizing county-level population estimates for three age categories: population aged 65 and over, 70 and over, and 75 and over. The second part of the report provides an analysis of the financial feasibility of nursing home expansion from the existing 30 beds to a hypothetical 50 beds, including estimated operating expenses and construction costs associated with the expansion. The analysis includes multiple net revenue scenarios based on the existing payer mix for long term care patients at Harmony Manor and varying combinations of occupancy rates (75%, 85%, and 95%) and construction costs per square foot (\$275, \$300, and \$325 per square feet). Maximum net revenue scenarios range from \$300,875 (construction costs of \$325 per square foot and occupancy rate of 65%) to \$582,237 (construction costs of \$275 per square foot and occupancy rate of 95%). Conversely, minimum net revenue scenarios range from -\$331,502 (construction costs of \$325 per square foot and occupancy rate of 65%) to \$491,940 (construction costs of \$275 per square foot and occupancy rate of 95%).

I. Population Aging and the Demand for Long Term Care Services in Humboldt County, Nevada.

Humboldt County is characterized by population trends distinct from urban counties in Nevada. Urban counties in Nevada are experiencing explosive population growth and population growth across all age categories. In contrast, the demography of Humboldt County and most rural counties in Nevada is characterized by overall population stagnation and decline, yet a projected growth in the segment of the population aged 65 and over (Packham and Griswold 2007). Table 1 highlights population change in Humboldt County for the period 2000 to 2020 based on estimates prepared by the Nevada State Demographer. During the period 2000 to 2020, the overall population of Humboldt County is projected to decline by 2.1% from 16,197 to 15,864, or a decline in overall resident population of 333. In contrast, during the same period the segment of the population aged 65 and over is projected to increase by 142.3% from 1,325 to 3,211.

Table 1: Projected Population in Humboldt County – 2000 to 2020

Age Category	Population				
	2000	2005	2010	2015	2020
0 to 5 Years	1,751	1,401	1,508	1,454	1,358
6 to 18 Years	3,290	3,563	3,376	3,176	2,906
19 to 64 Years	9,831	10,701	10,411	9,881	8,390
65 Years and Over	1,325	1,628	2,131	2,574	3,211
Total	16,197	17,293	16,157	15,869	15,864

On a similar note, those aged 65 and over in Humboldt County in 2000 represented 8.2 % of the total county population. Those aged 65 and over are projected to increase to 13.2% of the total population in 2010 and 20.2% in 2020. In other words, by 2020 more than one in five Humboldt County residents will be aged 65 or over. All things being equal, the aging population of Humboldt County will place greater demands on the health care delivery system in Winnemucca, including long-term care services provided at Harmony Manor.

The analysis below provides several scenarios of the projected demand for long-term care services at Harmony Manor facility in Winnemucca, utilizing county-level population estimates for three age categories: population aged 65 and over, population aged 70 and over, and population aged 75 and over. The first scenario assumes that long-term care services are utilized by county residents aged 65 and over. The second scenario assumes that the same services are primarily used by county residents aged 70 and over. The final scenario conservatively assumes that long-term care services are principally used by county residents aged 75 and over.

Table 2 provides information on the average inpatient days per person by age category at Harmony Manor for the period 2000 to 2005, utilizing data compiled by the Nevada Division of Health Care Financing and Policy. Estimated inpatient days are calculated in two ways: (1) using projected population and the average inpatient days per person in the most recent year data is available (2005), and (2) using projected population and the six-year average number of inpatient days per person for the period 2000 to 2005. The average number of inpatient days per person in any given year is determined by calculating the ratio of total inpatient days to population in each age category for the same year. Occupancy rates are calculated by comparing the estimated number of inpatient days as a percent of total available bed days. In each table, the number of available inpatient days for the 30-beds is a constant 10,950 days.

Table 2: Harmony Manor Average Inpatient Days per Person by Age Category – 2000 to 2005

Year	Average Inpatient Days per Person		
	Age 65 and Over	Age 70 and Over	Age 75 and Over
2005	6.40	9.79	15.92
2004	6.88	10.36	16.90
2003	7.11	10.67	17.23
2002	7.53	11.26	18.03
2001	7.71	11.47	18.49
2000	7.71	11.75	18.55
6-Yr Average	7.22	10.88	17.52

Projected Demand for Long-term Care

Tables 3 through 5 contain three scenarios of the projected demand for long-term care services at the 30-bed Harmony Manor facility in Winnemucca for the period 2010 to 2020. Tables 6 through 8 provide three scenarios of the projected demand for long-term care services if Harmony Manor were to increase the number of beds to fifty. In each set of scenarios, the tables present information on the projected number of inpatient days and occupancy rates, utilizing county-level population estimates for the following age categories: population aged 65 and over, population aged 70 and over, and population aged 75 and over.

Table 3: Estimated Number of Inpatient Days and Occupancy Rates at Harmony Manor (30 Beds) Utilizing Estimated Population Aged 65 and Over – 2010 to 2020

Year	Beds	Bed Days Available	Estimated Humboldt County 65+ Population	Estimates Utilizing Six-Year (2000-2005) Average Inpatient Days per Person		Estimates Utilizing Average Inpatient Days per Person in 2005	
				Inpatient Days	Occupancy Rate	Inpatient Days	Occupancy Rate
2010	30	10,950	2,131	15,386	140.5%	13,638	124.6%
2015	30	10,950	2,574	18,584	169.7%	16,474	150.4%
2020	30	10,950	3,211	23,183	211.7%	20,550	187.7%

Table 4: Estimated Number of Inpatient Days and Occupancy Rates at Harmony Manor (30 Beds) Utilizing Estimated Population Aged 70 and Over – 2010 to 2020

Year	Beds	Bed Days Available	Estimated Humboldt County 70+ Population	Estimates Utilizing Six-Year (2000-2005) Average Inpatient Days per Person		Estimates Utilizing Average Inpatient Days per Person in 2005	
				Inpatient Days	Occupancy Rate	Inpatient Days	Occupancy Rate
2010	30	10,950	1,305	14,198	129.7%	12,776	116.7%
2015	30	10,950	1,717	18,681	170.6%	16,809	153.5%
2020	30	10,950	2,064	22,456	205.1%	20,207	184.5%

Table 5: Estimated Number of Inpatient Days and Occupancy Rates at Harmony Manor (30 Beds) Utilizing Estimated Population Aged 75 and Over – 2010 to 2020

Year	Beds	Bed Days Available	Estimated Humboldt County 75+ Population	Estimates Utilizing Six-Year (2000-2005) Average Inpatient Days per Person		Estimates Utilizing Average Inpatient Days per Person in 2005	
				Inpatient Days	Occupancy Rate	Inpatient Days	Occupancy Rate
2010	30	10,950	795	13,928	127.2%	12,656	115.6%
2015	30	10,950	971	17,012	155.4%	15,458	141.2%
2020	30	10,950	1,292	22,636	206.7%	20,569	187.8%

The projections contained in Tables 3 through 5 indicate that if Harmony Manor remains a 30-bed facility, all things being equal, the demand for long-term care will exceed capacity by the year 2010. In each scenario, the occupancy rate is projected to exceed 185% by the year 2020.

Table 3 utilizes estimates for the average number of inpatient days per person for those county residents over the age of 65. Using the six-year average number of inpatient days per person, the estimated occupancy rate increases from 140.5% in 2010 to 211.7% in 2020. Similarly, using the 2005 average number of inpatient days per person, the occupancy rate is projected to increase from 124.6% in 2010 to 187.7% in 2020.

Table 4 utilizes estimates for the average number of inpatient days per person for those county residents over the age of 70. Using the six-year average number of inpatient days per person, the estimated occupancy rate increases from 129.7% in 2010 to 205.1% in 2020. Similarly, using the 2005 average number of inpatient days per person, the occupancy rate is projected to increase from 116.7% in 2010 to 184.5% in 2020.

Table 5 utilizes estimates for the average number of inpatient days per person for those county residents over the age of 75. Using the six-year average number of inpatient days per person, the estimated occupancy rate increases from 127.2% in 2010 to 206.7% in 2020. Similarly, using the 2005 average number of inpatient days per person, the occupancy rate is projected to increase from 115.6% in 2010 to 187.8% in 2020.

The projections contained in Tables 6 through 8 indicate that if Harmony Manor expands to a 50-bed facility, all things being equal, the demand for long-term care will approach capacity between 2015 and 2020.

Table 6 utilizes estimates for the average number of inpatient days per person for those county residents over the age of 65. Using the six-year average number of inpatient days per person, the estimated occupancy rate for a hypothetical 50-bed facility increases from 84.3% in 2010 to 127.0% in 2020. Similarly, using the 2005 average number of inpatient days per person, the occupancy rate is projected to increase from 74.7% in 2010 to 112.6% in 2020.

Table 7 utilizes estimates for the average number of inpatient days per person for those county residents over the age of 70. Using the six-year average number of inpatient days per person, the estimated occupancy rate for a hypothetical 50-bed facility increases from 77.8% in 2010 to 123.0% in 2020. Similarly, using the 2005 average number of inpatient days per person, the occupancy rate is projected to increase from 70.0% in 2010 to 110.7% in 2020.

Table 6: Estimated Number of Inpatient Days and Occupancy Rates at Harmony Manor (50 Beds) Utilizing Estimated Population Aged 65 and Over – 2010 to 2020

Year	Beds	Bed Days Available	Estimated Humboldt County 65+ Population	Estimates Utilizing Six-Year (2000-2005) Average Inpatient Days per Person		Estimates Utilizing Average Inpatient Days per Person in 2005	
				Inpatient Days	Occupancy Rate	Inpatient Days	Occupancy Rate
2010	50	18,250	2,131	15,386	84.3%	13,638	74.7%
2015	50	18,250	2,574	18,584	101.8%	16,474	90.3%
2020	50	18,250	3,211	23,183	127.0%	20,550	112.6%

Table 7: Estimated Number of Inpatient Days and Occupancy Rates at Harmony Manor (50 Beds) Utilizing Estimated Population Aged 70 and Over – 2010 to 2020

Year	Beds	Bed Days Available	Estimated Humboldt County 70+ Population	Estimates Utilizing Six-Year (2000-2005) Average Inpatient Days per Person		Estimates Utilizing Average Inpatient Days per Person in 2005	
				Inpatient Days	Occupancy Rate	Inpatient Days	Occupancy Rate
2010	50	18,250	1,305	14,198	77.8%	12,776	70.0%
2015	50	18,250	1,717	18,681	102.4%	16,809	92.1%
2020	50	18,250	2,064	22,456	123.0%	20,207	110.7%

Table 8: Estimated Number of Inpatient Days and Occupancy Rates at Harmony Manor (50 Beds) Utilizing Estimated Population Aged 75 and Over – 2010 to 2020

Year	Beds	Bed Days Available	Estimated Humboldt County 75+ Population	Estimates Utilizing Six-Year (2000-2005) Average Inpatient Days per Person		Estimates Utilizing Average Inpatient Days per Person in 2005	
				Inpatient Days	Occupancy Rate	Inpatient Days	Occupancy Rate
2010	50	18,250	795	13,928	76.3%	12,656	69.4%
2015	50	18,250	971	17,012	93.2%	15,458	84.7%
2020	50	18,250	1,292	22,636	124.0%	20,569	112.7%

Table 8 utilizes estimates for the average number of inpatient days per person for those county residents over the age of 75. Using the six-year average number of inpatient days per person, the estimated occupancy rate for a hypothetical 50-bed facility increases from 76.3% in 2010 to 124.0% in 2020. Similarly, using the 2005 average number of inpatient days per person, the occupancy rate is projected to increase from 69.4% in 2010 to 112.7% in 2020.

Summary: Population Aging and Projected Demand for Long Term Care Services in Humboldt County, Nevada

As expected, the projected occupancy rates are greater in the 30-bed scenarios compared to the hypothetical 50-bed scenarios. Given the projected growth in the elderly population, the demand for long-term care services at Harmony Manor will exceed the number of available beds by 2010. If Harmony Manor were to expand to a 50-bed facility, the projected occupancy rate for the year 2010 ranges from 69.4% to 84.3% depending on the population age category used to derive the occupancy rate estimate. By 2020, it is estimated that the projected growth in the elderly population will produce sufficient demand to reach capacity in a 50-bed facility.

It is important to note that the same analyses of projected demand for hospital-based long-term care in the neighboring counties (Pershing County and Lander County) indicate that the facilities in both counties will exceed capacity between 2010 and 2015. In other words, the ability of long-term care units at Pershing General Hospital (Lovelock) and Battle Mountain General Hospital to accept additional long-term care patients from other communities will be extremely limited due to growth in the elderly population in each county and the associated projected growth in demand for long-term care. As noted at the outset of this report, the estimated occupancy rates contained in this analysis do not account for the in-migration of long-term care patients from neighboring counties.

It is also important to note that the demand estimates contained in this report are premised on the assumption that the number of residents aged 65 and over and change in that subpopulation are the principal determinants of demand for long-term care in Humboldt County. The analysis does not incorporate factors, such as potential changes in life expectancy, medical care and technology, alternative living and care arrangements for the elderly (e.g., assisted living), or reimbursement for long-term care services over the next decade.

II. Financial Feasibility Assessment of the Expansion of the Harmony Manor Skilled Nursing Facility at Humboldt General Hospital, Winnemucca, Nevada.

This section of the report provides a financial feasibility assessment of the proposed expansion of the Harmony Manor Skilled Nursing Facility at Humboldt General Hospital in Winnemucca, Nevada (hereafter, “Harmony Manor”). The assessment presents multiple scenarios based on varying combinations of occupancy rates and projected inpatient days, current payer mix and projected revenue, estimated operating costs for staffing 30 to 50 long-term care beds, and estimated capital/construction costs associated with a 20-bed expansion. Tables 9 through 15 provide the foundational data upon which the scenarios are based and a description of how those data were derived and calculated. Table 9 provides the number of projected inpatient days for the proposed 50-bed facility based on four occupancy rates ranging from 65% to 95%.

Table 9: Projected Inpatient Days at Harmony Manor by Occupancy Rate

Average Beds	Bed Days Available	Occupancy Rate	Occupied Beds	Projected Inpatient Days
50	18,250	65%	32.5	11,863
50	18,250	75%	37.5	13,688
50	18,250	85%	42.5	15,513
50	18,250	95%	47.5	17,338

The annual projected number of inpatient days ranges from 11,863 days (occupancy rate of 65%) to 17,338 days (occupancy rate of 95%). Occupancy rates between 65% and 95% presented in Table 9 and throughout the remainder of the report provide the expected range of occupancy levels and associated projection of inpatient days in the proposed 50-bed facility over the next decade. Based on the population projections presented in the previous section, the expanded facility should conservatively expect an occupancy rate in the 65 to 75% range (or 32 to 38 out of 50 beds occupied) upon completion of the proposed expansion. Occupancy levels and reimbursed inpatient days will continue to rise as the number of elderly residents in Humboldt County grows. However, based on the experience of Harmony Manor and other rural long-term care facilities in Nevada, the highest expected occupancy rate utilized in the following analysis is conservatively capped at 95%. This report presents a range of expense/revenue scenarios based on an expected occupancy rate between 65% and 95%.

Table 10 provides estimates of the projected annual operating costs at Harmony Manor. The operating costs contained in this and subsequent tables is based on (1) an average operating cost per inpatient day of \$34.97; (2) variable labor costs per inpatient day of \$99.01; and (3) annual fixed labor costs of \$144,100 for administration. All projected operating and labor costs are based on the recent historical experience of Harmony Manor.

Table 10: Projected Annual Operating Costs at Harmony Manor

Occupancy Rate	Projected Operating Costs (Less Labor)	Minimum Projected Annual Labor Costs	Minimum Total Projected Annual Operating Costs	Maximum Projected Annual Labor Costs	Maximum Projected Annual Operating Costs
65%	\$414,849	\$1,318,656	\$1,733,505	\$1,951,033	\$2,365,882
75%	\$478,669	\$1,499,349	\$1,978,018	\$1,951,033	\$2,429,702
85%	\$542,490	\$1,680,042	\$2,222,532	\$1,951,033	\$2,493,522
95%	\$606,310	\$1,860,735	\$2,467,045	\$1,951,033	\$2,557,342

In Table 10 and subsequent tables presented in this report, a distinction is made between *minimum* labor costs and *maximum* labor costs. Minimum costs refer to the labor costs associated with staffing only those long-term care beds actually filled. Estimated minimum labor costs thus rise as occupancy rates increase. Minimum estimated annual labor costs range from \$1.32 million at 65% occupancy to \$1.86 million at 95% occupancy. In contrast, maximum labor costs refer to the labor costs associated with staffing all 50 long-term care beds at Harmony Manor regardless of the number of beds actually filled. The analysis contained in this report utilizes an estimated maximum labor cost of \$1,951,033 for staffing 50 beds at Harmony Manor. In either case, projected operating costs, less labor, increase as occupancy increases. Table 10 highlights variation in projected annual operating costs based on occupancy. Maximum projected annual operating costs range from \$2.37 million when the 65% of beds are occupied to \$2.56 million when 95% of beds are occupied.

Table 11: Estimated Capital Costs for a 20-Bed Expansion at Harmony Manor

Cost per Square Foot	Construction Costs	Equipment Costs	Total Capital Costs	Annualized Capital Costs
\$275	\$1,650,000	\$495,000	\$2,145,000	\$104,500
\$300	\$1,800,000	\$540,000	\$2,340,000	\$114,000
\$325	\$1,950,000	\$585,000	\$2,535,000	\$123,500

Table 11 provides estimated capital costs – i.e., construction and equipment costs – associated with a 20-bed expansion of the existing Harmony Manor facility. Estimated construction costs are based on average commercial construction costs in rural Nevada. Estimated construction costs per square foot include the estimated costs of new construction, site development, project administration, and contingencies. Three sets of figures are presented in Table 11 and in subsequent tables in this report for construction costs of \$275, \$300, and \$325 per square foot.

Capital costs are based on a projected 6,000 square foot addition needed to accommodate 20 additional long-term care beds to the existing facility. Estimated total capital and construction costs range from \$2.15 million (\$275 per square foot) to \$2.54 million (\$325 per square foot). Equipment and other capital expenses are calculated at 30% of total construction costs. Construction costs are depreciated over 30 years and equipment costs are depreciated over 10 years. Annualized total capital costs range, respectively, from \$104,500 to \$123,500 per year.

Tables 12 through 15 present four estimates of total annual projected revenue at the proposed 50-bed Harmony Manor facility based on occupancy rates ranging from 65% to 95%. In each table, the payer mix (i.e., type of payer and percent of inpatient days by patient type) and payment rate remain constant. Currently, 73.3% of Harmony Manor residents are Medicaid patients, 20.0% are private pay patients, 3.4% are paid by county indigent funds, and 3.3% are Medicare patients. Presently, Medicare pays Harmony Manor an average of \$237 for each inpatient day. All other payers, including Medicaid, pay Harmony Manor an average of \$180 per inpatient day. The projected payment figures in Tables 12 through 15 may not sum to total since the projected number of inpatient days for each payer type are rounded.

Table 12 provides estimates of projected revenue at the proposed 50-bed Harmony Manor facility at 65% occupancy. This table indicates that the estimated 11,863 inpatient days at 65% occupancy translate into a total annual projected revenue of \$2.16 million. The largest proportion of projected revenue is the estimated \$1.57 million from Medicaid patients.

Table 13 provides estimates of projected revenue at 75% occupancy. This table indicates that the estimated 13,688 inpatient days at 75% occupancy translate into a total annual projected revenue of \$2.49 million. The largest proportion of projected revenue is the estimated \$1.81 million from Medicaid patients.

Table 14 provides estimates of projected revenue at 85% occupancy. This table indicates that the estimated 15,513 inpatient days at 85% occupancy translate into a total annual projected revenue of \$2.82 million. The largest proportion of projected revenue is the estimated \$2.05 million from Medicaid patients.

Table 12: Projected Harmony Manor Revenue by Payment Type at 65% Occupancy

Payment Type	Percent of Inpatient Days	Projected Inpatient Days	Average Payment Rate	Projected Payment
Medicare	3.3%	395	\$237	\$93,718
Medicaid	73.3%	8,700	\$180	\$1,565,916
Private Pay	20.0%	2,373	\$180	\$427,068
County	3.4%	395	\$180	\$71,178
Total	100.0%	11,863	\$182	\$2,157,880

Table 13: Projected Harmony Manor Revenue by Payment Type at 75% Occupancy

Payment Type	Percent of Inpatient Days	Projected Inpatient Days	Average Payment Rate	Projected Payment
Medicare	3.3%	456	\$237	\$108,135
Medicaid	73.3%	10,038	\$180	\$1,806,816
Private Pay	20.0%	2,738	\$180	\$492,768
County	3.4%	456	\$180	\$82,128
Total	100.0%	13,688	\$182	\$2,489,847

Table 14: Projected Harmony Manor Revenue by Payment Type at 85% Occupancy

Payment Type	Percent of Inpatient Days	Projected Inpatient Days	Average Payment Rate	Projected Payment
Medicare	3.3%	517	\$237	\$122,553
Medicaid	73.3%	11,376	\$180	\$2,047,716
Private Pay	20.0%	3,103	\$180	\$558,468
County	3.4%	517	\$180	\$93,078
Total	100.0%	15,513	\$182	\$2,821,815

Table 15: Projected Harmony Manor Revenue by Payment Type at 95% Occupancy

Payment Type	Percent of Inpatient Days	Projected Inpatient Days	Average Payment Rate	Projected Payment
Medicare	3.3%	578	\$237	\$136,970
Medicaid	73.3%	12,715	\$180	\$2,288,616
Private Pay	20.0%	3,468	\$180	\$624,168
County	3.4%	578	\$180	\$104,028
Total	100.0%	17,338	\$182	\$3,153,782

Table 15 provides a set of estimates of projected revenue at 95% occupancy. This table indicates that the estimated 17,338 inpatient days at 95% occupancy translate into a total annual projected revenue of \$3.15 million. The largest proportion of projected revenue is the estimated \$2.29 million from Medicaid patients.

Tables 16 through 18 present three sets of scenarios of *projected maximum net revenue* that provide estimates that vary as a result of different combinations of occupancy rates (65 to 95%) and total construction costs (\$275 to \$325 per square foot). Each of the three maximum net revenue scenarios assumes minimum labor costs, i.e., the facility only pays labor costs to staff the number of beds actually occupied. As such, these scenarios assume that labor is readily available and that the skilled nursing unit can easily be staffed as occupancy changes.

Table 16 presents a range of net revenue estimates using construction costs of \$275 per square foot. Total annual net revenue in this scenario ranges from \$319,875 (65% occupancy) to \$582,237 (95% occupancy).

Table 17 presents a range of net revenue estimates using construction costs of \$300 per square foot. Total annual net revenue in this scenario ranges from \$310,375 (65% occupancy) to \$572,737 (95% occupancy).

Table 18 presents a range of net revenue estimates using construction costs of \$325 per square foot. Total annual net revenue in this scenario ranges from \$300,875 (65% occupancy) to \$563,237 (95% occupancy).

Tables 19 through 21 present three sets of scenarios of *projected minimum net revenue* that provide estimates that vary as a result of different combinations of occupancy rates (65 to 95%) and total construction costs (\$275 to \$325 per square foot). Each of the three minimum net revenue scenarios assumes maximum labor costs, i.e., the facility pays labor costs to staff all 50 beds regardless of the number of beds actually occupied.

Table 19 presents a range of net revenue estimates using construction costs of \$275 per square foot. Total annual net revenue in this scenario ranges from -\$312,502 (65% occupancy) to \$491,940 (95% occupancy).

**Table 16: Projected Maximum Net Revenue Scenarios with Construction
Costs of \$275 per Square Foot and Varying Occupancy Rates**

Occupancy Rate	Annual Operating Costs	Annual Capital Costs	Total Annual Costs	Total Annual Revenue	Total Annual Net Revenue
65%	\$1,733,505	\$104,500	\$1,838,005	\$2,157,880	\$319,875
75%	\$1,978,018	\$104,500	\$2,082,518	\$2,489,847	\$407,329
85%	\$2,222,532	\$104,500	\$2,327,032	\$2,821,815	\$494,783
95%	\$2,467,045	\$104,500	\$2,571,545	\$3,153,782	\$582,237

**Table 17: Projected Maximum Net Revenue Scenarios with Construction
Costs of \$300 per Square Foot and Varying Occupancy Rates**

Occupancy Rate	Annual Operating Costs	Annual Capital Costs	Total Annual Costs	Total Annual Revenue	Total Annual Net Revenue
65%	\$1,733,505	\$114,000	\$1,847,505	\$2,157,880	\$310,375
75%	\$1,978,018	\$114,000	\$2,092,018	\$2,489,847	\$397,829
85%	\$2,222,532	\$114,000	\$2,336,532	\$2,821,815	\$485,283
95%	\$2,467,045	\$114,000	\$2,581,045	\$3,153,782	\$572,737

**Table 18: Projected Maximum Net Revenue Scenarios with Construction
Costs of \$325 per Square Foot and Varying Occupancy Rates**

Occupancy Rate	Annual Operating Costs	Annual Capital Costs	Total Annual Costs	Total Annual Revenue	Total Annual Net Revenue
65%	\$1,733,505	\$123,500	\$1,857,005	\$2,157,880	\$300,875
75%	\$1,978,018	\$123,500	\$2,101,518	\$2,489,847	\$388,329
85%	\$2,222,532	\$123,500	\$2,346,032	\$2,821,815	\$475,783
95%	\$2,467,045	\$123,500	\$2,590,545	\$3,153,782	\$563,237

**Table 19: Projected Minimum Net Revenue Scenarios with Construction
Costs of \$275 per Square Foot and Varying Occupancy Rates**

Occupancy Rate	Annual Operating Costs	Annual Capital Costs	Total Annual Costs	Total Annual Revenue	Total Annual Net Revenue
65%	\$2,365,882	\$104,500	\$2,470,382	\$2,157,880	(\$312,502)
75%	\$2,429,702	\$104,500	\$2,534,202	\$2,489,847	(\$44,355)
85%	\$2,493,522	\$104,500	\$2,598,022	\$2,821,815	\$223,793
95%	\$2,557,342	\$104,500	\$2,661,842	\$3,153,782	\$491,940

**Table 20: Projected Minimum Net Revenue Scenarios with Construction
Costs of \$300 per Square Foot and Varying Occupancy Rates**

Occupancy Rate	Annual Operating Costs	Annual Capital Costs	Total Annual Costs	Total Annual Revenue	Total Annual Net Revenue
65%	\$2,365,882	\$114,000	\$2,479,882	\$2,157,880	(\$322,002)
75%	\$2,429,702	\$114,000	\$2,543,702	\$2,489,847	(\$53,855)
85%	\$2,493,522	\$114,000	\$2,607,522	\$2,821,815	\$214,293
95%	\$2,557,342	\$114,000	\$2,671,342	\$3,153,782	\$482,440

**Table 21: Projected Minimum Net Revenue Scenarios with Construction
Costs of \$325 per Square Foot and Varying Occupancy Rates**

Occupancy Rate	Annual Operating Costs	Annual Capital Costs	Total Annual Costs	Total Annual Revenue	Total Annual Net Revenue
65%	\$2,365,882	\$123,500	\$2,489,382	\$2,157,880	(\$331,502)
75%	\$2,429,702	\$123,500	\$2,553,202	\$2,489,847	(\$63,355)
85%	\$2,493,522	\$123,500	\$2,617,022	\$2,821,815	\$204,793
95%	\$2,557,342	\$123,500	\$2,680,842	\$3,153,782	\$472,940

Table 20 presents a range of net revenue estimates using construction costs of \$300 per square foot. Total annual net revenue in this scenario ranges from -\$322,002 (65% occupancy) to \$482,440 (95% occupancy).

Table 21 presents a range of net revenue estimates using construction costs of \$325 square foot. Total annual net revenue in this scenario ranges from -\$331,502 (65% occupancy) to \$472,940 (95% occupancy).

Summary: Financial Feasibility Assessment of the Expansion of the Harmony Manor Skilled Nursing Facility at Humboldt General Hospital, Winnemucca, Nevada.

A summary of the three maximum net revenue scenarios and the three minimum net revenue scenarios is presented in Table 22. The data contained in this table highlight the wide range of projected annual net revenue and the extent to which these estimates vary by occupancy rate, estimated labor costs, and construction costs per square feet.

Table 22: Projected Net Revenue Scenarios for the Proposed Harmony Manor Expansion from 30 to 50 Beds

Scenarios	Construction Costs (\$/square foot)	Occupancy Rate			
		65% (32.5 Beds)	75% (37.5 Beds)	85% (42.5 Beds)	95% (47.5 Beds)
Minimum Annual Net Revenue	\$275	(\$312,502)	(\$44,355)	\$223,793	\$491,940
	\$300	(\$322,002)	(\$53,855)	\$214,293	\$482,440
	\$325	(\$331,502)	(\$63,355)	\$204,793	\$472,940
Maximum Annual Net Revenue	\$275	\$319,875	\$407,329	\$494,783	\$582,237
	\$300	\$310,375	\$397,829	\$485,283	\$572,737
	\$325	\$300,875	\$388,329	\$475,783	\$563,237

Maximum net revenue scenarios range from \$300,875 (construction costs of \$325 per square foot and occupancy rate of 65%) to \$582,237 (construction costs of \$275 per square foot and occupancy rate of 95%).

Conversely, the more conservative set of minimum net revenue scenarios range from -\$331,502 (construction costs of \$325 per square foot and occupancy rate of 65%) to \$491,940 (construction costs of \$275 per square foot and occupancy rate of 95%).

References and Data Sources

Hardcastle, Jeff. 2006. *Age Sex Race and Hispanic Origin Estimates from 2000 to 2005 and Projections from 2006 to 2026 for Nevada and Its Counties*. Reno NV: Nevada State Demographer's Office.

Nevada Division of Health Care Financing and Policy (Nevada Medicaid). *Nevada Hospital Quarterly Reports for State Fiscal Years 2000-2001 to 2005-2006*. Las Vegas NV: UNLV Center for Health Information Analysis.

Packham, John and Tabor Griswold. 2007. *Nevada Rural and Frontier Health Data Book, 2007 Edition*. Reno NV: Nevada Office of Rural Health.