

Economic Impacts of the University of California, Los Angeles

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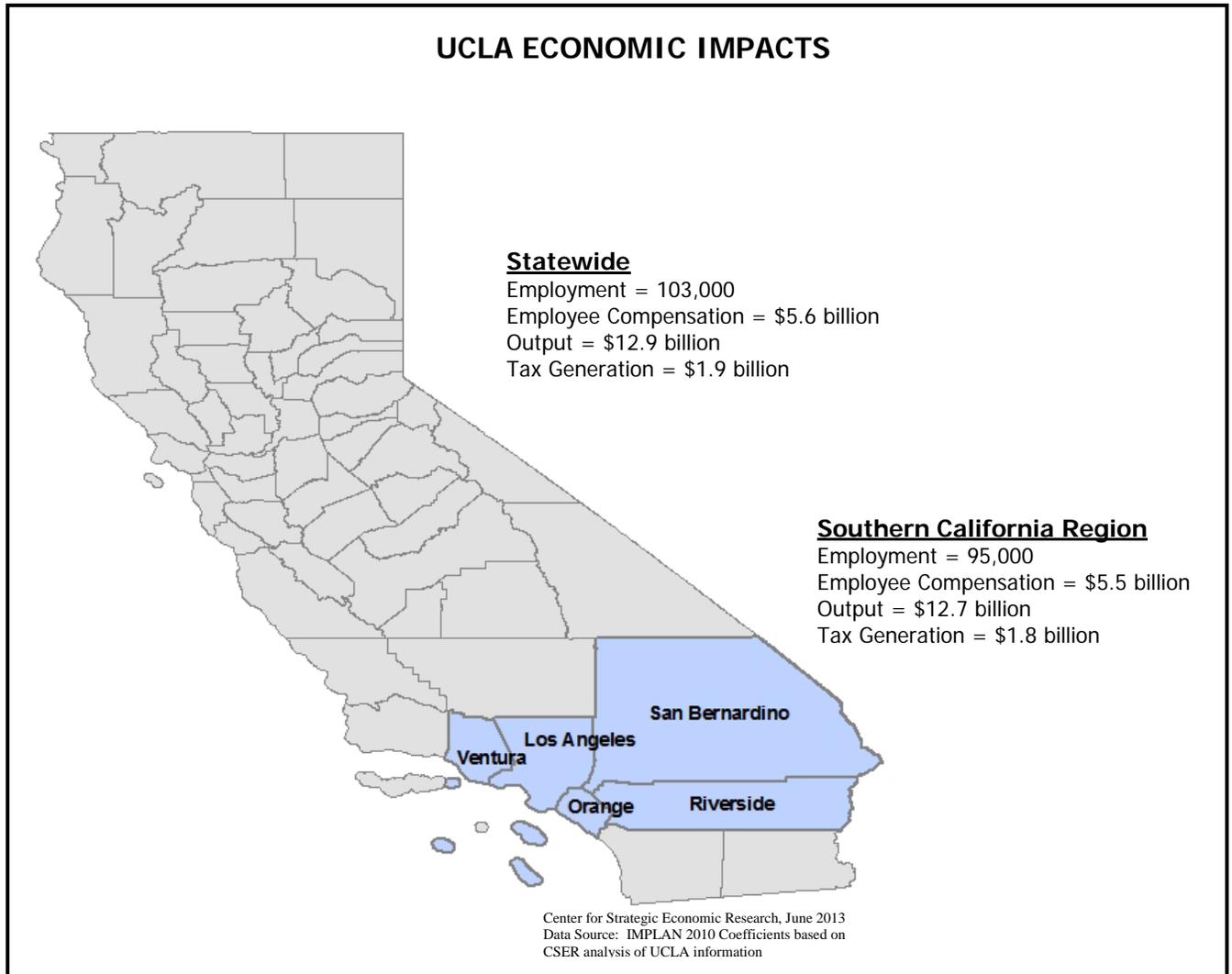
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Report Summary

As one of ten campuses in the world-renowned University of California system, and among the group of five campuses with an academic medical center, the University of California, Los Angeles (UCLA) offers invaluable educational opportunities in a wide array of disciplines, engages in important basic and applied research, and provides high-quality health care services and volunteer engagement within the community and beyond. The general public tends to understand UCLA's role in these key areas, but often is not aware of the fact that the institution is also a major contributor to the regional and statewide economies. UCLA not only makes a direct contribution to the economy through the spending and jobs supported by its academic, administration, research, and health care activities, but also generates a "ripple effect" that leads to an even larger impact in the economy as a result of demand on suppliers of goods and services as well as employee spending.



UCLA is among the top five employers in the Southern California Region based on the institution’s direct employment levels.* However, accounting for the full range of economic effects, UCLA’s estimated annual economic impact in the Southern California Region totals 95,000 jobs, \$5.5 billion of employee compensation, \$12.7 billion of output, and \$1.8 billion in federal, state, and local tax revenues—the equivalent of one percent of the entire regional economy. For every \$1.00 of direct economic activity supported by UCLA, the Southern California Region’s economy benefits from an additional \$1.26 as a result of the multiplier or “ripple” effect that accounts for impacts on suppliers and from employee consumption. This same \$1.00 also generates about \$0.31 in additional tax revenues at the federal, state, and local levels. For every employee supported directly by UCLA activities, the regional economy captures another employee due to demand on suppliers and through employee spending. This multiplier effect spreads through nearly every industry sector in the economy, but the sectors that primarily provide goods and services to regional consumers, like retail trade and health & social services, tend to benefit the most from UCLA’s economic impacts. In terms of output levels, UCLA’s multiplier effect of 2.26 is more robust than most industry sectors in the Southern California Region. In fact, out of a set of 86 detailed industry sectors, the multiplier effect associated with the university exceeds 67 of them including activities such as professional, scientific, and technical services; chemical manufacturing; and construction.

**Top Five Industry Sectors
Benefitting Most from
UCLA Economic Impacts:**

1. Retail Trade
2. Health & Social Services
3. Real Estate & Rental
4. Professional, Scientific, & Technical Services
5. Finance & Insurance

Expanded out to the entire state, the annual economic impact created by UCLA reaches 103,000 jobs, \$5.6 billion of employee compensation, \$12.9 billion of output, and \$1.9 billion of tax generation. UCLA is a public institution, with the State of California contributing \$379 million to the university in the 2011-2012 Fiscal Year. The total statewide economic impacts generated by the university that year are estimated at approximately \$12.9 billion, or almost 34 times the value of the State's contribution.

Health Sciences and the Health System are major components of UCLA and generate a considerable economic impact on their own. In the Southern California Region, UCLA Health Sciences and the Health System support an annual economic impact totaling 53,000 jobs, \$3.4 billion of employee compensation, \$7.7 billion of output, and \$1.1 billion of federal, state, and local tax revenue. At the statewide level, the economic impact resulting from Health Sciences and the Health System activities expands to 58,000 jobs, \$3.5 billion of employee compensation, \$7.8 billion of output, and more than \$1.1 billion of tax generation.

UCLA’s integration of education, research, and service fosters innovation, enhances technology transfer, and creates a number of other beneficial outcomes. In the 2011-2012 Fiscal Year, the

* Employer rank is based on information from UCLA and ReferenceUSA establishment records.

Direct = UCLA education, research, healthcare, construction, student purchases, and visitor spending • *Indirect* = suppliers of goods and services linked to direct activities • *Induced* = direct and indirect employee spending

Employment = headcount jobs • *Employee Compensation* = salaries/wage and benefits • *Output* = market value of goods/services • *Tax Generation* = local, state, and federal taxes and fees

campus attracted over \$1.0 billion of public and private grants to sponsor continued cutting-edge research, maintained almost 670 U.S. patents from discoveries generated by campus inventors, and received more than \$18.1 million from licensing intellectual property. Additionally, UCLA has identified close to 140 start-up companies that have licensed university technology or were created in order to bring campus-generated ideas to market—a sub-set of these companies that are still active in California alone create an annual economic impact totaling more than 4,400 jobs and \$1.1 billion of output.

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UCLA Economic Impact: Campus-Wide

UCLA supports education, research, and service across more than 100 academic departments, a wide array of research centers and institutes, and numerous volunteer opportunities. In addition, the institution provides health care services along with medical education and research through its Health Sciences and Health System activities. Administering the numerous UCLA programs and serving students, medical patients, campus visitors, and the community requires a *direct* headcount employment level of almost 42,000 and operating expenditures of nearly \$5.1 billion based on Fiscal Year 2011-2012 activities. Much of the UCLA spending flows outside the campus to a variety of suppliers of goods and services, generating an *indirect* effect in the economy as a result of the incremental demand on these establishments. A notable share of UCLA's spending also makes its way to employees in the form of salaries and wages, which is then circulated into the economy through typical household spending activities and creates *induced* effects within the sectors benefitting from this consumption. UCLA enrollment is more than 39,000 (including undergraduates, graduate students, and medical interns and residents) and these students directly spend a significant amount of money off-campus in the economy, which, in turn, generates additional indirect and induced effects.[†] The combination of direct, indirect, and induced effects equates to the full range of gross economic impacts generated by UCLA through its various activities. The Southern California Region (Los Angeles, Orange, Ventura, Riverside, and San Bernardino Counties) represents a major economy on its own (9.3 million jobs and \$1.4 trillion of output), which is able to absorb and support a large amount of economic activity, but UCLA's economic impacts increase incrementally when measured at the statewide level due primarily to enhanced indirect and induced economic relationships.

The table on the next page shows that UCLA generates an estimated economic impact of roughly 95,000 jobs (headcount), \$5.5 billion of employee compensation (salaries/wages and benefits), and \$12.7 billion of output (market value of goods and services) in the Southern California Region economy on an annual basis including direct, indirect, and induced effects. To put this total economic impact in perspective, looking at a set of 86 detailed industry sectors in the Southern California Region economy, the UCLA impact is larger than 61 sectors in terms of employment and 56 sectors based on output levels, topping activities such as publishing, utilities, and warehousing. UCLA directly supports approximately 47,000 jobs, \$3.2 billion of employee compensation, and \$5.6 billion of output through its education, research, and health care programs as well as student and visitor spending in the Southern California Region. These activities indirectly create about 15,000 jobs, \$811 million of employee compensation, and \$2.5 billion of output as a result of the demand on linked suppliers of goods and services.

[†] Student and visitor spending directly supports approximately 5,000 jobs and \$500 million of output—adding these effects to UCLA operations brings the institution's total direct effect to around 47,000 jobs and \$5.6 billion of output.

Direct = UCLA education, research, healthcare, construction, student purchases, and visitor spending • *Indirect* = suppliers of goods and services linked to direct activities • *Induced* = direct and indirect employee spending

Employment = headcount jobs • *Employee Compensation* = salaries/wage and benefits • *Output* = market value of goods/services • *Tax Generation* = local, state, and federal taxes and fees

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Additionally, the spending patterns of those employed directly and indirectly through UCLA produce an induced effect of around 32,000 jobs, \$1.5 billion of employee compensation, and \$4.6 billion of output. Overall, the multiplier effect associated with all UCLA activities shows that for every employee or dollar of output directly supported by the institution, the Southern California Region economy gains an additional 1.0 job and \$1.26 of output, respectively. Within the California economy, UCLA’s total economic impact increases modestly and equates to an estimated 103,000 jobs, \$5.6 billion of employee compensation, and \$12.9 billion of output with the employment multiplier effect revealing the addition of another 1.2 jobs generated for every direct job and \$1.28 for every dollar of output directly supported by the institution.

UCLA ECONOMIC IMPACTS, FY 11-12

<i>Area / Measure</i>	<i>Direct</i>	<i>Indirect</i>	<i>Induced</i>	<i>Total</i>
<u>Southern California</u>				
Employment	47,452	14,738	32,367	94,557
Employee Compensation	\$3,174,762,222	\$811,427,074	\$1,540,547,122	\$5,526,736,418
Output	\$5,637,371,847	\$2,528,692,283	\$4,554,831,245	\$12,720,895,375
Tax Generation	-	-	-	\$1,769,564,291
<u>California</u>				
Employment	47,453	17,886	37,957	103,296
Employee Compensation	\$3,178,449,022	\$863,068,416	\$1,585,778,491	\$5,627,295,929
Output	\$5,646,617,635	\$2,650,647,938	\$4,590,552,957	\$12,887,818,530
Tax Generation	-	-	-	\$1,923,691,004

Center for Strategic Economic Research, June 2013

Data Source: IMPLAN 2010 Coefficients based on CSER analysis of UCLA information

Notes: Direct values account for UCLA activities plus effects supported by student and visitor spending.

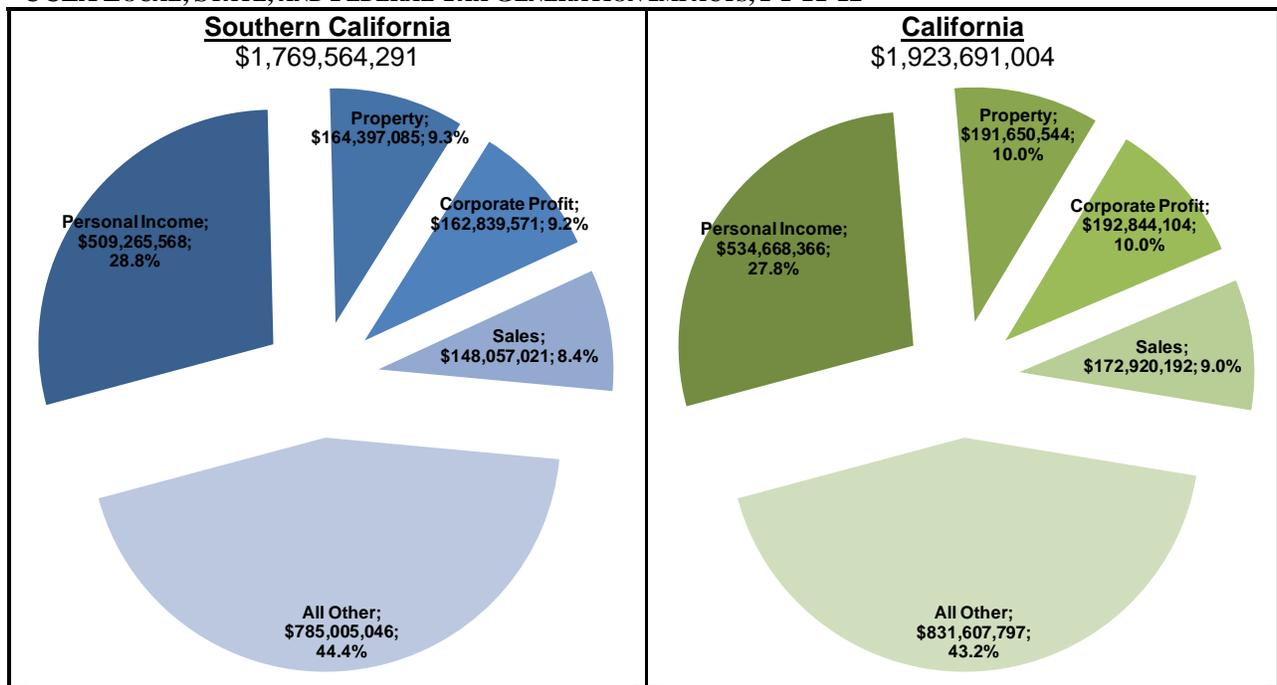
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The direct, indirect, and induced effects created by UCLA Campus activities in the Southern California Region for the 2011-2012 Fiscal Year generated an estimated \$1.8 billion of tax revenues at the federal, state, and local levels. A little less than two-thirds of this fiscal impact (about \$1.2 billion) is captured at the federal level with the remainder (approximately \$613 million) flowing directly into state and local coffers.[‡] As shown in the chart below, around 29 percent of the tax generation is created through personal income taxes while corporate profit, property, and sales taxes also drive notable shares of the impact. The tax generation associated with UCLA’s total statewide economic impact equates to approximately \$1.9 billion with roughly 64 percent (over \$1.2 billion) at the federal level and state and local capturing the remaining 36 percent (more than \$692 million). Most of the statewide fiscal impacts fall within the personal income, corporate profit, property, and sales taxes categories, but at slightly different shares than the Southern California Region impact.

UCLA LOCAL, STATE, AND FEDERAL TAX GENERATION IMPACTS, FY 11-12



Center for Strategic Economic Research, June 2013

Data Source: IMPLAN 2010 Coefficients based on CSER analysis of UCLA information

Note: Tax generation impacts resulting from direct, indirect, and induced activities.

The “All Other” category includes social insurance, motor vehicle, and several other personal and business assessments, fees, and taxes.

[‡] While a full technical analysis to quantify the split between state and local revenue in the UCLA fiscal impact was not conducted as part of this study, data from the U.S. Census Bureau 2010 Annual Survey of State and Local Government Finances for California show that state government revenue is approximately 51 percent of the total measured state and local government amount and local government revenue (cities, counties, and special districts) is roughly 49 percent of the total.

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Employment = headcount jobs • *Employee Compensation* = salaries/wage and benefits • *Output* = market value of goods/services • *Tax Generation* = local, state, and federal taxes and fees

UCLA Economic Impact: Health Sciences and the Health System

Health Sciences and the Health System are major UCLA operations that include educational activities housed within the David Geffen School of Medicine, School of Dentistry, School of Nursing, Fielding School of Public Health, and Semel Institute for Neuroscience and Human Behavior as well as a comprehensive set of health care services provided through the four hospitals and the faculty practice group. These operations are focused on the important roles of caring for 1.5 million patients, training health care professionals, and advancing health care through research. Based on Fiscal Year 2011-2012 operational levels, UCLA Health Sciences and the Health System *directly* support over 21,000 headcount jobs and expenditures of close to \$3.2 billion. A significant portion of this spending is directed toward external suppliers, which *indirectly* supports additional economic activity at these establishments as they respond to the demand for goods and services. Operational expenditures also contain employee compensation that is disseminated throughout the economy by way of household spending—an *induced* economic effect is created within the industry sectors that receive this spending, supported in large part by UCLA paychecks. The more than 11,000 students, interns, and residents in Health Sciences and the Health System also directly contribute to the economy as they consume goods and services at a wide range of establishments in the community. Similarly, the roughly 7,800 visitors related to Health Sciences and the Health System services, conferences, and special events also directly benefit the local economy when they spend money while in the area.[§] The direct spending from students, interns, residents, and visitors also generates indirect and induced effects.^{**} Together, the direct, indirect, and induced effects demonstrate the full gross economic impact generated by the various activities associated with UCLA Health Sciences and the Health System.

As shown in the table on the following page, in the Southern California Region, UCLA Health Sciences and the Health System generate an annual estimated economic impact totaling approximately 53,000 jobs (headcount), \$3.4 billion of employee compensation (salaries/wages plus benefits), and \$7.7 billion of output (market value of goods and services) based on Fiscal Year 2011-2012 activity levels. For comparison purposes, this regional economic impact is greater than the economic activity associated with 45 of the 86 detailed industry sectors in the Southern California Region, surpassing activities such as accommodations, broadcasting, and waste management. In the broader statewide economy, which is able to absorb a somewhat larger amount of indirect and induced effects, the economic impact expands to about 58,000 jobs, \$3.5 billion of employee compensation, and \$7.8 billion of output. In the Southern California Region, the academic, research, and health care activities associated with UCLA Health Services and the Health System along with student and visitor spending directly support

[§] While not accounted for in this analysis due to data limitations, there is also a notable economic impact resulting from spending activities of domestic and international patients (and their families) who come to UCLA for health care services.

^{**} Student and visitor spending directly supports approximately 2,000 jobs and \$200 million of output—adding these effects to the Health Sciences and Health System operations brings the total direct effect to around 23,000 jobs and \$3.4 billion of output.

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roughly 23,000 jobs, \$2.0 billion of employee compensation, and \$3.4 billion of output. Another approximately 9,000 jobs, \$490 million of employee compensation, and \$1.5 billion of output are indirectly created through demand on linked suppliers of goods and services. An induced effect is also generated through direct and indirect employee spending in the economy, which equates to about 20,000 jobs, \$958 million of employee compensation, and \$2.8 billion of output. The multiplier effect, commonly referred to as the “ripple effect,” shows that for every job or dollar directly supported by UCLA Health Services and the Health System in the Southern California Region, the regional economy gains another 1.3 jobs and \$1.27 of output, respectively, through indirect and induced activities. This effect is slightly higher in the statewide economy where another 1.5 jobs and \$1.30 of output are created for every direct job or dollar of output supported by UCLA Health Services and the Health System.

UCLA HEALTH SCIENCES AND HEALTH SYSTEM ECONOMIC IMPACTS, FY 11-12

<i>Area / Measure</i>	<i>Direct</i>	<i>Indirect</i>	<i>Induced</i>	<i>Total</i>
<u>Southern California</u>				
Employment	23,309	9,123	20,094	52,525
Employee Compensation	\$1,993,809,652	\$489,575,105	\$958,212,520	\$3,441,597,277
Output	\$3,405,112,249	\$1,508,778,870	\$2,831,605,497	\$7,745,496,616
Tax Generation	-	-	-	\$1,081,770,957
<u>California</u>				
Employment	23,310	11,065	23,534	57,909
Employee Compensation	\$1,996,227,568	\$521,205,925	\$986,670,982	\$3,504,104,475
Output	\$3,410,462,973	\$1,581,008,501	\$2,852,082,475	\$7,843,553,949
Tax Generation	-	-	-	\$1,146,420,415

Center for Strategic Economic Research, June 2013

Data Source: IMPLAN 2010 Coefficients based on CSER analysis of UCLA information

Note: Direct values account for UCLA activities plus effects supported by student and visitor spending.

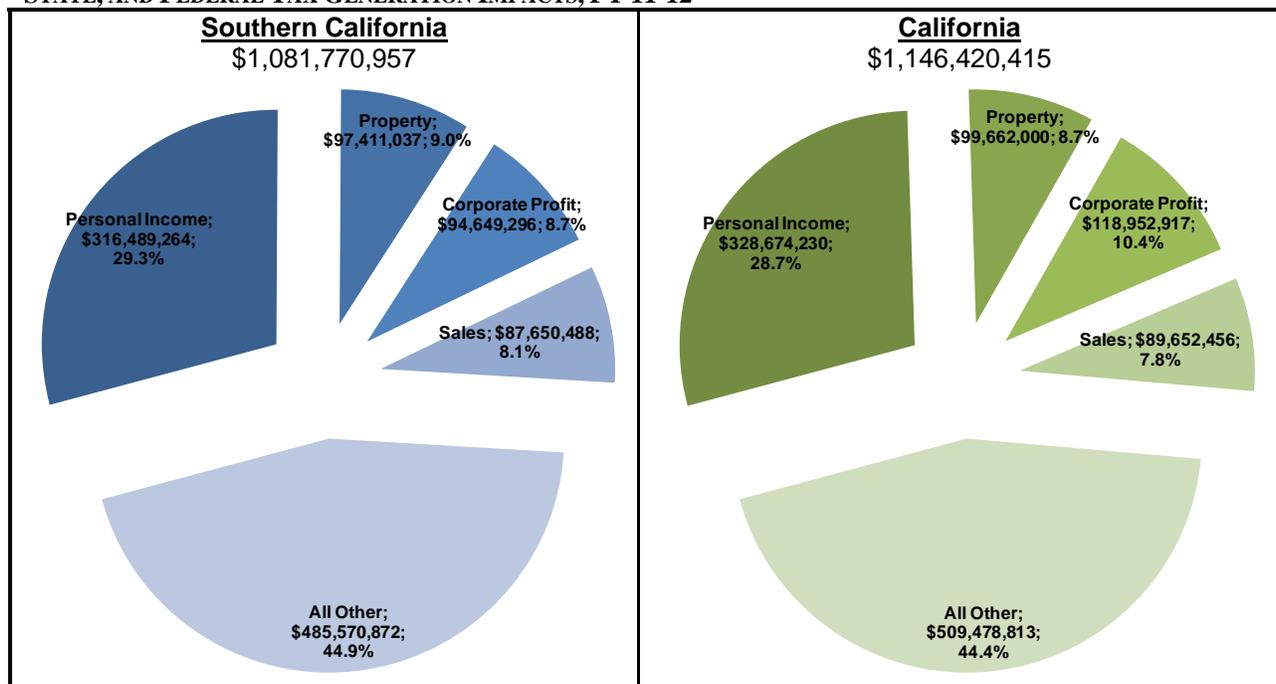
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ECONOMIC IMPACTS OF THE UNIVERSITY OF CALIFORNIA, LOS ANGELES

Nearly \$1.1 billion of federal, state, and local tax revenue are generated through the direct, indirect, and induced economic effects associated with UCLA Health Sciences and the Health System operations in the Southern California Region over the 2011-2012 Fiscal Year. Approximately 66 percent of the tax generation impact (roughly \$713 million) is captured at the federal level with the remaining 34 percent (about \$369 million) coming in at the state and local level.^{††} The chart below shows that the largest driver of the fiscal impact is personal income taxes at around 29 percent of the total, but property, corporate profit, and sales taxes also each produce between 8 percent and 9 percent of the total. The total economic impact of UCLA Health Sciences and the Health System in California procures just over \$1.1 billion of tax revenue across the federal, state, and local levels. The split of the tax generation across these levels (approximately 66 percent federal [\$761 million] and 34 percent state and local [\$386 million]) as well as among different types of taxes is similar to the Southern California Region impact.

UCLA HEALTH SCIENCES AND HEALTH SYSTEM LOCAL, STATE, AND FEDERAL TAX GENERATION IMPACTS, FY 11-12



Center for Strategic Economic Research, June 2013

Data Source: IMPLAN 2010 Coefficients based on CSER analysis of UCLA information

Note: Tax generation impacts resulting from direct, indirect, and induced activities.

The "All Other" category includes social insurance, motor vehicle, and several other personal and business assessments, fees, and taxes.

^{††} Although a full technical analysis to quantify the split between state and local revenue in the fiscal impact attributed to UCLA Health Sciences and the Health System was not conducted as part of this study, data from the U.S. Census Bureau 2010 Annual Survey of State and Local Government Finances for California show that state government revenue is approximately 51 percent of the total measured state and local government amount and local government revenue (cities, counties, and special districts) is roughly 49 percent of the total.

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Other UCLA Economic Contributions: Research, Intellectual Property, and Start-Ups

Research conducted at UCLA through its faculty and numerous research labs, centers, and institutes helps advance theory and practice in a number of fields, produce medical breakthroughs, and develop new technologies. UCLA's research excellence is evident in the fact that the institution received over \$1.0 billion in public and private sponsored grants in the 2011-2012 Fiscal Year, which is used to support a variety of research efforts often over several Fiscal Years. Many of the outcomes of UCLA research also create market value in the economy. UCLA received nearly \$18.1 million of revenue in the 2011-2012 Fiscal Year from royalties associated with licensing inventions and 74 U.S. patents were issued bringing the total active patent count to 668 at the end of the Fiscal Year. Every year, a handful of start-up companies license UCLA technology or are founded specifically in order to commercialize innovation and bring breakthrough ideas generated on campus to market. A sample of records for about 140 companies started between the year 2000 and the end of the 2011-2012 Fiscal Year shows that close to half are still operating within California. These companies also contribute to the statewide economy and produce an economic impact through their direct activities as well as indirect and induced effects. Estimates of the annual economic impacts associated with these companies total over 4,400 jobs, \$295 million of employee compensation, and \$1.1 billion of output including all economic effects. Around \$108 million of tax revenue is derived from these economic impacts at the federal, state, and local levels.

Annual Statewide Economic Impacts of UCLA Start-Up Companies Existing in Fiscal Year 2011-2012:

- ✓ Employment = 4,411
- ✓ Employee Compensation = \$295 million
- ✓ Output = \$1.1 billion
- ✓ Local, State, and Federal Tax Generation = \$108 million

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Technical Notes

UCLA engaged the Center for Strategic Economic Research (CSER), an economic research and consulting group specializing in applied research and strategy development in the regional economics and economic development fields, to conduct a gross economic impact analysis of its operations based on Fiscal Year 2011-2012 activity levels. The analysis was designed to measure the economic impacts within the Southern California Region (Los Angeles, Orange, Ventura, Riverside, and San Bernardino Counties) as well as for the entire state. UCLA requested that the analysis be completed for two distinct breakdowns of institution operations:

1. The entire institution including Health Sciences and the Health System
2. Health Sciences and the Health Systems—David Geffen School of Medicine, School of Dentistry, School of Nursing, Fielding School of Public Health, and Semel Institute for Neuroscience and Human Behavior as well as a comprehensive set of health care services provided through the four hospitals and the faculty practice group

CSER utilized the IMPLAN input-output model (2010 Coefficients) to conduct the analysis and calibrated the model to reflect the Southern California Region and California economies as well as specific UCLA activities based on information provided directly by the institution. The analysis accounted for direct spending leakages out of the geographic areas as well as captured indirect and induced effects. CSER also used the model-derived tax impact analysis to estimate the fiscal impacts associated with the direct, indirect, and induced economic effects. UCLA provided background data and analysis parameters for the study are shown in the table below.

BACKGROUND DATA AND ASSUMPTIONS, FY 11-12

Measure	Value
Faculty & Staff Headcount	41,942
Employee Compensation	\$2,928,169,000
Construction Expenditures	\$329,203,136
All Other Expenditures	\$1,835,114,000
Student Count	39,324
Visitor Count	1,610,187
Student & Visitor Spending	\$549,889,360

Center for Strategic Economic Research, June 2013
 Data Source: CSER analysis of UCLA information

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Student spending was derived using total student counts with an assumed annual spending level applied based on 2011-2012 financial aid student budget estimates of housing, food, personal, and transportation expenses with specific values for undergraduate, graduate, and professional students as well as commuters, on-campus housing, and off-campus housing. Visitor spending used attendee counts for UCLA events with assumed conservative spending levels based on professional experience, previously published reports for UCLA and other UC campuses, and specific information from Health Sciences and the Health System. It is important to note that UCLA recognizes that there is likely a significant amount of economic activity stimulated by domestic and international patients (and their families) who come to UCLA for health care. These visitor impacts were not accounted for in this analysis due to limited available data from the Health System.

CSER also estimated the economic impacts associated with start-up companies from the year 2000 to the end of the 2011-2012 Fiscal Year.^{‡‡} UCLA provided a list of about 140 tracked start-up companies, which was a sample of the universe of all start-ups. CSER researched these companies to determine if they were still operating in California—for the 81 that were clearly identified, information from ReferenceUSA and Dunn & Bradstreet was collected to develop a direct employment count and associated industry sectors for the economic impact analysis.

^{‡‡} UCLA defines start-up companies as legally organized/incorporated companies whose formation depended on the acquisition of rights to UC's interest in at least one disclosed UC technology, where: (a) the company first acquired such rights during the fiscal year under one or more licenses, options, or letters of intent (from UC or from an interinstitutional agreement partner managing a co-owned technology) or under an agreement with a licensee (such as an investment or holding company) or (b) the company was founded to develop products and services based on the disclosed UC technology(ies).

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