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Fiat Lux: What is the value of a UC degree?

Institutional Research & Academic Planning
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Executive Summary

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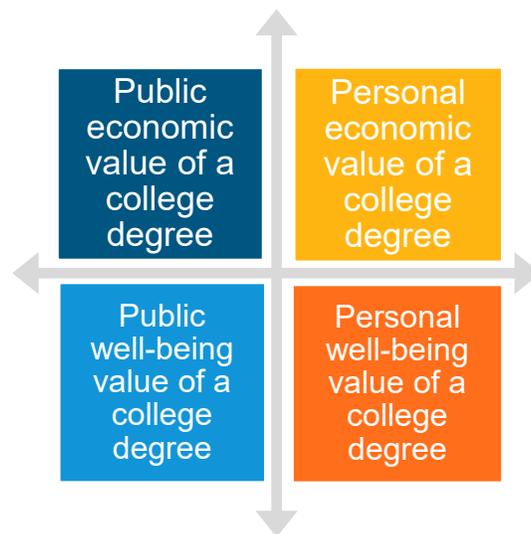
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EXECUTIVE SUMMARY

Colleges and universities are under increasing pressure to demonstrate the value of higher education. The value proposition of a college degree is often measured in economic terms, such as earnings post-graduation compared to loan debt incurred; however, this presents a narrow picture. Non-economic benefits, such as the development of 21st century skills - critical thinking, communication and collaboration, civic engagement, psychosocial change, and other contributions to personal well-being are often missing from the discussion. Furthermore, earning a college degree not only benefits the individual, but college degree earners also bring public benefit - through contributing to tax revenues, by working in public service, or by fueling innovation and technological advances to address 21st century global challenges. To encourage investment, higher education leaders need to equip themselves with data that represent the benefits that their institution brings to its graduates and the public. This report offers examples of data for leaders in higher education can use to discuss the value proposition of college degrees.

A multidimensional approach is necessary to encapsulate the value of earning a college degree



Many data sources are necessary to tell the full story of the value of a college degree. Higher education has made tremendous gains by linking student data to labor market outcomes through state wage data, tax records, and even Census data to tell the economic impact story. But these data leave out crucial information on other valuable aspects, like occupation, career and life satisfaction, productivity, innovations, and skills acquired by graduates. In 2017, the

Institutional Research & Academic Planning Office (IRAP) of the University of California, Office of the President (UCOP) embarked on a quest to identify institutional, state, national, and private industry data that could represent both the economic and non-economic value of a UC degree to graduates and on the broader public. To approach this work, IRAP adjusted a framework proposed by the Institute for Higher Education Policy (IHEP) and by the Post Collegiate Outcomes (PCO) Initiative¹ that divides the value prospects of a college degree into four areas that represent personal, public, economic, and non-economic impact.

Leverage already established data sources in new ways to help explain the value

The following reports highlight the value of a UC degree in the four quadrants of Personal Economic, Public Economic, Public Well-Being, and Personal Well-Being using established data sources that could be acquired by any college or university to understand the value of their institution's degrees. These data serve as examples to help broaden the conversation on the value proposition of college education for the public and individuals.

UCOP identified and gained access to several additional external data sources, such as:

- LinkedIn profile data (for data on alumni occupations and volunteering)
- California Department of Education (for data on UC alumni teaching in K-12 public schools)
- California Department of Consumer Affairs (for data on UC alumni who are licensed doctors, nurses, social workers, and mental health professionals)
- California Secretary of State (for data on alumni voter registrations and participations)
- Collegiate Leaders in Increasing MoBility (CLIMB) research group with access to IRS tax returns (for data on alumni charitable contributions, homeownership, and small business ownership)
- PitchBook (for data on companies founded by UC alumni)
- California Employment Development Department wage data (alumni salaries and industries of work)
- National Student Clearinghouse (data on degree non-completers and graduate degree completions)
- Leadership Directory (UC alumni who are state justices and public officials)

Note: While some of these sources are from the state of California, institutions may seek out similar data sources in their home state or from private industry data. Refer to the [data inventory](#) for a comprehensive list of data resources highlighted in this report.

¹ A collaboration of the American Association of Community Colleges (AACC), the American Association of State Colleges and Universities (AASCU), and the Association of Public and Land-grant Universities (APLU)

Acknowledge that the value associated with a college degree is not always equitably distributed

This report finds that for some post-collegiate outcomes, UC degree recipients who are first-generation college students (students with neither parent having a four-year college degree), low-income (Pell grant recipients), or from underrepresented racial/ethnic groups (URG; Indigenous, Black/African American, Hispanic/Latinx) have similar outcomes compared to their counterparts (i.e., non-first-generation, non-low-income, or non-URG degree recipients). As the majority of California public high school graduates are first-generation, low-income and/or from underrepresented groups, understanding how higher education benefits these student populations is critical, including their experiences compared to their peers. While these students have similar outcomes to their peers on some indicators in this report, the value associated with a college degree is not equitably experienced on all aspects of value discussed. These findings reinforce the importance of equity research, including reducing gaps in four-year graduation rates, which may have impacts on graduate school attendance and loan debt incurred; these are two areas of focus for UC Institutional Research & Academic Planning.

Using a broader perspective, equitable access and success in higher education is critical to the vitality of our economy and democracy. College and universities are well-positioned to bolster social mobility, mediate inequities and unlock the talents and aspirations of students from marginalized groups. Common techniques, such as assessing social mobility rates or value-added, disaggregating data by race, gender, and socioeconomic status and analyzing earnings gaps are all ways to track whether or not institutions are accomplishing this goal.

Additionally, knowing the true value added of earning a UC degree for each group requires more complex analysis that controls for incoming inequities (e.g. those experienced at the K-12 level) and accounts for inequities post-graduation (e.g. discriminatory labor market practices).

Therefore, where possible, post-collegiate outcomes for UC underrepresented groups, first-generation, and low-income students are differentiated and shared in the hopes of engaging consumers in conversations about the equity of value. In addition, this report provides information on UC alumni outcomes as a system, built upon the data from all UC campuses.

HIGHLIGHTS

The following section highlights examples of the value of a UC degree in each of the four quadrants using institutional, state, national, and private industry data.

Note: We have categorized these examples within discrete quadrants, though depending on the context these aspects of value could be represented in more than one quadrant.

Personal economic value of a UC degree

- UC bachelor's degree recipients on average, earn about \$67,000 by six years after graduation, more than the median income for all California bachelor's degree recipients.
- UC bachelor's degree recipients that earn a graduate degree earn on average about \$98,000 by eleven years after graduating UC, exceeding the median income for all other graduate degree holders in California. Median lifetime earnings for UC alumni are greater than other college degree earners in California.
- Most UC Pell grant recipients go on to earn more than their parents within five years of graduation, and most UC first-generation students do so within seven years.
- One out of three UC students who entered UC in the lowest 20 percent of income move to the top 20 percent of income as adults, a rate that is higher than other four-year universities in California and the nation.
- UC graduates are more likely to receive health care and retirement benefits from their employers than non-UC graduates and other similarly aged individuals.
- At least one in four UC graduates (27 percent) owns a home eight years after graduation, compared to one in seven (14 percent) of similarly aged individuals, nationally.

On average, a UC graduate breaks even on their educational investment between four to six years after graduation.

Public economic value of a UC degree

- 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.
- UC alumni from the graduating classes of 1999 to 2009 contribute about \$3.7B in federal taxes and more than half of a billion in state taxes, in one year.
- 2,500 California companies were founded or co-founded by UC alumni, compared to 2,240 for Stanford, 840 for the University of Southern California, and 1,300 for California State University (CSU) alumni.
- 4,900 UC alumni hold C-suite positions (i.e., senior leadership positions like chief executive or financial officers), and 3,350 are located in California.
- One in five of all UC's bachelor's degree recipients from the graduating classes of 1999 to 2005 owned a small business in 2015, roughly when they were in their mid to late 30s.
- Bachelor's degree earners cost the State of California an estimated \$1.8 billion less in public assistance than high school graduates.

UC alumni* contribute about \$3.7B in federal taxes and more than half of a billion in state taxes, in one year.

*UC graduating classes of 1999 to 2009

- UC research-based education spurs economic growth; below are some of the companies UC alumni have started:



Public well-being value of a UC degree

- UC-trained doctors provide care in 60 percent of California towns.
- One in two California state justices and one in three California state-elected officials are UC graduates.
- Over 1,600 UC degree recipients preserve the quality of the environment as civil engineers who ensure the quality of roads, buildings, airports, tunnels, dams, bridges, and systems for water supply and waste and as environmental experts for air quality, hydrology, and geological engineering in one-third of California cities.
- UC alumni from the graduating classes of 1999 to 2009 contribute about \$3.7 billion in federal taxes and more than half of a billion in state taxes in one year.
- Twenty-five percent of UC faculty and 20 percent of California State University (CSU) faculty have earned their Ph.D. at a UC.
- UC alumni are award-winning landscape architects who transform public spaces into parks.
- 65 percent of UC alumni who registered to vote did so, compared to 48 percent of similarly-aged CA registered voters.

28,000 UC-educated teachers serve in three out of four of California's public K-12 schools.

- Most UC alumni who volunteer do so for health-related causes, such as the American Red Cross, the American Cancer Society, Kaiser Permanente, and other medical centers.
- 89 percent of UC seniors reported that community-focused activity on campus influenced them to continue community-focused activities after graduation.
- UC alumni conduct public-serving research that contributes to advances in medicine, technology, agriculture, and disaster preparedness.

Personal well-being value of a UC degree

- UC seniors reported an enhanced understanding of differences/issues related to gender, race and ethnicity, sexual orientation, and social class from when they started at UC.
- 60 percent of UC seniors reported increases in leadership skills from when they started at UC.
- Job security increases with educational attainment (both pre- and post-COVID-19) and is highest for doctoral/professional degree earners.
- College degree earners are more likely to source health information from written sources rather than television or radio.
- College degree earners marry at higher rates, report higher life satisfaction and more favorable health outcomes, compared to non-college degree earners.

UC seniors reported the greatest gains in critical thinking, information literacy, oral communication skills, and the ability to understand international perspectives, from when they started at UC.

CHALLENGES TO ASSESSING VALUE

More information on college graduates needs to be routinely collected

While researching indicators of value by educational attainment, there were challenges to finding data specifically for UC graduates. Data on job satisfaction and workforce skills needs were available for some UC graduate alumni, but not for undergraduates. Additionally, UC data on 21st century skills and psychosocial change were self-assessments, whereas an external assessment of these skills would further validate the value of a UC degree. Lastly, data on UC alumni happiness, life satisfaction, networking interpersonal relationships, and health outcomes were not available, but could be added as questions to undergraduate and/or graduate alumni surveys. Furthermore, many data sources did not have sufficient coverage of international student outcomes and therefore, results may not reflect these students' outcomes accurately.

There is an even greater need to collect this information from non-college goers

Though there are challenges to collecting information on UC undergraduates or other college degree earners, there are even less data available on people who did not attend college. College students and alumni are more regularly asked about their state of well-being and personal development than high school graduates or high school non-completers. This is also an area of potential research to consider, especially for states who are broadening their longitudinal data tracking systems.

Causal analysis is the next step in understanding value

Indicators in this report show that UC and/or college graduates have higher wages, greater psychosocial change, increased development of 21st century skills, enhanced civic engagement or healthier lifestyles; than non-college-degree earners, but this might not necessarily demonstrate the value of a degree. It is crucial to explore if these outcomes would have occurred even without UC or college attendance. Additionally, a college degree can act as a gatekeeper to some of the benefits college-degree earners enjoy: some benefits result from higher earnings and are not directly attributable to increased education. To understand if a UC degree of other college degree plays a role in these outcomes, causal relationships between the UC experience and alumni outcomes must be further explored using statistical techniques (e.g., regression discontinuity, propensity score or coarsened exact matching). UC has found some [causal evidence of the value of a UC degree](#) on personal economic outcomes. However, relationships like these can only be explored after identifying multidimensional data on alumni outcomes.

RECOMMENDATIONS

Higher education leaders have an opportunity to share the value that their institution brings to personal economic, public economic, public well-being, and personal well-being. While this report includes measures of value for a UC degree, it is not an exhaustive list of options to demonstrate value. It means to inspire more research and collection of data in these areas. Metrics highlighted in this report not only help to better tell the story of higher education's impacts, but also are helpful in understanding the areas in which curricula or programs can give more focus. This report invites institutions to be proactive in these pursuits.