



The Economic Impact of a Critical Access Hospital on a Rural Community

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Key Findings

A typical critical access hospital:

- Employs 141 employees, generates \$6.8 million in wages, salaries and benefits, has an average annual construction investment of \$4.2 million, and has a medical service area population of 14,600.
- Generates a total annual impact of 195 jobs and \$8.4 million in wages, salaries, and benefits from hospital operations.
- Generates a total annual impact of 53 jobs and \$1.9 million in wages, salaries, and benefits from construction investment.
- Generates a total annual impact of 248 jobs and \$10.3 million in wages, salaries, and benefits from both operations and construction.

Background

Critical access hospitals are a critical part of the health system for many rural communities. Without critical access hospitals, residents of these communities would lose access to health care.

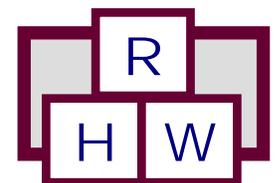
Research shows that once a community loses its hospital, other health services (i.e., physicians, pharmacies, etc.) will soon exit the community. Most residents are not aware of the fact that the health sector, anchored by a critical access hospital, is responsible for a number of jobs and payroll.

The employment opportunities and the resulting wages, salaries, and benefits from the critical access hospital are extremely important to the local economy. Research indicates that typically ten to fifteen percent of the jobs in a rural community are in the health care sector. Hospitals are often only second to education as the largest employer.

Decisions for industrial and business locations are significantly influenced by the availability of quality schools and health care. The recruitment and retention of retirement aged residents are impacted by quality health care systems.

Business development and stable populations are aspects of a solid community economy. A solid community economy is reliant on quality health care services. Economic growth is significantly less likely without a strong health care sector. Critical access hospitals are the cornerstone of the community health care system.

The National Center for Rural Health Works is the National Center for Health Impact Training and the Center for Economic Impact Analysis of selected health policies. The Center provides training and assistance on economic impact, community health needs assessment, and health feasibility studies. For more information, contact Gerald Doeksen at 405-744-6083 or email: gad@okstate.edu.



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Purpose of the Study

The purpose of the study is to estimate the economic impact of a typical critical access hospital. This information illustrates the need for rural and critical access hospitals to share their economic impact with their communities. Sharing the economic impact of the hospital with the local residents can assist the hospital to:

- gain the public's support to increase utilization of the local hospital,
- gain the public's understanding of the need for the local hospital,
- foster support for capital improvements and expansion of programs and services, and
- foster communications for the hospital to gain a better understanding of the community's health needs and how to better meet those needs.

The data may also be useful for policy-makers.

Approach

The National Center has measured the economic impact of many critical access hospitals over the years and provided studies to each community. The studies utilized for this research have been completed since 2007. Data were collected from these studies for 73 critical access hospitals, representing twenty-one states.

The Data

Data on demographic and economic conditions were obtained from each economic impact study and are presented in **Table 1**. The population of the

medical service areas of the critical access hospitals ranged from 3,005 to 35,020, with a median population of 13,415 and a mean (average) population of 14,600.

Due to the low number of available data for the next three variables, only the ranges will be shared. The unemployment rate ranged from 2.3 to 10.7 percent. This compares to the National unemployment rate of 8.1 percent in September 2012. The poverty rate ranged from 10.2 to 37.9 percent. This compares to the latest National poverty rate of 15.1 percent in 2010. The percent of transfer receipts ranges from 15.3 to 33.9 percent. This compares to the National average of 17.7 percent in August 2012. The percent of transfer receipts reflects that rural areas typically have a higher proportion of elderly with dependence on Social Security and Medicare. These economic indicators reflect that the critical access hospitals are located in rural areas.

Data on employment and wages, salaries, and benefits were obtained from the critical access hospital economic impact studies and these data are presented in **Table 2**. The range for employment was from 30 to 333 employees, with an average employment of 141 employees. The range for wages, salaries, and benefits was from \$1.2 to \$19.4 million, with an average of \$6.8 million in wages, salaries, and benefits. These are the direct impacts of employment and wages, salaries, and benefits of a typical critical access hospital.

Construction activities can also be measured. For the 73 hospital studies reviewed, the average construction costs were \$4.2 million, resulting in

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Table 1
Demographic and Economic Indicators of the Medical Service Areas
of Critical Access Hospitals Reviewed, 2007-2012

	Low	High	Median	Mean	National	Date
Population	3,005	35,020	13,415	14,600		
Unemployment Rate	2.3	10.7	NA	NA	8.1	Aug 2012
Poverty Rate	10.2	37.9	NA	NA	15.1	2010
Percent Transfer Receipts	15.3	33.9	NA	NA	17.7	Aug 2012

Sources: Critical access hospital data from National Center for Rural Health Works Studies, 2007 to present; National unemployment rate for August 2012 from U. S. Department of Labor, Bureau of Labor Analysis; National poverty rate for 2010 from U. S. Census Bureau; National transfer receipts percent for August 2012 from U. S. Department of Commerce, Regional Economic Information System, Bureau of Economic Analysis.
NA – Not available or not relevant due to low numbers of data.

Table 2
Employment and Wages, Salaries, and Benefits Data
from Review of Economic Impact Studies of Critical Access Hospitals, 2007-2012

Number of Studies	73
Hospital Data	
Employment Range	30 - 333
Average Employment	141
Wages, Salaries, and Benefits Range	\$1.2 - \$19.4 million
Average Wages, Salaries, and Benefits	\$6.8 million
Construction Data	
Average Construction Costs	\$4.2 million
Average Employment from Construction	41
Average Wages, Salaries and Benefits from Construction	\$1.5 million

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average employment from hospital construction of 41 employees and average wages, salaries, and benefits results from hospital construction of \$1.5 million. These are the direct impacts of hospital construction projects of a typical critical access hospital on employment and wages, salaries, and benefits.

The Multiplier Effect

The data in **Table 2** reflect the direct impacts of a critical access hospital. The secondary impact and total economic impact is measured from multipliers generated from an input-output model, utilizing data from IMPLAN.

The input-output model is widely used by economists and other professionals to illustrate the multiplier effect. The multipliers generate the secondary and total impacts of the critical access hospitals. For details of the model and data, see Doeksen (2003).

Results – Economic Impacts

From the data from the 73 economic impact studies of critical access hospitals, a typical critical access hospital employs 141 employees and pays \$6.8 million in wages, salaries, and benefits. The average multipliers were also obtained from the studies. The average employment and income (wages, salaries, and benefits, and proprietor income) multipliers for hospital operations were derived and the average employment and income multipliers for hospital construction were also derived.

Impact of Hospital Operations

The economic impacts of a typical critical access hospital are shown in **Table 3**. The average hospital employment multiplier was 1.38. This means that for each job at the critical access hospital, another 0.38 jobs are created in other businesses and industries in the local economy. The secondary employment impact is 54 jobs and the total employment impact is 195 jobs for a typical critical access hospital.

The average hospital income multiplier was 1.24. The average critical access hospital generates \$1.6 million in secondary income impact and \$8.4 million in total income impact. The model also estimates how much of the income is spent in retail stores in the community. The critical access hospital's income impact generates \$2.0 million in retail sales in the community economy.

Impact of Hospital Construction Activities

Table 3 also includes the impact of the construction activities of a typical critical access hospital. Data have been presented, showing the average construction activities of \$4.2 million, resulting in the average of 41 construction employees. The average hospital construction employment multiplier was 1.30. This indicates that for each hospital construction job, another 0.3 jobs are created in other businesses and industries in the local economy. The estimated average secondary construction employment is 12 jobs, with total average construction employment of 53 jobs.

Data have been presented showing the average construction income of \$1.5 million for a typical

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Table 3

RESULTS - Average Economic Impacts of a Typical Critical Access Hospital

	Direct Impact	Multiplier	Secondary Impact	Total Impact
HOSPITAL OPERATIONS				
Average Employment Impact	141	1.38	54	195
Average Income Impact	\$6.8 million	1.24	\$1.6 million	\$8.4 million
Average retail sales impact				\$2.0 million
HOSPITAL CONSTRUCTION				
Average Construction Expenditures				\$4.2 million
Average Employment Impact	41	1.30	12	53
Average Income Impact	\$1.5 million	1.24	\$0.4 million	\$1.9 million
Average retail sales impact				\$0.5 million
COMBINED IMPACTS				
Average Employment Impact	182		66	248
Average Income Impact	\$8.3 million		\$2.0 million	\$10.3 million
Average retail sales impact				\$2.5 million

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critical access hospital. The average hospital construction income multiplier was 1.24. This indicates that for each \$1 in hospital construction income, an additional \$0.24 is generated in income in other businesses and industries in the local economy. The average hospital construction secondary impact was estimated at \$0.4 million, with an average hospital construction total impact of \$1.9 million. The average construction income impact of a typical critical access hospital generates \$0.5 million in retail sales in the community economy.

Impact of Operations and Construction Activities Combined

The average combined impacts of a typical critical access hospital are also included in **Table 3**. For the operations and construction activities of a typical critical access hospital, average direct employment impact is 182 jobs, average secondary employment impact is 66 jobs, and the average total impact is 248 jobs. The average direct income impact is \$8.3 million, average secondary income impact is \$2.0 million, the average total income impact is \$10.3 million for the combined operations and construction activities of a typical critical access hospital. Average retail sales for the combined operations and construction activities of a typical critical access hospital are estimate to be \$2.5 million.

The impacts of both the operations and construction activities of a typical critical access hospital are significant to the community economy. Construction activities are often overlooked in illustrating the impact of a critical access hospital.

The operations impacts occur each and every year; while the construction impacts occur only during the year of construction. These are the long-term economic benefits of a typical critical access hospital.

Policy Implications

Many policy issues involve the survival of rural and critical access hospitals. These issues can be at the local, county, regional, state, or national level. Knowing the economic impact of a typical critical access hospital can assist policy-makers in making future decisions.

Economic Development Opportunities

Quality critical access hospitals with outstanding technology and health care services will enhance the community's opportunity to attract new business and industry. This could, in turn, result in new jobs and new families moving into the community.

Research states that retirees are attracted to communities with quality health care services. This represents an additional opportunity for enhancing the local economy through recruitment and retention of retirees.

Overall, research supports the importance of rural and critical access hospitals to the economic health and growth of the local economy. Critical access hospitals not only contribute to the health and wellness of the local residents, but also to the overall economic strength of the community economy.

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