

# The Economic Impact of a Critical Access Hospital on a Rural Economy

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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 [House 2007] [Chirilos et al 1985]. Without critical access hospitals, residents of these communities would lose local access to basic inpatient and outpatient hospital care, as well as emergency services. Research shows that once a rural community loses its hospital, other health services (i.e., physicians, pharmacies, etc.) will soon exit the community [Hart et al 1991].

The health sector in a rural community, anchored by a critical access hospital, is responsible for a number of full- and part-time jobs and wages, salaries, and benefits. The National Center experience indicates that typically ten to fifteen percent of the jobs in a rural community are in health care and that typically rural hospitals are one of the top employers in the rural community [Doeksen 2003]. The employment and the resulting wages, salaries, and benefits from a critical access hospital are critical to the rural community economy [Scott et al 1997].

The recruitment and retention of retirees is affected by quality health care services [Reginer et al 1981] [Toseland et al 1978]. Decisions for industrial and business locations are significantly influenced by the availability of quality schools and health care [Lyne 1988]. Critical access hospitals can be a key part of the rural community health care system.

## 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 present their specific economic impact to their rural communities. The National Center experience illustrates that presenting the economic impact study of the hospital to the local residents can assist the hospital to:

- foster communications with the community residents, to gain a better understanding of

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the community’s health needs and how the hospital can better meet those needs;

- gain the local residents’ support for the local hospital, local residents utilizing local hospital services; and
- foster community support for hospital capital improvement and/or expansion of programs and services [Doeksen et al 1990, 1992, 1997, 1998] .

The economic impact data may be useful to local policy-makers in community economic development efforts.

## Approach

The National Center has measured the economic impact of many critical access hospitals over the years. Data were collected for 73 critical access hospital studies, representing twenty-one states spanning the years 2007 to 2012.

## The Data

Population data were obtained from each economic impact study. The populations 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.

Employment data, including wages, salaries, and benefits, were obtained from the studies and are presented in **Table 1**. Employment includes all full- and part-time employees. 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. These are the direct impacts of employment and wages, salaries, and benefits of a typical critical access hospital.

**Table 1**

Data Results from Economic Impact Studies of Critical Access Hospitals

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

Construction activities can also be measured. The average hospital construction expenditures were \$4.2 million. These expenditures generated 41 jobs and wages, salaries, and benefits of \$1.5 million. These are the direct impacts of hospital construction projects of a typical critical access hospital.

## The Multiplier Effect

The data in **Table 1** reflect the direct impacts of a critical access hospital. The secondary and total economic impacts are measured from multipliers generated from an input-output model, utilizing data from IMPLAN [Minnesota IMPLAN Group,

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2010]. The input-output model is widely used by economists to illustrate the multiplier effect.

## Results – Economic Impacts

From the data, a typical critical access hospital employs 141 employees and pays \$6.8 million in wages, salaries, and benefits. The average employment and wages, salaries, and benefits multipliers for hospital operations and hospital construction were derived from the study data.

### Impact of Hospital Operations

The economic impacts from hospital operations are shown in **Table 2**. The average hospital employment multiplier was 1.38. For every job in the hospital, the multiplier indicates that an additional 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 wages, salaries, and benefits multiplier was 1.24. The typical critical access hospital generates \$1.6 million in secondary wages, salaries, and benefits impact and \$8.4 million in total wages, salaries, and benefits impact. The model also estimates how much of the total wages, salaries, and benefits impact is spent in retail stores in the rural community. A typical critical access hospital generates \$2.0 million in retail sales in the rural community.

### Impact of Hospital Construction Activities

**Table 3** presents the impact of the construction activities of a typical critical access hospital. The

average hospital construction employment multiplier was 1.30. The secondary construction employment impact is 12 jobs, with total construction employment impact of 53 jobs.

**Table 2**  
RESULTS - Economic Impact of Operations  
for a Typical Critical Access Hospital

<b>HOSPITAL OPERATIONS</b>		
<b>Employment</b>		
Direct Impact		141
Multiplier	1.38	
Secondary Impact		<u>54</u>
Total Impact		<u><b>195</b></u>
<b>Wages, Salaries, and Benefits</b>		
Direct Impact		\$6.8 million
Multiplier	1.24	
Secondary Impact		<u>\$1.6 million</u>
Total Impact		<u><b>\$8.4 million</b></u>
Average retail sales impact		<u><b>\$2.0 million</b></u>

**Table 3**  
RESULTS - Economic Impact of Construction  
for a Typical Critical Access Hospital

<b>HOSPITAL CONSTRUCTION</b>		
Expenditures		<u>\$4.2 million</u>
<b>Employment</b>		
Direct Impact		41
Multiplier	1.30	
Secondary Impact		<u>12</u>
Total Impact		<u><b>53</b></u>
<b>Wages, Salaries, and Benefits</b>		
Direct Impact		\$1.5 million
Multiplier	1.24	
Secondary Impact		<u>\$0.4 million</u>
Total Impact		<u><b>\$1.9 million</b></u>
Average retail sales impact		<u><b>\$0.5 million</b></u>

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The average hospital construction wages, salaries, and benefits multiplier was 1.24. The hospital construction secondary impact is estimated at \$0.4 million, with total hospital construction impact of \$1.9 million. The construction wages, salaries, and benefits impact of a typical critical access hospital generates \$0.5 million in retail sales in the rural community.

## *Impact of Hospital Operations and Construction Activities Combined*

The combined impacts of a typical critical access hospital are shown in **Table 4**. The direct impact for the operations and construction employment is 182 jobs, secondary impact is 66 jobs, and the total impact is 248 jobs.

For wages, salaries, and benefits, direct impact is \$8.3 million, secondary impact is \$2.0 million, and total impact is \$10.3 million for the combined operations and construction activities of a typical critical access hospital. Retail sales for the combined operations and construction activities are \$2.5 million.

The impacts from operations occur each and every year the critical access hospital is in operation. The construction impacts occur only during the year of construction. Construction activities can be overlooked in illustrating the economic impact of a critical access hospital.

## **Policy Implications**

Many policy issues involve providing access to health care services to rural communities. The impact of a typical critical access hospital may be

useful in analyzing policy issues. These issues may 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.

**Table 4**  
RESULTS - Economic Impact  
of Operations and Construction Combined  
for a Typical Critical Access Hospital

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### **COMBINED IMPACTS**

#### **Employment**

Direct Impact	182
Secondary Impact	<u>66</u>
Total Impact	<u><b>248</b></u>

#### **Wages, Salaries, and Benefits**

Direct Impact	\$8.3 million
Secondary Impact	<u>\$2.0 million</u>
Total Impact	<u><b>\$10.3 million</b></u>
Average retail sales impact	<u><b>\$2.5 million</b></u>

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## **Economic Development**

Quality critical access hospitals enhance the rural community's opportunity to attract new business and industry. This could, in turn, result in new jobs and new families moving into the rural community. Research states that retirees are attracted to rural communities with quality health care services. This represents an additional opportunity for enhancing the local economy. The National Center experience and research studies support the contribution of rural hospitals in improving the health and wellness

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of the local residents and in enhancing the overall economic strength of the rural community.

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