

# Economic Impact Report

*St. Joseph Health System  
Humboldt County, California*

*March 2009*



Study conducted by the Center for Economic Development  
California State University, Chico  
Chico, California 95929-0765  
Phone: 530-898-4598  
Fax: 530-898-4734  
[www.cedcal.com](http://www.cedcal.com)



## **Summary of Results**

The health care industry is important to Humboldt County's economy. The industry captures spending by local residents and attracts retirees, many of whom are more wealthy than the average household in the county. The health care industry also attracts visitors from neighboring counties seeking health care.

One of the major players in Humboldt County health care is St. Joseph Health System, which operates St. Joseph Hospital in Eureka and Redwood Memorial Hospital in Fortuna. In 2008, the hospitals were responsible for nearly \$190 million in expenditures, over \$58 million in labor income, and more than 1,400 people who earned a paycheck from these facilities.<sup>1</sup> At the end of 2008, the total number of employees stood at 1,293.

Circulation of these dollars through the local economy provides an additional \$114 million in expenditures from businesses and organizations resulting in over \$36 million in labor income and 1,157 jobs. Therefore, St. Joseph Health System hospitals are responsible, directly and secondarily, for over \$303 million in expenditures from businesses and organizations, nearly \$95 million in labor income, and almost 2,600 jobs throughout Humboldt County.

The most recent estimate of jobs in Humboldt County from the U.S. Bureau of Economic Analysis in 2006 is 72,782. This means that St. Joseph Health System is responsible for 3.6 percent of jobs, or about one in 28 jobs in all of Humboldt County.

## **Methodology**

This section will present the method used to determine the economic impact of hospitals in the St. Joseph Health System in Humboldt County.

### **General Approach**

The Center for Economic Development (CED) at California State University, Chico, uses real business revenue, income, and employment data whenever feasible to conduct economic impact analysis. The CED utilized expenditure, payroll, and a count of W-2 tax forms (persons employed) for calendar year 2008 provided directly by St. Joseph Health System. The secondary impact in the local economy is estimated using the IMPLAN economic impact modeling system.

### **IMPLAN**

In order to conduct the economic impact analysis, an economic spending model was built for Humboldt County using the IMPLAN economic impact analysis system. IMPLAN

---

<sup>1</sup> This report counts every person earning a paycheck from any place of work over the course of a year as one job. In some cases, this number is higher than the total number of employment positions at any one point in time.

models the economy through pre-constructed matrices measuring dollar flows between 494 private industries, nine government sectors, and five other sectors covering other factors such as export trade, depreciation, and households. This input-output economic model can be used to measure how changes in spending by households, industries, or governments produce changes in spending by all other households, industries, and governmental organizations. The input-output economic model predicts the flows from one industry or household to another using a mathematical matrix. A matrix is a mathematical equation that is capable of producing solutions for all 510 variables (industries and institution types in the modeled economy), representing all economic sectors.

A model based on the social accounting matrix (type SAM model) was used to determine the economic impact described in this report. IMPLAN's type SAM model is the most widely used economic model to determine economic impact as of the date of this study. It is used by the majority of economic analysis consulting firms who work with local governments and economic development organizations to analyze the impact of changes to the local business structure.

### **Expenditures**

This is the total dollar expenditures from all business, governmental, and nonprofit organizations. IMPLAN refers to business and organization expenditures as "Output."

### **Labor Income**

Labor income is the portion of business and organization expenditures paid out as income to workers and business proprietors. This represents nearly all financial benefit to local residents. Other financial benefits may include income from rental of property or equipment, dividends paid on investment in local businesses, and payments from government using secondary revenue. These other sources of income cannot reliably be computed for local residents using the economic model, so they are excluded to keep the economic impact estimate conservative.

### **Full- and Part-time Jobs**

This is sum of all people who work for income at every business and organization. This is the measure reported as "employment" by the U.S. Department of Commerce, and therefore, used by IMPLAN. The measure will double-count job positions at a business if more than one person filled that job, and will double-count employed persons if one person held more than one job over the course of a year. Actual employed persons and job positions will be somewhat less than this total.

### **Direct Impact**

The direct impact is that of the businesses being analyzed. In this case, both hospitals operated by St. Joseph Health System, St. Joseph and Redwood Memorial hospitals, are considered to be the direct impact.

For the health care industry, IMPLAN provides five industry sectors. One of the five sectors is "hospitals," which includes general medical and surgical hospitals as well as

psychiatric hospitals. Both St. Joseph and Redwood Memorial hospitals are general medical and surgical hospitals, so all direct impact was considered to be in this sector.

The direct impact of St. Joseph Health System is nearly \$190 million in expenditures, over \$58 million in labor income, and over 1,400 jobs.

**Table 1 – Direct Impact of St. Joseph Health System Hospitals, 2008**

	<b>Direct Impact</b>
Expenditures	\$ 189,668,000
Payroll (labor income)	\$ 58,439,000
All full- and part-time jobs <sup>1</sup>	1,432

<sup>1</sup>*Includes all people who worked for St. Joseph Health System any part of 2008*

*Source: St. Joseph Health System*

### **Secondary Impact**

The secondary impacts are the expenditures, labor income, and jobs generated by all other businesses and organizations in Humboldt County as a result of direct impact dollars generated and circulating in the local economy. For example, St. Joseph Hospital may hire a janitorial service or its employees may shop at a local grocery store. The revenue generated by the janitorial service and the grocery store is included in the secondary impact. IMPLAN was used to calculate the secondary impact for the county.

In the IMPLAN model, expenditure, income, and job estimates for Humboldt County hospitals were adjusted by the CED to reflect the actual 2008 totals (direct impact) for St. Joseph Health System. While other hospitals do exist in Humboldt County, it is not expected that much of the secondary benefit of St. Joseph Health System will accrue to these other hospitals.

### **Total Impact**

The total impact is the sum of the direct and secondary impacts.

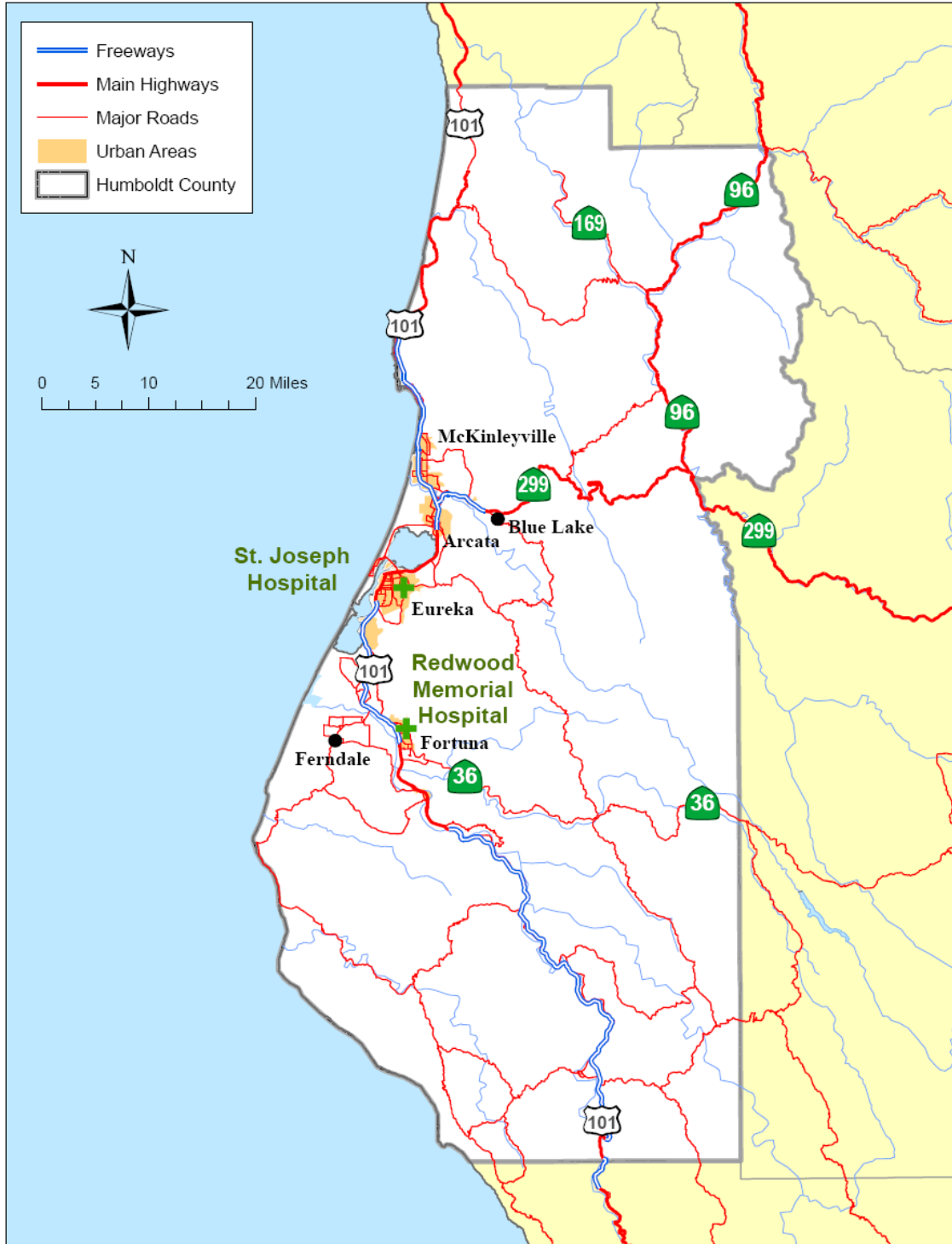
## **Geographic Extent of Study**

The CED analyzed the economic impact of St. Joseph Health System in all of Humboldt County. The following map shows the location of St. Joseph facilities compared to urbanized areas of the county.

Humboldt County is located about 200 miles north of San Francisco along California's North Coast. Its largest city and county seat, Eureka, houses more than 26,000 people and is situated on Humboldt Bay. Several smaller places are located within 20 miles of Eureka, including Arcata, Blue Lake, Ferndale, Fortuna, and McKinleyville. Together,

these places comprise a cohesive, isolated community of over 100,000 people. All other communities with similar size and local retail options are more than 150 miles away along winding mountain roads. Therefore, direct economic activity captured in this area is more likely to produce a greater economic effect than it would for most other communities of comparable size.

**Figure 1 – St. Joseph and Redwood Memorial Hospitals in Humboldt County**



## **Economic Impact**

In this section, the economic impact of hospitals in St. Joseph Health System in Humboldt County is analyzed. In this analysis, it is assumed that loss of the hospital produces no subsequent loss of health services associated with the hospital and no loss of population due to the reduced availability of services, both of which would increase the net economic impact. It is also assumed that no other organization in the county, including hospitals and community clinics, would expand to fill some of the void in health services, which would decrease the net impact. Therefore, the true net effect may be somewhat higher or lower than that of the hospitals, although these adjustments cannot be analyzed with enough precision to make any conclusions in that regard.

The direct impact shown in Table 2 came from Table 1. The secondary impact is nearly \$114 million in expenditures from businesses and organizations resulting in over \$36 million in labor income and 1,157 jobs. The total impact of St. Joseph Health System hospitals in Humboldt County is over \$303 million in expenditures from businesses and organizations, nearly \$95 million in labor income, and almost 2,600 jobs.

**Table 2 – Economic Impact of St. Joseph Health System Hospitals**

	<b>Direct Impact</b>	<b>Secondary Impact</b>	<b>Total Impact</b>
Expenditures	\$ 189,688,000	\$ 113,615,000	\$ 303,283,000
Labor income	\$ 58,433,000	\$ 36,393,000	\$ 94,826,000
Full- and part-time jobs	1,432	1,157	2,589

*Source: IMPLAN and the Center for Economic Development at CSU, Chico*

The most recent estimate of jobs in Humboldt County from the U.S. Bureau of Economic Analysis in 2006 is 72,782. This means that St. Joseph Health System is responsible for 3.6 percent of jobs, or about one in 28 jobs in all of Humboldt County. In addition to the direct and indirect impacts, the hospitals may help with business and retiree attraction in the area. St. Joseph Health System hospitals represent a significant contribution to Humboldt County's economy.