

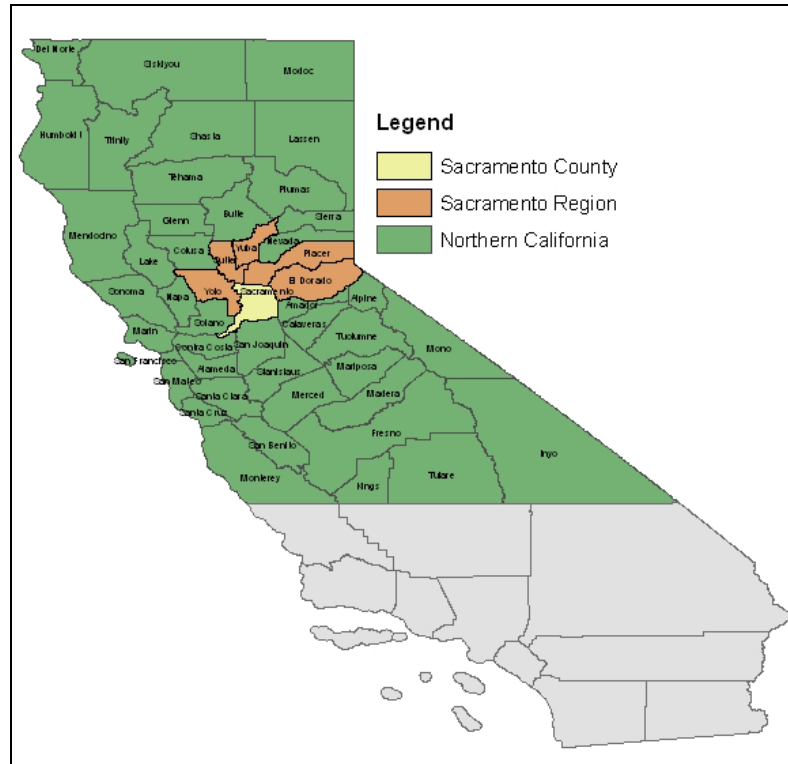
## Economic Impacts of the UC Davis Health System

The UC Davis Health System includes four main entities—the UC Davis School of Medicine, Betty Irene Moore School of Nursing, UC Davis Medical Center, and UC Davis Medical Group—with core operations that span across four main functional activities including education; healthcare; research; and management, facilities, and operational support.\* In addition to supporting the Health System’s mission to educate healthcare practitioners, conduct research on various health issues, and provide patient care and public service, each of the four functional activities make a distinct contribution to the local and regional economies.

- Education activities support faculty, staff, and operational expenditures within the Schools of Medicine and Nursing and generate spending from students enrolled in the various academic departments as well as from out-of-area visitors attending continuing medical education conferences and courses.\*
- Healthcare activities support staff and operational expenditures within the UC Davis Medical Center and UC Davis Medical Group as well as School of Medicine faculty practicing medicine through the Health System.
- Research activities support faculty, staff, and operational expenditures through affiliated research centers and other funded research efforts within the Health System.
- Facilities operational support activities relate to staff and operational expenditures for operational support services across all areas of the Health System, spending on facility construction projects, and community giving targeting program-level activities.

The Health System operates within three overlapping geographic areas shown in the map to the right—Sacramento County, the Sacramento Region, and Northern California. Each of these areas experiences direct economic benefits resulting from Health System activities. The economic impacts generated by the Health System, however, do not end with the direct benefits—indirect and induced impacts are also created through the multiplier effect (commonly referred to as the ripple effect). The demand generated by the Health System prompts suppliers of goods and services to respond by increasing economic activity, creating an indirect impact on the local and regional economies. Induced impacts are created through employee spending on goods and services

STUDY AREA MAP



Center for Strategic Economic Research, December 2010

\* The new School of Nursing was not fully operational during the time period covered in this study.

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from local establishments, which is sustained as a result of Health System paychecks and other expenditures.

The combination of direct, indirect, and induced benefits represent the full range of gross economic impacts generated by the Health System through the four functional activities. With additional operations and broader indirect and induced relationships, the Health System’s economic impacts expand within each larger geographic area.

The table below shows that, based on Fiscal Year 2009-2010 activity levels, the Health System supports a total of approximately 17,800 jobs, \$1.4 billion of labor income (salaries/wages and benefits), and \$2.8 billion of output (value of goods and services) in the Sacramento County economy on an annual basis including direct, indirect, and induced benefits. Specifically, through the four functional activities, the Health System directly supports about 9,200 jobs, \$1.0 billion of labor income, and \$1.6 billion of output in Sacramento County. In addition, these operations indirectly create approximately 3,400 jobs, \$172 million of labor income, and \$494 million of output through the demand on linked suppliers of goods and services. Further, consumption activities of those employed directly and indirectly through the Health System generate an induced impact of roughly 5,200 jobs, \$243 million of labor income, and \$702 million of output.

<b>ECONOMIC IMPACT SUMMARY</b>				
<i>Area/Activity</i>	<i>Direct</i>	<i>Indirect</i>	<i>Induced</i>	<i>Total</i>
<b>Sacramento County</b>				
Employment	9,207	3,432	5,153	17,792
Labor Income	\$1,001,440,212	\$172,093,284	\$242,582,250	\$1,416,115,746
Output	\$1,590,699,032	\$493,648,736	\$701,855,132	\$2,786,202,900
<b>Sacramento Region</b>				
Employment	9,679	3,854	6,514	20,048
Labor Income	\$1,042,533,676	\$189,197,054	\$304,884,752	\$1,536,615,482
Output	\$1,627,941,112	\$552,285,220	\$876,784,036	\$3,057,010,368
<b>Northern California</b>				
Employment	9,735	3,719	6,891	20,345
Labor Income	\$1,053,169,500	\$226,794,626	\$372,117,522	\$1,652,081,648
Output	\$1,641,188,552	\$694,410,712	\$1,113,740,832	\$3,449,340,096

Center for Strategic Economic Research, December 2010  
Data Source: IMPLAN, 2008 Coefficients based on CSER estimates

Expanding into the Sacramento Region, the Health System’s annual economic impacts are, on average, about 10 percent larger than in Sacramento County alone, reaching approximately 20,000 jobs, \$1.5 billion of labor income, and \$3.1 billion of output. The economic impacts in the large Northern California area are an average of more than 18 percent larger than in the core Sacramento County area. The Health System generates a total economic impact of over 20,000 jobs, about \$1.7 billion of labor income, and roughly \$3.5 billion of output throughout Northern California. This substantial economic impact equates to about 0.2 percent of all employment and output in Northern California and is close to the same size as the entire Waste Management and Remediation Services sector in terms of employment and the Wood Products Manufacturing sector based on output. Overall, the multiplier effect shows that for every employee or dollar of output directly supported by Health System operations, the Northern California economy gains an additional 1.1 jobs or \$1.1 of output, respectively.

A wide variety of industry sectors benefit from the economic impacts resulting from the Health System’s four functional activities. Some examples of major sectors that experience significant indirect impacts include Administrative & Support Services; Real Estate; and Professional, Scientific, & Technical Services. In terms of induced impacts, a few examples of major sectors with substantial benefits include Food Services & Drinking Places; Real Estate; and Insurance Carriers & Related Activities.

**Research Methodology**

The UC Davis Health System commissioned the Center for Strategic Economic Research (CSER), an economic research and consulting group affiliated with the Sacramento Area Commerce and Trade Organization (SACTO), to conduct a gross economic impact analysis of the Health System operations based on Fiscal Year 2009-2010 activity levels. The Health System requested that impacts be analyzed within three overlapping areas including Sacramento County, the Sacramento Region (El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba Counties), and Northern California (counties north of the southern border of Monterey, Kings, Tulare, and Inyo Counties). It is important to note that the Fiscal Year 2009-2010 period covers activities prior to the full implementation of the new School of Nursing.

CSER utilized the IMPLAN input-output model (2008 Coefficients) to conduct the analysis and calibrated the model to reflect the economy in the three geographic areas and specific company activity levels based on information provided directly by the Health System. Spending activities accounted for leakages out of the geographic areas and construction activities assumed an established proportion that can be met by local supply in the specific geographic area. The background data and analysis parameters for each of the four functional activities are described below.

*Education*

The table to the right shows the background headcount employment, expense, and compensation data specifically for education activities provided by the Health System. Student spending is based on a total student count of 787 split using residence location estimates and an assumed annual spending level of \$19,666 applied, the average financial aid estimate of housing, food, personal, and transportation expenses across all student categories for 2010-2011. Visitor spending uses attendee counts by location for regular CME courses with an assumed spending level of \$20 per visitor based on a Sedway Group estimate in the 2004 *A Study of the Economic Impact of the University of California, Davis* report.

EDUCATION BACKGROUND DATA FISCAL YEAR 2009-2010			
Factor	Sacramento County	Sacramento Region	Northern California
Employment	186	232	232
Expenses	\$52,714,130	\$65,892,663	\$65,892,663
Compensation	\$38,681,386	\$48,351,732	\$48,351,732
Student Spending	\$13,619,885	\$14,858,056	\$15,322,371
Visitor Spending	\$41,000	\$41,860	\$66,140

Center for Strategic Economic Research, December 2010  
Data Source: UC Davis Health System and Sedway Group

*Healthcare*

Background data from the Health System for headcount employment, expense, and compensation data for healthcare activities are shown in the table below.

HEALTHCARE BACKGROUND DATA FISCAL YEAR 2009-2010			
Factor	Sacramento County	Sacramento Region	Northern California
Employment - SOM	746	768	768
Expenses - SOM	\$131,308,849	\$135,205,434	\$135,205,434
Compensation - SOM	\$118,041,338	\$121,544,210	\$121,544,210
Employment - Hosp.	4,322	4,525	4,525
Expenses - Hosp.	\$648,761,057	\$683,565,399	\$684,409,788
Compensation - Hosp.	\$421,633,862	\$441,664,193	\$422,111,311

Center for Strategic Economic Research, December 2010  
Data Source: UC Davis Health System

*Research*

The table below shows background headcount employment, expense, and compensation data for research activities provided by the Health System.

RESEARCH BACKGROUND DATA FISCAL YEAR 2009-2010			
<i>Factor</i>	<i>Sacramento County</i>	<i>Sacramento Region</i>	<i>Northern California</i>
Employment	251	327	330
Expenses	\$173,778,028	\$226,477,630	\$228,655,300
Compensation	\$107,034,033	\$139,492,976	\$140,834,254

Center for Strategic Economic Research, December 2010  
Data Source: UC Davis Health System

*Facilities & Operational Support*

The Health System's background headcount employment, expense, and compensation data for operational support activities are provided in the table to the right in addition to construction expenditures for the Fiscal Year. Construction activities utilized local purchasing coefficients for Sacramento County and the Sacramento Region and assumed all local purchasing for Northern California. Community giving is based on Health System records for funding that appeared to target program-level activities including The Effort Interim Care Project, St. Hope schools, Cover the Kids, and Target Excellence.

FACILITIES, & OPERATIONAL SUPPORT BACKGROUND DATA FISCAL YEAR 2009-2010			
<i>Factor</i>	<i>Sacramento County</i>	<i>Sacramento Region</i>	<i>Northern California</i>
Employment - SOM	418	494	495
Expenses - SOM	\$31,672,532	\$37,419,679	\$37,538,850
Compensation - SOM	\$23,241,158	\$27,458,388	\$27,545,835
Employment - Hosp.	3,038	3,038	3,038
Expenses - Hosp.	\$367,709,596	\$367,709,596	\$367,723,786
Compensation - Hosp.	\$177,874,216	\$177,874,216	\$177,888,406
Construction Costs	\$64,681,000	\$64,681,000	\$64,681,000
Programmatic Giving	\$208,000	\$208,000	\$208,000

Center for Strategic Economic Research, December 2010  
Data Source: UC Davis Health System