

The Economic Impact of Mercy on the Springfield Area

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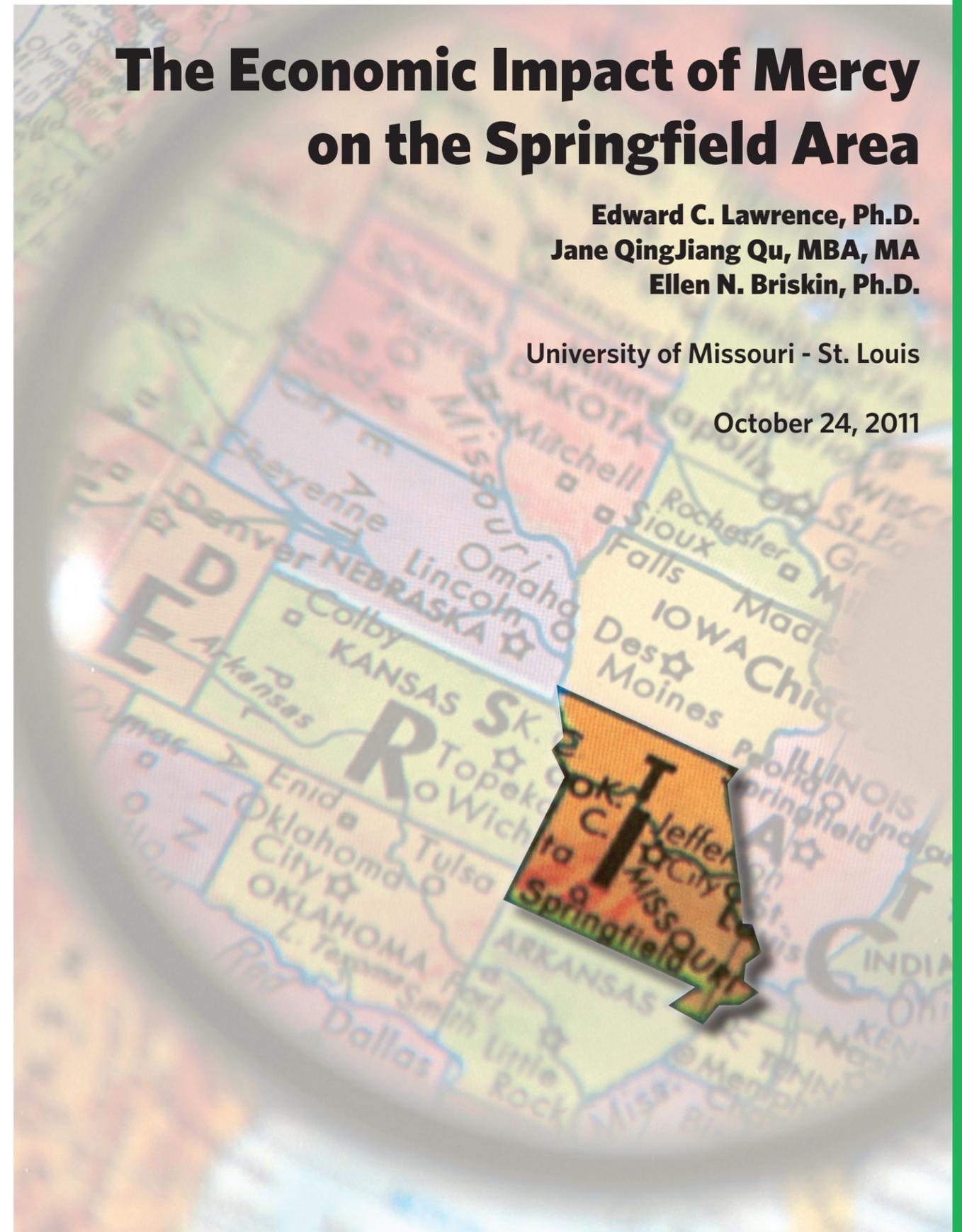


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Executive Summary

Mercy Hospital Springfield is a large comprehensive care hospital whose service area spans southwest Missouri and northern Arkansas. As a top employer in the area, the hospital is supported by a staff of 8,180 including 685 medical providers as well as Mercy's largest multispecialty physician group. Mercy Hospital Springfield has 1,016 beds and provides out-patient services to nearly 646,000 individuals in the area. The facilities served 92,322 emergency patients and performed 29,345 surgical procedures for individuals in fiscal year 2011 alone. As part of Mercy Health, the largest multi-state provider in the Central Midwest, Mercy Hospital Springfield has implemented a state-of-the-art, integrated, and advanced electronic record system to meet the demand for high quality health care services while controlling costs. Mercy's business endeavors, capital investments and employment opportunities in the Springfield community provide a significant and permanent boost to the local economy.

Our economic analysis of Mercy's data shows the institutional impact of the local operations on the Springfield area in fiscal year 2011 to be:

- **\$1.6 billion in spending in the Springfield area by Mercy's facilities and its suppliers**
- **8,180 direct jobs and \$695 million in payroll**
- **\$35 million in direct capital investment, with projected capital initiatives exceeding \$208 million over the next two years**
- **\$22 million in annual local and state taxes**
- **31,406 charity patients served. Over \$28 million provided in unpaid cost to financially indigent persons without insurance, over \$21 million provided in unpaid cost of Medicaid, and over \$24 million provided in other Community Benefit.**
- **Received over 1,400 out-of-state medical patients**

In aggregate, the results indicate that Mercy's economic contribution to the Springfield area was \$1.7 billion in fiscal year 2011 alone. Even with very conservative projections for spending and growth, the operations will have a substantial impact on both the quality of life of residents and the economic development of the area over the next decade. Assuming Mercy's growth in spending and wages increase at a modest 2% annually over the next 10 years, Mercy will generate over \$21 billion in total economic benefits for the Springfield area during this time period.

Appendix

	Pediatric Surgery	Pediatric Medical	Adult Surgery	Adult Medical	General Services
Aurora	General Surgery	General Medical	General Surgery	General Medical; Cardio Pulmonary; Gastroenterology	Primary Care; ER; Diagnostics; OB; Skilled Nursing/ Rehab; Support Services
Cassville	General Surgery	General Medical	General Surgery	General Medical; Cardio Pulmonary; Gastroenterology	Primary Care; ER; Diagnostics; OB; Skilled Nursing/ Rehab; Support Services
Joplin	General Surgery	General Medical; Cardio Pulmonary	General Surgery; Cardiovascular/ Chest; Plastics- Head/ Neck; Neurosurgery; Orthopedics; Trauma	General Medical; Oncology; OB/ Maternal Fetal Medicine; Psych; Cardio Pulmonary; Gastroenterology; Genitourologic; Endo/ Musculoskeletal; Neurology	Primary Care; ER; Diagnostics; OB; Skilled Nursing/ Rehab; Support Services
Lebanon	General Surgery; Orthopedics	General Medical; Endo/ Musculoskeletal	General Surgery; Orthopedics; Trauma	General Medical; Oncology; Cardio Pulmonary; Endo/ Musculoskeletal Support Services	Primary Care; ER; Diagnostics; OB; Skilled Nursing/ Rehab;
Mountain View			General Surgery	General Medicine	Primary Care; ER; Diagnostics; Skilled Nursing/ Rehab
Rolla		General Medical	General Surgery; Orthopedics	General Medical; Oncology; OB/ Maternal Fetal Medicine; Pulmonary; Neurology	Primary Care; Diagnostics; OB; Support Services
Springfield	General Surgery; Plastics - Head/ Neck; Neurosurgery; Orthopedics; Trauma	General Medical; Oncology; Psych; Cardio Pulmonary; Gastroenterology; Endo/ Musculoskeletal; Neurology; Critical Care	General Surgery; Cardiovascular/ Chest; Plastics - Head/ Neck; Neurosurgery; Orthopedics; Trauma	General Medical; Oncology; OB/ Maternal Fetal Medicine; Psych; Cardio Pulmonary; Gastroenterology; Genitourologic; Endo/ Musculoskeletal; Neurology; Critical Care	Primary Care; ER; Diagnostics; OB; Skilled Nursing /Rehab; Support Services
St. Louis	General Surgery; Cardiovascular/ Chest; Plastics- Head/ Neck; Orthopedics; Trauma	General Medical; Oncology; Psych; Cardio Pulmonary; Gastroenterology; Endo/ Musculoskeletal; Neurology	General Surgery; Cardiovascular/ Chest; Plastics - Head/ Neck; Neurology; Orthopedics; Trauma	General Medical; Oncology; OB/ Maternal Fetal Medicine; Psych IP Unit; Cardio Pulmonary; Gastroenterology; Genitourologic; Endo/ Musculoskeletal; Neurology	Primary Care; ER; Diagnostics PET Scan; OB; Skilled Nursing/ Rehab; Support Services
Washington	General Surgery Appendectomies; Orthopedics Simple fractures	General Medical	General Surgery; Cardiovascular/ Chest; Plastics - Head/ Neck; Orthopedics; Trauma	General Medical; Oncology; OB/ Maternal Fetal Medicine; Cardio Pulmonary; Gastroenterology; Genitourologic; Endo/ Musculoskeletal	Primary Care; ER; Diagnostics; OB; Skilled Nursing/ Rehab; Support Services

Introduction

The purpose of the study is to measure the overall economic impact of Mercy on the city of Springfield and surrounding communities. With more than 140 years of experience in providing medical services in the region, Mercy has developed an unparalleled reputation for providing high quality care to patients, many of whom would otherwise be under-served. Through state-of-the-art facilities, residents access the latest technology and physicians in all major specialties. Mercy is also a leader in providing health care to the indigent and uninsured through its charitable programs. This is a critical safety net, since approximately 914,000 Missouri residents or 15.3% of the state population lack health insurance.

Before reporting the findings of our economic analysis, it is necessary to first provide a brief background discussion on the health care sector to give some context to the results. We also describe the historical development of Mercy and its current facilities to provide the reader with some basic knowledge of the environment within which it operates and serves. Finally, the study methodology and the results are highlighted in an evaluation of the economic footprint Mercy has on the Springfield area.

The U.S. Health Care Sector

Even in the current recession, the health care sector has been consistently near the top of the employer list for creating jobs.¹ Recent government reports indicate employment in the sector has been rising by 24,000 positions per month despite a national unemployment rate near record highs. There are more than 5.4 million employees working in U.S. hospitals. In terms of total health care expenditures, the sector has experienced substantial growth with aggregate spending increasing from \$1.4 trillion in 2000 to \$2.4 trillion in 2009. This represents an annual growth rate of over 6% per year. Hospitals and professional services accounted for 62% of the total expenditures for health care. In 2000, health care expenditures represented 13.6% of the Gross Domestic Product (GDP) compared to 17.3% in 2009. Health care spending is forecasted to rise to \$4.5 trillion (19.3% of GDP) by 2019. On a per capita basis, the average American consumed \$8,047 in health services in 2009. This is projected to increase 66% to \$13,387 by 2019. Only a small fraction of the growth in expenditures is attributable to an expanding population. During the period of 2000 to 2010, the U.S. population grew at a rate of less than 1% annually, from 283 million to 304 million people. Rather, the rising demand for medical care reflects an

¹This section draws on statistical data from the U.S. Bureau of Census, the Bureau of Economic Analysis of the Department of Commerce, the Centers for Medicare and Medicaid Services of the Office of the Actuary, the National Health Statistics Group, and the American Hospital Association.

aging population which requires more services. Significantly, according to a 2010 U.S. Census Bureau estimate, the number of seniors in the future will double to 80 million from a level of 40 million today.

Health Care in Missouri

While Missouri is a leader in health care nationally, there are still 41 out of 114 counties within the state that do not have a single hospital.² According to the latest data available, Missouri hospitals served 21 million outpatients and 877,000 inpatients. The health care and social assistance sector accounts for 7.7% of the state economy with hospitals contributing 41% of the spending. In 2009, health care generated the largest number of private jobs in the state. Almost 11% of the state's workforce is employed in some form of health care service ranking the state at a strong 11th position nationally for employment in this sector. Missouri's 156 hospitals directly employ 147,000 Missourians with an annual payroll of \$6.8 billion and \$18.9 billion in operating revenues. Facility construction and other capital improvements employ an additional 21,700 people and inject another \$1.2 billion into the state's economy. Even during the recent recession when Missouri lost 62,600 jobs overall between 2008 and 2009, Missouri hospitals continued to add jobs. The health care sector in the state is projected to grow 16.63% by 2018. Out-of-state patients and family members, sometimes referred to as medical tourists or longdistance patients, also play an important part in the state's economy. With high quality medical care located near the geographic and population centers of the U.S., the Missouri Hospital Association reported that Missouri hospitals state-wide admitted 85,000 inpatients from outside the state in 2009. These numbers were even greater for outpatient services, with more than 770,000 visits to a variety of departments and clinics in the St. Louis, Kansas City, Central, Ozark, and Southwest regions of the state. Not surprisingly, most of these out-of-state patients and visitors were residents of neighboring states such as Illinois (55% of inpatients and 48% of outpatients), Arkansas (6% of both inpatients and outpatients), Kansas (26% of inpatients and 31% of outpatients) and Oklahoma (4% of both inpatients and outpatients). Out-of-state medical patients made up 9.5% of Missouri hospital discharges with \$3.3 billion in revenues.

Mercy Health

St. Louis-based Mercy is the eighth largest Catholic, not-for-profit regional health system in the U.S. and the biggest health system in the Central Midwest (Iowa, Missouri, Illinois, Kansas, Arkansas and Oklahoma). Mercy's primary mission is to provide optimized care both in terms of patient health,

²This section draws on data released 2 by the Missouri Hospital Association and the Community Policy Analysis Center of the University of Missouri - Columbia.

Limitations of Study

All economic impact studies are based on certain assumptions and projections. We have made every effort to use reasonable assumptions and to confirm the accuracy of the data used in this analysis. Nevertheless, this study most likely understates the economic impact that Mercy has and will continue to have on the area. Because certain types of data are unavailable, the following influences were not included in our analysis:

- Many Mercy co-workers volunteer their time and money for charitable activities. This private information and not collected by the institution.
- Considering that Mercy relies heavily on skilled professionals in providing services to the population, universities located within the area benefit from its recruitment and hiring of their graduates.
- Access to quality health care is a major consideration in attracting new companies to a community. There is no question Mercy plays a very important role in meeting this need.

Concluding Remarks

The present study quantifies the economic impact Mercy has on the Springfield area. For FY2011 alone, it contributed \$1.7 billion in benefits to the area's economy. This includes \$1.6 billion in operational spending (with \$1.2 billion in payroll alone), \$59.5 million in capital expenditures and \$22 million in direct tax revenues. Over the next decade, Mercy's contribution will be even more impressive. Our findings show the institution will add another \$21 billion in cumulative value from FY2012 to FY2021. In today's dollars, this represents about \$16 billion in new economic investment for the Springfield area.

Mercy has long been an economic pillar to the Springfield area it serves. It has been an outstanding corporate citizen in every sense of the term. In addition to providing high quality medical care to the communities it serves, Mercy is on the front line offering vital services to the indigent and the poor. In doing so, it raises the quality of life for everyone and lowers the financial burden on other state and locally supported institutions. There is no question the economic impact of Mercy far exceeds the support it has received from various government entities. Thus, Mercy is an enormously valuable resource and one that offers a benefit /cost ratio among the highest we have seen.

E. Summary of Economic Impact for 2011

As shown in Table 5, Mercy will have a total economic impact of \$1.7 billion on the Springfield area for FY2011. This economic analysis has shown that the largest factor driving economic growth is Mercy’s spending on payroll. Nevertheless, capital expansion and tax revenues generated for state and local governments are also important variables in sustaining and advancing the quality of life in the community.

Table 5
Summary of Total Economic Impact for FY2011

Operational Spending	Capital Expenditures	Tax Revenues	Total Impact
\$1,608,000,000	\$59,500,000	\$21,900,000	\$1,689,400,000

Long - term Economic Impact

The current analysis demonstrates that Mercy’s economic impact for FY2011 is substantial, but strategic decision making for companies and governments require decade-long projections. Although forecasting over long time horizons is always more difficult, some reasonable assumptions can be made to guide us. Our longer projections are based on actual institutional strategic plans for FY2012 and FY2013. Thereafter, we assume payrolls, operating spending, and taxes all increase at a modest 2% rate starting in 2014 and up to 2021.

Under these conservative assumptions, Mercy will provide \$21 billion in economic benefits to the Springfield area over the next decade. Furthermore, the annual economic impact will increase from \$1.7 billion in FY2011 to \$2.2 billion by FY2021. Factoring in the time-value of money using a 5% discount rate, the cumulative amount of annual benefits generated over the next 10 years is worth over \$16 billion today.

exceptional service, and operational efficiency. In FY2011, it generated \$4.2 billion in revenue based on investments totaling \$2.1 billion in property and equipment. Through a combination of personal and clinical services, Mercy consistently offers all patients highquality medical services, which it continuously seeks to improve.

The founding of Mercy traces back to Ireland nearly two centuries ago when Catherine McAuley established the Sisters of Mercy. Her vision was to assist the sick, poor, and uneducated – especially women, children, and the elderly. In the U.S., the Sisters of Mercy traveled to many communities to open hospitals and schools. The Sisters that arrived in St. Louis in 1856 turned their original school building into a 25-bed infirmary in 1871 and the legacy of compassionate care and exceptional service was born. From its humble beginning, Mercy has developed into a first class health system with 3,984 beds in seven states. Its regional facilities provide annual outpatient services to more than 6 million individuals along with inpatient and outpatient surgical procedures for 118,000 people. Mercy is dedicated to helping those in need of health care but who cannot afford it. It provides benefits to our communities through charity care, the unpaid cost of Medicaid and other government shortfall programs, and local programs that focus on improving the health of the community served. In Missouri alone, Mercy provided uncompensated health care to 45,726 patients with a cost of \$95 million in unpaid cost to financially indigent persons without insurance, unpaid cost of Medicaid, and other Community Benefit in FY2010. In the mid-1990s, ministries were created in Louisiana, Mississippi, and Texas to continue to meet the ongoing health needs of those areas outside of acute care facilities. For example, in Laredo, Texas these initiatives include a shelter for abused women and children, a mobile health unit, medical and dental services in a low-cost clinic, and educational training and support. Mercy Family Center in New Orleans focuses on behavioral health services for adolescents, and the Mississippi Health Advocacy Program is a voice for all the under-served and economically poor throughout the state. In April 2011, Mercy donated \$500,000 in cash to two dozen community programs in Mercy’s service area. On a monthly basis, between \$5,000 and \$10,000 worth of surplus medical supplies are donated to thirdworld countries, thus re-purposing material that could have gone to landfills. Mercy also offers educational programs like women’s wellness, cardiac health, etc, which make significant contributions to the health of the communities served.

Nationally, Mercy has an integrated structure comprised of 29 acute care hospitals, three heart hospitals, one rehabilitation hospital, hundreds of physician offices, and nursing facilities. In addition to a state health advocacy program in Mississippi, Mercy delivers health care services to six states (Arkansas, Kansas, Louisiana, Missouri, Oklahoma, and Texas) through 36,900 coworkers and 4,918 medical staff

members. Mercy's efforts to create a stronger, more integrated health system have been repeatedly recognized through the health analytics firm SDI and their survey of top integrated delivery networks. Mercy's hospital in Springfield has been named in the Top 100 list for more than a decade, and was No. 1 both in 2007 and 2009. Mercy's hospital in St. Louis joined the list in 2007 at No. 69 and leaped to No. 28 in 2009. In 2010, Mercy's St. Louis and Springfield locations were ranked second and third respectively. This ranking is based on the ability to act in a unified manner in eight different categories including financial stability, technology, contractual capability, hospital utilization, access to services, and physician quality. Mercy is ranked as a leader by the Healthcare Information and Management Systems Society. It is among the top 4 percent of all U.S. health care organizations for the use of a comprehensive electronic health record system that provides real-time, paperless access to patient information.

Facilities in Springfield

Mercy's facilities in the Springfield area consist of Mercy Hospital Springfield, a large acute care facility providing services in Cancer, Children's Services, Heart Care, Mother / Baby Care, Neurology and Stroke, Senior Care, Sports and Orthopedics, Trauma and Burn, and Woman's Care. Mercy Hospital Springfield is supported by a multi-specialty clinic in Rolla and five regional hospitals in Lebanon, Aurora, Cassville, Mountain View, and Berryville, AR. The Children's Hospital within Mercy Hospital Springfield is affiliated with St. Jude Children's Hospital in Memphis, TN. Mercy Clinic is a physician-led and professionally managed multi-specialty group practice that consists of more than 470 physicians and 220 advanced practice and allied health practitioners operating at 70 locations throughout the region in southwest Missouri and northern Arkansas. It is noteworthy that the clinic is ranked among the top 10 nationally in terms of patient satisfaction and service. St. John's Health Plans provides medical and care management services which enhance the quality of care while managing the overall cost of care for employers in the region. Employers who have engaged with St. John's Health Plans have seen significant decreases in the year-over year medical trends. Over 284,000 lives are covered under St. John's Health Plans. Mercy Hospital Springfield is also a top employer in the area with 8,180 co-workers and in FY 2010 provided out-patient services to nearly 646,000 individuals in southwest Missouri and northwest Arkansas. The facility served 92,322 emergency visitors and performed 29,345 surgical procedures for individuals in FY 2011. Mercy Hospital Springfield has been recognized in the Top 100 list of integrated delivery networks for more than a decade and was ranked No. 1 in 2007 and 2009 and is currently No. 3. Since 2005, Mercy Hospital Springfield has been one of ten hospitals participating in a Medicare Physician Group Practice (PGP) Demonstration Project. The project is designed to encourage coordination of care for Medicare patients, promote cost efficiency and effectiveness, and improve the health of the

impact of \$59.5 million in FY2011. The total benefit was even greater as these developments generated new investment and employment opportunities elsewhere.

In 2011, Mercy undertook a process in the Springfield area to engage the community in determining strategic areas of healthcare needs for the future. The results of this engagement identified several areas of focus including: further investments in telemedicine; renewal and growth of Mercy's physical presence; more provider levels of service; and a greater emphasis on children's health and the health of the under-served. As a result of the new Orthopedic Hospital under construction on the Springfield campus, projected capital spending for the next two fiscal years should exceed \$208 million.

Table 3
Capital Expenditure Impact for 2011

	Direct Spending	Indirect Spending	* Total Spending
Capital Expenditures	\$35,000,000	\$24,500,000	\$59,500,000

* Includes indirect and induced impacts

D. Tax Revenues

The Springfield area will realize increased tax revenues as a result of Mercy's growing investments and other activities. With a total payroll of \$695 million, Mercy's 8,180 FTE employees in turn paid \$19.4 million in local and state income taxes in FY2011. Mercy paid \$2.4 million in state and local taxes including real estate taxes. In sum, for FY2011, Mercy and its co-workers directly contributed \$22 million in local and state tax revenues.

Table 4
Direct Tax Revenues for 2011

Payroll Taxes	Real Estate Tax	Other State and Local Taxes	Total Tax Revenues
\$19,400,000	\$2,232,000	\$268,000	\$21,900,000

It should be noted that the present analysis considers only direct taxes and therefore understates actual tax benefits for the area. For example, many of Mercy's co-workers own homes and vehicles and thus pay personal property taxes, sales taxes, and real estate taxes on these items. In addition, there are indirect tax revenues from supporting business and their employees. Since data from which to analyze these benefits are not readily available, this study includes only direct tax revenues generated by Mercy and its co-workers.

B. Job Creation and Employment

In FY2011, Mercy had 8,180 full-time equivalent (FTE) employees in the Springfield area. As reported in Table 2, Mercy’s annual payroll in Springfield was \$695 million, making the institution one of the largest employers in the area. These numbers include a competitive employee benefit package of health insurance, dental coverage, tuition reimbursement, a 401K plan, etc. that comprise 22% of salaries and wages. The average Mercy employee in Springfield, including the significant number of Mercy integrated medical providers, earned \$68,006 in salary (excluding benefits) in 2011. In comparison, the median Missouri annual household income for 2010 was \$48,734. The fact that Mercy’s average salary is significantly greater than that for a typical Springfield household highlights the significant number of technical and professional positions in the organization. With an ability to create and retain skilled, high-wage jobs, Mercy has displayed its critical role in developing and maintaining sustainable economic growth.

The economic data indicates that every hospital job creates an additional 1.06 jobs in supporting fields, a much higher ratio of secondary job creation than in many other industries. This fact underscores the importance of the health care sector to the local economy and for its economic development. Mercy has directly created FTE jobs in the Springfield area and its economic activities generated an additional 8,715 positions in supporting industries for a total of 16,895 jobs. The ripple effect also magnifies the impact of Mercy’s \$695 million payroll, with households employed in related industries generating an additional \$552 million in wages. Thus, in 2011, the combined payrolls of all households impacted by Mercy’s facilities area-wide totaled \$1.2 billion.

**Table 2
Employment Impact for FY2011**

	Direct Jobs	Indirect Jobs*	Total Jobs
Number FTE	8,180	8,715	16,895
Payroll**	\$695,000,000	\$552,000,000	\$1,247,000,000

*Includes all secondary jobs and wages created by suppliers in the community as a result of direct jobs created by Mercy.
**Payroll includes the costs for the institution’s employee benefit package.

C. Capital Expenditures

Capital spending has been constrained by the volatile economic realities of the past few years. As such, Mercy’s direct capital expenditures in the Springfield area only reached \$35 million in FY2011 including a number of construction projects and purchase of equipment. As shown in Table 3, Mercy’s 2011 spending generated another \$24.5 million in indirect expenditures by other businesses and households for a total

population served. Mercy has achieved 96% or greater of the quality measures in place in every year of the project resulting in healthier patients and reduced cost.

To provide high quality medical service while controlling costs, Mercy Health has invested significant capital to develop an integrated electronic health record system which has been implemented in Mercy Hospital Springfield as well as in other communities served by Mercy. Only 3% of health-care organizations nationwide have a similarly advanced system. Highlighting its commitment to the Springfield area, during the past 5 years, Mercy has begun implementing a \$340 million master plan which includes a new emergency trauma center, outpatient imaging center, medical office building, new surgical and cardiac intensive care units, an expanded neonatal intensive care unit, a new orthopedic hospital, and a new energy center on the main campus. In FY 2012, Mercy started construction of a new \$208 million Orthopedic Hospital in Springfield to relieve the shortage of operating rooms. The new hospital is expected to be completed by the Spring 2013 and will allow all orthopedic surgeries to be performed there.

Assessing Economic Impact

An economic impact analysis measures the total value an organization’s spending has on a community, the economy, and local residents. The economic benefits are derived not only from the direct spending of the entity, but also from the spending of local suppliers and households recirculating the money. When assessing the impact of a business, there are three major influences to consider:

Direct impact represents the amount of money directly spent by Mercy in the local and state economies to provide health care and related services. It includes items such as operational spending, purchases of supplies, salaries and wages, payment of taxes, and capital expenditures.

Indirect impact represents the spending by other businesses in the community that supply and support the activities of Mercy. This spending creates additional jobs and income for vendors and service providers who expand in response to the success of the businesses they serve.

Induced impact represents the local household spending as a result of increased income from direct and indirect impacts.

Study Methodology

To measure the economic footprint of a business, economists have developed complex econometric models to capture the relationships among key variables and calculate the overall impact in dollars on the economy. This study draws on multipliers developed by the Bureau of Economic Analysis (BEA) of the U.S. Department of Commerce from the Regional Input - Output Modeling System, commonly known as RIMS II. The multipliers are employment, output, and earnings. Each multiplier captures the total impact from a change in a given economic activity. The employment multiplier calculates the number of total jobs in the local economy that will be created from adding a given number of new jobs by an employer. The output multiplier tallies the total value of additional spending that will be stimulated in the economy for each dollar increase in an organization's spending. Lastly, the earnings multiplier indicates the total amount of new earnings in the community that will be generated for each dollar of wages earned by the entity's workers.

The RIMS II model is in its third version since the BEA first released it in the 1970s. It is one of three models widely used in economic impact studies in the U. S. for both the public and private sectors.³ All three models use government data to evaluate the interaction between industries and households in an economy in order to identify how transactions impact production and consumption of goods and services. The RIMS II model provides analysts with multipliers for 406 detailed industries using benchmark data. Furthermore, the model gives an estimation of the impact of an organization's operations in terms of total spending, earnings, and employment for a region or state. Both short and long-term impacts of development can be considered.

Results

The following section describes Mercy's economic impact on the Springfield area.

A. Economic Impact from Operations

Table 1 below provides a summary of Mercy's operational expenditures within the Springfield area. The economic impact represents the aggregate spending by Mercy, supporting businesses, and households in Springfield as a result of its facilities. Total direct spending in Springfield was \$739 million in fiscal year 2011. Two major components (payroll and non-payroll spending), are included in the data. The salaries and wages paid to employees accounted for 94% of this amount. Mercy's non-payroll operational

³The alternative models are IMPLAN and REMI. ³ The IMPLAN model was developed by the U.S. Forest Service in 1979 and the software is now commercially available from IMPLAN Group, Inc. REMI is another commercially marketed system, distributed by Regional Economic Models, Inc.

spending in the Springfield area was \$44 million which includes a significant amount of drug purchases within the state as well as patient and non-medical supplies, utilities, and communication tools. Overall in FY2011, Mercy's direct operational spending along with the indirect spending of suppliers and households contributed \$1.6 billion to the area.

In order to continue to meet market demand with its traditional level of quality service, Mercy is expecting to increase its operational spending in the near future. These expenses are projected to expand to \$794 million by FY2013.

Medical tourism, where patients and their visitors travel a long distance to come to Mercy Hospital Springfield facilities from outside the service area, has a substantial impact on the local economy. On an annual basis, Mercy Hospital Springfield receives approximately 1,400 patients who are not state residents. These patients stay an average of 4.3 days in its facilities and receive an estimated 5,600 visitors. The actual medical spending of these long-distance patients is included in the numbers for Table 1. However, the travel spending by their visitors must be calculated and accounted for separately. These costs would include car, hotel and food expenses while staying in the area. Without detailed survey data, it is necessary to make some reasonable estimates. For this purpose, we will assume each patient has one primary caregiver who stays for the duration of the hospitalization. This assumption most likely underestimates the actual spending since often times several members of the family may perform this role at the same time. If the average caregiver stays four nights at an average lodging rate of \$75 per night and spends \$30 per day on food, the per diem expenditure would be \$105. Even with these very conservative cost numbers, the primary caregivers alone would spend an additional \$588,000 within the area on travel expenses at the retail level. To the degree many of these patients also have other visitors who may purchase food and other services, the amount would rise.

Table 1
Operational Impact for FY2011

	Direct Spending*	Indirect Spending**	Total Spending
Goods & Services	\$739,000,000	\$869,000,000	\$1,608,000,000

* Employment earnings are included in direct spending
** Includes indirect and induced impacts