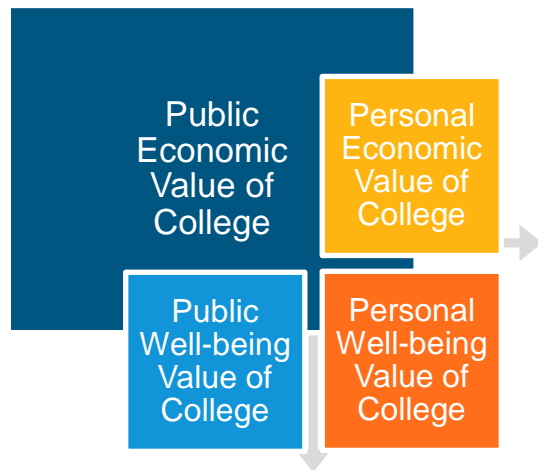


# Public Economic Value of a UC Degree



The **public economic quadrant** represents financial outcomes related to the public good. The contribution of college graduates can be measured through taxes paid, consumer spending, increased productivity, entrepreneurship, job creation, and fulfilling workforce needs. Together these aspects support the local, state, or federal economy.

Additionally, value may be measured in the reduction of costs to the local, state or federal government for lower utilization of social assistance programs (such as Medicaid, SNAP or housing assistance), reductions in incarceration, or reduced labor costs through donated volunteer hours.

The following brief examines the contributions to the economy and reduction in costs to the government for UC and college graduates at large.

## Contributions to the Economy

### Personal Spending and Taxes

A 2011 report by Economic Planning Systems, Inc. estimated that the University of California

contributes about \$32.8 billion dollars, or about 1.8%, of California's gross domestic product (GDP). The report focused on direct effects such as the spending of employees, retirees and students and employment offered by UC, and indirect effects such as industries UC uses for products and services. It also considered induced effects attributable to UC spending. The report did not consider the contribution of UC alumni to the GDP.

### UC Public Economic Value Highlights:

- UC alumni contribute about \$15,500 more per year to the GDP than alumni of other 4-yr CA institutions.
- By fifteen years after graduation, UC graduates are contributing on average \$30K in federal taxes and \$7.6K in state taxes per year, twice as much as the average Californian.
- Five of UC campuses ranked in the top 50 for producing venture capital backed entrepreneurs, creating over 2.3K companies and raising \$47 billion in funding
- 102 UC alumni hold C-Suite positions at the top 500 largest revenue generating companies
- Bachelor's degree earners cost the state of California \$1.8B less in public assistance cost than high school graduates.
- UC research based education spurs economic growth and increased efficiencies, alumni start companies like Lyft, Indiegogo, Fulcrum Bioenergy and Quantumscape.

# Public Economic Value of a UC Degree

While a per capita analysis of alumni to the GDP is not possible given available data, an estimate of some of the components is possible. Gross Domestic Product (GDP) is given by the equation:

$$GDP = \text{Consumption} + \text{Investment} + \text{Government spending}$$

To estimate an individual's contribution to GDP, consumption can be replaced by personal spending, investments by personal savings and government spending by taxes paid by the individual.

$$GDP_{\text{Individual}} = \text{Spending} + \text{Savings} + \text{Taxes}$$

The proportion of income that goes to taxes, spending (expenditures) and savings varies by education level and income. As income and education increases, the proportion of household income that goes to taxes and savings increase and the proportion towards personal spending decreases.

Figure 1. Expenditures, savings and taxes by education level

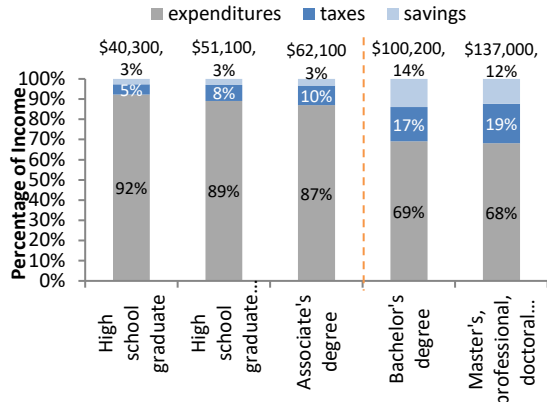
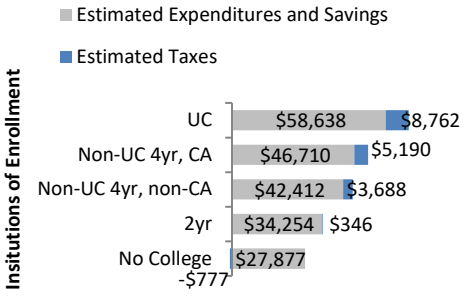


Figure 1 shows Bachelor's degree earners

contribute about 17 percent of their incomes to taxes, whereas high school graduates contribute about 8 percent to local, state, and federal taxes.<sup>1</sup> It is not clear if the different proportions of income devoted to expenditures and savings is due to education or income level, more research is needed in this area. However, it may be assumed that the proportion of income that goes to taxes is largely based on income.

Using the proportion of taxes paid by income level<sup>2</sup> and the median income of alumni from different institution types<sup>3</sup>, figure 2 shows estimates of individual contribution to taxes, savings and spending for students for alumni from different institution types. Using these proportions, students who attended UC would contribute about \$8,700 per year in taxes at fifteen years after entry compared to \$5,200 for students who attended another four-year institution in California and \$346 per year for those who attended a two-year college.

Figure 2: GDP and tax contribution estimates based on income and institution type, fifteen years after entry



Because UC alumni earn more, the estimated GDP contribution (spending, savings and taxes) for a student who attends UC is \$67,500 per

<sup>1</sup> Source: Survey of Consumer Expenditures (2016), Average expenditure, share, and standard error tables. <https://www.bls.gov/cex/tables.htm>

<sup>2</sup> Consumer Expenditures Public Use Microdata

<sup>3</sup> Source: Equality of Opportunity CLIMB initiative

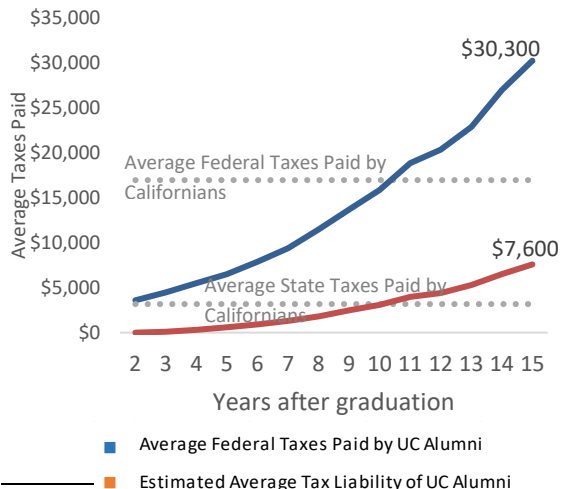
# Public Economic Value of a UC Degree

year compared to \$52,000 per year for a student who attended another 4 year California institution or about \$34,000 for a student who attended a community college.<sup>4</sup>

Extending the analysis of tax contribution, students who graduate from UC contribute even more, IRS data show the median taxes paid by UC graduates is \$13,200 in federal taxes and \$3,400 in State taxes per year<sup>5</sup> by fifteen years after graduation.

To put these tax contributions in perspective, average tax (instead of median) contributions of UC graduates are compared to the average tax contributions of other Californians. Figure 3 shows that by 11 years after graduation, UC graduates contribute more in state (\$3183) and federal taxes (\$16,992) than the average Californian and contribute double that amount by fifteen years after graduation.

**Figure 3: Actual federal and estimated state taxes paid by UC graduates with CA averages, by years after graduation**

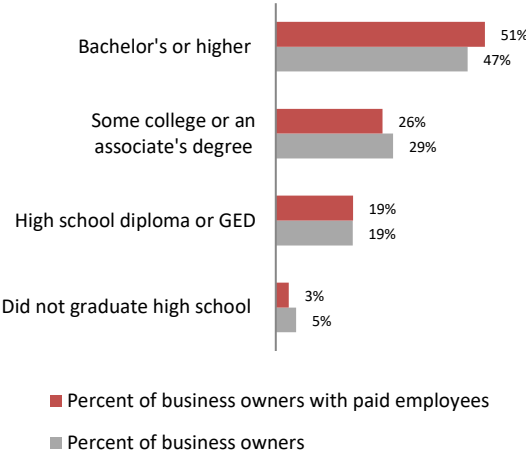


<sup>4</sup> GDP estimates do not incorporate whether a student graduated, and therefore underestimate GDP contributions for college graduates.  
<sup>5</sup> Source: Equality of Opportunity CLIMB initiative  
<sup>6</sup> Per the 2012 American Community Survey, 28.5% of the population 25 and older has a BA or higher.

## Entrepreneurship and Job Creation

As of 2012, over 22 million Americans, or 9 percent of the adult U.S. population, were business owners. Educational attainment isn't a barrier to business ownership, as over half of all business owners do not have a bachelor's degree or higher. However, educational attainment appears to play more of a role in the ability of business owners to employ others (Figure 3).

**Figure 3: Percent Business Ownership and Percent of Business Owners with Paid Employees by Educational Attainment<sup>6</sup>**



Half of all business owners with paid employees have at least a bachelor's degree.

UC alumni start companies (see figure 4). In 2018, Pitchbook ranked five UC campuses (Berkeley, UCLA, San Diego, Santa Barbara, and Davis) in the top 50 for producing venture-capital (VC) backed undergraduate alumni

However, as the 2012 Survey of Business Owners does not give data with regards to the age of the sample, a comparison in educational attainment between business owners and the general population was not done.

# Public Economic Value of a UC Degree

entrepreneurs. Since 2006, undergraduate alumni from these campuses created 2,270 companies and rose over \$47 billion in capital. Berkeley and UCLA were also ranked on the top 25 for greatest numbers of female founders and for most VC raised by MBA program alumni. Of these companies, the top 10 VC-backed companies founded by UC alumni employed between 11 and 25,000 individuals. For a full list of companies see the appendix.

**Figure 4: Number of Employees at Top 10 VC Backed Companies founded by UC Alumni by Program Type**

Number of Employees	Top 10 VC-Backed Companies Founded by UC Alumni			
	UG	MBA	Female - UG	Female - MBA
11 to 101	2	3	3	3
101 to 500	4	6	5	4
501 to 1000	1		1	
1001 to 5000	3			
20000 to 25000		1		
Unknown			1	3
<b>Total</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>

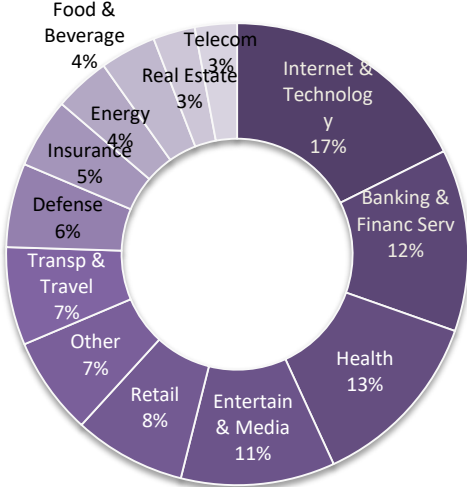
Source: Pitchbook, 2018

In early 2018, Crunchbase News identified CEOs of U.S. companies that have raised at least \$100 million in total venture financing in last three years, revealed that 44 of those CEOs have attended UC Berkeley and 27 CEOs attended UCLA.

In addition to founding companies, UC graduates obtain executive level positions in some of the nation’s largest corporations. The term “C-Suite” describes the most senior positions within a corporation (e.g., chief financial officer, chief executive officer). Currently, 102 UC alumni hold a C-Suite level

position at one of the top 500 largest revenue generating corporations. Seventeen percent work in the internet and technology sector, while 12 percent work in banking and financial services (figure 5).

**Figure 5: UC Alumni Classified as C-Suite Executives by Sector**



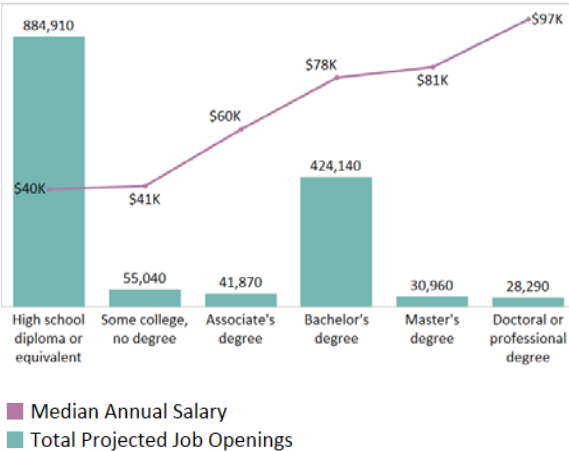
Source: Derived from data queried from the Leadership Directory on UC alumni in C-Suite roles.

### Fulfilling State Workforce Needs

Aside from job creation and entrepreneurship UC alumni help fulfill workforce needs, by joining California’s workforce. In 2015-16, UC contributed about 50,000 bachelor’s degree recipients, 11,800 master’s degrees and 3,700 doctoral degrees to the workforce, representing 25%, 15%, and 51% of degrees conferred in California, respectively.

# Public Economic Value of a UC Degree

**Figure 6. Projected Occupations by Entry Education Level, California (2019)**



Source: CA Employment Development Department

Short-term employment projections show about 424,000 job openings in California will require a Bachelor’s degree by 2019. While there are more predicted openings for High school graduates, the estimated annual earnings are much higher for occupations that require a Bachelor’s degree or higher.

## Reductions in Cost

### Incarceration and Public Assistance Programs

Research shows an association between increased educational attainment, lower rates of incarceration, and lower utilization of social assistance programs. A 2005 report from UC Berkeley’s Survey Research Center estimated that even some college cuts the probability of incarceration in half. Furthermore, the likelihood of incarceration decreases by 85 percent for those with a college degree.

<sup>7</sup> Calculated based on increased in incarceration costs from the Vera Institute of Justice Report

Given the high—and increasing—costs of incarcerating individuals, even small decreases in incarceration can yield large savings in public expenditures. The California Legislative Analyst’s Office estimated the 2016-17 cost per inmate at over \$70,000. Given average lengths of incarceration, this equates to an average cost of more than \$200,000 per individual. Between 2010 and 2015 California incarceration spending had increased<sup>7</sup> approximately 6.2 percent annually, whereas there was virtually no change in total UC cost of attendance for CA resident undergraduates.

### Public Assistance

Adults with a college degree or some college education rely less on public assistance programs, such as Medicaid, housing assistance, foods stamps, than adults with only a high school diploma or less. According to a Lumina report, 47 percent of adults with less than a high school diploma live in households that rely on Medicaid, while only 12 percent of adults with a college degree or higher live in households that rely on Medicaid.<sup>8</sup>

The difference in reliance on public assistance between high school graduates and college graduates holds true for other government-funded social programs, including housing assistance and food stamps. The public economic value of a college degree in terms of reliance on public assistance programs is in the billions of dollars, and amounts to an enormous return on investment for taxpayers and the state.

<sup>8</sup> College Board. Education Pays 2016. Ma, Pender, & Welch. Page 35.

# Public Economic Value of a UC Degree

**Figure 7: Estimated costs in California for administration of public assistance programs by level of education**

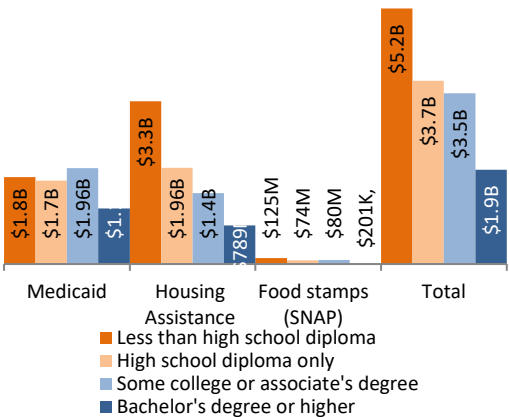


Figure 7 estimates the costs of public assistance in California for residents age 25 to 54 by level of education. For example, the total cost of public assistance (from Medicaid, housing assistance and food stamps) for recipients with only a high school diploma only is \$3.7 billion, while those with a college degree cost the state \$1.9 billion. The difference in savings amounts to \$1.8 billion. This difference is not due to larger percentages of the population without college degrees; 32 percent of California’s population age 25-64 has at least a bachelor’s degree, and only 20 percent have a high school diploma only.

In 2016, approximately \$1.7 billion was spent on Medicaid recipients with a high school diploma, which is \$800 million more than recipients with a college degree or higher. While, housing assistance recipients with only a high school diploma received \$1.9 billion in assistance while recipients with a college degree received \$790 million. Furthermore, in

2017 food stamp recipients with a high school diploma received \$73 million in benefits while food stamp recipients with a college degree or higher received \$201,000.

### Volunteer Labor

In the 2016 UC Undergraduate Experience Survey, over 89 percent of the respondents indicated that participation in community-focused activities at the campus influenced their desire to continue community-focused activities after their graduation. Using data from the Current Population Survey, the Lumina Foundation found that those who volunteer spend about the same number of hours a year volunteering (122 hours) regardless of educational attainment. On the other hand, the percentage of people who volunteer increases with education.<sup>9</sup> Incorporating both the likelihood to volunteer and the average volunteer hours, people with bachelor’s degrees volunteer an average of about 46.5 hours a year, while those with graduate degrees volunteer 59.5 hours a year.

From this data, we estimate for the UC graduating classes of 2000 to 2010 that the 437,000 alumni are responsible for about 22.3 million volunteer hours annually, or the equivalent of 11,200 full time workers. If we extend this methodology to all 2 million UC alumni, the number of volunteered hours equates to 50,000 full time workers.

<sup>9</sup> Trostel, P. (2015). It's Not Just the Money: The Benefits of College Education to Individuals and to Society.



# Public Economic Value of a UC Degree

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## Improved Efficiencies and Productivity

College graduates can benefit the economy around them. One framework from Lundvall (2008) is that higher education graduates act as both *innovators* and *equilibrators*. Innovators bring new ideas into a marketplace, and the effect has been shown most clearly for engineering graduates.

One could also think about management and social science graduates as equilibrators, who can adapt and promote the use of techniques more widely to encourage economic growth.

Historically UC alumni have contributed as equilibrators, for example William Vere Cruess, chair of the Division of Fruit Products at UC Berkeley and inventor of the fruit cocktail, established the technology of fruit dehydration and pioneered the uses of fruits in juices, syrups, and canned products. These innovations greatly expanded the market for these products and created value out of fruit that would previously have been wasted and creating numerous jobs in the picking and packing industries. On the equilibration side, UC currently runs a network of over 100 highly trained cooperative extension specialists that train farmers across the state of California in best practices coming out of cutting-edge research for pest management, crop yield, water usage and more.

More modern day examples of increased efficiencies from UC alumni come from products produced by companies such as Quantumscape, a manufacturer of vehicle batteries with high energy and power densities and higher life cycle than standard lithium ion batteries, or Fulcrum Bioenergy, a provider of

facilities to convert municipal solid waste products into renewable transportation fuels intended to reduce reliance on imported oil and Auris Surgical robotics, a developer of robotic microsurgical devices designed for surgical applications that require very fine movements, improving healthcare for all patients who need medical intervention.

Finally, UC alumni start companies like, Indiegogo, a crowdfunding platform that empowers others to run short-term fundraising campaigns to raise funds for an idea, charity or startup. Companies like Lyft (led by UC Santa Barbara alum - Logan Green) create more social, sustainable and affordable transportation systems while offering providing jobs to those who may otherwise be unemployed and Grail (led by UC Berkeley alumna - Jennifer Cook) aims to develop a blood test to detect cancer early before symptoms appear offering higher survival rates compared to late-stage diagnosis.

In conclusion, there are many ways to consider the effects of both UC graduates and other college graduates on the public economic good. Those impacts might come in the form of contributions like increased tax revenues at the local, state or federal level, in personal spending, creation of job opportunities, improved efficiencies or as reductions in costs such as decreased utilization of public assistance programs, decreased incarceration costs, or labor costs filled by volunteer hours.

# Public Economic Value of a UC Degree

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## References:

Brady, H., Hout, M., & Stiles, J. (2005). *Return on Investment: Educational Choices and Demographic Change in California's Future* (Working Paper). Survey Research Center, University of California, Berkeley retrieved from: <http://paa2006.princeton.edu/papers/61682>

California's Annual Cost to Incarcerate an Inmate in Prison. (2017, March). Retrieved from [http://www.lao.ca.gov/PolicyAreas/CJ/6\\_cj\\_inmatecost](http://www.lao.ca.gov/PolicyAreas/CJ/6_cj_inmatecost)

Glasner, J. (2018, May). These Schools Graduate The Most Funded Startup CEOs. Crunchbase. Retrieved from - <https://news.crunchbase.com/news/schools-graduate-funded-startup-ceos/>

Mai, C. & Subramanian, R. (2015) Price of Prisons 2015: Examining State Spending Trends, 2010-2015. New York: Vera Institute of Justice, 2017.

Ma, J., Pender, M., and Welch M. (2016). *Education Pays 2016: The Benefits of Higher Education for Individuals and Society*. College Board. Retrieved from <https://trends.collegeboard.org/sites/default/files/education-pays-2016-full-report.pdf>

Moyer B. & Thompson, S. (2017). Gross Domestic Product by State Estimation Methodology, Bureau of Economic Analysis, Department of Commerce, Washington, D.C. Retrieved from: [https://www.bea.gov/regional/pdf/GDPState/0417\\_GDP\\_by\\_State\\_Methodology.pdf](https://www.bea.gov/regional/pdf/GDPState/0417_GDP_by_State_Methodology.pdf)

Survey of Business Owners. (2012). Statistics for Owners of Respondent Firms by Owner's Educational Background by Gender, Ethnicity, Race, and Veteran Status for the U.S.: 2012. U.S. Census Bureau. Retrieved from [https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=SBO\\_2012\\_00CSCBO07&prodType=table](https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=SBO_2012_00CSCBO07&prodType=table).

Survey of Consumer Expenditures (2016), Average expenditure, share, and standard error tables. Bureau of Labor Statistics, United States Department of Labor. Retrieved from: <https://www.bls.gov/cex/tables.htm>

U.S. Census. (2010). Profile of General Population and Housing Characteristics: 2010 more information. Retrieved from <https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF>.

Trostel, P. (2015). It's Not Just the Money: The Benefits of College Education to Individuals and to Society. Lumina Foundation. Retrieved from: <https://www.luminafoundation.org/resources/its-not-just-the-money>.



Appendix –Top venture capital backed companies founded by UC alumni

Company	UC Alumni Program	Number of Employees	Industry	Description of Company
51Credit	MBA	20000 to 25000	Consumer Finance	Provider of an online marketplace intended to offer credit cards. The company's online marketplace provides detailed information on credit cards issued by local banks, enabling users to search and compare terms and promotions while providing loans and other financial services to consumers.
Hortonworks	Undergraduate Alumni	1001 to 5000	Database Software	Provider of an enterprise-ready open and connected data platform designed for storing, managing and analyzing data. The company's enterprise-ready open and connected data platform delivers actionable intelligence from all data like data-in-motion and data-at-rest as well as offers expertise, training and services, enabling customers to unlock transformational value for their organizations across any line of business.
Zynga	Undergraduate Alumni	1001 to 5000	Entertainment Software	Developer of online social games designed to connect the world through games. The company's online video games are played across web and mobile, including FarmVille, Zynga Poker, Words With Friends, Hit it Rich! Slots and CSR Racing. Its games are available on a number of global platforms including Apple iOS, Google Android, Facebook and Zynga.com.
Cloudera	Undergraduate Alumni	1001 to 5000	Database Software	Developer of a data management and analytics platform designed to turn data into real business value. The company's Cloudera Enterprise Data Hub is a secure and flexible big data software that offers data engineering and science, operational database with real-time insights for modern data-driven business and analytic database all within this single, easy-to-use product, enabling businesses to access the unlimited and untapped opportunities currently hidden within their data and gain unparalleled value from both data at rest and data in motion to explore data in greater and deeper context.
Machine Zone	Undergraduate Alumni	501 to 1000	Entertainment Software	Developer of mobile games designed to create a multiplayer experience. The company's mobile games offers a live global data ecosystem which break down linguistic and geographic barriers by uniting an unprecedented number of global players in one gaming world, enabling users to challenge and compete globally.

Appendix –Top venture capital backed companies founded by UC alumni

Kabam	Female - Undergraduate	501 to 1000	Entertainment Software	Developer of AAA console quality games for mobile devices. The company 's games are provided using a freemium model that allows users to play their games for free and by earning revenues through sale of premium content and virtual goods.
Sapphire Energy	Undergraduate Alumni	101 to 500	Energy Production	Provider of a technology platform intended to provide customers with renewable energy. The company's technology platform uses non-potable water, such as seawater and non-arable land to grow algae that captures CO2 in open ponds and provides with renewable energy, enabling people to improve their lives and make the planet more sustainable.
Sapphire Energy	Female - Undergraduate	101 to 500	Energy Production	Provider of a technology platform intended to provide customers with renewable energy. The company's technology platform uses non-potable water, such as seawater and non-arable land to grow algae that captures CO2 in open ponds and provides with renewable energy, enabling people to improve their lives and make the planet more sustainable.
Revolution Foods	Female - MBA	101 to 500	Food Products	Provider of school meals and ready-to-eat meal kits intended to transform the way people eat. The company's school meals and ready-to-eat meal kits offer snacks and vending machines in schools to serve breakfast, lunch and snacks, enabling schools and educational institutions to access healthy affordable meals.
Indiegogo	Female - MBA	101 to 500	Other Commercial Services	Operator of a global crowdfunding platform designed to offer to offer crowd funding. The company's global crowdfunding platform helps to generate pre-sales and collect feedback from early adopters for short-term fundraising campaigns for specific projects, enabling people to solicit and raise funds for an idea, charity or startup.
Bright Source Energy	Undergraduate Alumni	101 to 500	Energy Production	Provider of solar thermal technology intended to produce high-value electricity and steam for power, petroleum and industrial-process markets worldwide. The company's solar thermal technology combines breakthrough technology with world-class solar thermal plant design capabilities to generate clean energy reliably and responsibly, enabling customers to meet their clean energy goals.

Appendix –Top venture capital backed companies founded by UC alumni

Leaf Group	Undergraduate Alumni	101 to 500	Media and Information Services	Provider of digital media and domain services to advertisers. The company is a diversified Internet business that builds platforms across its media (eHow and LIVESTRONG.COM) and marketplace (Society6 and Saatchi Art) properties to enable communities of creators to reach audiences in large and growing lifestyle categories. In addition, the company's content marketing entity (studioD) and diverse advertising offerings are designed to help advertisers to engage with their customers.
RetailNext	MBA	101 to 500	Business/Productivity Software	Provider of business intelligence services for the retail industry. The company focuses on retail analytics for brick-and-mortar businesses, delivering real-time analytics to enable retailers and manufacturers to collect, analyze and visualize in-store data.
Renew Financial	MBA	101 to 500	Specialized Finance	Provider of district legislation financing for property assessed clean energy (PACE) programs. The company's property assessed clean energy (PACE) programs offers secured and unsecured financing to homeowners, contractors and local governments for energy efficiency, renewable energy and water efficiency improvements repayable through property taxes enabling property owners to reduce energy usage and help governments to create local jobs.
Radiology Partners	MBA	101 to 500	Clinics/Outpatient Services	Provider of multi-state hospital-based practices designed to transform radiology practices. The company's multi-state hospital-based radiology practices offer diagnostic and interventional radiology services with on-site and remote reads by local radiologists and with more than 350 radiologists serving approximately 280 hospitals and outpatient centers nationwide.
Off Grid Electric	Female - Undergraduate	101 to 500	Alternative Energy Equipment	Developer of solar installers designed to offer off-grid solar services in various African countries. The company provides a solar system based on audacious ideas along with combined innovations from the electric vehicle industry and large scale solar to create modular systems, enabling customers to access latest technologies and smart techniques.

Appendix –Top venture capital backed companies founded by UC alumni

Renew Financial	Female - MBA	101 to 500	Specialized Finance	Provider of district legislation financing for property assessed clean energy (PACE) programs. The company's property assessed clean energy (PACE) programs offers secured and unsecured financing to homeowners, contractors and local governments for energy efficiency, renewable energy and water efficiency improvements repayable through property taxes enabling property owners to reduce energy usage and help governments to create local jobs.
Netskope	MBA	101 to 500	Network Management Software	Provider of cloud-analytic services designed to understand activities, protect data, stop threats and respond to incidents. The company's cloud-analytic services offers cloud access security brokerage services which help the IT to find, understand and secure cloud applications, enabling businesses to protect sensitive data and ensure compliance in real-time.
One Kings Lane	MBA	101 to 500	Internet Retail	Provider of an online retail site for home and lifestyle merchandise. The company is an e-commerce retailer of vintage and designer furniture, accents, jewelry, antiques and dining ware. The site also offers marketing opportunities for vendors and a downloadable application for mobile devices.
One Kings Lane	Female - Undergraduate	101 to 500	Internet Retail	Provider of an online retail site for home and lifestyle merchandise. The company is an e-commerce retailer of vintage and designer furniture, accents, jewelry, antiques and dining ware. The site also offers marketing opportunities for vendors and a downloadable application for mobile devices.
Quantenna Communications	Female - Undergraduate	101 to 500	Application Specific Semiconductors	Developer of semiconductor technology for Wi-Fi networks. The company is focused on the design, development and marketing of advanced high-speed wireless communication products enabling wireless local area networking (LAN). It provides a new generation of wireless set-top boxes, access points, residential gateways, video bridges and other devices supporting true whole-home, full HD video distribution.
Terra Bella	Female - Undergraduate	101 to 500	Wireless Communications Equipment	Provider of high resolution satellite imagery of earth. The company operates SkySat-1, a commercial remote sensing earth observation satellite that collects high resolution panchromatic and multispectral images of the earth.

Appendix –Top venture capital backed companies founded by UC alumni

One Kings Lane	Female - MBA	101 to 500	Internet Retail	Provider of an online retail site for home and lifestyle merchandise. The company is an e-commerce retailer of vintage and designer furniture, accents, jewelry, antiques and dining ware. The site also offers marketing opportunities for vendors and a downloadable application for mobile devices.
The Honest Company	Undergraduate Alumni	101 to 500	Personal Products	Provider of an online platform intended to offer baby and lifestyle products. The company's online platform offers a monthly subscription service for customized product bundles that include its branded lines of diapers, wipes, baby bath, skin-care and home-cleaning products through its website, enabling customers to buy the products of their own choice.
The Honest Company	MBA	101 to 500	Personal Products	Provider of an online platform intended to offer baby and lifestyle products. The company's online platform offers a monthly subscription service for customized product bundles that include its branded lines of diapers, wipes, baby bath, skin-care and home-cleaning products through its website, enabling customers to buy the products of their own choice.
QuantumScape	MBA	11 to 101	Alternative Energy Equipment	Manufacturer of lithium batteries. The company engages in the manufacturing of electric vehicle batteries that have the density of fossil fuels. The vehicle batteries are manufactured with high energy and power densities and also higher life cycle than standard lithium ion batteries.
Fulcrum Bio Energy	MBA	11 to 101	Alternative Energy Equipment	Provider of facilities to convert municipal solid waste products into renewable transportation fuels intended to reduce reliance on imported oil. The company's technology involves a process of converting municipal solid waste (MSW) into low-carbon transportation, enabling its clients to create a sustainable source of domestic transportation fuel that provide customers with low-cost, low-carbon drop-in fuel that is competitively priced with traditional petroleum fuel.

Appendix –Top venture capital backed companies founded by UC alumni

Millendo Therapeutics	Female - Undergraduate	11 to 101	Biotechnology	Developer of novel drugs designed to focus on developing novel treatments for endocrine diseases caused by hormone dysregulation. The company's novel drugs address Polycystic Ovary Syndrome (PCOS) and Vasomotor Symptoms (VMS), and ATR-101 for the treatment of Classic Congenital Adrenal Hyperplasia (CAH), Endogenous Cushing's Syndrome (CS), and Adrenocortical Carcinoma (ACC), enabling physicians to restore hormonal balance to patients with endocrine diseases.
electroCore	Female - Undergraduate	11 to 101	Biotechnology	Developer of non-invasive vagus nerve stimulation (nVNS) therapies designed to treat multiple conditions in neurology, psychiatry, gastroenterology and other fields. The company's non-invasive vagus nerve stimulation (nVNS) therapies prevent symptoms related to headache conditions, bronchoconstriction and canine epilepsy by sending a mild electrical signal through the skin to stimulate the vagus nerve, enabling patients to get treated without having side effects.
Histogen	Female - MBA	11 to 101	Pharmaceuticals	Provider of hair growth products designed to offer treatment for hair loss. The company's hair growth products are developed on the basis of innovative therapies based upon the products of cells grown under simulated embryonic conditions, enabling patients with hair loss problems, to get newborn cells, which naturally produces vital proteins and growth factors that are characteristic of young, rapidly developing tissue and which can stimulate stem cells in the their body to regenerate new tissue and result in hair growth.
Ouya (software assets)	Female - MBA	11 to 101	Entertainment Software	Developer of games for the TV. The company develops and sells gaming console which runs on the Android operating systems and plays games that are downloaded over the internet and can also be used on set-top boxes.
Future Finance	MBA	11 to 101	Consumer Finance	Provider of loan facilities intended to remove the financial barrier to education so that students can fulfill their potential. The company's loan facilities include student education loans that can be used to pay for tuition fees and living expenses for undergraduate and postgraduate studies, enabling students to find a new way to fund their university education.

Appendix –Top venture capital backed companies founded by UC alumni

Cuyana	Female - MBA	11 to 101	Internet Retail	Provider of an online store for apparel and accessories. The company designs and sells clothing and accessories online, highlighting the international origins of its natural-fiber textiles.
Auris Surgical robotics	Undergraduate Alumni	11 to 101	Surgical Devices	Developer of robotic microsurgical devices designed for ophthalmic procedures. The company is engaged in the development of surgical robotics and visualization technology for surgical applications that require very fine movements, improving healthcare for all patients who need medical intervention.
BabyTree	Undergraduate Alumni	11 to 101	Information Services (B2C)	Operator of an online parenting community platform designed to provide information and functions that relate to children. The company's platform offers a parenting application that provides information related to children and families and also serves as a platform for communication, enabling parents to connect with each other and swap ideas.
Kenandy	Female - Undergraduate	11 to 101	Business/Productivity Software	Provider of a cloud-based enterprise resource planning (ERP) platform designed to map existing business processes. The company's ERP platform is built on Salesforce and helps in global financials, procure-to-pay, planning and production, quote-to-cash and trade promotion management services, enabling companies to map their business processes and automate application deployment.
Atreca	Female - Undergraduate	N/A	Biotechnology	Developer of novel therapeutics designed to engage the human immune response in oncology and other indications. The company's Immune Repertoire Capture (IRC) and DeepSeq technologies deliver the sequences of antibodies and T cell receptors (TCRs) elaborated by informationally rich subsets of patient B and T cells with virtually no bias or error, enabling the identification and generation of functional and valuable human antibodies and TCRs directly from patients without prior knowledge of antigen.
Corazonas Foods	Female - MBA	N/A	Food Products	Producer and seller of snack foods. The company's snack foods include tasting treats which are infused with plant sterols, natural fruit and vegetable extracts and sold through retail stores, as well as online, enabling the customers to reduce bad cholesterol.



Appendix –Top venture capital backed companies founded by UC alumni

iPin You Interactive	Female - MBA	N/A	Media and Information Services	Provider of a data-driven display advertising platform designed to bring audience-targeted programs. The company's data-driven display advertising platform provides real-time bidding digital advertising services offering Programmatic Direct Buying (PDB), Private Market Place (PMP), mobile and Over The Top (OTT) programmatic buying, enabling brands to connect with Chinese audience.
Lung Biotechnology	Female - MBA	N/A	Surgical Devices	Operator of a healthcare company designed to treat pulmonary diseases. The company's therapeutic technology uses biotechnology for PAH and other fatal lung diseases enabling patients to receive a simplified treatment.