

Economic Impacts of Munroe Regional Medical Center in Marion County, Florida

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Executive Summary

The purpose of this study was to estimate the economic impacts of the Munroe Regional Medical Center (MRMC) in Marion County, Florida. MRMC is a 421 bed acute-care facility located near downtown Ocala, with additional outpatient facilities located nearby. For F.Y. 2009, MRMC reported revenues totaling \$261.5 million (M) and employment of 2,479 people. It is the largest private employer in the County, representing about 1.7 percent of the workforce. The economic impacts of MRMC were estimated by applying its financial and employment data to an input-output model of the Marion County economy constructed with the IMPLAN® economic impact modeling system (MIG).

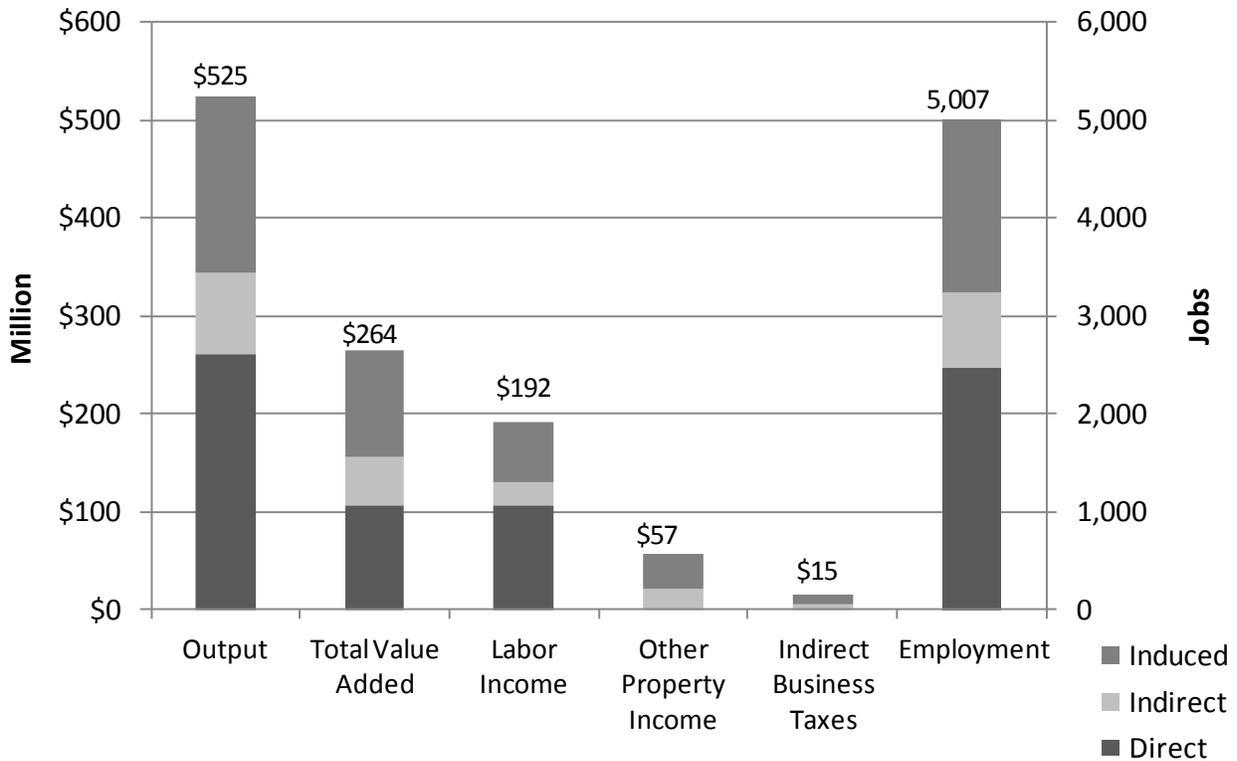
For this analysis 97.8 percent of MRMC's revenues were treated as non-local or "new" dollars entering the Marion County economy, including Medicare, Medicaid, BlueCross/BlueShield, and for-profit insurance reimbursements. When new dollars flow into a region, additional economic activity is generated through spill-over or multiplier effects, including supply-chain purchases of goods and services from local suppliers (indirect effects), and employee household spending (induced effects).

The economic impacts of Munroe Regional Medical Center are summarized in Figure ES1 and Table ES1. Total output or sales revenue impacts of MRMC in Marion County in 2009 were estimated at \$525 million. The total value-added impact was estimated at \$264 million, which represented employee salaries and benefits, business owner (proprietor) income and property-related income (rents, dividends, interest, royalties, etc.). The total employment impact of MRMC was 5,007 jobs, including fulltime and part-time positions. Although MRMC does not pay most taxes because of its non-profit status, it is still responsible for generating over \$15 million in Indirect Business Taxes, such as sales, excise, and property taxes, licenses and fees, as a result of spending by its suppliers and employees. The indirect and induced multiplier effects of MRMC activities were responsible for approximately 50 to 60 percent of its total impacts on the County.

The economic impacts of MRMC are compared to the total economic activity of Marion County for 2008 in Table ES1. Based on these estimated impacts, MRMC was responsible for 3.32 percent of

total value-added or gross regional product of Marion County that year. In terms of jobs, MRCM generated 3.46 percent of all employment in the County. Definitions of the terms used to describe these economic impacts are provided in the main text of this report and a glossary in Appendix A.

Figure ES1. Economic impacts of Munroe Regional Medical Center in Marion County, Florida, 2009.



Note: All values in 2009 dollars. Employment impacts include full-time, part-time and seasonal positions.

Table ES1. Economic Impacts of Munroe Regional Medical Center relative to the overall economy of Marion County, Florida.

Economic indicator	Marion County	MRMC	MRMC as Percent of County
Value-added impact (million \$)	\$7,957 ¹	\$264	3.32%
Employment impact (jobs)	144,635 ²	5,007	3.46%

1. County level Value-added data is from Minnesota IMPLAN Group adjusted to 2009 prices.

2. Employment data from the U.S. Department of Commerce, Bureau of Economic Analysis. The latest data available is for 2008. <http://www.bea.gov/regional/reis/>

Economic Impacts of Munroe Regional Medical Center in Marion County, Florida

Introduction

The purpose of this study was to estimate the positive economic impacts of the Munroe Regional Medical Center (MRMC) in Marion County, Florida. MRMC is a 421 bed acute-care facility located near downtown Ocala, with additional outpatient facilities located nearby. For the 2009 fiscal year, MRMC reported revenues totaling \$262 million (M) and employment of 2,479 people (Table 1). According to Enterprise Florida, MRMC is the largest private employer in the County. Over 90 percent of MRMC employees reside inside Marion County.

Table 1. Revenues and employment for Munroe Regional Medical Center, fiscal year 2009.

Revenues	
Government, Insurance & Private/Other	\$255,735,519
Patient Self Pay	\$5,769,043
Total Revenues	\$261,504,562

Employment	
Total Employees	2,479
Total Employee Compensation	\$106,227,053

Ratios	
Revenues per Employee	\$105,488
Compensation per Employee	\$42,851

Study Area Description

Marion County, located in north-central Florida, had a population of 327,172, with 144,635 jobs (BEA), and a gross regional product of \$7.86 billion (MIG) in 2008. Although it is less densely populated than Florida as whole, between 2000 and 2008, Marion County grew significantly faster than the state in percentage terms with respect to population, jobs and personal income (Table 2). In 2008 Marion County represented 1.8 percent of the Florida's population and 1.4 percent of its employment. The County's population and employment grew by 26 and 28 percent, respectively, between 2000 and 2008. This is roughly 10 percentage points higher than comparable growth rates for the State. During the same period, personal income in Marion County increased by more

than 39 percent, exceeding the State’s rate of growth by over 20 percentage points (Table 2). Significantly for the health care sector, the population of Marion County is relatively older than that of Florida and the U.S., with nearly 25 percent of its residents being over 65 years of age in 2008, compared to 17.4 percent for State, and 12.8 percent for the U.S. (U.S. Census Bureau).

Table 2. Comparison of population, employment and personal income for Marion County and Florida, 2000 and 2008.

Metric	Marion County	Florida
Population, 2000	258,916	15,982,378
Population, 2008	327,172	18,537,969
Percent Change, 2000 - 2008	26.4%	16.0%
Land area, (square miles)	1,578	53,926
Persons per square mile, 2008	207	344
2000 Employment	113,275	8,933,114
2008 Employment	144,635	10,424,100
Percent Change, 2000 - 2008	27.7%	16.7%
2000 Personal Income (\$1,000, in 2008 prices)	7,326,129	559,920,154
2008 Personal Income (\$1,000)	10,215,839	668,483,640
Percent Change	39.4%	19.39%

Sources: U.S. Census Bureau, Population Estimates, <http://www.census.gov/popest/counties/> ;
 U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Accounts, <http://www.bea.gov/regional/reis/>

Methodology

The economic impacts of Munroe Regional Medical Center were estimated by applying its financial and employment data (Table 1) to an input-output model of the Marion County. Input-Output (I-O) analysis is a standard technique for estimating the economic impacts resulting from a change in a specific economic activity in a regional economy. These economic models represent the transactions that occur between industries, governments, employees, and households (Schaffer, 1999; Miller and Blair, 2009). The parameters in the model are estimated from detailed business and demographic data collected by state and federal government agencies. From these models, industry level economic multipliers are calculated, and then used to estimate economic impacts.

When estimating economic impacts, it is important to distinguish between local and non-local revenues. Local revenues typically represent simple transfers between individuals or businesses within an economy and do not generate economic spin-off or multiplier effects. However, non-local revenues flowing into an economy generate additional economic activity through the supply chain (indirect effects) and employee spending (induced effects). With respect to MRMC, indirect impacts occur when the hospital purchases goods and services from local suppliers, while induced impacts occur when hospital and supplier business employees spend their earnings at other local businesses.

The types of economic impacts typically estimated with I-O models include output or gross revenues, employment (fulltime and part-time jobs), and value-added, which includes labor income, other property type income, and indirect business taxes. Each of these measures represents a different way of assessing the size or contribution of a particular activity or event to a regional economy. Definitions of these types of impacts or effects can be found in the glossary at the end of this report (Appendix A).

The *Impact Analysis for Planning (IMPLAN®)* system is an input-output modeling system comprised of computational procedures and regional economic databases (MIG). These databases document economic activity in the U.S. at the county level for 440 different industry sectors, as well as spending and transfers, between households, governments, savings and investments, and commodity trade between regions. To more accurately represent the impacts of MRMC on Marion County, industry data for IMPLAN sector 397 (Private Hospitals) was adjusted in accordance with revenues, employment, and compensation levels and ratios shown in Table 1. In addition, since MRMC is a non-profit entity, model parameters for corporate profits, dividends, and various forms of indirect business taxes for this sector were set to zero. Finally, since the IMPLAN model of Marion County used for this analysis was based on 2008 data and MRMC's operational data was for 2009, industry specific deflators were used to convert MRMC revenues to 2008 price levels. After impacts were calculated, values were re-inflated to 2009 dollars.

Analysis and Results

For purposes of impact analysis, the revenues that MRMC receives from government programs (Medicaid, Medicare) and commercial insurers were treated as “new” dollars entering Marion County’s economy. These revenues totaled \$255.7 M or 97.8 percent of MRMC’s total revenues of \$261.5 million in 2009 (Table 1). The remaining \$5.8 M in local (self pay) revenues were also applied to the I-O model, but only the direct impacts of these revenues were counted in the total impacts.

A summary of the estimated annual economic impacts for MRMC is shown in Table 3, with table rows delineating impacts into direct, indirect, induced effects, and total impacts, while different impact measures are given in table columns, including output, value-added, labor income, indirect business taxes and employment. Output impacts represent the total value of a business’s output (goods and services) in terms of gross revenues or sales. The direct impacts are broken out between those generated by local and non-local revenues. Approximately 98 percent of the direct output impacts are from non-local revenues.

The total Output impacts of MRMC operations for the County’s economy in 2009 is the sum of its direct, indirect and induced output impacts, and equals \$525 M . Indirect and induced effects represent approximately half of this total impact, and around one-third of the total impacts result from induced effects alone. This is primarily due to the fact that 40 percent of hospital revenues go toward employee compensation and over 90 percent of MRMC employees live within the County. Indirect output effects are less than 16 percent of total Output impacts because a smaller share of expenditures for hospital supplies and equipment are made within the County.

Table 3. Summary of Economic Impacts of Munroe Regional Medical Center in Marion County, Florida, 2009.

Type Effect	Output	Value-added	Labor Income	Other Property Income	Indirect Business Taxes	Employment
	<i>Million Dollars</i>					<i>Fulltime & part-time jobs</i>
Direct, local & non-local	261.50	106.23	106.23	0	0	2,479
Direct, local ^a	5.77	2.34	2.34	0	0	55
Direct, non-local ^b	255.74	103.88	103.88	0	0	2,424
Indirect, non-local	82.94	50.11	24.05	21.15	4.91	761
Induced, non-local	180.18	107.81	62.00	35.62	10.19	1,767
Total ^c	524.62	264.15	192.28	56.77	15.10	5,007

^a Local impacts are generated by revenues from self-payments by Marion County residents

^b Non-local impacts are generated by reimbursements from Medicare, Medicaid, and BlueCross/BlueShield, and commercial (for profit) insurance companies.

^c Total impacts equal the sum of direct, indirect and induced impacts. Value added equals the sum of labor income, Other Property Type Income, and Indirect Business Taxes.

The total value-added impacts of MRMC in Marion County for 2009 were estimated at \$264 million (Table 3). Value-added impacts include labor income, property related income and indirect business taxes generated by the hospital’s business. The direct value-added impacts are only comprised of labor income (\$106 M), because MRMC is a non-profit entity and does not pay taxes, but it is still indirectly responsible for generating over \$15 million in indirect business taxes paid by its suppliers and employees. The indirect and induced value-added impacts (\$158 M) represented nearly 60 percent of the total value-added impacts. Total labor income impacts were estimated at \$192 million. Other property type income impacts, including rents, dividend, interest, royalties, etc., were estimated at \$57 M. Indirect business taxes impacts were estimated at \$15 M. Total employment impacts were estimated at 5,007 jobs.

The distribution of MRMC’s economic impacts across twenty aggregate industry sectors for Marion County is presented in Table 4. Naturally, the largest impacts occurred in the Health and Social Services industry group, which contains hospitals. This group had total impacts of \$295 M in output, \$126 M in value-added, \$122 M in labor income, and 2,850 jobs. However, other property income and indirect business tax impacts were actually higher in the real estate/rental groups, which also captured the second largest output and value-added impacts (\$62.7 M and \$46.2 M,

respectively). Other industry groups with significant impacts were retail trade, wholesale trade, and government.

Table 4. Economic impacts of Munroe Regional Medical Center in Marion County, Florida, 2009, by aggregate industry group.

Aggregate Industry Group (NAICS)	Output	Total Value Added	Labor Income	Other Property Income	Indirect Business Taxes	Employment
--- Million Dollars ---						
Agriculture, Forestry, Fisheries	0.72	0.40	0.16	0.23	0.01	6
Mining	0.08	0.03	0.01	0.02	0.00	0
Utilities	4.33	3.05	0.97	1.62	0.46	10
Construction	11.09	4.28	3.80	0.43	0.05	95
Manufacturing	18.61	3.98	2.63	1.13	0.21	47
Wholesale Trade	11.62	7.32	4.22	1.53	1.57	81
Retail Trade	20.93	14.08	8.88	2.16	3.04	323
Transport. & Warehousing	5.15	2.93	2.08	0.73	0.12	54
Information	9.08	2.91	1.47	1.15	0.29	30
Finance & Insurance	16.49	8.86	4.88	3.61	0.38	93
Real Estate & Rental	62.73	46.15	6.50	32.57	7.07	276
Prof., Scientific & Tech. Services	12.11	6.70	5.43	1.13	0.15	111
Management of Companies	2.58	1.25	0.93	0.30	0.02	17
Administrative & Waste Services	10.05	5.99	4.90	0.96	0.13	264
Educational Services	1.21	0.60	0.53	0.06	0.01	26
Health & Social Services	294.72	126.36	122.19	3.94	0.24	2,850
Arts, Entertain. & Recreation	2.99	1.37	0.80	0.39	0.19	36
Accommodation & Food Services	11.94	6.04	4.03	1.36	0.66	216
Other Services	11.30	6.18	4.18	1.49	0.51	208
Government & non NAICS	16.90	15.66	13.69	1.97	0.00	260
Total	524.62	264.15	192.28	56.77	15.10	5,007

Industry groups based on North American Industry Classification System (NAICS).

To evaluate the findings of this analysis, it is useful to compare the estimated economic impacts of Munroe Regional Medical Center (MRMC) to the total economic activity of Marion County, and to the impacts of all hospitals on County's economy. Compared to Marion County's economy as a whole, the estimated impacts of this analysis indicate that MRMC was responsible for approximately 3.3 percent of the County's total Value-added or Gross Regional Product in 2009 (Table 5). MRMC's Labor Income impacts are approximately comparable to BEA's Net Earnings data for the County. Based on these numbers, MRMC is responsible for nearly 3.8 percent of the Marion County's 2008 adjusted earned income. In terms of jobs, it is estimated that MRCM

operations can be credited with 3.46 percent of all employment in the County (either directly or indirectly), based on 2008 BEA employment estimates (the latest available).

Table 5. Comparison of economic impacts of Munroe Regional Medical Center to the Marion County economy.

Economic indicator	Marion County	MRMC	MRMC as % of County
Value-added (million \$)	\$7,957 ¹	\$264	3.32%
Labor Income/Net Earnings (million \$)	\$5,080 ²	\$192	3.78%
Employment (jobs)	144,635 ²	5,007	3.46%

1. County-level Value-added data is from Minnesota IMPLAN Group, adjusted to 2009 prices.

2. Net Earnings data and employment data is from the U.S. Department of Commerce, Bureau of Economic Analysis. The latest data available is for 2008. Net earnings were adjusted to 2009 prices.
<http://www.bea.gov/regional/reis/>

Conclusions

In a recent study, Hodges and Rahmani (2009) estimated that the combined output impacts of all 6 non-federal licensed hospitals in Marion County were \$1,008 million in 2007 (adjusted to 2009 dollars), with \$549 million in value-added impacts, \$387 million in labor Income impacts, and employment impacts of 8,776 jobs. These figures mean that over 50 percent of the economic impacts of all hospitals in Marion County are due to the activities of the MRMC alone.

In addition to these quantifiable economic impacts, MRMC is involved in a variety of other programs and services that benefit Marion County and its residents. These include functioning as a venue for many educational, outreach and volunteer services; providing indigent care and absorbing these costs for unpaid services; and, offering a variety of spiritual and emotional support services to patients, staff, volunteers and their families.

Economic impact analysis permits decision makers and their advisors to look beyond the direct impacts (revenues, earnings, jobs and taxes) generated by a business, industry, or event, when considering its importance and relationship to a regional economy. Indirect economic impacts show how important the hospital is to other area businesses that serve it. Induced impacts show how much difference the hospital's operations make for area businesses that serve resident households. Output, value-added, income and jobs are basic units for measuring economic

activity, and permit one to compare the impact of a particular industry or event to that of the overall economy or other sectors of the economy.

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Appendix A: Glossary of Regional Economic Terminology

Direct effects/impacts: Direct impacts, represent the revenues, value-added, income, or jobs that result directly from an economic activity within a regional economy.

Employment or Jobs: Represents the total numbers of wage and salaried employees as well as self-employed jobs. This includes full-time, part-time and seasonal workers measured in annual average jobs.

Indirect Business Taxes: Include sales, excise, and property taxes as well as fees and licenses paid by businesses during normal operations. It does not include taxes on profits or income.

Indirect effects/impacts: Indirect effects occur when businesses use revenues originating from outside the region, or study area, to purchase inputs (goods and services) from local suppliers. This secondary, or indirect business, generates additional revenues, income, jobs and taxes for the area economy.

Induced effects/impacts: Induced effects or impacts occur when new dollars, originating from outside the study area, are introduced into the local economy. Induced economic impacts occur as the households of business owners and employees spend their earnings from these enterprises to purchase consumer goods and services from other businesses within the region. This induced effect generates additional revenues, income, jobs and taxes for the area economy.

Input-Output (I-O) Analysis: The use of input-output models to estimate how revenues or employment for one or more particular industries, businesses or activities in a regional economy impact other businesses and institutions in that region, and the regional as a whole.

Input-Output (I-O) Models: A mathematical representation of economic activity within a defined region using inter-industry transaction tables or matrices where the outputs of various industries are used as inputs by those same industries and other industries as well.

Labor Income: All forms of employment compensation, including employee wages and salaries, and proprietor income or profits.

Local revenues/expenditures: Local revenues or spending represent simple transfers between individuals or businesses within a regional economy. These transactions do not generate economic spin-off or multiplier (indirect and induced) effects.

Margins: Represent the differences between retail, wholesale, distributor and producers prices.

Non-local or “New” revenues/expenditures: When outside or new revenues flow into a local economy either from the sale of locally produced goods and services to points outside the study area, or from expenditures by non-local visitors to the study area, additional economic repercussions occur through indirect and induced (multiplier) effects.

Other Property Type Income: Income in the form of rents, royalties, interest, dividends, and corporate profits.

Output: Revenues or sales associated with an industry or economic activity.

Total Impacts: The sum of direct, indirect and induced effects or economic impacts.

Value-added: Includes wages and salaries, interest, rent, profits, and indirect taxes paid by businesses. Total Value-added across all industries is equivalent to Gross Regional Product.