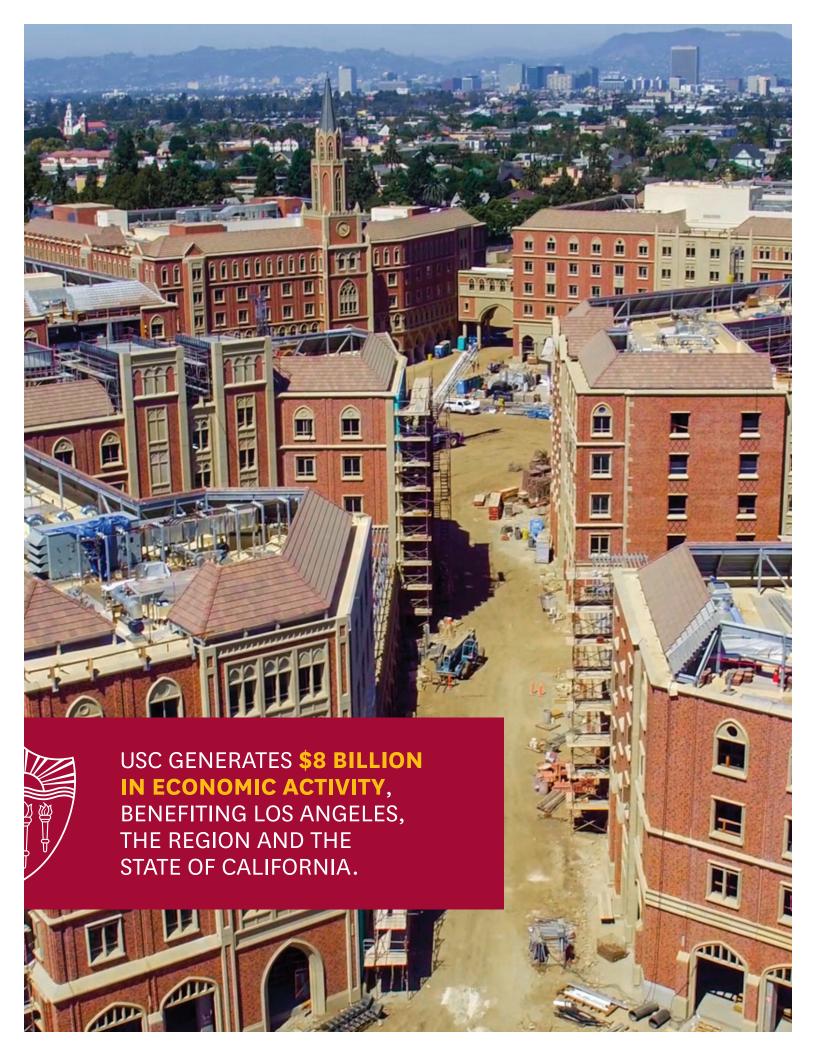
UNIVERSITY OF SOUTHERN CALIFORNIA



ECONOMIC & SOCIAL IMPACT ANALYSIS





THE ROLE AND MISSION OF THE UNIVERSITY OF SOUTHERN CALIFORNIA

The central mission of the University of Southern California is the development of human beings and society as a whole through the cultivation and enrichment of the human mind and spirit. The principal means by which our mission is accomplished are teaching, research, artistic creation, professional practice and selected forms of public service.

Our first priority as faculty and staff is the education of our students, from freshmen to postdoctorals, through a broad array of academic, professional, extracurricular and athletic programs of the first rank. The integration of liberal and professional learning is one of USC's special strengths. We strive constantly for excellence in teaching knowledge and skills to our students, while at the same time helping them to acquire wisdom and insight, love of truth and beauty, moral discernment, understanding of self, and respect and appreciation for others.

Research of the highest quality by our faculty and students is fundamental to our mission. USC is one of a very small number of premier academic institutions in which research and teaching are inextricably intertwined, and on which the nation depends for a steady stream of new knowledge, art and technology. Our faculty are not simply teachers of the works of others, but active contributors to what is taught, thought and practiced throughout the world.

USC is pluralistic, welcoming outstanding men and women of every race, creed and background. We are a global institution in a global center, attracting more international students over the years than any other American university. And we are private, unfettered by political control, strongly committed to academic freedom and proud of our entrepreneurial heritage.

An extraordinary closeness and willingness to help one another are evident among USC students, alumni, faculty, and staff; indeed, for those within its compass the Trojan Family is a genuinely supportive community. Alumni, trustees, volunteers and friends of USC are essential to this family tradition, providing generous financial support, participating in university governance and assisting students at every turn.

In our surrounding neighborhoods and around the globe, USC provides public leadership and public service in such diverse fields as health care, economic development, social welfare, scientific research, public policy and the arts. We also serve the public interest by being the largest private employer in the city of Los Angeles, as well as the city's largest export industry in the private sector.

USC has played a major role in the development of Southern California for more than a century, and plays an increasingly important role in the development of the nation and the world. We expect to continue to play these roles for many centuries to come. Thus our planning, commitments and fiscal policies are directed toward building quality and excellence in the long term.



EXECUTIVE SUMMARY

Since its founding in 1880, the University of Southern California (USC) has established a vast, lasting imprint on the Los Angeles area, extending far beyond the classroom into research, medicine, culture and community partnerships. The large scale of USC's operations—the university is home to more than 44,000 students across 21 academic schools and units extends its positive effects well beyond Los Angeles to much of the rest of California and beyond. Billions of dollars are spent each year to support the university's mission, generating a substantial impact on the economy. At the same time, thousands of staff and volunteers support additional activities that generate enormous social impacts, most significantly in the Los Angeles area.

This analysis, conducted by Beacon Economics, examines those economic and social impacts of USC from the vantage point of Los Angeles County, Southern California and the state of California. Through this analysis, Beacon will show how USC plays a fundamental role in enriching local communities and furthering technology and business, in addition to supporting student life.

The combined spending by USC at the University Park Campus, Keck Medicine of USC at its 45 clinical locations, as well as spending made by USC's faculty, staff, students and out-of-town visitors, represents all direct USC-related spending. As that spending moves through the economy, it creates ripple (or "multiplier") effects, resulting in a total impact that is much larger than the initial direct spending. This impact comes in a variety of quantifiable forms:









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¹ Defined as the Counties of Los Angeles, Orange, San Diego, Imperial, San Bernardino, Ventura and Santa Barbara.

This analysis uses spending data for the 2015-16 fiscal year to estimate the annual ("ongoing") impact of USC's operations. Notably, this impact is only a snapshot of a current year. The impacts are expected to continue to grow over time, as more dollars are spent in connection to USC operations each year.

University of Southern California Statewide Economic Impacts

IMPACT TYPE	EMPLOYMENT	LABOR INCOME (\$ millions)	OUTPUT (\$ millions)	TAX REVENUES (\$ millions)
Direct Effect	30,907	1,584.5	4,206.1	
Indirect Effect	10,171	661.6	1,934.9	
Induced Effect	12,347	669.2	1,993.1	
TOTAL EFFECT	53,425	2,915.3	8,134.1	455.0

Based on spending for the 2015-16 fiscal year, USC's operations:

- Generated a total of \$6.11 billion in economic output in Los Angeles County, \$7.44 billion in economic output in Southern California and \$8.13 billion in economic output in California
- Supported a total of **42,315 jobs** in Los Angeles County, **50,487 jobs** in Southern California and **53,425 jobs** in California
- Generated a total of \$2.19 billion in worker wages in Los Angeles County,
 \$2.6 billion in worker wages in Southern California and \$2.91 billion in worker wages in California
- Generated a total of \$155 million in tax revenues for local government in Los Angeles County, \$178 million in tax revenues for local government in Southern California and \$455 million in tax revenues for local governments and the state government across California

USC also has an impact on the community that reaches far beyond the economic activity generated by its day-to-day operations. USC plays an integral part in its surrounding community and has many programs and partnerships enhancing lives throughout the region and beyond.

By providing its students with a world-class education, as well as supporting groundbreaking research opportunities, USC is able to foster advances in health and human services, academic research and business startup development. USC's student body and staff also have demonstrated an affinity for reaching out to the community via educational programs, athletics and the arts.

In all, through its substantial economic and social impacts from its operations, USC has and will continue to improve the quality of life for individuals of Los Angeles and beyond.

OVERVIEW

This analysis used university-related spending to estimate the amount of economic activity generated in the Los Angeles County, Southern California and California economies due to the University of Southern California, focusing on the 2015-16 fiscal year.

Spending by USC included capital projects, purchase orders and credit card purchases, as well as the operations of the Keck Medical Center of USC and USC Verdugo Hills Hospital. It also included spending made by USC's faculty, staff and its students, and the expenditures made by out-of-town visitors who come to the area to attend USC events.

This analysis was divided into five main components, beginning with an estimate of total spending in connection with USC's operations:

1. Direct Expenditures

The economic effects of these expenditures multiplied as they moved through the economy of Los Angeles County, Southern California and California, generating four primary areas of impact:

- 2. Impact of USC-related spending on output
- 3. Impact of USC-related spending on employment
- 4. Impact of USC-related spending on earnings
- 5. Fiscal (tax revenues) impact of USC-related spending

DIRECT EXPENDITURES

The scope of USC's academic footprint is substantial. In the study year of 2015-16, the university had 44,000 students enrolled across 21 schools, with 4,000 faculty members and over 13,000 staff members. The university is home to more than 400 residential and nonresidential buildings, most of which are in Los Angeles County but extend as far as the nation's capital and in international markets. Indeed, USC has a more global reach due to its research, alumni base and academics abroad. Yet, despite USC's global reach and breadth of facilities, the majority of USC-related *expenditures* still occurred within Los Angeles County.

During the 2015-16 fiscal year, USC generated:

42			

total direct spending in Los Angeles County

\$3.53 billion

total direct spending in Southern California

\$3.74 billion

total direct spending in the state of California

These expenditures included USC's direct operational expenditures and the university's expenditures on capital projects, as well as the expenditures of its faculty, staff, students and visitors in each area.

This study did not consider payments made by USC to vendors and suppliers outside each local area (Los Angeles County, Southern California or California) or to faculty and staff who do not reside in each local area. As a result, the estimate for USC-related expenditures in this report is a conservative estimate of the total expenditures USC generates in Los Angeles', Southern California's and the state of California's economy during a typical fiscal year, as some of these expenditures in other areas would flow back into the local economy.

CAPITAL PROJECTS

USC undertakes a variety of capital projects to help improve and expand its campus and grounds each year. Major capital projects currently underway include USC Village, Michelson

² "About USC: Facts and Figures." https://about.usc.edu/facts/.

Center for Convergent Bioscience and Stevens Hall. In the 2015-16 fiscal year, USC spent \$514.2 million on capital projects in Los Angeles County. These included expenditures made to construction firms, suppliers, and management and technical consulting firms. However, the capital expenditures used in the impact analysis did not include land and building purchases, as these types of expenditures represented a transfer of assets and did not have a multiplier effect on local economies. USC also did not make significant expenditures on capital projects in other parts of Southern California or the state of California during the 2015-16 fiscal year.

Many of these projects are longer-term construction projects that help maintain and enhance USC's status as a world-renowned teaching and research institution for years to come. These new and updated facilities also provide an avenue for USC to grow its educational capacity and outreach in the coming years, which will further enhance USC's impact on the economies of Los Angeles County, Southern California and the state of California.

PURCHASE ORDERS AND CREDIT CARDS

A portion of USC's operations relied on purchase orders for goods and services not directly provided by its staff. Expenditures in connection to these operations included payments for supplies/services, maintenance and utilities. For example, USC makes purchases at local restaurants, grocery stores and coffee shops throughout the year. These purchases often include high cost services such as flights, hotel reservations, and health care services. In the 2015-16 fiscal year, direct expenditures on purchase orders by USC totaled:

\$0.9 billion	\$1 billion	\$1.1 billion
in Los Angeles County	in Southern California	in the state of California

To support its operations, USC also relied on credit cards to facilitate its day-to-day spending. These expenditures included payments for travel and accommodations, food and beverage, and general retail items. In the 2015-16 fiscal year, USC's direct credit card expenditures totaled:

\$22.7 million	\$29.6 million	\$38.2 million	
in Los Angeles County	in Southern California	in the state of California	

Because USC is located in a highly populated region, it is able to reach out to a significant number of local firms to make purchases, while a university located outside an urbanized region would have to rely on more firms that are located outside the area for similar purchases.

KECK MEDICINE OF USC

Keck Medicine of USC is the University of Southern California's medical enterprise, one of only two university-based medical systems in the Los Angeles area. Encompassing research

and clinical excellence, the medical system attracts internationally renowned experts who are faculty at the Keck School of Medicine of USC, the region's first medical school. These same physicians practice at its network of hospitals, clinics and affiliate hospitals that total more than 45 locations in Southern California, serving more than 1 million patients annually. Care facilities includes the renowned USC Norris Comprehensive Cancer Center, one of the first comprehensive cancer centers established by the National Institutes of Health (NIH) in the United States.

Expenditures made to provide this level of care and services were significant in the 2015-16 fiscal year. These expenditures included fees paid to suppliers, such as providers of medical devices, electronics or linens, and other payments, such as utilities, that go into the day-to-day operations of the medical center. In the 2015-16 fiscal year, direct spending for Keck Medicine of USC totaled:

\$122.8 million	\$142.1 million	\$201.7 million
in Los Angeles County	in Southern California	in the state of California

Keck Medicine of USC not only generates jobs and spending in the economies of Los Angeles County, Southern California and the state of California, it also seeks to improve the quality of life for individuals and society by promoting health, preventing and curing disease, advancing biomedical research, and educating tomorrow's physicians and scientists.

Many of the physicians of Keck Medicine of USC also serve as the doctors of Children's Hospital Los Angeles, providing medical expertise and family-centered care to pediatric patients.

STAFF AND FACULTY EXPENDITURES

Spending from the 2015-16 fiscal year show that the 4,000 faculty members and 13,000 staff members of USC also play vital role in the economies of Los Angeles County, Southern California and the state of California. These expenditures include expenditures on housing, transportation, food and retail items.

In the 2015-16 fiscal year, expenditures by USC faculty and staff totaled:

\$1.3 billion	\$1.42 billion	\$1.46 billion
in Los Angeles County	in Southern California	in the state of California

These are likely conservative estimates of the amount of economic activity supported by USC, since this analysis did not consider expenditures made by the families of the faculty and staff who hail from outside each area, or the expenditures made by the family members of USC's faculty and staff. Nevertheless, the analysis indicates that USC faculty and staff contribute significantly to the economies of Los Angeles County, Southern California and the state of California through their spending activity and the subsequent taxes paid on their purchases.

STUDENT EXPENDITURES

USC's 44,000 students (10,600 of which come from abroad) create a significant impact on the economies of Los Angeles County, Southern California and the state of California. In the 2015-16 fiscal year, **USC-related student expenditures totaled \$562.8 million** in Los Angeles County, Southern California and the state of California. The majority of student-related expenditures went toward housing (\$355.1 million), with food and beverages (\$183.7 million) also receiving sizable expenditures from USC's student body.³

VISITOR EXPENDITURES

Using estimates for typical spending per day for visitors to the Los Angeles area, we were able to estimate the **total spending by out-of-town visitors who attended USC events in academic year 2015-16: \$37.9 million in Los Angeles County, Southern California, and the state of California.** This included \$11.4 million for accommodations, \$11 million on food and beverages, \$3.4 million for retail goods, \$4.1 million on other entertainment and \$7.9 million on local transportation.

While USC holds a variety of events that draw visitors to the area throughout the year, the primary drivers of USC-related visitor expenditures are campus athletic events, commencement, and campus tours. For example, the Coliseum saw more than 527,000 attendees come through its turnstiles during the 2015 season, and roughly 60,000 people attended commencement in 2016. While the majority of attendees for these events were locals, the events also attracted many out-of-town visitors who may not have come to the area but for these events.

In addition to USC-generated campus events, including athletic games, homecoming, parent weekends, etc., USC also hosts a number of public civic programs under the auspices of other great Los Angeles institutions.

Since 2011, USC has been the host site of the Los Angeles Times Festival of Books, drawing in over 150,000 literary fans and presenters annually. The campus and its departments have also been the host site of the 2015 Special Olympics Summer World Games, welcoming nearly 7,000 athletes from close to 170 countries. USC also hosts the Annual Empowerment Congress Summit organized by Los Angeles County Supervisor Mark Ridley-Thomas.

The USC Galen Center, which is the home arena for men's and women's college sports events, services the local community with event availability at no charge to nonprofit organizations. Services included are catering, parking, event staff and audiovisual staffing. Organizations that utilize this service include Los Angeles Unified School District, the Minority Business Development Association of the Small Business Administration, the Los Angeles Police Department, Girls Who Code, and Girls Build LA, among many others.

³ This analysis excludes student spending outside of Los Angeles County, as factors beyond USC are likely driving spending.

⁴ Based on estimates for ADR from PFK consulting and on Micronomics Travel Report at http://www.micronomics.com/articles/ Visitors_Economic_Impact_Study.pdf.

ECONOMIC IMPACT OF USC-RELATED SPENDING

IMPACT OF USC-RELATED SPENDING ON OUTPUT

The direct spending of USC for its operations (University Park Campus, Keck Medicine of USC), as well as spending by its faculty, staff, students and visitors, multiplied through the rest of the economy generating a total economic output much larger than the initial spending.

Based on estimates of total USC-related spending during the 2015-16 fiscal year, USC generated \$6.12 billion in economic output in Los Angeles County, \$7.44 billion in economic output in Southern California and \$8.13 billion in economic output in California.

Unversity of Southern California Statewide Output Impacts

TOTAL \$8.13 billion

DIRECT	INDIRECT	INDUCED
\$4.21 billion	\$1.93 billion	\$1.99 billion

 Of the \$6.12 billion in economic output generated in Los Angeles County, \$3.64 billion represented direct spending related to USC, while \$2.48 billion represented secondary spending by USC's suppliers, and by firms that received business from USC's faculty, staff, students and visitors, or by workers who received income from USC directly or indirectly.

- Of the \$7.44 billion in economic output generated in Southern California, \$3.94 billion represented direct spending related to USC, while \$3.50 billion represented secondary spending by businesses and workers down the USC supply chain.
- Of the \$8.31 billion in economic output generated in California, \$4.21 billion represented direct spending related to USC, while \$3.93 billion represented secondary spending by businesses and workers across the state.

As demonstrated above, because USC is located within a highly populated region that is able to support its demand, the majority of the economic impacts occurred within the boundaries of Los Angeles County. USC consequently has a substantial impact on the Los Angeles-area economy.

IMPACT OF USC-RELATED SPENDING ON EMPLOYMENT

In addition to the economic output supported by USC, USC-related expenditure also helped support tens of thousands of jobs in the economies of Los Angeles County, Southern California and California. USC's operations during the 2015-16 fiscal year supported an estimated 42,315 jobs in Los Angeles County, 50,487 jobs in Southern California and 53,425 jobs in California.

University of Southern California Employment Impacts

IMPACT TYPE	LOS ANGELES COUNTY	SOUTHERN CALIFORNIA	CALIFORNIA
Direct Effect	27,087	29,627	30,907
Indirect Effect	7,137	9,532	10,171
Induced Effect	8,091	11,328	12,347
TOTAL EFFECT	42,315	50,487	53,425

- Of the 42,315 jobs supported in Los Angeles County, 27,087 represented jobs directly supported by USC-related expenditures, while 15,228 jobs were supported through secondary spending by businesses and workers down the USC supply chain.
- Of the 50,487 jobs supported in Southern California, 29,627 represented jobs directly supported by USC-related expenditures, while 20,860 jobs were supported through secondary spending by businesses and workers down the USC supply chain.
- Of the 53,425 jobs supported in California, 30,907 represented jobs directly supported by USC-related expenditures, while 22,518 jobs were supported through secondary spending by businesses and workers down the USC supply chain.

The jobs that were supported by USC's operations span a wide range of sectors. Some of the sectors seeing the largest employment impacts were the educational services, health care, construction and wholesale trade sectors.

For example, USC's medical facilities support jobs in the health care sector, its capital projects support the construction and technical consulting sectors, its purchase orders support the wholesale trade sector, and spending by its workers, students and visitors support the retail sector. In effect, USC-related spending supports jobs for workers at all income levels, across many sectors of the economy, large and small. The activities of the university serve as a key source of employment in the state.

IMPACT OF USC-RELATED SPENDING ON EARNINGS

In addition to the economic output and employment supported by USC, USC-related expenditures helped to generate income for workers in Los Angeles County, Southern California and California. The spending by USC, as well as spending by its faculty, students and visitors generated \$2.19 billion in wages for local residents in Los Angeles County, \$2.6 billion for local residents in Southern California and \$2.92 billion for local residents in California.

University of Southern California Earnings Impacts

IMPACT TYPE	LOS ANGELES COUNTY (\$ millions)	SOUTHERN CALIFORNIA (\$ millions)	CALIFORNIA (\$ millions)
Direct Effect	1,327.7	1,430.9	1,584.5
Indirect Effect	445.8	585.5	661.6
Induced Effect	420.1	583.5	669.2
TOTAL EFFECT	2,193.5	2,600.0	2,915.3

- Of the \$2.19 billion in earnings supported in Los Angeles County, \$1.33 billion represented wages supported directly by USC-related expenditures, along with another \$0.87 billion in wages supported through secondary spending by businesses and workers down the USC supply chain.
- Of the \$2.60 billion in earnings supported in Southern California, \$1.43 billion represented wages supported directly by USC-related expenditures, along with another \$1.17 billion in wages supported through secondary spending by businesses and workers down the USC supply chain.
- Of the \$2.92 billion in earnings supported in California, \$1.58 billion represented wages supported directly by USC-related expenditures, along with another
 \$1.33 billion in wages supported through secondary spending by businesses and workers down the USC supply chain.

As the economic expansion in the United States continues, USC-related expenditures are providing a crucial source of income for tens of thousands of local residents throughout Los Angeles County, Southern California and the state of California. These wages are then put back into the local economy, through spending at local restaurants, retail establishments and entertainment venues.

FISCAL (TAX REVENUES) IMPACT OF USC-RELATED SPENDING

USC contributes substantially the tax bases of Los Angeles County, Southern California, and the local and state tax revenues in California due to its operations. USC-related expenditures during the 2015-16 fiscal year generated an estimated:

- **\$154.6 million** in tax revenues for local governments in Los Angeles County, including \$90.7 million in property taxes, \$39.8 million in sales taxes and another \$24.6 million in other taxes and fees, such as motor vehicle licenses.
- \$177.7 million in tax revenues for local governments across Southern California, including \$114.8 million in property taxes, \$39.3 million in sales taxes and another \$23.6 million in other taxes and fees, such as social insurance.
- **\$455 million** in tax revenues for local governments and the state government in California, including \$126.4 million in property taxes, \$160.3 million in sales taxes and another \$168.3 million in other taxes, such as personal income and corporate income taxes.

Overall, USC plays a major role in supporting public services, through the tax revenues generated by its day-to-day operation purchasing goods and services in the local area, the spending by its students, faculty and staff, as well as the spending by the visitors the university draws to the area. Many of these purchases would not be made, nor the taxes paid, if not for the presence of USC in Los Angeles County's, Southern California's and the state of California's economies.

SOCIAL IMPACT ANALYSIS

As an institution of higher learning, USC has an impact on the community that reaches far beyond the economic impact generated by its day-to-day operations. This section of the analysis focuses on the *social* benefits derived from the university's activities.

For students, the greatest benefits are the knowledge, skills, training and credentials USC provides. Both in and out of the classroom, USC prepares students for employment with challenging coursework, exposing them to groundbreaking research and ideas, and providing them with guidance through networking and career-development services. The community surrounding USC also receives major social benefits from the university's presence.

RETURNS TO EDUCATION

Demand for highly skilled labor is growing rapidly as the economy becomes more tech-driven rather than worker-driven. Although the supply of highly skilled labor also has increased in recent years, the share of Americans older than 25 with a bachelor's degree or higher stood at only 30.6% as of 2015. USC is helping address this shortage of highly skilled labor, placing many graduating students in a prime position to reap the rewards of this premium on higher education.

USC offers an extensive list of academic programs, and USC students through a broad offering of majors and minors can gain a well-rounded education that will make them attractive to employers. USC programs span the social sciences, biological sciences, physical sciences, accounting, architecture, art, business, cinematic arts, journalism, dance, dentistry, dramatic arts, education, engineering, gerontology, law, medicine, music, occupational therapy, pharmacy, physical therapy, public policy and social work. In the 2014-15 academic year, the most popular bachelor's degree was business/marketing (23.6% of graduates). Other popular programs include social sciences (14.0%), visual and performing arts (12.1%), communication/journalism (9.0%), and engineering (9%).

Short-term

USC graduates can expect to see an immediate return on their investment. College-educated workers under 30 years old in Los Angeles County earn, on average, 46% more than those

without a college degree. Recent college graduates' unemployment rate of 6.3% is five percentage points lower than the unemployment rate for young workers without a degree. Furthermore, college graduates are half as likely to live below the poverty line.

Long-term

USC alumni continue to reap the benefits of their education, career development and alumni network in the long run. Data from the U.S. Census Bureau's American Community Survey show that full-time workers in Los Angeles County with a college degree earn approximately 53% more per year, on average, than full-time workers with no degree. In Los Angeles County, 4.3% of full-time workers with a college degree—and just 2.5% of those with a graduate or professional degree—live below the poverty line, compared to 11.8% of full-time workers with no degree.

The University of Southern California provides many students with the opportunity to obtain this high-level of education and its myriad benefits. In fact, the number of bachelor's degrees USC awarded grew by 4.1% from the 2012-13 academic year to the 2014-15 academic year. In that same time period, the amount of master's degrees conferred grew by 11.9%.

Overall, USC has 375,000 living alumni, of which more than half reside in California. These alumni have received a lifelong asset in their college degree from USC.

EDUCATION OUTREACH PROGRAMS

Students, faculty and administrators at USC recognize the lifelong benefits of a college education. As such, USC has made a great effort to improve the educational opportunities for young students in the neighborhoods surrounding USC's campuses, which are populated by under-represented demographic groups, through numerous educational outreach programs.

Throughout its storied history, USC has placed a high value on being a good neighbor—and on programs and projects that have a positive impact on surrounding neighborhoods. Over the decades, we have come together with local residents, community partners, civic leaders and area businesses in one of the most ambitious social-outreach programs of any university in the nation.

USC has remained committed to its original University Park Campus neighborhood as well as to its eastern Los Angeles neighborhood, home of the Health Sciences campus since its opening in 1952. Both areas are among the most culturally vibrant and historically significant in the city, and both areas are integral to the identity of our university.

The university's commitment to community-building can be seen at every level of the university. It encompasses the participation of our research facilities, individual schools, departments and programs, as well as its hospitals and health centers.

USC supports and promotes more than 400 community initiatives in our local neighborhoods. As an institution, the university is committed to helping young people realize their dream of a college education; are assisting families and small businesses in gaining access to resources that

support their health and vitality. USC is proud to protect, develop and cherish our neighborhood communities.

The principles of civic engagement are an integral part of the campus. Each year, since 1994, USC faculty, staff and friends have been coming together every October to raise \$1.6 million dollars that directly supports university-community partnerships. All contributions are distributed via USC Good Neighbors grants that strive to enhance educational opportunities, promote health and fitness, enhance public safety and support economic development. The following are a few examples among the hundred of programs supported by USC:

Boyle Heights Beat

Launched by *La Opinión*, The California Endowment and the USC Annenberg School for Communication and Journalism in 2010, *Boyle Heights Beat* is a journalism program for aspiring reporters in Boyle Heights. *Boyle Heights Beat* builds capacity and leadership among young storytellers, strengthening their research, writing, and analytical skills, as well as motivating and preparing them to pursue higher education. *La Opinión* distributes the newspaper to 28,000 households in Boyle Heights and to community centers, churches, schools and cafes. Youth reporters produce the print edition, while adult contributors report for its sister websites in English and Spanish. As part of the program's commitment to serve as a voice for neighbors in the community, residents are also encouraged to share photos, illustrations, memories, poems and other contributions to the print and online editions.

Promotoras

The Ramona Gardens Women's Health Initiative applies a "promotora" educational model to improve the health outcomes of 300 women ages 18 to 60 living in the Ramona Gardens Housing Projects. Through health education training and case management services to ensure compliance with preventive health screenings, the Women's Health Initiative aims to increase women's knowledge about how to prevent leading causes of death including heart disease, stroke, obesity and diabetes.

Med-COR

Med-COR prepares high school students for health professional careers through an intensive curriculum and tutoring in science, math, English and SAT test preparation, in addition to career coaching. Currently, Med-COR is integrated into four high schools in LAUSD: Bravo Medical Magnet High School, King Drew Medical Magnet High School, Orthopedic Hospital Medical Magnet High School and Van Nuys Medical Magnet High School. Select students also participate in a six-week work/study experience at Keck Hospital of USC and at Los Angeles County + USC Medical Center. The USC Med-COR program is funded through a partnership between Los Angeles Unified School District and the Keck School of Medicine of USC.

Housing Clinic

The USC Housing Law Clinic provides professional services in housing discrimination law, local affordable housing issues and landlord/tenant dispute resolution. The clinic also provides legal representation to affordable housing tenants through the services of a designated case attorney. The clinic's client services include housing information services, legal services and social services referrals, free tenant representation in administrative hearings, and landlord-tenant litigation services.

USC Signature Program: Neighborhood Academic Initiative (NAI)

USC supports 3,500 children in college access programs and more than 600 children in preschool and early literacy programs each year. The USC Neighborhood Academic Initiative (NAI), the university's signature college prep program, enrolls close to 1,000 students annually.

NAI is a rigorous, seven-year precollege enrichment program designed to prepare students from South and East Los Angeles for admission to a college or university. Under the program guidelines, students must commit to a seven-year plan of after-school tutoring, coupled with Saturday morning classes. Parents are also required to attend a biweekly Family Development Institute program to create a 360 degree, hands-on approach to reinforce student academic goals and study habits, and maximize a healthy home environment.

Students who remain in the program in good standing from sixth grade until their high school graduation are eligible for a full scholarship to USC, provided they meet admission requirements. Since its first graduating class in 1997, nearly 1,000 students have completed the program with 83 percent enrollment as freshman at four-year universities, and 35 percent enrollment at USC.

Headstart

The USC School for Early Childhood Education (USC SECE) operates fully licensed child care developmental centers for children ages 18 months to 5 years, and an Early Start home-based program for children from birth to three years. Head Start and Early Head Start centers serve more than 500 infants and preschool children and their parents every year. The USC SECE has served more than 4,700 neighborhood children from 4,200 families.

TRIO

USC is also home to the federally funded TRiO programs that supports low-income and first-generation, minority students in progressing through the academic pipeline from middle school through college. USC TRiO includes three Upward Bound programs, one Upward Bound Math-Science program and two Educational Talent Search programs. USC also administers the federally funded Ronald E. McNair Postbaccalaureate Achievement Program, which assists undergraduates in preparing for and enrolling in graduate studies at the doctoral level.

Joint Educational Project

The Joint Educational Project (JEP), founded in 1972, is a service-learning program based in the USC Dornsife College of Letters, Arts and Sciences. Each year, around 2,000 students enroll in JEP as mentors, tutors, teaching assistants, mini course instructors, translators, consultants, researchers and assistants to professionals. JEP's goal is twofold: to help students develop an increased awareness of the applications of an academic discipline beyond the confines of the university classroom and to offer quality assistance to community partners. JEP works with professors from 100+ courses to develop relevant service-learning assignments and curricula, such as essay prompts, discussions and research projects. JEP partners with over 80 community sites, including local schools, hospitals/clinics and nonprofit service organizations, to offer USC students a place to explore social issues impacting the neighborhood. The courses offered by JEP skillfully combine academic coursework with hands-on experience in the community surrounding USC.

Troy Camp

Founded in 1948 by USC student Otis Healy, Troy Camp is an integral part of the USC community. As one of the university's oldest and largest philanthropy organizations, Troy Camp is committed to providing long-term mentorship for the youth of South Los Angeles. Throughout the school year, USC students build relationships with local youth through the following programs: SMASH and SP, elementary school tutoring and extracurricular programming; Leaders in Training, a mentorship program for middle school students; and TC Leads, a high school mentorship program. In the summer Troy Camp hosts a week-long camp in the San Bernardino Mountains for 200 elementary school students and, throughout the year, they hold monthly events for returning campers, all of which are free.

Athletics

For 125 years, Trojan Athletics has provided a common bond for USC's diverse stakeholders. Motivated by USC's mission statement, the department founded an innovative program to utilize our athletes' passion and determination off the field, providing 651,000 hours of service. Programs such as USC Athletics Community Outreach Program, the first of its kind in the country, is designed to provide holistic education on health, academic progress and community safety. Programs such as Girls PLAY, a partnership with Beyond the Bell, empowers young women in middle school through positive messages from our female athletes who mentor and encourage self-esteem, healthy choices and college expectations.

Many of USC's schools conduct educational outreach programs of their own. For instance, the USC Viterbi School of Engineering runs the STEM Educational Outreach, established in 1977, which seeks to increase the number of disadvantaged K-12 students majoring in STEM

fields. Students are motivated and prepared via after-school activities related to mathematics, science and engineering. These activities provide students with a great opportunity to increase their enthusiasm and appreciation for the STEM fields. Currently, more than 1,800 hundred students from 32 elementary, middle and high schools are served by this program.

Another great program, Discover Engineering,⁵ specifically targets students on the verge of applying to colleges. This summer program provides high school juniors with the opportunity to explore various engineering disciplines through a combination of lectures and hands-on projects. Students in this program not only gain a deeper understanding of engineering, but also receive USC course credit (upon completion of the program), which can increase the likelihood that a student enrolls in a college or university and majors in a STEM field.

Many other USC schools have similar educational outreach programs. The USC Annenberg School for Communication and Journalism recently founded High School Journalism Days, a program that trains high school journalism students and their teachers. USC Dornsife College of Letters, Arts and Sciences supports the USC Readers Plus program, which provides individual reading and math tutoring to local elementary students during the school day and homework help after school. The academic improvement by the participating students is testament to the positive impact that USC has on the surrounding communities.

HEALTH AND HUMAN SERVICES

USC's presence in the community provides an abundance of important health and human services. The Keck School of Medicine of USC trains world-class physicians and biomedical scientists, whose impacts are felt across the nation. However, the impact of the university's medical enterprise is just as pronounced in the local community. **Community partnerships take place through more than 200 outreach programs at the Keck School.** Some provide medical care at no cost while other programs seek to prepare and support local disadvantaged students for college or careers in health and science.

Likewise, the Herman Ostrow School of Dentistry of USC offers services to a broad range of community groups. For instance, the USC Dental Clinic at Union Rescue Mission each year provides comprehensive dental services to more than 1,100 homeless individuals in the Skid Row area of Los Angeles. Special needs patients have been served by the Ostrow School since 1985 via the Special Patients Clinic, which provides comprehensive dental care to more than 700 individuals each year with physical, psychological or medical disabilities.

Furthermore, the USC Champ program, a five-year grant-funded program, provides oral health services and education for underserved children. By its conclusion, this program will have served over 45,000 children and their families.

⁵ "USC Summer Programs for High School Students." https://summerprograms.usc.edu/programs/4-week/engineering/.

The USC Suzanne Dworak-Peck School of Social Work also is deeply involved in providing services to the Los Angeles community. Among the school's various service programs, one of its standouts is its immigration clinic, which is supported through a partnership with the USC Gould School of Law. This clinic is implemented year-round, providing legal and social services for undocumented community members. Social work students provide direct social services to the community, while Gould students deliver legal resources to the clients, including pro bono representation.

The USC Suzanne Dworak-Peck School of Social Work is also involved with the Mayor Eric Garcetti's Jordan Downs Initiative, which aims to revitalize Jordan Downs (a housing project in Watts). Many social work students participate in internships at Jordan Downs. Social Work students and faculty members are working with the USC Price School of Public Policy to improve data collection efforts in Jordan Downs to address issues of governance and economic development.

These examples are just a few of the hundreds of programs and partnerships that USC faculty, staff and students are involved in every year to the betterment of the community and the world.

RESEARCH AT USC

USC is consistently regarded as one of the premier private research universities in the world. The social impact of the research conducted at this institution is widespread, providing benefits extending to the local, national and global levels. The research at USC strives to make discoveries in fields such as medical science, biomedical engineering, environmental studies, public health, and information sciences. With that goal in mind, sponsored research expenditures reached \$697 million for the 2015-16 fiscal year. The success of research of USC would not be possible without the stellar faculty that USC is able to recruit and retain. Many USC faculty members have received some of the world's most prestigious awards for their work.

USC's distinguished faculty of 4,000 innovative scholars, researchers, teachers and mentors includes five Nobel laureates and dozens of recipients of prestigious national honors, including the MacArthur "Genius" Award, Guggenheim Award, the National Medal of the Arts, the National Humanities Medal, the National Medal of Science, the National Medal of Technology and Innovation and the Pulitzer Prize.

Medical Research

The impact of USC's research is felt most in the field of medical science, which accounts for more than 50 percent of the University's research expenditures. Research being done at centers such as the USC Norris Comprehensive Cancer Center has the potential to improve health services for people all over the world. The Norris Cancer Center currently has more

^{6 &}quot;About USC: Facts and Figures." https://about.usc.edu/facts/.

than 200 members exploring the origin and development of cancer and searching for cures. The dedicated efforts of this team have led to a number of scientific advances, including the discovery of the jun oncogene, the clarification of links between steroid hormones and breast and prostate cancer, and the identification of a key genetic mutation in lymphoma.

Not only does the Norris Cancer Center conduct cancer research, but the center also provides essential patient care in its affiliated hospitals and outpatient clinics. Patients are provided with comprehensive care and are offered the opportunity to participate in clinical trials for innovative treatments.

Public Health Research

Research conducted at the USC Institute for Health Promotion & Disease Prevention Research (USC-IPR) seeks to improve the health and well-being of society. It increases the understanding of public health issues such as addiction and obesity. For instance, a research study is analyzing the long-term effects of a community-based drug use prevention program. Another research project is investigating the factors that affect physical activity decision-making, which can help predict physical activity and obesity prevention behaviors. The research underway at USC-IPR will not only help save lives, it also will help reduce medical costs.

Technological Research

The Alfred E. Mann Institute for Biomedical Engineering at USC (AMI-USC) has been actively working to commercialize the biomedical technology invented at USC. This center plays an essential role in transforming biomedical concepts into actual medical products that can improve the quality of life. The institute's efforts have resulted in many medical products and start-up companies such as Pulse Biosciences, Varocto and Proa Medical.

The Southern California Earthquake Center (SCEC) at USC seeks to better understand earthquakes and their repercussions in California and beyond. By gathering data and synthesizing knowledge of earthquakes, the researchers at this center are able to reduce earthquake risk by educating the community. In fact, the SCEC coordinates Great ShakeOut Earthquake Drills all over the world, which helps people be prepared for earthquakes and thus reduce the number of fatalities resulting from an earthquake. The center also hopes to improve earthquake early alert technologies.

In a third example of technology research underway at USC, the Robotics and Autonomous Systems Center (RASC) has a range of robotics projects that have potential use in training and rehabilitation, education, environmental monitoring and cleanup, emergency response, homeland security and entertainment. Moreover, the Space Engineering Research Center (SERC) is dedicated to research and education that will increase humanity's technological capabilities in space missions. Research at this center has focused on nanosatellites, lunar lander prototypes and cellularized spacecraft.

ENTREPRENEURIALISM

Innovation and entrepreneurship are cornerstones of a USC education, and the university's rigorous academic programs and research opportunities produce alumni who have helped shape Los Angeles' economy. Many USC graduates have started successful ventures in California, including the following outstanding individuals:

Marc Benioff is the founder, chairman and CEO of Salesforce, a large enterprise cloud computing company headquartered in San Francisco. Under his leadership, Salesforce has grown from a groundbreaking idea into a Fortune 500 company and the fastest-growing top-10 software company in the world.

Shonda Rhimes is the creative force and executive producer of critically-acclaimed and highly profitable shows including "Grey's Anatomy," "Scandal," and "How to Get Away with Murder." Her shows are mini-empires and anchors for primetime programming.

William Wang, electronics entrepreneur, started Vizio in 2002 seeking to break into TV manufacturing, and quickly outpaced established brands with his company's highly competitive pricing. With a degree in electrical engineering from USC and just a few employees, he eventually built a \$2 billion dollar company headquartered out of Irvine, CA.

Mike Markkula, the third employee and former CEO and chairman of Apple Computers, was an early angel investor of the company, bringing in business expertise and startup capital to the company in its early days. He was with Apple from 1977 through 1996. Afterward, he went on to serve with several other California companies.

USC alumni also include luminaries in the tech centers of Silicon Beach and Silicon Valley. **Aaron Levie**, the CEO of Box.com, launched his company in 2005, with an \$80,000 seed round of capital. By 2011, he had raised over \$158 million from venture investors. Today Box is a public company with a market cap of about \$1.5 billion.

Tinder co-founders **Sean Rad** and **Justin Mateen** launched the app at USC. Their story began first semester freshman year at USC in 2004, when they joined efforts in starting their side businesses, and launched the dating app, that by 2015, had an estimated 50 million users.

The impact of USC alumni continues a strong presence in Los Angeles' current startup community. One notable USC alumni creation is AIO Robotics in Marina del Rey. This company has greatly advanced 3-D printing capabilities, which may have a substantial impact on fields such as education and biomedical engineering. In particular, 3-D printers provided by AIO Robotics have been used by the USC Freehand Project to design and print 3-D plastic prosthetic hands for children in Los Angeles, Syria and Haiti. Other USC startups include Handstand, an on-demand

app that connects users with personal training; Fulfilling, an app that integrates social entrepreneurship with food service, and Drops, an app that allows users to donate spare change to charity.

THE ARTS

USC serves as a major supporter of the arts for the local community. KUSC, the largest nonprofit classical music radio station in the country, is owned and operated by USC. On the air since 1946, KUSC provides classical music programming for people throughout California. The station also provides local arts coverage.

The USC Thornton School of Music plays an essential role in the Los Angeles arts community through many programs, including the USC Thornton JazzReach and USC Thornton Outreach Program. These two programs alone serve nearly 8,900 K-12 students. The purpose is to provide low- to no-cost, high quality music training and appreciation to underserved students. Moreover, each year, the USC Thornton School of Music hosts approximately 500 concerts, recitals, master classes, lectures and workshops that are open to the general public, often for free at various recital halls on campus.

The USC School of Dramatic Arts also enlivens the arts community in Los Angeles. The After 'Cool Theater Program helps local youth develop a strong sense of self and learn to problem solve via creativity and imagination.

The USC Roski School of Art and Design has many programs dedicated to service. It offers high school students summer programs in design and photography, allowing them access to college-level arts education to inspire them and prepare them for advanced study in the art and design. The USC Roski School also hosts a free art exhibition annually for both elementary and high school students at Lindhurst Gallery on the USC campus.

The USC School of Cinematic Arts has had a lasting impact on the film industry across the world. The cinematic works of art created at USC and by USC alumni not only entertain, but they also provide insights into the human experience. The Media Institute for Social Change (MISC) was established in order to further increase the intersection between entertainment and social issues. MISC offers scholarships to students dedicated to social change, and it also supports research that aims to measure the impact of these films.

Students from the USC School of Architecture are also using their creativity to combat social ills. The Madworkshop Homeless Studio allows USC architecture students to tackle homelessness by designing temporary shelters for those in need.

CONCLUSION

Putting together its economic and social effects, the University of Southern California generates substantial and lasting benefits not only to the Los Angeles area but extending throughout the entire state. The amount of economic activity generated in the Los Angeles County, Southern California and California economies as a result of USC-related expenditures during the 2015-16 fiscal year was enormous.

As the spending moved through the economy, it created ripple effects, resulting in a total impact that was much larger than just the initial direct spending. As a result, USC-related expenditures in the 2015-16 fiscal year helped support a substantial amount of revenue for businesses, wages for workers and jobs for residents. Because USC is located within a highly populated region that is able to support its demand, the majority of the economic impacts occurred within the boundaries of Los Angeles County.

USC also plays an integral cultural and social role in its surrounding community. By providing its students with a world-class education, USC is able to foster advancements in health and human services, academic research and startup development.

Bolstered by the commitment of its staff and students to community development, USC has also improved the quality of life for individuals in Los Angeles and other communities via educational programs, athletics and the arts. USC has and will continue to provide a substantial benefit to the quality of life of residents of Los Angeles and beyond.

METHODOLOGY

Notes on Methodology from Beacon Economics

The economic impact of the University of Southern California was measured in terms of the additional output, jobs, worker wages and tax revenues that were generated by expenditures that took place in the economy during the 2015-16 fiscal year. The economic impact of the University of Southern California was measured for three different geographies (Los Angeles County, Southern California and California) where total spending inside each geographic area were considered.

These estimates were generated by the IMPLAN modeling system. IMPLAN is an input/output model that estimates the impact of changes in the economy through the use of multiplier effects. With IMPLAN, expenditures made on different types of goods and services can lead to different multipliers. Similarly, expenditures made within the same industry in different regions can generate different economic impacts. As a result, not only can total expenditures differ between each of the three areas in this study, the multiplier effect for each type of expenditure can differ as well.

This study only considers the ongoing (annual) impacts of USC's operations. USC's cumulative impact on the economies of Los Angeles County, Southern California and California would be substantially higher.

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ABOUT BEACON ECONOMICS

Beacon Economics is one of California's leading economic research and consulting firms, specializing in economic and revenue forecasting, economic and fiscal impact analysis, regional economics and public policy analysis. Known for delivering independent and rigorous research, the firm provides its clients with economic and data analysis that strengthens strategic decision-making about investment, revenue and policy. Clients range from the state of California to Fortune 500 companies to major cities and universities. Visit **beaconecon.com** online.



Leading innovations in biomedical discovery, technology, creativity, business development and regional policy expertise, the University of Southern California is an engine of positive growth that benefits communities throughout Los Angeles and the region. USC is also the largest private employer in the city of Los Angeles, and is proud to be a pillar institution of Southern California.

USC is completing construction of **USC Village**, a \$700 million project that creates a state-of-the-art student living and learning environment and community-facing retail space. The largest development project in South Los Angeles history, USC Village provides thousands of jobs and will generate billions of dollars of economic activity in the local economy.



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