

2015

Healthy Hospitals. Healthy Communities.

The economic impact of Wisconsin's hospitals



LW
Extension
Cooperative Extension

WHA
WISCONSIN HOSPITAL
ASSOCIATION, INC.

2015

Healthy Hospitals. Healthy Communities.

The economic impact of Wisconsin's hospitals

“Hospitals and health systems are among the largest employers in Wisconsin and important contributors to the state's economy as we build healthier communities, create new jobs and support local businesses. At the same time, we are achieving and setting new standards of clinical excellence while we continue to tackle health care costs. Wisconsin's health care leaders are determined to keep our state 'ahead of the curve' by providing high-quality, high-value health care that is an asset to our state's economic development.”

WHA President/CEO Eric Borgerding

The University of Wisconsin-Cooperative Extension Department of Agricultural and Applied Economics and the Wisconsin Hospital Association produced this report in the fall of 2015 to raise awareness of the vital role hospitals play in their communities, both as a provider of health care services and as major economic contributors. The report focuses on hospitals and does not include independent physician's offices, dentists or residential care facilities. The data used to calculate the economic impact of Wisconsin hospitals is from 2013, which is the most current year available.

This feasibility analysis relies on data from private sources, secondary sources, and from public data sets. University of Wisconsin-Extension and the Wisconsin Hospital Association cannot be held responsible for the accuracy of this data or for decisions made resulting from the use of the data in this report. The conclusions and recommendations in this report are made solely by the authors and do not necessarily reflect the opinions of the University of Wisconsin Extension, the Department of Agricultural and Applied Economics, or the Wisconsin Hospital Association. Support for this work was provided in part by the Wisconsin Hospital Association, the Wisconsin Agricultural Experiment Station and the University of Wisconsin-Extension, Cooperative Extension.

An EEO/Affirmative Action Employer, University of Wisconsin-Extension provides equal opportunities in employment and programming, including Title IX and ADA requirements.

Executive Summary

Economic Impact of Hospitals, Health Systems is \$26 Billion

Hospitals account for a significant amount of economic activity in the cities, towns and counties where they are located. Of the 72 counties in Wisconsin, nearly nine in ten (88.9 percent) have a hospital. Statewide, hospitals contributed nearly \$26 billion in economic activity in the state.

Hospitals employed about 107,000 people in 2014. Health care continues to be a strong sector of Wisconsin's economy. Hospitals and clinics in rural areas provide employment opportunities for professionals with advanced degrees who want to live and work in less urban areas of the state.

Out-of-State Patients Have \$3 Billion Impact on Wisconsin Economy

Out-of-state patients who receive care in Wisconsin hospitals support more than 6,400 hospital jobs and have a \$3 billion impact on the state's economy.

Partnering with Employers to Improve Employee Health

Hospitals are also partnering with employers on a number of fronts – ranging from on-site medical clinics that make it easier for employees to receive routine medical services to innovative fitness and wellness programs that can help hold down health costs while improving employee health.

Hospitals and Health Systems Support the Community

Hospitals and health systems are also supporting healthy communities by providing thousands of dollars in charity care and by contributing to or sponsoring programs and activities that raise the overall health status. Together, Wisconsin hospitals provided more than \$1.68 billion in community benefits.

Employers Rank Health Care as an Important Community Asset

Health care is an important economic development asset in every community in Wisconsin. In a survey conducted by Leede Research for the Wisconsin Hospital Association, here is how nearly 300 employers ranked several key infrastructure elements:

1. Education
2. Health Care
3. Taxation and Business Climate
4. Workforce Training and Development
5. Highways and Roads

In most counties, particularly in more rural areas of the state, hospitals have a strong role in and provide a solid foundation for economic development strategies.

Wisconsin is Nationally Recognized Health Care Leader

Wisconsin is a national leader in health care quality, value and efficiency. That means patients receive the type of care they need, when they need it, so they are able to return to work and other daily activities sooner.

Statewide, hospitals generated \$26 billion in economic activity in 2013.

In 2014, Wisconsin hospitals cared for more than 7,000 inpatients on any given day, and treated more than 1.7 million patients in their emergency departments.

Wisconsin Hospitals Support Local Economy through Jobs, Economic Development

Wisconsin hospitals provide high-quality, accessible health care services 24 hours a day, 365 days a year. In 2014, Wisconsin hospitals cared for more than 7,000 inpatients on any given day, and treated more than 1.7 million patients in their emergency departments.¹

Hospitals are an essential part of a community's infrastructure. Most people put a high value on having access to a hospital near their home. Employers see the availability of good health care as an asset when they are deciding where to locate a new business or expand an existing facility. Access to quality health care is also an important human resources asset when employers are recruiting new or retaining existing employees.

1. Guide to Wisconsin Hospitals, FY2014, Summer 2014, WHA Information Center, www.whainfocenter.com

Wisconsin health care providers are committed to making high-quality care accessible in all areas of the state. Sixty-three of the state's 72 counties have at least one general medical-surgical (GMS) hospital. Nearly half of the counties have more than two GMS hospitals.

Hospitals are well known as places of healing and wellness, accepting all patients regardless of their ability to pay. What is recognized less often is the contribution hospitals make to the local, regional and state economies, including the number of people they employ, the impact of hospital purchases, and the impact of employees' spending and tax payments. Hospitals and health systems are among the largest employers in the counties where they are located.

When a new industry or even a small business is considering a move, the quality, accessibility and

Figure 1: Impact of Hospitals on Wisconsin's Economy in 2013



For a definition of the multiplier effect, see page 13.

cost of health care factors into the decision on where they will locate. Baby boomers looking to retire also rank “a good nearby hospital” as an important factor in their decision. Wisconsin’s

reputation for having a strong, highly-integrated network of providers known for delivering high-quality care adds to the attractiveness of the Badger state as a place to live, work and play.

Hospitals are Among the Largest Employers in Many Communities

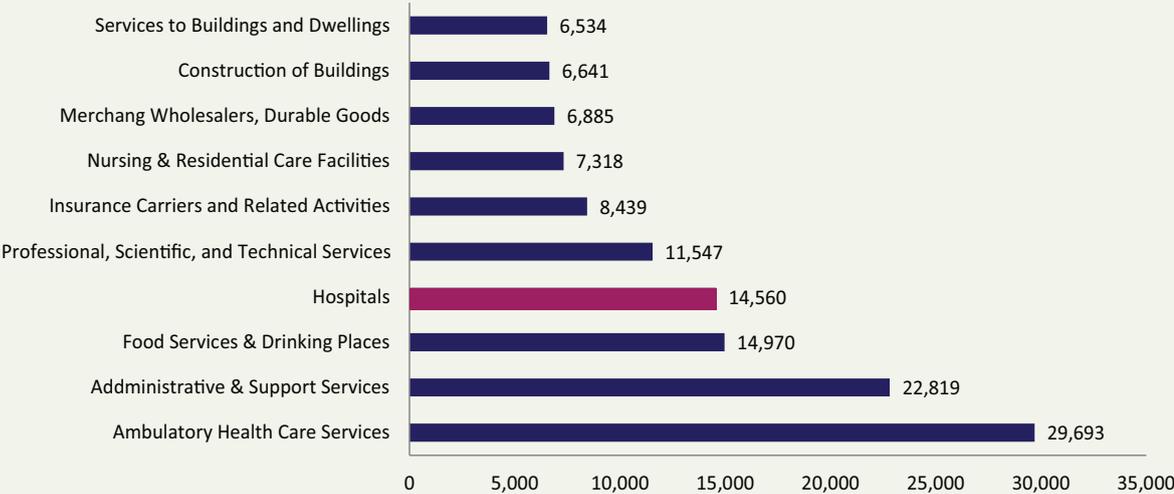
In 2014, hospitals employed about 107,000 people. Clearly, the growth in the health care industry workforce, including but not limited to hospitals, in terms of jobs is significant. Some people tend to focus on jobs as the single metric of the contribution of an industry to the local economy. Indeed, job creation is a critical factor to economic growth. Increasingly, local decision makers and concerned citizens are also worried about the wages associated with those jobs. For hospitals, there is a wide range of occupations ranging from food service workers to highly-specialized physicians. In Wisconsin, health care practitioners and technical occupations earn an

average salary that is higher than the average wage for all occupations. Hospitals also provide employment for and attract college-educated professionals, which helps avert a “brain drain.” In 2013, the typical worker in Wisconsin earned about \$44,690 in wages and salary, but for hospitals the average worker earned \$58,300.

About 47 percent of hospital expenses in Wisconsin are related to salaries and wages, not including employee benefits. In 2014, Wisconsin hospitals paid about \$4.6 billion in employee salaries.²

2. Source: Guide to Wisconsin Hospitals, FY2014, <http://www.whainfocenter.com/services/publications/?ID=14>

Figure 2: Top Ten Industries with the Most New Jobs, 2012 - 2022



Source: Wisconsin Office of Economic Advisors, Long Term: 2012-2022 Industry Employment Projections, <http://worknet.wisconsin.gov/worknet/downloads.aspx?menuselection=da&pgm=indprj>

DWD has predicted that health care and ambulatory care settings, in particular, will be among the largest sources of employment growth over the next several years.

The Wisconsin Department of Workforce Development (DWD) provides future employment growth projections from 2012-2022. While total employment is expected to grow by 7.4 percent during that time period in Wisconsin, health care and social assistance employment is projected to grow by almost 15 percent. The ambulatory health care services employment is anticipated to grow by 29,693 jobs between 2012 and 2022, a 25.9 percent increase.³ Hospitals are projected to add an additional 14,560 jobs, about a 13 percent increase over the same time period.

DWD has predicted that health care and ambulatory care settings, in particular, will be among the largest sources of employment growth

3. Source: Wisconsin Long Term Industry Employment Projections 2012-2022, http://worknet.wisconsin.gov/worknet_info/downloads/INDPRJ/lt_ind_2012.xlsx; Also High Growth Occupations, 2012-2022: http://worknet.wisconsin.gov/worknet/joblist_highgrow.aspx?menuselection=js

over the next several years. The occupational mix of hospital employment is diverse and the typical wages and salaries paid in hospitals are above the Wisconsin economy-wide average. In other words, hospitals in Wisconsin represent a significant and growing source of higher paying employment opportunities. In addition, hospitals invest in their workforce by providing tuition assistance programs, mentoring opportunities, and training programs aimed at helping employees update or further develop their career skills.

Wisconsin Long-Term Hospital and Health System Employment Projections, 2012-2022

Job	Percent Increase
Ambulatory Health Care Services	26%
Offices of Physicians	31%
Home Health Care Services	47%
General Medical and Surgical Hospitals	13%

Hospital Expenditures, Tax Payments Stimulate Economies

Nearly every industry within Wisconsin is affected in some way by the operation of hospitals. This occurs for multiple reasons. One, a hospital purchases goods and services in the community through direct and indirect purchases. For example, hospitals purchase prescription drugs, information technology, food, bed linens, or contract for building services. Those purchases create industry revenues for local businesses and “indirect” jobs and income for their employees.

Hospital employees spend their wages in the local economy as well, by purchasing cars, homes and groceries, to name just a few.

All the economic activity generated by the operation of hospitals also generates tax revenues. For example, all the retail activity along with some of the service industries are subject to both state and local/county taxes and that generates about \$243 million in sales taxes. The labor income generated by hospitals either directly through hospital employment or through the multiplier effect is subject to state income tax and generates some \$268 million in income taxes. In addition, there is almost \$319 million in other taxes paid by hospitals through fees and charges. In aggregate, hospital economic activity generates \$970 million in state and local government revenue.

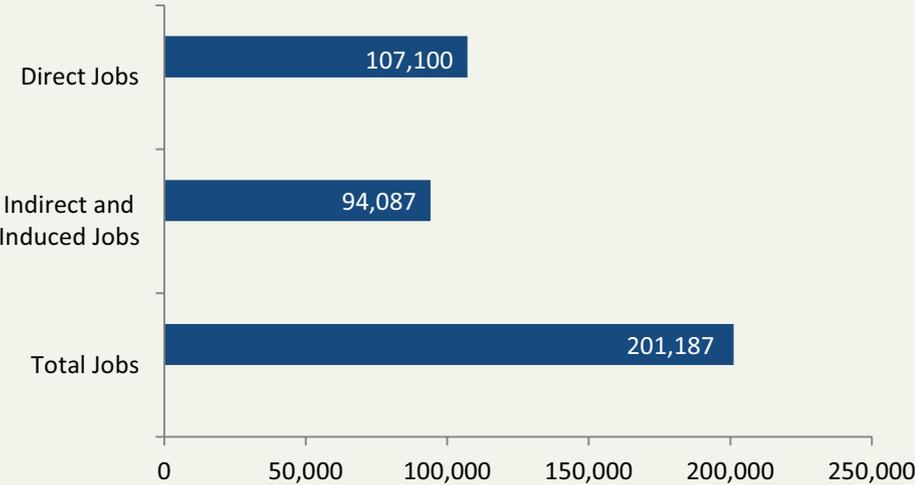
A detailed summary of the impact hospitals have at the county level is available at: www.waha.org/economic-impact.aspx

In most counties, particularly in more rural areas of the state, hospitals have a strong role in and provide a solid foundation for economic

development strategies. This dependency on hospitals as economic engines in the community is most strongly leveraged in some counties located in Northern Wisconsin, but it is also evident in counties with larger populations, such as Milwaukee and La Crosse counties.

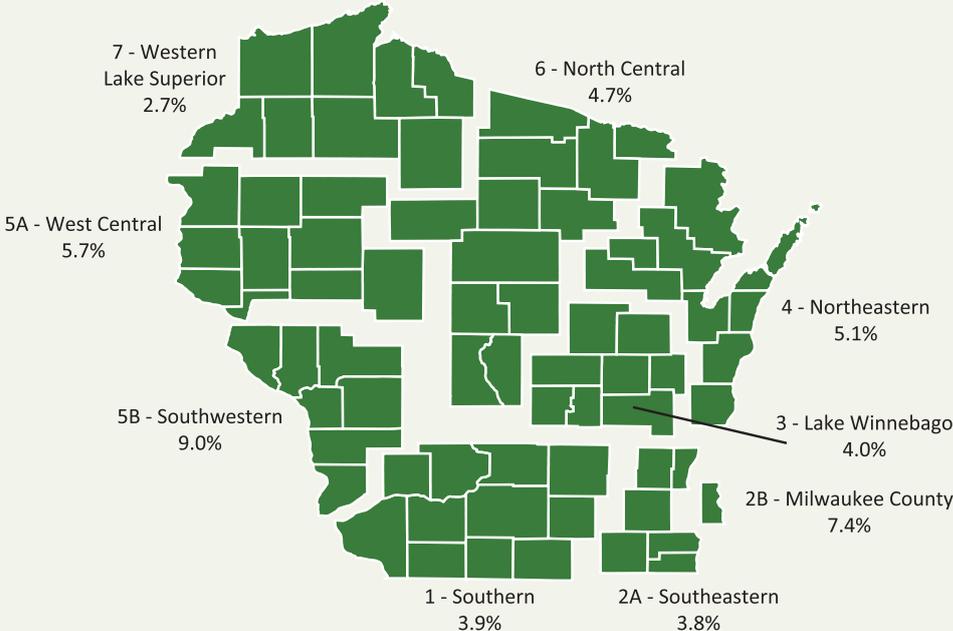
In aggregate, hospital economic activity generates \$970 million in state and local government revenue.

Figure 3: Job Impact of Wisconsin Hospitals



Source: IMPLAN

Figure 4: Hospital Employment as a Share of Total Employment Within Each Region



Source: IMPLAN

Out-of-State Patients Have \$3 Billion Economic Impact

Health care is often viewed as being very local, and most of the services provided by Wisconsin's hospitals and health systems are to Wisconsin residents. However, what may be a surprise to some, Wisconsin hospitals and health systems also care for a significant number of patients who do not reside within the state's borders.

In 2014, more than 180,000 patients living outside of the state received care in a Wisconsin hospital. Together, Wisconsin hospitals and health systems received over \$1.0 billion in payments in 2014 for providing inpatient and outpatient health care services to out-of-state residents. This is a conservative estimate, and accounts for payments associated with care within the hospital. Hospitals account for about one-third of health care costs. When payments to physicians, prescription drug expenses, costs associated with long-term care and rehabilitation services are included, the overall economic impact associated with out-of-state patients is estimated to be well over \$3 billion a year.

In addition to the economic impact of providing inpatient care to out-of-state residents, this activity also creates about 7,000 jobs in Wisconsin hospitals and health systems, and an additional 3,000 jobs in other employment sectors in Wisconsin.

The services that out-of-state patients receive can generally be categorized into four basic areas: specialized care, border care, emergency care and preferred care.

Specialized Care

Wisconsin has several regional health care systems that provide specialized services that may not be available in surrounding areas. These include services provided by Level 1 adult and pediatric trauma centers, burn units, transplant centers, intensive care units, heart centers, psychiatric services, and many others. Wisconsin is fortunate to have these highly-specialized services available within our state that are also being accessed by patients who reside in other states.

Border Care

Many Wisconsin hospitals and health systems are located near the border of neighboring states. That means these organizations have service areas that encompass counties outside of Wisconsin. This results in greater access to high quality inpatient and outpatient services provided to residents in surrounding states.

Emergency Care

According to a 2015 report by the Wisconsin Department of Tourism, Wisconsin receives almost 40 million "leisure" visits from Illinois, Iowa, Michigan and Minnesota residents. Given the range of tourism opportunities in Wisconsin, which includes skiing, hunting, fishing, hiking, bike riding, etc.,

there are times when urgent care or emergency services are needed. Wisconsin hospitals and health systems are ready to provide treatment to those who are visiting the Badger State.

Preferred Care

Wisconsin has many retired, seasonal residents who maintain their legal residency in more southern states, but summer in Wisconsin. These “snowbirds” often return to Wisconsin to receive their health care services because of Wisconsin’s reputation for high quality care.

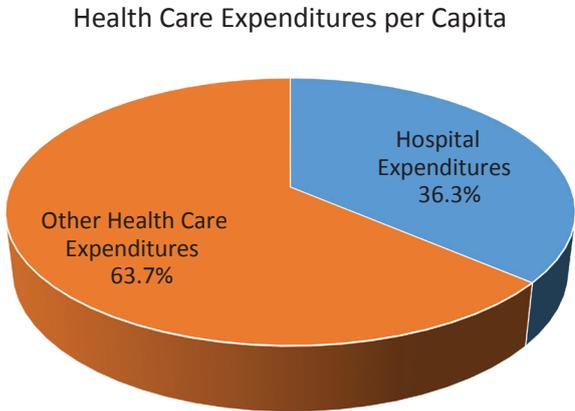
The reputation for high-quality care and the breadth of services available are likely among the key factors that attract patients to seek care in Wisconsin. In fact, Wisconsin consistently ranks among the best states based on the quality of the care. It is also one of the most integrated health care delivery systems in the country. That facilitates a high level of care coordination, which improves the quality of care, moderates cost and improves patient outcomes. This is an advantage to patients who can resume their regular activities more quickly, employers see employees return to work sooner, and patients are more satisfied with the care they receive.

Figure 5: Impact of Hospital Payments from Out-of-State Patients on Wisconsin’s Economy

	Employment	Labor Income (MM\$)	Total Income (MM\$)	Industry Sales (MM\$)
Direct Effect	6,436	\$532.6	\$585.0	\$1,000.0
Indirect Effect	989	\$25.6	\$58.9	\$129.0
Induced Effect	1,780	\$51.3	\$129.0	\$229.7
Total Effect	9,205	\$609.6	\$772.9	\$1,358.7
Multiplier	1.430	1.144	1.321	1.359

Source: IMPLAN

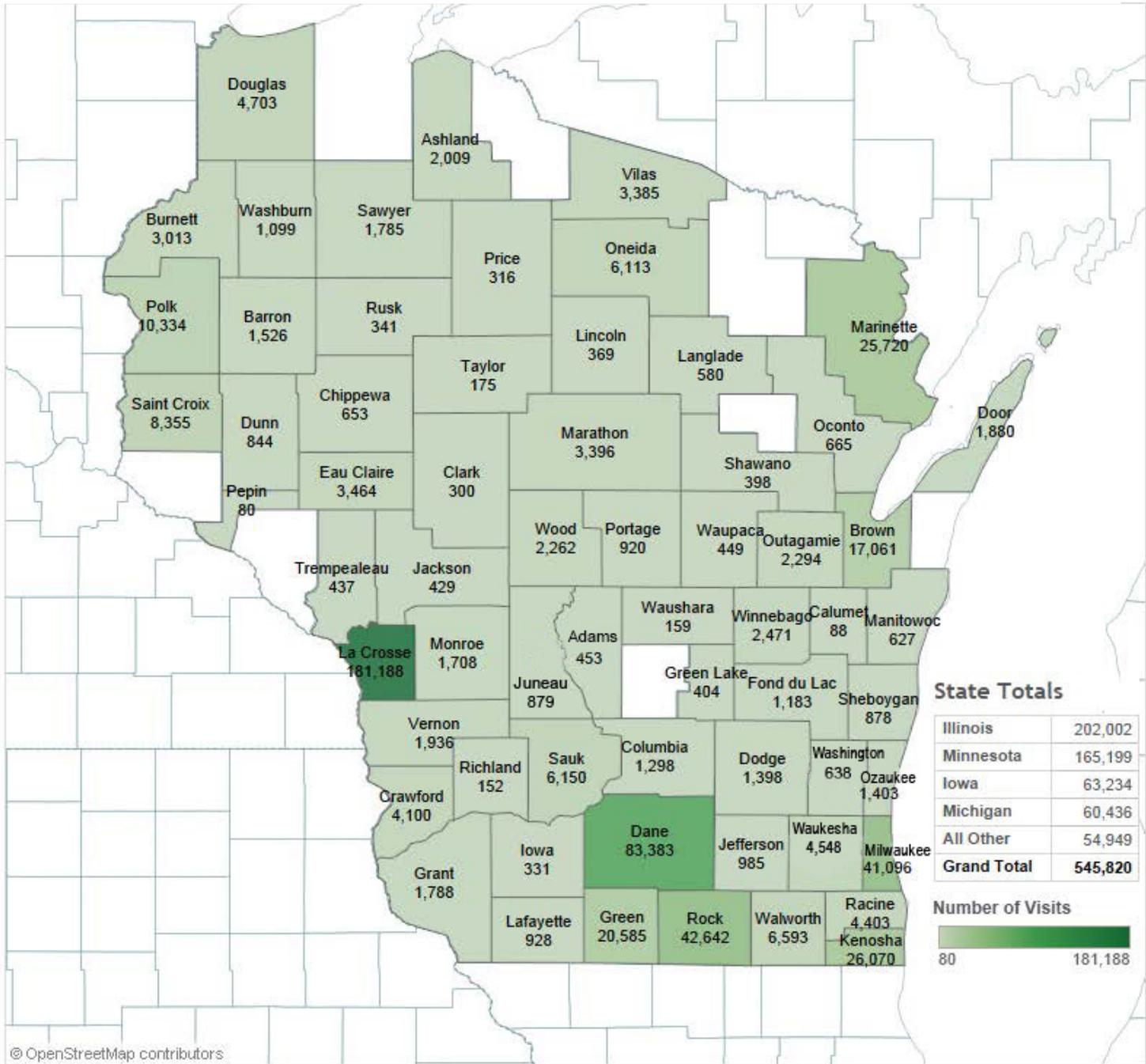
Figure 6: Impact of Non-Hospital Payments from Out-of-State Patients on Wisconsin’s Economy



The \$1 billion in annual hospital payments from out-of state residents for Wisconsin health care services only tells part of the story. Hospitals account for about 1/3 of health care spending. Therefore, it can be estimated that out-of-state payments for other health care services could be as much as an additional \$2 billion, further helping the Wisconsin economy by supporting additional jobs and economic activity.

Source: Kaiser Family Foundation

Number of Visits for Out of State Patients By Hospital County, Q2 2014 through Q1 2015



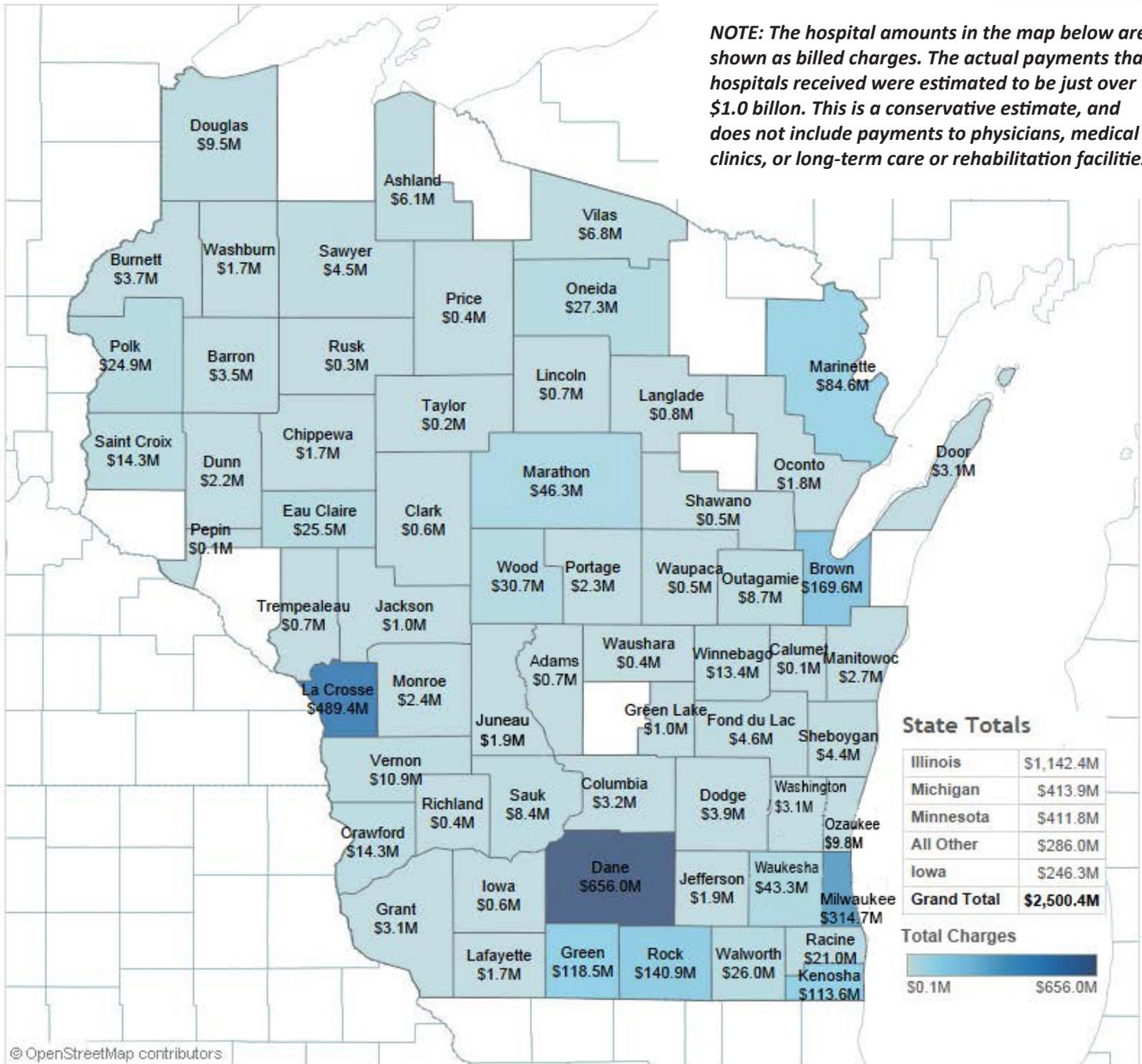
Top 5 Facilities



Source: WHA Information Center

Total Charges for Out of State Patients By Hospital County, Q2 2014 through Q1 2015

NOTE: The hospital amounts in the map below are shown as billed charges. The actual payments that hospitals received were estimated to be just over \$1.0 billion. This is a conservative estimate, and does not include payments to physicians, medical clinics, or long-term care or rehabilitation facilities.



Top 5 Facilities



Source: WHA Information Center

Figure 7: Distribution of Hospital Economic Impact Across Wisconsin - by Region

	Total Industry Revenue/Sales (MM\$)	Total Jobs	Total Labor Income (MM\$)	Total Income (MM\$)	Total Taxes (MM\$)
Region 1	\$3,753	28,515	\$1,656	\$2,060	\$137
Region 2A	\$2,911	23,934	\$1,297	\$1,566	\$104
Regional 2B	\$5,372	43,042	\$2,536	\$2,964	\$163
Region 3	\$1,866	14,830	\$789	\$982	\$66
Region 4	\$2,649	20,194	\$1,187	\$1,455	\$92
Region 5A	\$1,884	15,489	\$779	\$971	\$67
Regional 5B	\$2,055	15,855	\$944	\$1,123	\$71
Region 6	\$1,671	13,438	\$687	\$857	\$57
Region 7	\$254	2,087	\$104	\$127	\$9
*Wisconsin	\$26,359	201,187	\$11,239	\$18,287	\$970

* The state total (\$26,359 million), does not equal the sum of the nine regions (\$22,415 million) because a larger multiplier is used when running the model at the state level. Typically, larger regions (state) tend to have smaller leakages because more economic activity is captured with the region.
Source: IMPLAN

Figure 8: Hospital Impact on Industry Revenue/Sales: Top Ten

Industry	Industry Revenue/Sales (millions)
Hospitals	\$14,151
Offices of physicians, dentists, and other health practitioners	\$1,083
Employment Services	\$932
Wholesale trade businesses	\$559
Nursing and residential care facilities	\$444
Real estate establishments	\$391
Food services and drinking places	\$238
Medical and diagnostic labs and outpatient and other ambulatory care services	\$177
Services to buildings and dwellings	\$160
Retail stores - general merchandise	\$117

Source: IMPLAN

Figure 9: Hospital Impact on Industry Revenue/Sales: By Industry

Industry Supersector	Industry Revenue/Sales (millions)
Service	\$22,706
Transportation, Warehousing and Utilities	\$1,257
Trade	\$1,225
Manufacturing	\$687
Government	\$225
Construction	\$180
Agriculture	\$60
Mining	\$19
Total	\$26,359

Source: IMPLAN

Hospitals Support Community Health Initiatives, Seek to Address Socioeconomic Needs

Hospitals are a valued community resource for the care they provide and are recognized for their contributions to the economy. As mission-driven organizations, their reach extends far beyond the confines of their campuses. Hospitals spend millions of dollars supporting free medical and dental clinics, sponsoring health fairs and free screenings, and supporting community-wide initiatives aimed at improving the physical and mental health of the people who live in the community.

In 2014, more than 7,000 patients were hospitalized per day and 1.7 million patients were treated in a Wisconsin hospital emergency department. Together, Wisconsin hospitals provided more than \$278 million in charity care.

Hospitals and health systems are acutely aware that their ability to meet the demand for health care is dependent on having an adequate supply of trained health care professionals in the community. That is why hospitals and health systems provide

financial and clinical support for education training for nurses, physicians, therapists and many other health care occupations in the community. In this way, the training is locally available and health care professionals frequently stay and practice in the area where they receive their post-graduate experience.

Wisconsin hospitals share a common mission to provide compassionate, high-quality health care, improve the overall health status of the state's citizens, and to share a message of wellness and hope in their communities.

Community Benefits

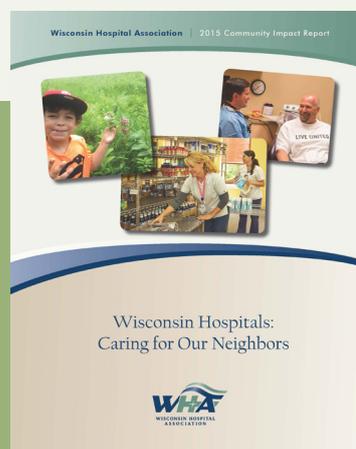
Charity Care at Cost	\$278,585,184
Medicaid Shortfalls	\$899,927,725
Losses on Other Public Programs	\$19,665,376
Subsidized Health Services	\$107,510,405
Nursing Home Losses	\$15,170,219

Source: WHA 2014 Community Benefits Survey

Wisconsin hospitals provided more than \$278 million in charity care in 2014.

In 2014, 132 Wisconsin hospitals completed the WHA Community Benefits survey. Hospitals provide thousands of hours and spend millions of dollars serving their communities. Once a year, they report these activities in aggregate to WHA.

For more information about Wisconsin hospitals connecting to their communities, visit:
www.WiServePoint.org



Summary and Conclusions

Hospitals are important contributors to Wisconsin's economy. Employment growth in hospitals has been steady over the past 10 years and appears to have weathered the most recent recession well. This is not to suggest that hospitals are immune to economic downturns but rather they appear less susceptible than other industries. The fact that people are living longer and new therapies are being developed to help those living with chronic illnesses extend their lives will have a major impact on the demand for hospitals' services. For Wisconsin, ambulatory care settings are expected to be the single largest source of new employment growth through 2022.

Hospitals employ about 107,000 people directly, and when the multiplier effect is considered, hospitals contribute a total of 201,187 jobs to the Wisconsin economy. For every job in a hospital, there are an additional 0.878 jobs created elsewhere in Wisconsin. Hospitals also generate \$11.2 billion in labor income, \$18.3 billion in total income, and \$26.4 billion in economic activity. In addition, this economic activity generated slightly more than \$969 million in state and local government revenues.

Hospitals and health systems in nearly every part of the state are represented on local Chamber of Commerce Boards and participate actively on regional economic development corporations.

This report was produced in fall 2015 to increase awareness of hospitals as a major economic contributor to local economies by the Department of Agricultural and Applied Economics, University of Wisconsin-Madison in partnership with the University of Wisconsin-Extension, Cooperative Extension. The University of Wisconsin-Extension, Cooperative Extension, creates, applies and transfers multidisciplinary knowledge to help people understand community change and identify opportunities.

University of Wisconsin-Cooperative Extension Department of Agricultural and Applied Economics

The Department of Agricultural and Applied Economics, University of Wisconsin Madison/Extension, creates, applies and transfers multidisciplinary knowledge to help people understand community change and identify opportunities.

Wisconsin Hospital Association

The Wisconsin Hospital Association's mission is advocating for the ability of its members to lead in the provision of high quality, affordable, and accessible health care services, resulting in healthier Wisconsin communities.

Professor Steven Deller, Community Development Economist, Agricultural and Applied Economics
University of Wisconsin – Madison/University of Wisconsin Cooperative Extension
521 Taylor Hall, 427 Lorch Street, Madison, Wisconsin, 53706; Phone: 608-263-6251; Email: deller@aae.wisc.edu

Mary Kay Grasmick, Vice President, Communications
Wisconsin Hospital Association
5510 Research Park Drive, Madison, WI 53711; Phone: 608-274-1820; Email: mgrasmick@wha.org

Andrew Lewis, Community Development Specialist (Retired)
Center for Community and Economic Development, University of Wisconsin-Cooperative Extension
610 Langdon Street, Room 335, Madison, Wisconsin 53703

Understanding Multipliers within IMPLAN

The economic ripples arising from production or activity in one industry can be viewed as a multiplier. Multipliers are central to input-output (I-O) analysis and estimate how the production requirement of industries respond to additional demand for their products (“Industry Sales”). In terms of this study, multipliers estimate how production levels in various industries must change in response to spending from hospitals and their employees. IMPLAN (www.IMPLAN.com) is a computer software program that allows for the construction of detailed state and local economic I-O models.

The multipliers constructed in this analysis are comprised of three different effects:

1. **Direct effect** – Direct effects are attributed to the industry or sector that initially causes a change in the economy. In terms of hospitals, direct effects are the levels of expenditures, employment, or payroll that are generated directly by the hospitals. That is, direct effects do not incorporate how expenditures or incomes ripple throughout the economy.
2. **Indirect effects** – As suggested earlier, hospitals purchase a variety of goods and services from private sector businesses. These hospital-to-business transactions create additional demand within a variety of industry sectors. As an example, consider a construction contractor doing work for the hospital. The contractor uses revenues from the hospital to pay for operating expenses, purchase new equipment, pay its employees, and make other types of investments. Consequently, the direct expenditures from the hospital have an indirect impact on the construction contractor. Indirect effects capture the impacts from these hospital-to-business purchases (“Industry Sales”).
3. **Induced effects** – Personnel at hospitals are paid wages and salaries. Induced effects estimate the impact of employees using these earnings to purchase goods and services in various sectors of the economy (i.e. food, furniture, gas, housing, medical, utilities, etc.).

Despite their importance in input-output modeling, multipliers are frequently misunderstood and misused. In the context of this study, readers should recognize several characteristics of multipliers. First, multipliers are not interchangeable or standardized. For instance, multipliers constructed for a hospital in one state should not be applied to a hospital in Wisconsin. Second, input-output multipliers should not be viewed as the number of times dollars or purchases recirculate in the local economy. Instead, I-O multipliers are the net economic result of inter-industry purchases and increases in income. Third, multipliers do not predict when an economic impact will occur in a community. Instead, the impacts arising from demand or an industry change in a given year will occur at some non-specific time in the future (Shaffer, Deller, and Marcoullier, 2004).

