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The Impact of Hospitals and the Health Sector on the Nevada Economy

**John Packham, PhD, Elizabeth Fadali, MS,
Thomas Harris, PhD, and Tabor Griswold, MS**

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This report – *The Impact of Hospitals and the Health Sector on the Nevada Economy 2011 Edition* – was prepared by researchers affiliated with the Nevada Rural Health Works Program, which is a joint research and policy analysis project of the University of Nevada School of Medicine, Nevada Cooperative Extension, and the Center for Economic Development at the University of Nevada, Reno.

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Overview

The Impact of Hospitals and the Health Sector on the Nevada Economy documents the economic contribution of hospitals and other medical providers to the state's economy. This report provides detailed estimates of the direct and indirect impact of hospital and health sector activity and operations on payroll and employment in Nevada. Impacts are estimated at the county, regional, and state level in Nevada utilizing the most current employment and payroll data (2009). The analysis presented in this report reveals that Nevada's hospitals and other health service providers have a substantial impact on the state's economy – a contribution typically overlooked in public policy discussions of health care cost containment, access to care, and community benefits.

Hospitals and health service organizations are not only a major employer and source of income in their own right, they play a critical role in local and regional economic development by generating employment and income in a wide range of other businesses and contributing to the tax base at the local level. This report also provides data on the estimated amount of local tax revenue generated from hospital and health sector related employee spending in Nevada. The combination of a growing elderly population in Nevada and insurance coverage expansions resulting from recently passed health reform legislation suggest that there will be steady growth in demand for hospital services and thus growth in employment in the health services sector in Nevada over the next decade.

The most important economic impact of the health sector is in the direct jobs, salaries, and wages of health care employees. However, the purchasing power of hospitals, clinics and other health care organizations, and their employees ripples through the state's economy. For example, hospital workers earn wages and salaries above the norm for Nevada – when those employees purchase housing, food and clothing, cars and appliances, and services, they spur local and regional economic development in numerous ways. Finally, the taxes paid by direct and secondary employment in Nevada supports schools, community colleges and universities, local police and fire departments, cultural and arts programs, and a wide range of public services and amenities, such as community centers, parks, and recreational facilities.

This report – *The Impact of Hospitals and the Health Sector on the Nevada Economy* – was undertaken by John Packham and Tabor Griswold at the University of Nevada School of Medicine and Tom Harris and Betsy Fadali of the University of Nevada, Reno. Utilizing an economic impact model developed specifically for the health care industry, the report examines the direct and secondary economic contributions of hospitals operations and other health service organizations.

Utilizing data sources prepared by the federal government, input-output tables have been developed that enable researchers to examine and model the economic impact of employment and expenditures on a region's economy. The estimated impact of hospitals and health sector on jobs and income in other businesses utilize employment and income multipliers specifically derived for Nevada. A

complete description of the report's methodology and data sources is contained in the appendix to this report.

Report Highlights

The Impact of Hospitals and the Health Sector on the Nevada Economy documents the economic contribution of hospitals and other medical providers to the state's economy. The report's findings reveal that Nevada's hospitals and other health service providers have a substantial impact on the state's economy – a contribution typically overlooked in public policy discussions of health care cost containment, access to care, and community benefits.

- In 2009, Nevada's 59 acute care and specialty hospitals employed 29,046 individuals and had a total payroll of \$2.0 billion (Table 1).
- When the income created in other businesses in the state as a result of hospital operating activity is included in the analysis, Nevada hospitals were responsible for an estimated total of \$3.0 billion in payroll for hospital employees and those employed in other businesses (Table 1).
- Likewise, when the jobs created in other businesses as a result of hospital operating activity is included in the analysis, Nevada hospitals were responsible for a total of 47,752 jobs in their facilities and other businesses in the state (Table 1).
- Nevada hospital spending on employee compensation and benefits, as well as spending on goods and services from other business in Nevada, generated \$8.5 billion in total economic activity across the state in 2009 (Table 1).

In stark contrast to nearly every industry sector in Nevada, the health services sector – hospitals, clinics, medical and dental practices, nursing homes, pharmacies, and other medical providers – has been an economic mainstay, and has provided stability and even growth during the deepest recession in the state's history since the Great Depression.

- In 2009, the health services sector produced \$6.6 billion in goods and services or 5.2% of total state domestic product (SDP) (Table 2).
- Nearly 90,000 Nevadans are employed in the health services sector – a figure representing 7.8% of all jobs in Nevada (Table 2).
- Hospitals and other business establishments in the health services sector generated \$4.4 billion in wages and salaries or 9.0% of all payroll in the state in 2009 (Table 2).
- Workers in health services jobs have an average annual wage of \$49,247 – a figure exceeding the state average of \$42,746 by 16.6% (Table 2).

- Between December 2007 and December 2010, Nevada employers shed a total of 175,987 jobs (-13.5%), including job losses of 71,028 in construction (-53.0%), 31,186 in accommodation and food services (-10.1%), and 11,479 in manufacturing (-22.8%) (Table 3).
- During the same period, the health services sector added 6,281 jobs in Nevada (+7.4%), including 1,125 new jobs in Nevada hospitals (+5.9%), 859 jobs in the offices of physicians and dentists (+3.7%), and 883 jobs in home health services agencies (23.8%) (Table 3).

Hospital Employment Impacts in Nevada by Region and Type of Hospital

- Community hospitals in rural and frontier Nevada employed 2,219 individuals in 2009. These 15 hospitals were responsible for an estimated total of 3,370 jobs for hospital employees and residents in their rural and frontier communities (Tables 4 and 7).
- Nevada's eleven federally designated Critical Access Hospitals (CAH) employed 1,461 individuals and produced an estimated secondary employment impact of 709 jobs resulting in a total employment impact of 2,170 jobs in their respective communities (Tables 4 and 7).
- In 2009, the 19 community and acute-care hospitals in urban counties of Nevada – Carson City, Clark County, and Washoe County – employed 21,485 individuals. When the jobs created in other businesses as a result of hospital operating activity is included in the analysis, these same hospitals were responsible for an estimated total of 42,876 jobs for hospital employees and those working in other local businesses (Tables 5 and 8).
- The 25 psychiatric, rehabilitation, and federally-owned hospitals in Nevada employed 5,342 individuals for the year 2009. These hospitals were responsible for an estimated total of 10,620 jobs for their employees and those employed in other businesses in Nevada (Tables 6 and 9).
- The employment impact of Nevada hospitals is diverse and affects almost every industrial sector in the state. For example, in 2009 Nevada hospitals generated an estimated secondary employment impact of 5,369 jobs in real estate, rental and leasing, 3,193 jobs in administrative services, and 3,733 jobs in retail trade (Table 13).

Hospital Payroll and Income Impacts in Nevada by Region and Type of Hospital

- Community hospitals in rural and frontier Nevada generated \$117.8 million in payroll in 2009. These 15 hospitals were responsible for an estimated total of \$149.6 million in payroll for their employees and those employed in businesses in their communities (Tables 4 and 10).

- Nevada CAHs generated \$75.9 million in payroll and produced a secondary payroll impact of \$20.7 million resulting in an estimated total payroll impact of \$96.6 million in their respective communities (Tables 4 and 10).
- In 2009, the 19 community hospitals located in urban counties of Nevada generated \$1.44 billion in payroll. When the income created in other businesses in the state as a result of hospital operating activity is included in the analysis, these same hospitals were responsible for an estimated total of \$2.17 billion in payroll for their employees and those working in other local businesses (Tables 5 and 11).
- The 25 psychiatric, rehabilitation, and federally-owned hospitals located in Nevada generated \$460.5 million in payroll for the year 2009. These hospitals were responsible for an estimated total of \$692.5 in payroll for their employees and workers in other businesses in the state (Tables 6 and 12).
- The payroll impact of Nevada hospitals is diverse and affects almost every industrial sector in the state. For example, in 2009 Nevada hospitals generated an estimated secondary payroll impact of \$78.0 million in administrative services, \$77.4 million in finance and insurance services, and \$83.9 million in professional, scientific, and technical services (Table 14).

Health Sector Payroll and Employment Impacts in Nevada

- The health services sector in Nevada – hospitals, clinics, medical and dental practices, nursing homes, pharmacies, and other medical providers – generated an estimated \$6.50 billion in payroll and employed 98,052 Nevadans in 2009 (Tables 15 and 16).
- When jobs created by other state businesses as a result of the health services sector in Nevada are included in the analysis, the health services sector was responsible for an additional 76,093 jobs in other businesses and an estimated total of 174,146 jobs in the state (Table 17).
- Likewise, when the income created by other Nevada businesses as a result of the health services sector is included in the analysis, the health services sector was responsible for additional payroll of \$3.08 billion in other businesses and an estimated total of \$9.58 billion in payroll in Nevada (Table 18).
- The health sector in Nevada affects employment in every industrial sector of the state. For example, of the 76,093 jobs created in other businesses in Nevada as a result of spending by establishments in the health sector, there was an estimated secondary employment impact of 10,708 jobs in real estate, rental and leasing, 8,898 jobs in administrative services, and 1,285 jobs in information services in 2009 (Table 19).

- Likewise, the health sector in Nevada affects payroll and income in every industrial sector in the state. For example, of the \$3.08 billion in payroll and income generated in other businesses in Nevada as result of spending by establishments in the health sector, there was an estimated secondary payroll impact of \$245.1 million in administrative services, \$255.8 million in finance and insurance services, and \$303.0 million in professional, scientific, and technical services (Table 20).

Impact of Hospital and Health Sector Related Spending on Local Retail Sales and Tax Revenues in Nevada

The economic impact of hospitals and the health sector extends beyond the ripple effects of payroll and employment. The wages and salaries paid by hospitals and other health care establishments are subject to federal, state, and local taxes.

- In 2009, an estimated \$27.1 million in local and county tax revenue in Nevada was generated as a result of hospital spending and operating activity (Table 21).
- Similarly, an estimated \$85.4 million in local and county revenue in Nevada was generated as a result of health sector spending and operating activity (Table 22).

Economic Impact of Hospital Construction and Major Facility Expansion in Nevada

- Over the past five years, hospitals in Nevada have spent nearly \$1 billion on the construction of new facilities and major facility expansions and renovations. From 2006 to 2010, hospital spending on construction has generated an estimated 13,242 construction jobs, \$783.1 million in construction-related payroll, and a total of \$1.79 billion in economic activity in Nevada (Table 23).
- Nevada hospitals spent an annual average of \$193.4 million on construction and major facility renovations between 2006 and 2010 resulting in an estimated total economic impact in Nevada of \$358.7 million dollars each year (Table 23).
- While urban hospitals account for the majority of construction spending, rural and frontier hospitals in Nevada spent nearly \$33.5 million on new facilities and major renovations since 2006. Over the past decade, three Critical Access Hospitals were built which now provide access to inpatient, emergency, and hospital-based outpatient services to nearly 100,000 rural and frontier residents of Nevada (Table 23).

In conclusion, a strong hospital industry and other health sector businesses provide essential medical services, improve the quality of life in a myriad of direct and indirect ways, and help Nevada attract and retain businesses and keep jobs in the state. Major employers from other economic sectors will never locate nor stay in Nevada communities that lack strong hospital and health care systems.

Policymakers must recognize that hospitals and strong health care systems play a key role in making Nevada an attractive place to settle, locate a business, or retire. Economic planning and development agencies frequently seek high-tech, manufacturing, and service industries that will create new, well-paying jobs. Across the state, Nevada hospitals and other medical providers are doing just that and should not be overlooked as economic engines in their own right.

Given the current economic recession and the contributions of hospitals and health care providers documented in this report, hospitals and other providers of medical services must be considered as part of any state economic development and stimulus planning to ensure that they are able to maintain and recruit a strong health care work force and that they are able to invest in the facilities, technology, and capital infrastructure to enable continued delivery of the best quality of care to Nevadans.

Table 1: Summary of Hospital Economic Impacts in Nevada – 2009

| Hospital Economic Impacts | | | |
|-----------------------------|---------------|------------------|---------------|
| Type of Impact | Direct Impact | Secondary Impact | Total Impact |
| Employment – Number of Jobs | 29,046 | 18,706 | 47,752 |
| Payroll – Dollars | 2,022,713,656 | 993,005,521 | 3,015,719,177 |
| Output – Dollars | 4,732,618,874 | 3,763,709,812 | 8,496,328,686 |

Note: This table summarizes information contained in the following tables.

Table 2: State Domestic Product, Average Employment, Total Payroll, and Average Annual Wage in Nevada by Industry Sector – 2009

| Industry Sector | State Domestic Product | | Average Employment | | Total Payroll | | Average Annual Wage (Dollars) |
|---|------------------------|----------------------|--------------------|-----------------------|---------------------|--------------------------|-------------------------------|
| | Millions of Dollars | Percent of Total SDP | Number of Jobs | Percent of Total Jobs | Millions of Dollars | Percent of Total Payroll | |
| Accommodation & Food Services | 17,108 | 13.5 | 281,740 | 24.8 | 8,217 | 16.9 | 29,164 |
| Administrative & Waste Services | 3,242 | 2.6 | 68,935 | 6.1 | 2,060 | 4.2 | 29,883 |
| Agriculture, Forestry, & Fishing | 265 | 0.2 | 2,257 | 0.2 | 68 | 0.1 | 30,315 |
| Arts, Entertainment & Recreation Services | 2,846 | 2.2 | 26,267 | 2.3 | 779 | 1.6 | 29,671 |
| Construction | 9,501 | 7.5 | 80,079 | 7.0 | 4,739 | 9.7 | 58,658 |
| Educational Services (Private) | 428 | 0.3 | 8,050 | 0.7 | 308 | 0.6 | 38,257 |
| Finance & Insurance Services | 12,093 | 9.6 | 32,717 | 2.9 | 1,813 | 3.7 | 55,419 |
| Health Care & Social Assistance | 6,579 | 5.2 | 89,136 | 7.8 | 4,390 | 9.0 | 49,247 |
| Information Services | 2,380 | 1.9 | 13,158 | 1.2 | 726 | 1.5 | 55,151 |
| Management of Companies & Enterprises | 2,844 | 2.2 | 17,876 | 1.6 | 1,774 | 3.6 | 99,241 |
| Manufacturing | 5,206 | 4.1 | 40,029 | 3.5 | 2,004 | 4.1 | 49,855 |
| Mining | 4,320 | 3.4 | 11,609 | 1.0 | 914 | 1.9 | 78,727 |
| Professional, Scientific & Technical Services | 6,271 | 5.0 | 48,632 | 4.3 | 3,208 | 6.6 | 65,973 |
| Real Estate, Rental & Leasing | 17,346 | 13.7 | 22,756 | 2.0 | 882 | 1.8 | 38,771 |
| Trade, Retail | 8,137 | 6.4 | 128,174 | 11.3 | 3,567 | 7.3 | 27,833 |
| Trade, Wholesale | 4,774 | 3.8 | 35,013 | 3.1 | 2,081 | 4.3 | 59,443 |
| Transportation & Warehousing | 4,353 | 3.4 | 45,378 | 4.0 | 1,472 | 3.0 | 32,427 |
| Utilities | 2,334 | 1.8 | 4,568 | 0.4 | 401 | 0.8 | 87,783 |
| Other Services Except Government | 2,547 | 2.0 | 27,247 | 2.4 | 863 | 1.8 | 31,627 |
| Government | 13,930 | 11.0 | 152,387 | 13.4 | 8,111 | 16.7 | 53,224 |
| Unclassified or Undetermined | | | 888 | 0.1 | 52 | 0.1 | 58,564 |
| Nevada – Total | 126,504 | 99.8 | 1,137,786 | 100.1 | 48,635 | 99.3 | 42,746 |

Source: Nevada Department of Employment, Training, and Rehabilitation (2011).

Table 3: Employment Change in Nevada by Industry Sector and Selected Segments of the Health Care and Social Assistance Industries – December 2007 to December 2010

| Industry Sector | Jobs | | Change – December 2007 to December 2010 | |
|---|------------------|------------------|---|---------------|
| | December 2007 | December 2010 | Number | Percent |
| Accommodation & Food Services | 308,872 | 277,686 | - 31,186 | - 10.1 |
| Administrative & Waste Services | 87,760 | 71,447 | - 16,313 | - 18.6 |
| Agriculture, Forestry, & Fishing | 2,146 | 2,253 | 107 | 5.0 |
| Arts, Entertainment & Recreation Services | 30,635 | 25,308 | - 5,327 | - 17.4 |
| Construction | 133,899 | 62,871 | - 71,028 | - 53.0 |
| Educational Services (Private) | 7,066 | 7,954 | 888 | 12.6 |
| Finance & Insurance Services | 37,412 | 31,374 | - 6,038 | - 16.1 |
| Health Care & Social Assistance | 85,071 | 91,352 | 6,281 | 7.4 |
| General Medical and Surgical Hospitals | 18,975 | 20,100 | 1,125 | 5.9 |
| Offices of Physicians | 16,047 | 16,509 | 462 | 2.9 |
| Offices of Dentists | 6,976 | 7,373 | 397 | 5.7 |
| Services for Elderly and Disabled | 5,118 | 5,501 | 383 | 7.5 |
| Nursing Care Facilities | 5,164 | 5,501 | 337 | 6.5 |
| Home Health Services | 3,711 | 4,594 | 883 | 23.8 |
| Offices of OT, PT, and other Therapists | 1,953 | 2,270 | 317 | 16.2 |
| Medical Laboratories | 2,043 | 1,637 | - 406 | - 19.9 |
| Freestanding Ambul. Surgery & Emergency Centers | 1,486 | 1,597 | 111 | 7.5 |
| Ambulance Services | 1,112 | 1,199 | 87 | 7.8 |
| Information Services | 15,868 | 12,790 | - 3,078 | - 19.4 |
| Management of Companies & Enterprises | 16,668 | 19,036 | 2,368 | 14.2 |
| Manufacturing | 50,374 | 38,895 | - 11,479 | - 22.8 |
| Mining | 12,094 | 11,946 | - 148 | - 1.2 |
| Professional, Scientific & Technical Services | 54,873 | 45,814 | - 9,059 | - 16.5 |
| Real Estate, Rental & Leasing | 27,454 | 22,014 | -5,440 | - 19.8 |
| Trade, Retail | 139,855 | 124,752 | - 15,103 | - 10.8 |
| Trade, Wholesale | 39,633 | 35,744 | - 3,889 | - 9.8 |
| Transportation & Warehousing | 54,105 | 49,611 | - 4,494 | - 8.3 |
| Utilities | 4,516 | 4,412 | - 104 | - 2.3 |
| Other Services Except Government | 29,226 | 27,564 | - 1,662 | - 5.7 |
| Government | 163,703 | 162,420 | - 1,283 | - 0.8 |
| Nevada Total – All Industries | 1,301,230 | 1,125,243 | - 175,987 | - 13.5 |

Source: Nevada Department of Employment, Training and Rehabilitation (2011).

Table 4: Community Hospitals in Rural and Frontier Nevada

| Hospital | Licensed Beds – 2011 | Estimated Number of Jobs – FY 2009 | Annual Payroll – FY 2009 (Dollars) |
|---|----------------------|------------------------------------|------------------------------------|
| Critical Access Hospitals (CAH) | | | |
| Battle Mountain General Hospital | 25 | 75 | 3,650,979 |
| Boulder City Hospital | 67 | 171 | 8,262,999 |
| Carson Valley Medical Center | 23 | 207 | 12,587,486 |
| Desert View Hospital | 24 | 135 | 6,961,530 |
| Grover C. Dils Medical Center | 20 | 72 | 2,626,563 |
| Humboldt General Hospital | 52 | 187 | 10,277,217 |
| Incline Village Community Hospital | 4 | 34 | 3,372,335 |
| Mesa View Regional Hospital | 25 | 161 | 8,997,743 |
| Mount Grant General Hospital | 35 | 107 | 4,867,214 |
| Pershing General Hospital | 45 | 105 | 4,636,437 |
| William Bee Ririe Hospital | 25 | 207 | 9,645,587 |
| CAH Hospitals – Subtotal | 345 | 1,461 | 75,886,090 |
| CAH-Eligible Hospitals | | | |
| Banner Churchill Community Hospital | 40 | 334 | 21,166,445 |
| Northeastern Nevada Regional Hospital | 75 | 207 | 11,992,432 |
| Nye Regional Medical Center | 18 | 46 | 1,467,870 |
| South Lyon Medical Center | 63 | 171 | 7,237,328 |
| CAH-Eligible Hospitals – Subtotal | 196 | 758 | 41,864,075 |
| Rural & Frontier Nevada Hospitals – Subtotal | 541 | 2,219 | 117,750,165 |
| | | | |
| Urban Nevada Hospitals – Subtotal (See Table 2) | 4,728 | 21,485 | 1,444,461,799 |
| | | | |
| Nevada Community Hospitals – Total | 5,269 | 23,704 | 1,562,211,964 |

Source: Center for Health Information Analysis (2010), Press Ganey Associates (2010), and Griswold and Packham (2011).

Note: Licensed beds in rural hospitals include both acute-care and long-term care bed licensed by the State of Nevada.

Table 5: Community Hospitals in Urban Nevada

| Hospital | Licensed Beds – 2011 | Estimated Number of Jobs – FY 2009 | Annual Payroll – FY 2009 (Dollars) |
|---|-------------------------|--|---------------------------------------|
| Carson City | | | |
| Carson Tahoe Regional Medical Center | 172 | 899 | 58,994,759 |
| Sierra Surgery Hospital | 15 | 121 | 9,541,123 |
| Clark County | | | |
| Centennial Hills Hospital Medical Center | 135 | 782 | 35,457,996 |
| Desert Springs Hospital Medical Center | 286 | 925 | 59,519,974 |
| MountainView Hospital | 235 | 862 | 72,201,697 |
| North Vista Hospital | 178 | 489 | 31,053,054 |
| St. Rose Dominican Hospital, Rose de Lima Campus | 131 | 706 | 55,555,479 |
| St. Rose Dominican Hospital, San Martin Campus | 147 | 652 | 48,897,525 |
| St. Rose Dominican Hospital, Siena Campus | 219 | 1,405 | 102,736,180 |
| Southern Hills Hospital and Medical Center | 139 | 424 | 30,501,687 |
| Spring Valley Hospital Medical Center | 180 | 775 | 52,462,123 |
| Summerlin Hospital Medical Center | 277 | 1,173 | 84,326,387 |
| Sunrise Hospital and Medical Center | 638 | 2,549 | 174,636,026 |
| University Medical Center of Southern Nevada | 530 | 3,684 | 252,045,860 |
| Valley Hospital Medical Center | 340 | 1,386 | 88,355,625 |
| Washoe County | | | |
| Northern Nevada Medical Center | 100 | 319 | 20,025,396 |
| Renown Regional Medical Center | 566 | 2,395 | 131,835,225 |
| Renown South Meadows Medical Center | 138 | 348 | 28,770,353 |
| Saint Mary’s Regional Medical Center | 302 | 1,591 | 107,545,330 |
| Urban Nevada Hospitals – Subtotal | 4,728 | 21,485 | 1,444,461,799 |
| Rural & Frontier Hospitals – Subtotal (See Table 1) | | | |
| | 541 | 2,219 | 117,750,165 |
| Nevada Community Hospitals – Total | | | |
| | 5,269 | 23,704 | 1,562,211,964 |

Source: Center for Health Information Analysis (2010), Press Ganey Associates (2010), and Griswold and Packham (2011).

Table 6: Federal, Rehabilitation, Psychiatric, and Other Specialty Hospitals in Urban Nevada

| Hospital | Licensed Beds – 2011 | Estimated Number of Jobs – FY 2009 | Annual Payroll – FY 2009 (Dollars) |
|--|-------------------------|--|---------------------------------------|
| Carson City | | | |
| Carson Tahoe Continuing Care Hospital | 29 | 26 | 3,475,467 |
| Clark County | | | |
| Desert Canyon Rehabilitation Hospital | 50 | 77 | 6,725,324 |
| Desert Willow Treatment Center | 58 | 108 | N/A |
| Harmon Medical and Rehabilitation Hospital | 118 | 261 | 15,966,162 |
| Healthsouth Hospital at Tenaya | 70 | 197 | 14,012,792 |
| Healthsouth Rehabilitation Hospital of Henderson | 70 | 185 | 12,370,708 |
| Healthsouth Rehabilitation Hospital of Las Vegas | 79 | 204 | 12,226,871 |
| Horizon Specialty Hospital of Las Vegas | 61 | 55 | 3,919,376 |
| Kindred Hospital Las Vegas – Desert Springs | 40 | 79 | 5,898,298 |
| Kindred Hospital Las Vegas – Flamingo Campus | 142 | 253 | 17,240,379 |
| Kindred Hospital Las Vegas – Sahara Campus | 52 | 133 | 9,102,224 |
| Mike O’Callahan Federal Hospital | 114 | 720 | 111,113,100 |
| Montevista Hospital | 80 | 169 | 10,849,273 |
| Progressive Hospital | 24 | 47 | 3,126,834 |
| Red Rock Behavioral Hospital | 21 | 26 | 1,877,340 |
| Southern Nevada Adult Mental Health Services | 234 | 678 | 52,568,233 |
| Spring Mountain Sahara | 30 | 53 | 2,963,417 |
| Spring Mountain Treatment Center | 82 | 138 | 7,476,804 |
| UMC Rancho Rehabilitation Center | – | 32 | 3,281,815 |
| Washoe County | | | |
| Ioannis Lougaris Veterans Administration Med Ctr | 70 | 952 | 105,570,700 |
| Northern Nevada Adult Mental Health Services | 70 | 270 | 21,417,939 |
| Renown Rehabilitation Hospital | 62 | 163 | 11,817,823 |
| Tahoe Pacific Hospitals | 60 | 114 | 9,773,571 |
| West Hills Hospital | 95 | 152 | 9,578,282 |
| Willow Springs Center | 76 | 250 | 8,148,960 |
| Nevada Psych, Rehab & Federal Hospitals – Total | 1,787 | 5,342 | 460,501,692 |

Source: Center for Health Information Analysis (2010), Press Ganey Associates (2010), Griswold and Packham (2011), Nevada Department of Employment, Training and Rehabilitation (2011), and unpublished data collected by the Nevada Office of Rural Health.

Note: UMC Rancho Rehabilitation Center closed in 2009.

Table 7: Direct, Secondary, and Total Employment Impacts of Community Hospitals in Rural and Frontier Nevada – 2009

| Hospital | Estimated Number of Jobs | Type SAM Multiplier | Secondary Employment Impact – Number of Jobs | | | Total Impact – Number of Jobs |
|---|--------------------------|---------------------|--|---------|-----------------|-------------------------------|
| | | | Indirect | Induced | Total Secondary | |
| Critical Access Hospitals (CAH) | | | | | | |
| Battle Mountain General Hospital | 75 | 1.18 | 7 | 7 | 14 | 89 |
| Boulder City Hospital | 171 | 2.07 | 78 | 104 | 183 | 354 |
| Carson Valley Medical Center | 207 | 1.52 | 46 | 62 | 108 | 315 |
| Desert View Hospital | 135 | 1.46 | 34 | 28 | 62 | 197 |
| Grover C. Dils Medical Center | 72 | 1.14 | 7 | 3 | 10 | 82 |
| Humboldt General Hospital | 187 | 1.28 | 22 | 32 | 53 | 240 |
| Incline Village Community Hospital | 34 | 1.87 | 12 | 18 | 29 | 63 |
| Mesa View Regional Hospital | 161 | 2.07 | 74 | 98 | 172 | 333 |
| Mount Grant General Hospital | 107 | 1.18 | 8 | 12 | 20 | 127 |
| Pershing General Hospital | 105 | 1.12 | 5 | 7 | 12 | 117 |
| William Bee Ririe Hospital | 207 | 1.22 | 18 | 29 | 46 | 253 |
| CAH Hospitals – Subtotal | 1,461 | – | 309 | 400 | 709 | 2,170 |
| CAH-Eligible Hospitals | | | | | | |
| Banner Churchill Community Hospital | 334 | 1.76 | 133 | 119 | 252 | 586 |
| Northeastern Nev Regional Hospital | 207 | 1.50 | 40 | 63 | 104 | 311 |
| Nye Regional Medical Center | 46 | 1.46 | 12 | 10 | 21 | 67 |
| South Lyon Medical Center | 171 | 1.38 | 34 | 31 | 65 | 236 |
| CAH-Eligible Hospitals – Subtotal | 758 | – | 219 | 222 | 442 | 1,200 |
| Nevada Rural and Frontier Hospitals – Total | 2,219 | – | 529 | 622 | 1,151 | 3,370 |

Source: Center for Health Information Analysis (2010), Press Ganey Associates (2010), Griswold and Packham (2011), and Minnesota IMPLAN Group (2011a).

Table 8: Direct, Secondary, and Total Employment Impacts of Community Hospitals in Urban Nevada – 2009

| Hospital | Estimated Number of Jobs | Type SAM Multiplier | Secondary Employment Impact – Number of Jobs | | | Total Impact – Number of Jobs |
|--|--------------------------|---------------------|--|---------|-----------------|-------------------------------|
| | | | Indirect | Induced | Total Secondary | |
| Carson City | | | | | | |
| Carson Tahoe Regional Medical Center | 899 | 1.44 | 209 | 187 | 397 | 1,296 |
| Sierra Surgery Hospital | 121 | 1.44 | 28 | 25 | 53 | 174 |
| Clark County | | | | | | |
| Centennial Hills Hospital Medical Center | 782 | 2.07 | 359 | 478 | 836 | 1,618 |
| Desert Springs Hospital Medical Center | 925 | 2.07 | 424 | 565 | 989 | 1,914 |
| MountainView Hospital | 862 | 2.07 | 396 | 526 | 922 | 1,784 |
| North Vista Hospital | 489 | 2.07 | 224 | 299 | 523 | 1,012 |
| St. Rose Dominican Hospital, Rose de Lima Campus | 706 | 2.07 | 324 | 431 | 755 | 1,461 |
| St. Rose Dominican Hospital, San Martin Campus | 652 | 2.07 | 299 | 398 | 697 | 1,349 |
| St. Rose Dominican Hospital, Siena Campus | 1,405 | 2.07 | 645 | 858 | 1,503 | 2,908 |
| Southern Hills Hospital and Medical Center | 424 | 2.07 | 195 | 259 | 454 | 878 |
| Spring Valley Hospital Medical Center | 775 | 2.07 | 356 | 473 | 829 | 1,604 |
| Summerlin Hospital Medical Center | 1,173 | 2.07 | 538 | 716 | 1,255 | 2,428 |
| Sunrise Hospital and Medical Center | 2,549 | 2.07 | 1,170 | 1,557 | 2,726 | 5,275 |
| University Medical Center of Southern Nevada | 3,684 | 2.07 | 1,691 | 2,250 | 3,941 | 7,625 |
| Valley Hospital Medical Center | 1,386 | 2.07 | 636 | 846 | 1,483 | 2,869 |
| Washoe County | | | | | | |
| Northern Nevada Medical Center | 319 | 1.87 | 111 | 165 | 276 | 595 |
| Renown Regional Medical Center | 2,395 | 1.87 | 834 | 1,239 | 2,073 | 4,468 |
| Renown South Meadows Medical Center | 348 | 1.87 | 121 | 180 | 301 | 649 |
| Saint Mary's Regional Medical Center | 1,591 | 1.87 | 554 | 823 | 1,377 | 2,968 |
| Nevada Urban Hospitals – Total | 21,485 | – | 9,114 | 12,277 | 21,391 | 42,876 |

Source: Center for Health Information Analysis (2010), Press Ganey Associates (2010), Griswold and Packham (2011), and Minnesota IMPLAN Group (2011a).

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Table 9: Direct, Secondary, and Total Employment Impacts of Federal, Rehabilitation, Psychiatric, and Other Specialty Hospitals in Nevada – 2009

| Hospital | Estimated Number of Jobs | Type SAM Multiplier | Secondary Employment Impact – Number of Jobs | | | Total Impact – Number of Jobs |
|--|--------------------------|---------------------|--|---------|-----------------|-------------------------------|
| | | | Indirect | Induced | Total Secondary | |
| Carson City | | | | | | |
| Carson Tahoe Continuing Care Hospital | 26 | 1.44 | 6 | 5 | 11 | 37 |
| Clark County | | | | | | |
| Desert Canyon Rehabilitation Hospital | 77 | 2.07 | 35 | 47 | 82 | 159 |
| Desert Willow Treatment Center | 108 | 2.07 | 50 | 66 | 116 | 224 |
| Harmon Medical and Rehabilitation Hospital | 261 | 2.07 | 120 | 159 | 279 | 540 |
| Healthsouth Hospital at Tenaya | 197 | 2.07 | 90 | 20 | 211 | 408 |
| Healthsouth Rehabilitation Hospital of Henderson | 185 | 2.07 | 85 | 113 | 198 | 383 |
| Healthsouth Rehabilitation Hospital of Las Vegas | 204 | 2.07 | 94 | 125 | 218 | 422 |
| Horizon Specialty Hospital of Las Vegas | 55 | 2.07 | 25 | 34 | 59 | 114 |
| Kindred Hospital Las Vegas – Desert Springs | 79 | 2.07 | 36 | 48 | 85 | 164 |
| Kindred Hospital Las Vegas – Flamingo Campus | 253 | 2.07 | 116 | 155 | 271 | 524 |
| Kindred Hospital Las Vegas – Sahara Campus | 133 | 2.07 | 61 | 81 | 142 | 275 |
| Mike O’Callahan Federal Hospital | 720 | 2.07 | 330 | 440 | 770 | 1,490 |
| Montevista Hospital | 169 | 2.07 | 78 | 103 | 181 | 350 |
| Progressive Hospital | 47 | 2.07 | 22 | 29 | 50 | 97 |
| Red Rock Behavioral Hospital | 26 | 2.07 | 12 | 16 | 28 | 54 |
| Southern Nevada Adult Mental Health Services | 678 | 2.07 | 311 | 414 | 725 | 1,403 |
| Spring Mountain Sahara | 53 | 2.07 | 24 | 32 | 57 | 110 |
| Spring Mountain Treatment Center | 138 | 2.07 | 63 | 84 | 148 | 286 |
| UMC Rancho Rehabilitation Center | 32 | 2.07 | 15 | 20 | 34 | 66 |
| Washoe County | | | | | | |
| Ioannis Lougaris Veterans Administration Med Ctr | 952 | 1.87 | 331 | 493 | 824 | 1,776 |
| Northern Nevada Adult Mental Health Services | 270 | 1.87 | 94 | 140 | 234 | 504 |
| Renown Rehabilitation Hospital | 163 | 1.87 | 57 | 84 | 141 | 304 |
| Tahoe Pacific Hospitals | 114 | 1.87 | 40 | 59 | 99 | 213 |
| West Hills Hospital | 152 | 1.87 | 53 | 79 | 132 | 284 |
| Willow Springs Center | 250 | 1.87 | 87 | 129 | 216 | 466 |
| Nevada Non-Acute Hospitals – Total | 5,342 | 1.99 | 2,281 | 2,997 | 5,278 | 10,620 |

Source: Center for Health Information Analysis (2010), Press Ganey Associates (2010), Griswold and Packham (2011), and Minnesota IMPLAN Group (2011a).

Table 10: Direct, Secondary, and Total Payroll Impacts of Community Hospitals in Rural and Frontier Nevada – 2009

| Hospital | Payroll – Dollars | Type SAM Multiplier | Secondary Income Impact – Dollars | | | Total Payroll Impact – Dollars |
|---|-------------------|---------------------|-----------------------------------|------------|-----------------|--------------------------------|
| | | | Indirect | Induced | Total Secondary | |
| Critical Access Hospitals (CAH) | | | | | | |
| Battle Mountain General Hospital | 3,650,979 | 1.10 | 165,106 | 193,035 | 358,141 | 4,009,120 |
| Boulder City Hospital | 8,262,999 | 1.51 | 1,685,709 | 2,512,808 | 4,198,517 | 12,461,516 |
| Carson Valley Medical Center | 12,587,486 | 1.25 | 1,284,069 | 1,845,876 | 3,129,945 | 15,717,431 |
| Desert View Hospital | 6,961,530 | 1.24 | 855,412 | 835,416 | 1,690,828 | 8,652,358 |
| Grover C. Dils Medical Center | 2,626,563 | 1.10 | 193,083 | 73,817 | 266,900 | 2,893,463 |
| Humboldt General Hospital | 10,277,217 | 1.21 | 990,935 | 1,155,499 | 2,146,434 | 12,423,651 |
| Incline Village Community Hospital | 3,372,335 | 1.56 | 779,949 | 1,112,746 | 1,892,695 | 5,265,030 |
| Mesa View Regional Hospital | 8,997,743 | 1.51 | 1,835,602 | 2,736,246 | 4,571,848 | 13,569,591 |
| Mount Grant General Hospital | 4,867,214 | 1.14 | 293,151 | 399,174 | 692,325 | 5,559,539 |
| Pershing General Hospital | 4,636,437 | 1.06 | 106,780 | 173,104 | 279,883 | 4,916,320 |
| William Bee Ririe Hospital | 9,645,587 | 1.16 | 623,660 | 883,889 | 1,507,550 | 11,153,137 |
| CAH Hospitals – Subtotal | 75,886,090 | – | 8,813,456 | 11,921,611 | 20,735,066 | 96,621,156 |
| CAH-Eligible Hospitals | | | | | | |
| Banner Churchill Community Hospital | 21,166,445 | 1.22 | 1,664,822 | 3,012,328 | 4,677,150 | 25,843,595 |
| Northeastern Nev Regional Hospital | 11,992,432 | 1.37 | 1,975,034 | 2,402,879 | 4,377,913 | 16,370,345 |
| Nye Regional Medical Center | 1,467,870 | 1.24 | 180,367 | 176,151 | 356,519 | 1,824,389 |
| South Lyon Medical Center | 7,237,328 | 1.23 | 854,109 | 830,124 | 1,684,233 | 8,921,561 |
| CAH-Eligible Hospitals – Subtotal | 41,864,075 | – | 4,674,332 | 6,421,482 | 11,095,814 | 52,959,889 |
| Nevada Rural & Frontier Hospitals – Total | 117,750,165 | – | 13,487,788 | 18,343,093 | 31,830,881 | 149,581,046 |

Source: Center for Health Information Analysis (2010), Press Ganey Associates (2010), Griswold and Packham (2011), and Minnesota IMPLAN Group (2011a).

Table 11: Direct, Secondary, and Total Payroll Impacts of Community Hospitals in Urban Nevada – 2009

| Hospital | Payroll – Dollars | Type SAM Multiplier | Secondary Income Impact – Dollars | | | Total Payroll Impact – Dollars |
|--|-------------------|---------------------|-----------------------------------|-------------|-----------------|--------------------------------|
| | | | Indirect | Induced | Total Secondary | |
| Carson City | | | | | | |
| Carson Tahoe Regional Medical Center | 58,994,759 | 1.22 | 6,234,938 | 6,454,141 | 12,689,079 | 71,683,838 |
| Sierra Surgery Hospital | 9,541,123 | 1.22 | 1,008,366 | 1,043,817 | 2,052,183 | 11,593,306 |
| Clark County | | | | | | |
| Centennial Hills Hospital Medical Center | 35,457,996 | 1.51 | 7,233,676 | 10,782,905 | 18,016,581 | 53,474,577 |
| Desert Springs Hospital Medical Center | 59,519,974 | 1.51 | 12,142,486 | 18,100,239 | 30,242,725 | 89,762,699 |
| MountainView Hospital | 72,201,697 | 1.51 | 14,729,645 | 21,956,797 | 36,686,442 | 108,888,139 |
| North Vista Hospital | 31,053,054 | 1.51 | 6,335,038 | 9,443,346 | 15,778,384 | 46,831,438 |
| St. Rose Dominican Hospital, Rose de Lima Campus | 55,555,479 | 1.51 | 11,333,702 | 16,894,622 | 28,228,324 | 83,783,803 |
| St. Rose Dominican Hospital, San Martin Campus | 48,897,525 | 1.51 | 9,975,433 | 14,869,914 | 24,845,347 | 73,742,872 |
| St. Rose Dominican Hospital, Siena Campus | 102,736,180 | 1.51 | 20,958,891 | 31,242,444 | 52,201,334 | 154,937,514 |
| Southern Hills Hospital and Medical Center | 30,501,687 | 1.51 | 6,222,555 | 9,275,673 | 15,498,228 | 45,999,915 |
| Spring Valley Hospital Medical Center | 52,462,123 | 1.51 | 10,702,636 | 15,953,921 | 26,656,557 | 79,118,680 |
| Summerlin Hospital Medical Center | 84,326,387 | 1.51 | 17,203,166 | 25,643,959 | 42,847,125 | 127,173,512 |
| Sunrise Hospital and Medical Center | 174,636,026 | 1.51 | 35,626,956 | 53,107,446 | 88,734,403 | 263,370,429 |
| University Medical Center of Southern Nevada | 252,045,860 | 1.51 | 51,419,097 | 76,648,057 | 128,067,154 | 380,113,014 |
| Valley Hospital Medical Center | 88,355,625 | 1.51 | 18,025,158 | 26,869,265 | 44,894,423 | 133,250,048 |
| Washoe County | | | | | | |
| Northern Nevada Medical Center | 20,025,396 | 1.56 | 4,631,444 | 6,607,644 | 11,239,088 | 31,264,484 |
| Renown Regional Medical Center | 131,835,225 | 1.56 | 30,490,658 | 43,500,774 | 73,991,432 | 205,826,657 |
| Renown South Meadows Medical Center | 28,770,353 | 1.56 | 6,653,965 | 9,493,158 | 16,147,123 | 44,917,476 |
| Saint Mary's Regional Medical Center | 107,545,330 | 1.56 | 24,872,927 | 35,486,002 | 60,358,929 | 167,904,259 |
| Nevada Urban Hospitals – Total | 1,444,461,799 | – | 295,800,736 | 433,374,123 | 729,174,860 | 2,173,636,659 |

Source: Center for Health Information Analysis (2010), Press Ganey Associates (2010), Griswold and Packham (2011), and Minnesota IMPLAN Group (2011a).

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Table 12: Direct, Secondary, and Total Payroll Impacts of Federal, Rehabilitation, Psychiatric, and Other Specialty Hospitals Nevada – 2009

| Hospital | Payroll – Dollars | Type SAM Multiplier | Secondary Income Impact – Dollars | | | Total Payroll Impact – Dollars |
|--|-------------------|---------------------|-----------------------------------|-------------|-----------------|--------------------------------|
| | | | Indirect | Induced | Total Secondary | |
| Carson City | | | | | | |
| Carson Tahoe Continuing Care Hospital | 3,475,467 | 1.22 | 367,309 | 380,223 | 747,532 | 4,222,999 |
| Clark County | | | | | | |
| Desert Canyon Rehabilitation Hospital | 6,725,324 | 1.51 | 1,372,013 | 2,045,195 | 3,417,208 | 10,142,532 |
| Desert Willow Treatment Center | N/A | 1.51 | N/A | N/A | N/A | N/A |
| Harmon Medical and Rehabilitation Hospital | 15,966,162 | 1.51 | 3,257,207 | 4,855,368 | 8,112,575 | 24,078,737 |
| Healthsouth Hospital at Tenaya | 14,012,792 | 1.51 | 2,858,706 | 4,261,341 | 7,120,047 | 21,132,839 |
| Healthsouth Rehab Hospital of Henderson | 12,370,708 | 1.51 | 2,523,710 | 3,761,977 | 6,285,687 | 18,656,395 |
| Healthsouth Rehab Hospital of Las Vegas | 12,226,871 | 1.51 | 2,494,366 | 3,718,236 | 6,212,602 | 18,439,473 |
| Horizon Specialty Hospital of Las Vegas | 3,919,376 | 1.51 | 799,580 | 1,191,896 | 1,991,476 | 5,910,852 |
| Kindred Hospital Las Vegas – Desert Springs | 5,898,298 | 1.51 | 1,203,294 | 1,793,694 | 2,996,987 | 8,895,285 |
| Kindred Hospital Las Vegas – Flamingo Campus | 17,240,379 | 1.51 | 3,517,156 | 5,242,862 | 8,760,018 | 26,000,397 |
| Kindred Hospital Las Vegas – Sahara Campus | 9,102,224 | 1.51 | 1,856,917 | 2,768,019 | 4,624,936 | 13,727,160 |
| Mike O'Callahan Federal Hospital | 111,113,100 | 1.51 | 22,667,840 | 33,789,895 | 56,457,735 | 167,570,835 |
| Montevista Hospital | 10,849,273 | 1.51 | 1,213,327 | 3,299,303 | 5,512,630 | 16,361,903 |
| Progressive Hospital | 3,126,834 | 1.51 | 637,896 | 950,882 | 1,588,777 | 4,715,611 |
| Red Rock Behavioral Hospital | 1,877,340 | 1.51 | 382,990 | 570,906 | 953,896 | 2,831,236 |
| Southern Nevada Adult Mental Health Services | 52,568,233 | 1.51 | 10,724,283 | 15,986,190 | 26,710,472 | 79,278,705 |
| Spring Mountain Sahara | 2,963,417 | 1.51 | 604,558 | 901,186 | 1,505,743 | 4,469,160 |
| Spring Mountain Treatment Center | 7,476,804 | 1.51 | 1,525,320 | 2,273,723 | 1,799,043 | 11,275,847 |
| UMC Rancho Rehabilitation Center | 3,281,815 | 1.51 | 669,513 | 998,012 | 1,667,525 | 4,949,340 |
| Washoe County | | | | | | |
| Ioannis Lougaris Veterans Admin Med Center | 105,570,700 | 1.56 | 24,416,237 | 34,834,447 | 59,250,684 | 164,821,384 |
| Northern Nevada Adult Mental Health Services | 21,417,939 | 1.56 | 4,953,510 | 7,067,132 | 12,020,641 | 33,438,580 |
| Renown Rehabilitation Hospital | 11,817,823 | 1.56 | 2,733,209 | 3,899,447 | 6,632,656 | 18,450,479 |
| Tahoe Pacific Hospital | 9,773,571 | 1.56 | 2,260,417 | 3,224,919 | 5,485,336 | 15,258,907 |
| West Hills Hospital | 9,578,282 | 1.56 | 2,215,251 | 3,160,481 | 5,375,732 | 14,954,014 |
| Willow Springs Center | 8,148,960 | 1.56 | 1,884,680 | 2,688,857 | 4,573,537 | 12,722,497 |
| Nevada Non-Acute Hospitals – Total | 460,501,692 | 1.50 | 94,909,063 | 137,090,717 | 231,999,780 | 692,501,472 |

Source: Center for Health Information Analysis (2010), Press Ganey Associates (2010), Griswold and Packham (2011), and Minnesota IMPLAN Group (2011a).

Table 13: Distribution of Indirect, Induced, and Total Secondary Hospital Employment Impacts in Nevada Across Industry Sectors – 2009

| Industry Sector | Indirect Employment | | Induced Employment | | Total Secondary Employment | |
|---|---------------------|--------------------------------|--------------------|-------------------------------|----------------------------|---------------------------------|
| | Number of Jobs | Percent of Total Indirect Jobs | Number of Jobs | Percent of Total Induced Jobs | Number of Jobs | Percent of Total Secondary Jobs |
| Accommodation & Food Services | 763 | 6% | 1,925 | 12% | 2,688 | 9% |
| Administrative & Waste Services | 2,431 | 20% | 761 | 5% | 3,193 | 11% |
| Agriculture, Forestry, & Fishing | 3 | 0% | 13 | 0% | 17 | 0% |
| Arts, Entertainment & Recreation Services | 83 | 1% | 565 | 3% | 647 | 2% |
| Construction | 107 | 1% | 130 | 1% | 237 | 1% |
| Educational Services (Private) | 3 | 0% | 326 | 2% | 329 | 1% |
| Finance & Insurance Services | 596 | 5% | 1,181 | 7% | 1,776 | 6% |
| Health Care & Social Assistance | 474 | 4% | 2,957 | 18% | 3,431 | 12% |
| Information Services | 199 | 2% | 226 | 1% | 425 | 1% |
| Management of Companies & Enterprises | 579 | 5% | 89 | 1% | 668 | 2% |
| Manufacturing | 99 | 1% | 103 | 1% | 201 | 1% |
| Mining | 1 | 0% | 2 | 0% | 3 | 0% |
| Professional, Scientific & Technical Services | 970 | 8% | 676 | 4% | 1,646 | 6% |
| Real Estate, Rental & Leasing | 4,142 | 33% | 1,227 | 8% | 5,369 | 19% |
| Trade, Retail | 241 | 2% | 3,491 | 21% | 3,733 | 13% |
| Trade, Wholesale | 480 | 4% | 548 | 3% | 1,028 | 4% |
| Transportation & Warehousing | 416 | 3% | 408 | 3% | 825 | 3% |
| Utilities | 70 | 1% | 54 | 0% | 124 | 0% |
| Other Services Except Government | 550 | 4% | 1,495 | 9% | 2,045 | 7% |
| Government & Other | 192 | 2% | 120 | 1% | 312 | 1% |
| Nevada Hospitals – Total | 12,401 | 100% | 16,296 | 100% | 28,697 | 100% |

Source: Center for Health Information Analysis (2010), Press Ganey Associates (2010), Griswold and Packham (2011), and Minnesota IMPLAN Group (2011a).

Table 14: Distribution of Indirect, Induced, and Total Secondary Hospital Payroll Impacts (Thousands of Dollars) in Nevada Across Industry Sectors – 2009

| Industry Sector | Indirect Income | | Induced Income | | Total Secondary Income | |
|---|--------------------|----------------------------------|--------------------|---------------------------------|------------------------|-----------------------------------|
| | Income | Percent of Total Indirect Income | Income | Percent of Total Induced Income | Income | Percent of Total Secondary Income |
| Accommodation & Food Services | 26,787,940 | 6% | 55,082,339 | 9% | 81,870,279 | 8% |
| Administrative & Waste Services | 58,445,769 | 14% | 19,543,127 | 3% | 77,988,896 | 8% |
| Agriculture, Forestry, & Fishing | 45,828 | 0% | 591,432 | 0% | 637,260 | 0% |
| Arts, Entertainment & Recreation Services | 2,219,269 | 1% | 16,067,354 | 3% | 18,286,623 | 2% |
| Construction | 6,260,036 | 2% | 7,296,548 | 1% | 13,556,584 | 1% |
| Educational Services (Private) | 91,746 | 0% | 9,130,616 | 2% | 9,222,362 | 1% |
| Finance & Insurance Services | 25,853,661 | 6% | 51,564,483 | 9% | 77,418,144 | 8% |
| Health Care & Social Assistance | 26,578,402 | 6% | 156,609,591 | 26% | 183,187,993 | 18% |
| Information Services | 11,083,577 | 3% | 10,800,858 | 2% | 21,884,435 | 2% |
| Management of Companies & Enterprises | 55,083,896 | 13% | 8,500,538 | 1% | 63,584,433 | 6% |
| Manufacturing | 5,161,882 | 1% | 4,817,865 | 1% | 9,979,747 | 1% |
| Mining | 73,364 | 0% | 79,571 | 0% | 152,934 | 0% |
| Professional, Scientific & Tech Services | 50,133,309 | 12% | 33,756,502 | 6% | 83,889,811 | 8% |
| Real Estate, Rental & Leasing | 47,502,709 | 11% | 16,239,934 | 3% | 63,742,643 | 6% |
| Trade, Retail | 7,128,428 | 2% | 102,290,246 | 17% | 109,418,675 | 11% |
| Trade, Wholesale | 30,238,909 | 7% | 34,644,087 | 6% | 64,882,995 | 6% |
| Transportation & Warehousing | 17,143,642 | 4% | 19,132,984 | 3% | 36,276,626 | 4% |
| Utilities | 7,654,712 | 2% | 5,757,856 | 1% | 13,412,568 | 1% |
| Other Services Except Government | 24,175,829 | 6% | 40,400,968 | 7% | 64,576,797 | 6% |
| Government & Other | 15,216,903 | 4% | 9,852,160 | 2% | 25,069,063 | 2% |
| Nevada Hospitals – Total | 416,879,812 | 100% | 602,159,058 | 100% | 1,019,038,869 | 100% |

Source: Center for Health Information Analysis (2010), Press Ganey Associates (2010), Griswold and Packham (2011), and Minnesota IMPLAN Group (2011a).

Table 15: Health Services Industry Employment in Nevada by County and Industry Sector – 2009

| Region/County | Health Services Industry Employment – Number of Jobs | | | | | |
|---------------------------|--|---|---------------------------------|------------|---------------------------------------|-------------------------|
| | Hospital | Physicians, Dentists & Other Professionals | Nursing & Protective Care | Pharmacies | Other Medical & Health Services | Total Number of Jobs |
| Rural and Frontier | | | | | | |
| Churchill County | 401 | 328 | 185 | 65 | 101 | 1,081 |
| Douglas County | 177 | 606 | 218 | 47 | 258 | 1,305 |
| Elko County | 386 | 567 | 212 | 27 | 150 | 1,341 |
| Esmeralda County | 0 | 0 | 0 | 0 | 0 | 0 |
| Eureka County | 0 | 16 | 0 | 1 | 0 | 17 |
| Humboldt County | 204 | 148 | 11 | 11 | 18 | 391 |
| Lander County | 89 | 9 | 0 | 15 | 6 | 119 |
| Lincoln County | 81 | 12 | 91 | 5 | 6 | 195 |
| Lyon County | 151 | 136 | 79 | 187 | 87 | 641 |
| Mineral County | 135 | 44 | 0 | 0 | 0 | 179 |
| Nye County | 190 | 325 | 93 | 54 | 81 | 742 |
| Pershing County | 102 | 15 | 8 | 1 | 8 | 134 |
| Storey County | 0 | 0 | 0 | 0 | 0 | 0 |
| White Pine County | 180 | 49 | 76 | 27 | 21 | 353 |
| Rural & Frontier Subtotal | 2,095 | 2,254 | 973 | 442 | 735 | 6,499 |
| Urban | | | | | | |
| Carson City | 1,225 | 1,191 | 574 | 140 | 422 | 3,552 |
| Clark County | 20,040 | 24,063 | 7,493 | 5,211 | 10,852 | 67,659 |
| Washoe County | 6,701 | 6,917 | 2,863 | 715 | 3,146 | 20,342 |
| Urban Subtotal | 27,966 | 32,171 | 10,930 | 6,066 | 14,420 | 91,553 |
| Nevada – Total | 30,061 | 34,425 | 11,903 | 6,508 | 15,155 | 98,052 |

Source: Griswold and Packham (2011).

Table 16: Health Services Industry Payroll in Nevada by County and Industry Sector – 2009

| Region/County | Health Services Industry Payroll – Dollars | | | | | |
|---------------------------|--|---|---------------------------------|-------------|---------------------------------------|---------------|
| | Hospital | Physicians, Dentists & Other Professionals | Nursing & Protective Care | Pharmacies | Other Medical & Health Services | Total Payroll |
| Rural and Frontier | | | | | | |
| Churchill County | 29,663,767 | 20,189,749 | 5,338,211 | 2,115,577 | 5,112,778 | 62,420,082 |
| Douglas County | 12,141,295 | 36,419,030 | 10,186,881 | 1,776,516 | 14,809,756 | 75,333,477 |
| Elko County | 21,221,250 | 40,463,622 | 5,257,999 | 707,594 | 7,411,560 | 75,062,024 |
| Esmeralda County | 0 | 0 | 0 | 0 | 0 | 0 |
| Eureka County | 0 | 1,083,340 | 0 | 787 | 0 | 1,084,128 |
| Humboldt County | 9,561,343 | 7,108,607 | 205,437 | 168,779 | 556,011 | 17,600,178 |
| Lander County | 4,171,370 | 346,692 | 0 | 439,989 | 179,361 | 5,137,413 |
| Lincoln County | 3,265,483 | 404,180 | 4,618,837 | 133,036 | 190,834 | 8,612,369 |
| Lyon County | 7,653,305 | 7,699,039 | 2,271,963 | 10,064,013 | 3,580,875 | 31,269,193 |
| Mineral County | 6,327,354 | 2,443,592 | 0 | 0 | 0 | 8,770,946 |
| Nye County | 9,949,819 | 14,283,132 | 2,645,439 | 1,673,818 | 4,521,307 | 33,073,515 |
| Pershing County | 4,780,671 | 801,207 | 245,006 | 7,523 | 395,211 | 6,229,618 |
| Storey County | 0 | 0 | 0 | 0 | 0 | 0 |
| White Pine County | 8,436,476 | 1,959,951 | 3,158,798 | 993,606 | 798,315 | 15,347,147 |
| Rural & Frontier Subtotal | 117,172,132 | 133,202,141 | 33,928,572 | 18,081,237 | 37,556,006 | 339,940,089 |
| Urban | | | | | | |
| Carson City | 84,068,356 | 102,008,050 | 18,466,550 | 4,207,812 | 24,514,199 | 233,264,966 |
| Clark County | 1,653,299,496 | 1,808,743,168 | 289,477,062 | 185,300,543 | 613,543,200 | 4,550,363,469 |
| Washoe County | 450,856,666 | 623,719,768 | 96,735,040 | 30,385,650 | 177,945,920 | 1,379,643,044 |
| Urban Subtotal | 2,188,224,518 | 2,534,470,986 | 404,678,652 | 219,894,005 | 816,003,319 | 6,163,271,480 |
| Nevada – Total | 2,305,396,650 | 2,667,673,127 | 438,607,224 | 237,975,242 | 853,559,325 | 6,503,211,568 |

Source: Griswold and Packham (2011).

Table 17: Direct, Secondary, and Total Employment Impacts of the Health Services Industry in Nevada by County – 2009

| Region/County | Employment – Number of Jobs | Type SAM Multiplier | Secondary Employment Impact – Number of Jobs | | | Total Employment Impact – Number of Jobs |
|-----------------------------|-----------------------------------|------------------------|---|---------|--------------------|--|
| | | | Indirect | Induced | Total Secondary | |
| Rural and Frontier | | | | | | |
| Churchill County | 1,081 | 1.53 | 266 | 304 | 569 | 1,650 |
| Douglas County | 1,305 | 1.43 | 229 | 329 | 558 | 1,863 |
| Elko County | 1,341 | 1.45 | 198 | 401 | 599 | 1,940 |
| Esmeralda County | 0 | 0.00 | 0 | 0 | 0 | 0 |
| Eureka County | 17 | 1.11 | 1 | 1 | 2 | 19 |
| Humboldt County | 391 | 1.27 | 41 | 64 | 105 | 496 |
| Lander County | 119 | 1.16 | 9 | 10 | 19 | 138 |
| Lincoln County | 195 | 1.11 | 13 | 9 | 21 | 216 |
| Lyon County | 641 | 1.28 | 73 | 106 | 179 | 819 |
| Mineral County | 179 | 1.19 | 12 | 21 | 33 | 212 |
| Nye County | 742 | 1.31 | 107 | 123 | 231 | 973 |
| Pershing County | 134 | 1.11 | 6 | 9 | 15 | 149 |
| Storey County | 0 | 0.00 | 0 | 0 | 0 | 0 |
| White Pine County | 353 | 1.19 | 23 | 45 | 67 | 420 |
| Rural and Frontier Subtotal | 6,499 | – | 978 | 1,421 | 2,399 | 8,897 |
| Urban | | | | | | |
| Carson City | 3,552 | 1.37 | 587 | 722 | 1,308 | 4,861 |
| Clark County | 67,659 | 1.81 | 21,402 | 33,285 | 54,686 | 122,346 |
| Washoe County | 20,342 | 1.78 | 5,787 | 10,043 | 15,830 | 36,172 |
| Urban Subtotal | 91,553 | – | 27,775 | 44,049 | 71,825 | 163,378 |
| Nevada – Total | 98,052 | 1.78 | 29,681 | 46,412 | 76,093 | 174,146 |

Source: Griswold and Packham (2011) and Minnesota IMPLAN Group (2011a).

Table 18: Direct, Secondary, and Total Payroll Impacts of the Health Services Industry in Nevada by County – 2009

| Region/County | Payroll – Dollars | Type SAM Multiplier | Secondary Income Impact – Dollars | | | Total Payroll Impact – Dollars |
|-----------------------------|-------------------|---------------------|-----------------------------------|---------------|-----------------|--------------------------------|
| | | | Indirect | Induced | Total Secondary | |
| Rural and Frontier | | | | | | |
| Churchill County | 62,420,082 | 1.22 | 4,686,619 | 8,995,300 | 13,681,919 | 76,102,001 |
| Douglas County | 75,333,477 | 1.26 | 8,509,449 | 11,099,215 | 19,608,665 | 94,942,141 |
| Elko County | 75,062,024 | 1.31 | 8,805,112 | 14,430,222 | 23,235,335 | 98,297,359 |
| Esmeralda County | 0 | 0.00 | 0 | 0 | 0 | 0 |
| Eureka County | 1,084,128 | 1.04 | 21,367 | 17,758 | 39,125 | 1,123,253 |
| Humboldt County | 17,600,178 | 1.20 | 1,604,321 | 1,958,194 | 3,562,515 | 21,162,693 |
| Lander County | 5,137,413 | 1.09 | 217,438 | 270,037 | 487,475 | 5,624,888 |
| Lincoln County | 8,612,369 | 1.07 | 387,364 | 240,398 | 627,761 | 9,240,131 |
| Lyon County | 31,269,193 | 1.18 | 2,325,915 | 3,449,689 | 5,775,604 | 37,044,797 |
| Mineral County | 8,770,946 | 1.14 | 484,441 | 717,258 | 1,201,699 | 9,972,645 |
| Nye County | 33,073,515 | 1.21 | 3,303,949 | 3,716,038 | 7,019,987 | 40,093,502 |
| Pershing County | 6,229,618 | 1.06 | 136,015 | 233,264 | 369,279 | 6,598,897 |
| Storey County | 0 | 0.00 | 0 | 0 | 0 | 0 |
| White Pine County | 15,347,147 | 1.14 | 791,899 | 1,390,037 | 2,181,936 | 17,529,082 |
| Rural and Frontier Subtotal | 339,940,089 | – | 31,273,889 | 46,517,412 | 77,791,301 | 417,731,389 |
| Urban | | | | | | |
| Carson City | 233,264,966 | 1.20 | 20,066,236 | 25,963,509 | 46,029,745 | 279,294,712 |
| Clark County | 4,550,363,469 | 1.49 | 843,690,175 | 1,366,543,902 | 2,210,234,077 | 6,760,597,546 |
| Washoe County | 1,379,643,044 | 1.50 | 259,076,921 | 430,603,792 | 689,680,713 | 2,069,323,757 |
| Urban Subtotal | 6,163,271,480 | – | 1,122,833,332 | 1,823,111,203 | 2,945,944,535 | 9,109,216,014 |
| Nevada – Total | 6,503,211,568 | 1.47 | 1,179,655,248 | 1,900,622,684 | 3,080,277,932 | 9,583,489,500 |

Source: Griswold and Packham (2011) and Minnesota IMPLAN Group (2011a).

Table 19: Distribution of Indirect, Induced, and Total Secondary Health Sector Employment Impacts in Nevada Across Industry Sectors – 2009

| Industry Sector | Indirect Employment | | Induced Employment | | Total Secondary Employment | |
|---|---------------------|--------------------------------|--------------------|-------------------------------|----------------------------|---------------------------------|
| | Number of Jobs | Percent of Total Indirect Jobs | Number of Jobs | Percent of Total Induced Jobs | Number of Jobs | Percent of Total Secondary Jobs |
| Accommodation & Food Services | 2,214 | 7% | 5,474 | 12% | 7,688 | 10% |
| Administrative & Waste Services | 6,730 | 23% | 2,168 | 5% | 8,898 | 12% |
| Agriculture, Forestry, & Fishing | 5 | 0% | 38 | 0% | 42 | 0% |
| Arts, Entertainment & Recreation Services | 309 | 1% | 1,612 | 3% | 1,921 | 3% |
| Construction | 247 | 1% | 370 | 1% | 617 | 1% |
| Educational Services (Private) | 10 | 0% | 935 | 2% | 945 | 1% |
| Finance & Insurance Services | 1,698 | 6% | 3,362 | 7% | 5,060 | 7% |
| Health Care & Social Assistance | 1,152 | 4% | 8,409 | 18% | 9,561 | 13% |
| Information Services | 643 | 2% | 643 | 1% | 1,285 | 2% |
| Management of Companies & Enterprises | 1,044 | 4% | 253 | 1% | 1,286 | 2% |
| Manufacturing | 232 | 1% | 291 | 1% | 523 | 1% |
| Mining | 5 | 0% | 5 | 0% | 9 | 0% |
| Professional, Scientific & Technical Services | 3,430 | 12% | 1,923 | 4% | 5,353 | 7% |
| Real Estate, Rental & Leasing | 7,242 | 24% | 3,467 | 7% | 10,708 | 14% |
| Trade, Retail | 490 | 2% | 9,974 | 21% | 10,463 | 14% |
| Trade, Wholesale | 1,222 | 4% | 1,551 | 3% | 2,772 | 4% |
| Transportation & Warehousing | 1,186 | 4% | 1,164 | 3% | 2,350 | 3% |
| Utilities | 130 | 0% | 153 | 0% | 283 | 0% |
| Other Services Except Government | 1,245 | 4% | 4,280 | 9% | 5,524 | 7% |
| Government & Other | 450 | 2% | 341 | 1% | 791 | 1% |
| Total | 29,681 | 100% | 46,412 | 100% | 76,093 | 100% |

Source: Minnesota IMPLAN Group (2011a).

Table 20: Distribution of Indirect, Induced, and Total Secondary Health Sector Payroll Impacts (Thousands of Dollars) in Nevada Across Industry Sectors – 2009

| Industry Sector | Indirect Income | | Induced Income | | Total Secondary Income | |
|---|-------------------------------|----------------------------------|-------------------------------|---------------------------------|-------------------------------|-----------------------------------|
| | Income (Thousands of Dollars) | Percent of Total Indirect Income | Income (Thousands of Dollars) | Percent of Total Induced Income | Income (Thousands of Dollars) | Percent of Total Secondary Income |
| Accommodation & Food Services | 78,967 | 7% | 173,741 | 9% | 252,707 | 8% |
| Administrative & Waste Services | 183,445 | 16% | 61,702 | 3% | 245,147 | 8% |
| Agriculture, Forestry, & Fishing | 89 | 0% | 1,857 | 0% | 1,945 | 0% |
| Arts, Entertainment & Recreation Services | 8,580 | 1% | 50,902 | 3% | 59,482 | 2% |
| Construction | 15,978 | 1% | 23,095 | 1% | 39,072 | 1% |
| Educational Services (Private) | 308 | 0% | 29,057 | 2% | 29,365 | 1% |
| Finance & Insurance Services | 92,995 | 8% | 162,850 | 9% | 255,844 | 8% |
| Health Care & Social Assistance | 71,136 | 6% | 493,442 | 26% | 564,579 | 18% |
| Information Services | 38,914 | 3% | 34,034 | 2% | 72,948 | 2% |
| Management of Companies & Enterprises | 110,054 | 9% | 26,791 | 1% | 136,845 | 4% |
| Manufacturing | 13,212 | 1% | 15,170 | 1% | 28,382 | 1% |
| Mining | 310 | 0% | 251 | 0% | 561 | 0% |
| Professional, Scientific & Technical Services | 196,552 | 17% | 106,434 | 6% | 302,986 | 10% |
| Real Estate, Rental & Leasing | 97,782 | 8% | 51,007 | 3% | 148,788 | 5% |
| Trade, Retail | 16,040 | 1% | 324,096 | 17% | 340,136 | 11% |
| Trade, Wholesale | 85,215 | 7% | 108,730 | 6% | 193,944 | 6% |
| Transportation & Warehousing | 54,410 | 5% | 60,484 | 3% | 114,894 | 4% |
| Utilities | 15,729 | 1% | 18,074 | 1% | 33,803 | 1% |
| Other Services Except Government | 60,539 | 5% | 127,846 | 7% | 188,385 | 6% |
| Government & Other | 39,400 | 3% | 31,062 | 2% | 70,461 | 2% |
| Total | 1,179,655 | 100% | 1,900,623 | 100% | 3,080,278 | 100% |

Source: Minnesota IMPLAN Group (2011a).

Table 21: Estimated Local Spending and Tax Revenue Attributed to the Hospital Sector in Nevada by County – 2009

| County/Region | Total Hospital Sector Payroll – Direct and Secondary (\$) | Hospital Related Payroll Spent on Taxable Retail, Food, & Drink Sales (%) | Total Hospital Related Payroll Spent on Taxable Retail, Food, & Drink Sales (\$) | Local and County Retail Sales Tax Rate (%) | Total Tax Revenue Generated by Hospital Related Spending on Retail, Food, & Drink Sales (\$) |
|---------------------------|---|---|--|--|--|
| Rural and Frontier | | | | | |
| Churchill County | 25,843,595 | 6.0 | 1,544,360 | 7.600 | 117,371 |
| Douglas County | 15,717,431 | 8.8 | 1,277,549 | 7.100 | 97,806 |
| Elko County | 16,370,345 | 10.9 | 1,778,408 | 6.850 | 121,821 |
| Esmeralda County | – | – | – | – | – |
| Eureka County | – | – | – | – | – |
| Humboldt County | 12,423,651 | 8.5 | 1,051,244 | 6.850 | 72,010 |
| Lander County | 4,009,120 | 2.8 | 112,642 | 7.100 | 7,998 |
| Lincoln County | 2,893,463 | 1.7 | 49,721 | 7.100 | 3,530 |
| Lyon County | 8,921,561 | 6.9 | 618,317 | 7.100 | 43,900 |
| Mineral County | 5,559,539 | 4.8 | 268,238 | 6.850 | 18,374 |
| Nye County | 10,476,747 | 7.2 | 757,441 | 7.100 | 53,778 |
| Pershing County | 4,916,320 | 2.1 | 102,431 | 7.100 | 7,273 |
| Storey County | – | – | – | – | – |
| White Pine County | 11,153,137 | 5.7 | 633,248 | 7.475 | 47,335 |
| Rural & Frontier Subtotal | 118,284,909 | 7.0 | 8,293,598 | – | 591,197 |
| Urban | | | | | |
| Carson City | 87,500,144 | 5.0 | 4,413,328 | 7.475 | 329,896 |
| Clark County | 2,104,914,052 | 11.2 | 236,686,254 | 8.100 | 19,171,587 |
| Washoe County | 714,823,767 | 11.7 | 83,763,499 | 7.725 | 6,470,730 |
| Urban Subtotal | 2,907,237,963 | 11.1 | 324,863,081 | – | 25,972,213 |
| Nevada – Total | 3,041,752,525 | 11.2 | 339,894,793 | 8.000 | 27,100,657 |

Source: Minnesota IMPLAN Group (2011a) and Nevada Department of Taxation (2009).

Table 22: Estimated Local Spending and Tax Revenue Attributed to the Health Services Industry in Nevada by County – 2009

| County/Region | Total Health Services Industry Payroll – Direct and Secondary | Health Services Related Payroll Spent on Taxable Retail, Food, & Drink Sales (%) | Total Health Services Related Payroll Spent on Taxable Retail, Food, and Drink Sales (\$) | Local and County Retail Sales Tax Rate (%) | Total Tax Revenue Generated by Health Services Related Spending on Retail, Food, & Drink Sales (\$) |
|---------------------------|---|--|---|--|---|
| Rural and Frontier | | | | | |
| Churchill County | 76,102,001 | 6.0 | 4,547,696 | 7.600 | 345,625 |
| Douglas County | 94,942,141 | 8.8 | 8,321,173 | 7.100 | 590,803 |
| Elko County | 98,297,359 | 10.9 | 10,678,630 | 6.850 | 731,486 |
| Esmeralda County | – | – | – | – | – |
| Eureka County | 1,123,253 | 0.2 | 2,122 | – | 145 |
| Humboldt County | 21,162,693 | 8.5 | 1,790,710 | 6.850 | 122,664 |
| Lander County | 5,624,888 | 2.8 | 158,040 | 7.100 | 11,221 |
| Lincoln County | 9,240,131 | 1.7 | 158,781 | 7.100 | 11,273 |
| Lyon County | 37,044,797 | 6.9 | 2,567,423 | 7.100 | 182,287 |
| Mineral County | 9,972,645 | 4.8 | 481,159 | 6.850 | 32,959 |
| Nye County | 40,093,502 | 7.2 | 2,898,655 | 7.100 | 205,805 |
| Pershing County | 6,598,897 | 2.1 | 137,487 | 7.100 | 9,762 |
| Storey County | – | – | – | – | – |
| White Pine County | 17,529,082 | 5.7 | 995,258 | 7.475 | 74,396 |
| Rural & Frontier Subtotal | 417,731,389 | 7.0 | 32,737,135 | – | 2,318,426 |
| Urban | | | | | |
| Carson City | 279,294,712 | 5.0 | 13,980,315 | 7.475 | 1,045,029 |
| Clark County | 6,760,597,546 | 11.2 | 760,192,814 | 8.100 | 61,575,618 |
| Washoe County | 2,069,323,757 | 11.7 | 242,484,635 | 7.725 | 18,731,938 |
| Urban Subtotal | 9,109,216,014 | 11.1 | 1,016,657,765 | – | 81,352,585 |
| Nevada – Total | 9,583,489,500 | 11.2 | 1,070,888,499 | 8.000 | 85,384,751 |

Source: Minnesota IMPLAN Group (2011a) and Nevada Department of Taxation (2009).

Table 23: Estimated Economic Impact of Hospital Construction and Major Facility Expansions in Nevada – 2006 to 2010

| Year | Spending on Construction and Major Facility Expansions (Dollars)* | | | Hospital Construction Impacts in Nevada | | |
|-------------------|---|-------------|-------------|--|--|--|
| | Rural | Urban | Total | Total Construction-Related Employment (Number of Jobs) | Total Construction-Related Labor Income (2010 Dollars) | Total Construction-Related Output (2010 Dollars) |
| 2006 | 13,954,316 | 156,552,491 | 170,506,807 | 2,499 | 147,665,676 | 337,924,634 |
| 2007 | 5,287,956 | 501,518,912 | 506,806,868 | 7,022 | 414,990,658 | 949,682,930 |
| 2008 | 5,827,608 | 122,051,983 | 127,879,591 | 1,708 | 100,945,123 | 231,007,267 |
| 2009 | 4,417,949 | 93,160,800 | 97,578,749 | 1,250 | 73,854,656 | 169,012,256 |
| 2010 | 4,000,000 | 60,000,000 | 64,000,000 | 763 | 45,600,180 | 105,797,670 |
| Total | 33,487,829 | 933,284,186 | 966,772,015 | 13,242 | 783,056,293 | 1,793,424,757 |
| Five-Year Average | 6,697,566 | 186,656,837 | 193,354,403 | 2,648 | 156,611,259 | 358,684,951 |

Source: Minnesota IMPLAN Group (2011a), Nevada Hospital Association (2011), and Nevada Rural Hospital Partners (2011).

Appendix: The Multiplier Effect

An important method of assessing the impact of businesses and industry sectors on local economies is through the estimation of multiplier effects. Multiplier effects are a simplified and compact way of representing the effects of business and employee expenditures on the local economy. The multiplier is interpreted as the impact of a one-unit change in sales, employment, or income that results in a corresponding total impact on sales, employment, or income in the larger economy. In essence, the multiplier represents the recycling of dollars and income in a specified geographic unit, such as Clark County or the State of Nevada. This recycling creates new job opportunities and additional wages for residents and business establishments.

There are three types of multiplier effects based on the type of economic impact analysis undertaken: direct, indirect, and induced. These types are illustrated in Table 24 with examples from the hospital industry. The *direct multiplier effect* is based on an industry’s initial economic impact on the region’s economy.

Table 24: Illustration of Economic Impact Multipliers

| Type of Multiplier | Direct | Induced | Indirect |
|-----------------------|--------------------------|---|-----------------------------------|
| Employment Multiplier | Hospital jobs | Local retail and service jobs related to hospital employee spending | Hospital supplier jobs |
| Income Multiplier | Hospital employee income | Local retail and service income related employee spending | Hospital supplier employee income |
| Output Multiplier | Hospital expenditures | Local retail and service expenditures related to hospital spending | Hospital supplier expenditures |

For example, if a hospital has annual expenditures of \$5 million on goods and services to support hospital operating activities, then this figure becomes the direct economic impact on the community.

The *indirect multiplier effect* is based on industry-to-industry transactions only. For example, indirect effects would include hospital purchases of medical supplies, local laundry services, food, and other contracted services. Finally, the *induced multiplier effect* includes both the industry-to-industry transactions and household purchases, including employee spending. The total economic impact is thus defined as the direct plus indirect and induced economic impacts.

The direct, indirect, and induced multiplier effects can be classified as output, employment and income multipliers. An output multiplier of 2.0 indicates that if one dollar is spent by the hospital, an additional dollar is spent in other sectors due to business and household spending. An employment multiplier of 2.0 indicates that if one job is created in the health care sector, 1.0 additional jobs are created in other sectors due to business and household spending. Likewise, an income multiplier of 2.0 indicates that for every dollar of income created in the health sector, an additional dollar of income is created in other sectors due to inter-industry spending by health businesses and employees.

Model and Data Used to Estimate Multipliers

The economic impacts presented in this report are measured by multipliers using an input-output model and data from IMPLAN, a model that is widely used by economists and other academics in the United States. A computer spreadsheet that uses state IMPLAN multipliers was originally developed to enable community development specialists to measure the secondary benefits of the health sector on state, regional, or county economies. The complete methodology is presented in *Measuring the Economic Importance of the Health Sector on a Local Economy: A Brief Literature Review and Procedures to Measure Local Impacts* (Doeksen, et al. 1997).

Input-output (I/O) analysis is designed to analyze the transactions among industries in an economy (Miernyk 1965). These models are largely based on the work of Wassily Leontief during the 1930s. Detailed I/O analysis captures the indirect and induced interrelated circular behavior of the economy. For example, an increase in the demand for health services requires more equipment, more labor, and more supplies, which, in turn, requires more labor to produce the supplies, and so on. By simultaneously accounting for structural interaction between sectors and industries, I/O analysis gives expression to the general economic equilibrium systems.

The analysis utilizes assumptions based on linear and fixed coefficients and limited substitutions among inputs and outputs. The analysis assumes that average and marginal I/O coefficients are equal. Nonetheless, the framework has been widely accepted and used by economists and policymakers. I/O analysis is useful when carefully executed and interpreted in defining the structure of a region, the interdependencies among industries, and forecasting economic outcomes. The I/O model coefficients describe the structural interdependencies of an economy. From the coefficients, various predictive devices can be computed, which can be useful in analyzing economic changes in a state, region, or county. Multipliers indicate the relationship between some observed change in the economy and the total change in economic activity created through the economy.

Typically, the complexity of I/O modeling has hindered practitioners from constructing models specific to a community requesting an analysis. Too often, inappropriate multipliers have been used to estimate local economic impacts. In contrast, IMPLAN can construct a model for any state, region, county, or zip code area in the United States by using available state, region, county, or zip code data. Impact analysis can be performed once a regional I/O model is constructed.

Four main sets of multipliers are estimated by IMPLAN, corresponding to four measures of regional economic activity: (1) total industry output, (2) labor income, (3) value added, and (4) employment. Multipliers for four components of value added can also be estimated. Two types of multipliers are generated. Type I multipliers measure the impact in terms of direct and indirect effects. Direct impacts are the changes in the activities of the focus industry or firm, such as the construction of a hospital or the closing of a hospital. The focus business changes its purchases and inputs as a result of the direct impacts. This produces indirect impacts in other business sectors. However, the total impact of a change in the economy consists of direct, indirect, and induced changes. Both the direct and indirect impacts change the flow of dollars to the state, region, or county's households. Subsequently, the households alter their consumption. The effect of the changes in household consumption on businesses in a community is referred to as an induced effect. To measure the total impact, a Type Social Accounting Matrix (SAM) multiplier is used. The Type SAM multiplier compares direct, indirect, and induced effects with the direct effects generated by a change in final demand (the sum of direct, indirect, and induced effects divided by direct effects). The default SAM multiplier internalizes household income and expenditures. The Type SAM multiplier may also be modified in special cases to internalize other final demand categories such as state government spending.

Additional information on the data, methodology, and software requirements of I/O modeling and IMPLAN analysis can be found in guides developed by Doeksen, et al. (1997), Alward, et al., (1989), and the Minnesota IMPLAN Group (MIG) (2011b).

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