Chile-Berkeley-Stanford Symposium – The Evolving Public Role of Universities in Chile and California

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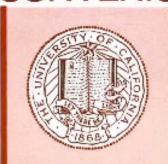
COMPREHENSIVE REPORT 1965-1978



Universidad de Chile

CONVENIO

University of California



A Cooperative education and research program between the UNIVERSITY OF CHILE and the UNIVERSITY OF CALIFORNIA

Narrative Report

Volume !

The Evolving Public Role of Universities in Chile and California:

Berkeley

Chile - California Higher Education Project June 24, 2015

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UNIVERSITY OF CALIFORNIA - BERKELEY



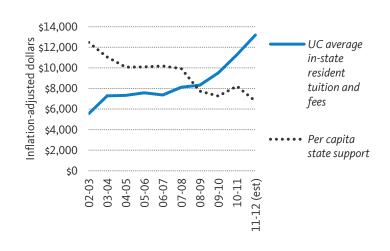
Exploring UC Berkeley's Public Role

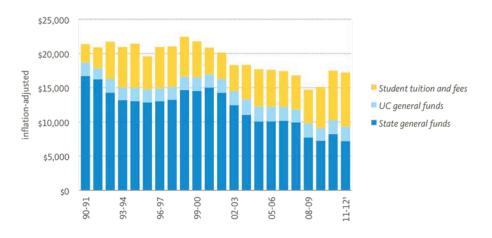


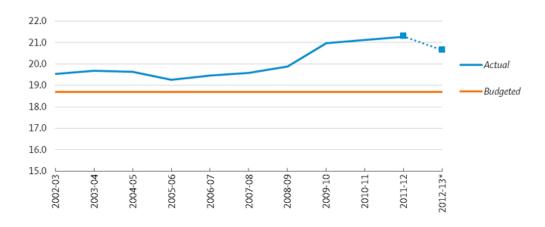


A Changing California Environment:

Declining State Funding, Increased Tuition, Rising Student-Faculty Ratios







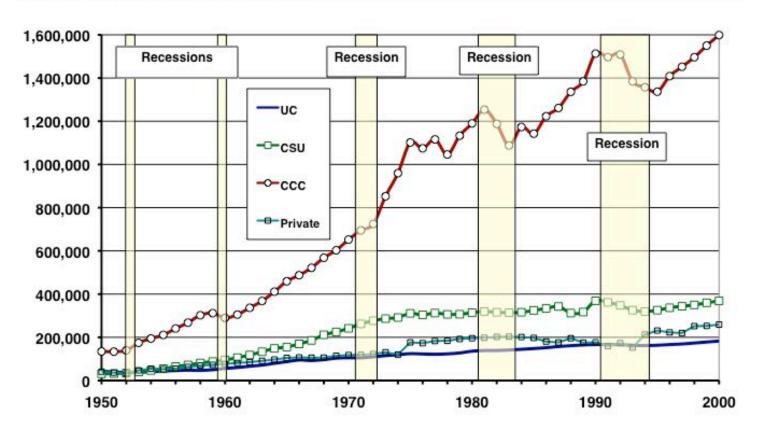


- Position in HE System a frame of reference
- Mission
- Service Areas
- Admissions/Access



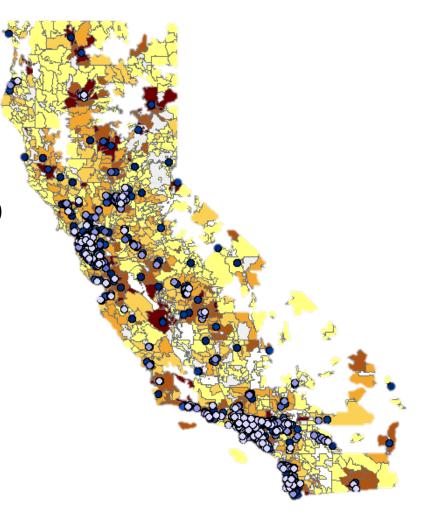
- UC and the California Public HE System mission differentiation and growing with the state's population and economy – Berkeley as part of a larger socio-economic mobility strategy
- Serving Californians at the UG level
- Transparent Criteria for UG Admissions at least historically, now eroding
 - Freshman top 12.5% Statewide with 9% Eligibility in the Local Context (School) Criteria
 - Transfer Students 60/40 Rule
- Financial Aid Policy an evolving story
- Low-Income/Socio-Economic Mobility/First-Generation/Immigrant
- Racial/Ethnic Diversity some differences in public and privates AAUs
- Different Academic Profile

California Higher Education Enrollment, 1950 - 2000



California's Higher Education System

- Tripartite Public System
 - University of California (UC)
 - California State University (CSU)
 - California Community Colleges (CCC)
- Private Independent
- For-Profit Sector



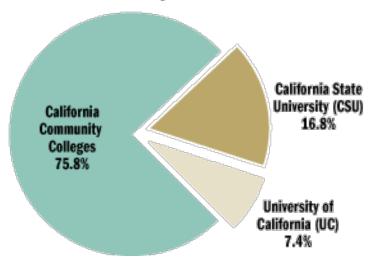
California's Higher Education System

Total HE Enrollment in California = 3.7 Million

11% in Private Non-Profit10% in For-Profit79% in Public HEI

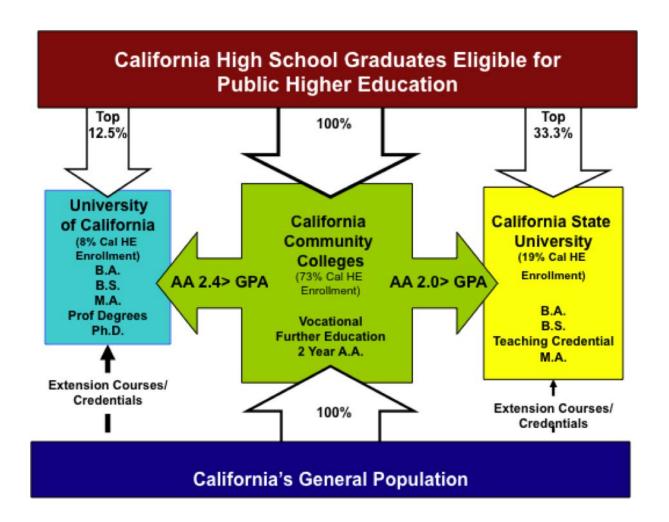
Total Public HE = 2.9 million

Percent of Undergraduate Enrollment in California's Public Postsecondary Institutions



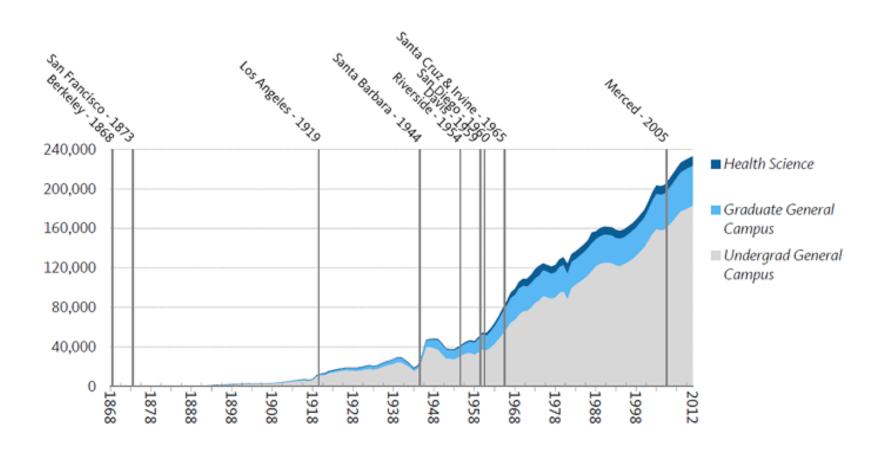


California HE Transfer/Matriculation Model





The University of California Statewide, Research Intensive, 4-yr Highly Selective



The University of California

Statewide, Research Intensive, 4-yr Highly Selective

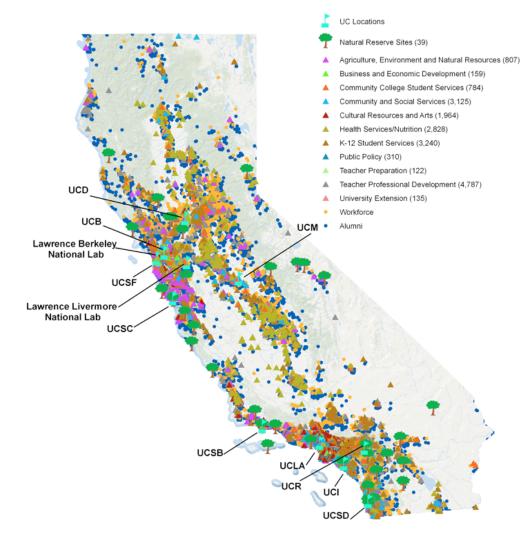
- Governance: Board of Regents (26 members, 18 app. by Governor)
- 10 campuses
- Academic Mission
 - o Bachelor's, Master's, professional degrees and Ph.D.
 - Primary research and public service role
 - Secondary role in teacher training
- 19,000 Faculty/Academic Staff
- Admits from the top 12.5% of high school graduates
- 239,000 Students (7% of Tripartite System total)
 - o UG 186,000
 - Graduate 53,000
- Annual total budget: \$24 billion* including:
 - \$1.96 billion from state government
 - \$3.24 billion from Tuition and Fees
 - \$5.24 Research Grants and Contracts



^{*} Not including Department of Energy National Laboratories

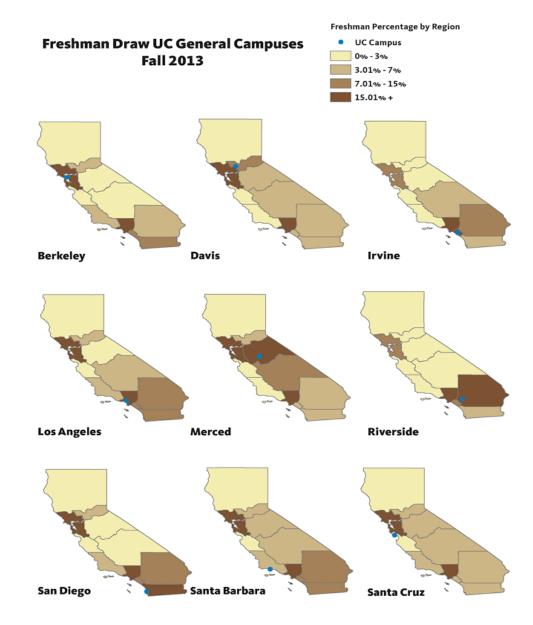


The University of California



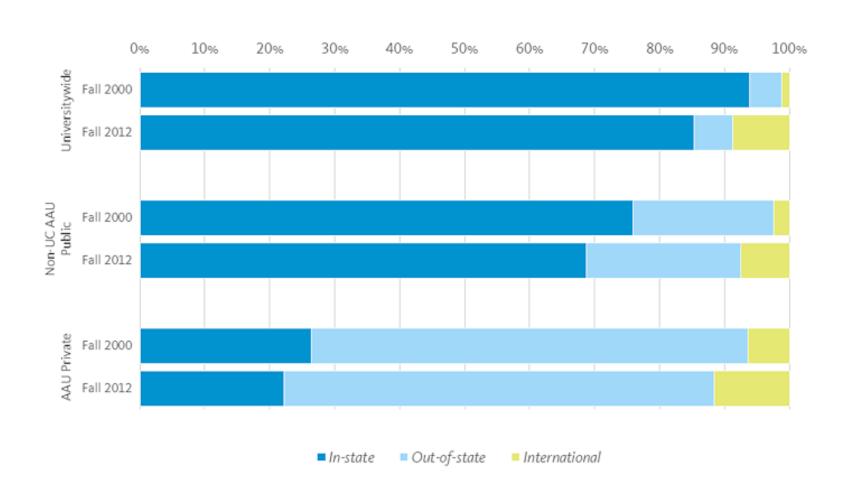
Los Alamos National Lab New Mexico





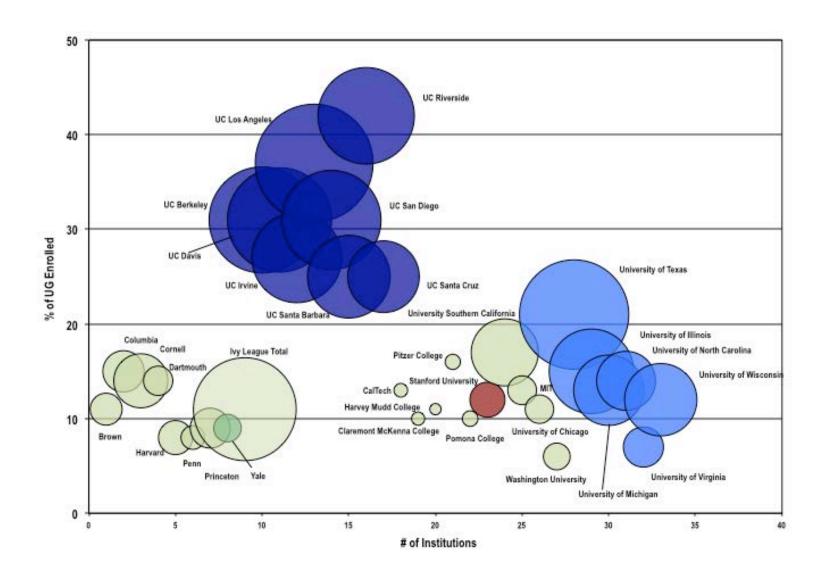


Geographic Profile of Entering Freshman: UC, Non-UC Public AAU, AAU Privates



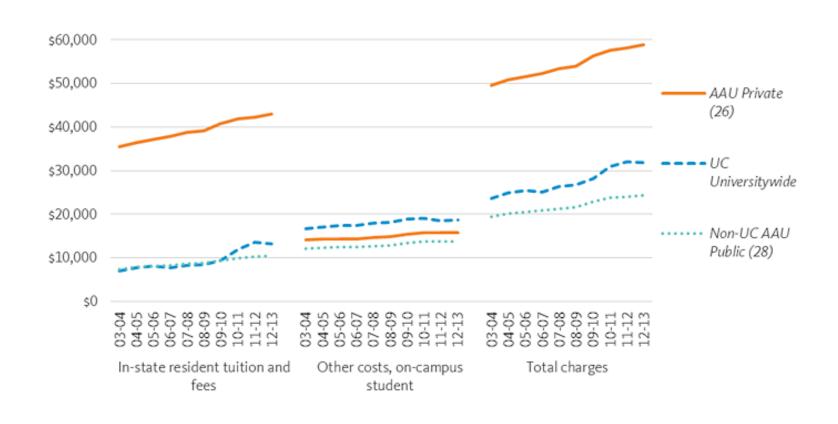


Undergraduate Pell Grant recipients, UC and comparison institutions: 2008





Total cost of attendance for undergraduates, Universitywide and comparison institutions, 2003-04 to 2012-13





Berkeley and Socio-Economic Mobility

Student Loan Debt

n Debt Social Mobility Index (SMI)

UC	Berl	kel	ley

Average debt of graduates 2013	\$17,468
Proportion of graduates w/debt 2013	43%
2012-13 % Pell Grant recipients	32%

Stanford University

Average debt of graduates 2013	\$16,640
Proportion of graduates w/debt 2013	23%
2012-13 % Pell Grant recipients	16%

→ UC Berkeley

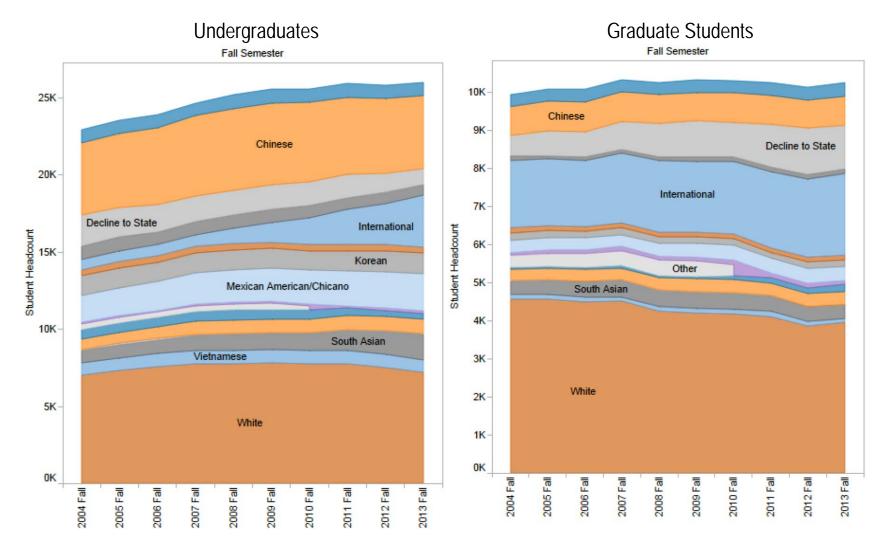
US Rank	(
SMI	43.36
Tuition	\$12,864
% Low Income	18.79
% Grad Rate	91.1
Median Early Career Salary	\$59,500
Endowment (in M)	\$2.8

Stanford

US Rank	335
SMI	26.84
Tuition	\$43,683
% Low Income	10.26
% Grad Rate	94.7
Median Early Career Salary	\$62.900
Endowment (in M)	\$21.4



Changing Student Demographics at Berkeley





Berkeley's Public Role – Access and Role in Larger Social Contract with Californians

- Continued Underfunding of Berkeley/UC treading water budget even in the midst of a substantial economic recovery – budget trough is large with concerns about maintaining quality and competitiveness (e.g., faculty salaries and workload demands)
- Shifting Demographics Among UG Population in large part driven by the search for new revenues – some current political limitations – but little prospect of keeping up with California's long-term population growth
- The Big Question To Grow or Not to Grow university empowered by legal status as a highly autonomous "public trust" in the California Constitution low production of BA's in the state a big problem that will likely get worse
- Berkeley and All UC's with Relatively Low Percentage of Graduate Students relative to economic needs and social mobility goals, UC should grow in Grad Programs but without the resources to do so



- Undergraduate Education
- Graduate Education
- Research
- International Engagement



Undergraduate Liberal Arts Education

- Major
- Breadth
- Competencies: Literate, numerate, creative, investigative
- Dispositions: open-minded, worldly, engaged, disciplined
- Learning outside the classroom
- Professional preparation
- Citizenship



Berkeley Academic Programs - Breadth

- 130 academic departments and 34 interdisciplinary graduate groups that offer degrees.
- Colleges and schools: UC Berkeley is divided into 14 colleges and schools, most of which are subdivided into departments.
- Most popular majors (as of Fall 2013): Electrical Engineering & Computer Sciences, 1274;
 Economics, 937; Political Science, 853; Business Administration, 700; and Psychology, 642.
- Courses offered: Almost 8,000 courses in some 350 degree programs; the campus produces more Ph.D.s annually than any other U.S. university.



14 Schools and Colleges

UC Berkeley's academic enterprise is organized by colleges and schools, most of which are subdivided into departments. Its 14 colleges and schools are:

- Letters & Science Berkeley's largest college includes more than 60 departments in the biological sciences, arts and humanities, physical sciences, and social sciences.
- Haas Business School
- Chemistry Includes departments of Chemistry and Chemical Engineering.
- Graduate School of Education
- Engineering Includes departments of Bioengineering; Civil & Environmental Engineering;
 Electrical Engineering & Computer Sciences; Industrial Engineering & Operations Research;
 Materials Science & Engineering; Mechanical Engineering; and Nuclear Engineering.
- Environmental Design Includes departments of Architecture; Landscape Architecture; and City and Regional Planning.
- Information
- Graduate School of Journalism
- Law
- Natural Resources Includes departments of Agricultural and Resource Economics; Environmental Science, Policy, and Management; Nutritional Science; and Plant and Microbial Biology.
- Optometry
- Public Health
- Richard & Rhoda Goldman School of Public Policy
- Social Welfare



Challenges

- Capacity
- Cost
- Selectivity
- Quality of the undergraduate experience
- Career Preparation
- Distribution of students among majors
- Articulation with other segments of the public higher education system
- Proportion of out-of-state students



Graduate Education

- Professional Masters and Doctorates
- Challenges
 - Completion Rates
 - Time to Degree
 - Adaptability to Market
 - Over-production



Research

Challenges

- Declining federal funding
- Relationship between basic and applied research
- Developing relationship with industry
- Tension with teaching mission



International Engagement

- Not a founding purpose
- History of global engagement in undergraduate education, graduate education, and research
- Place of global strategy in a state-supported institution



- Engaged Scholarship and Service
- Regional Economic Engagement/Tech Transfer
- Extension/Life-Long Learning
- Relations with Schools



Wide Range of Public Service Activities

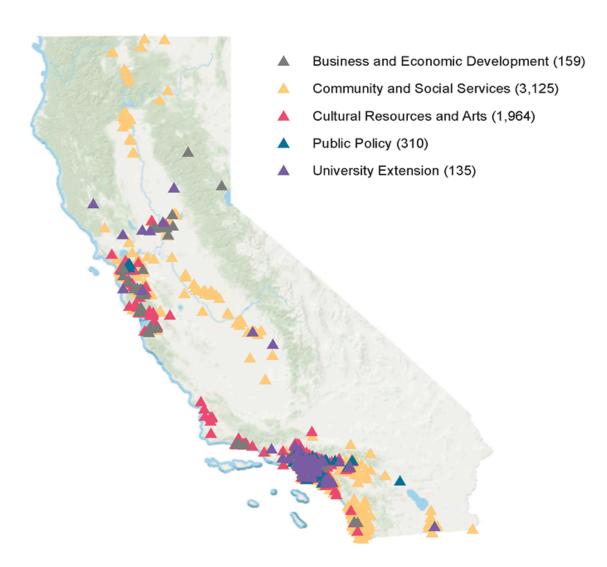
- Students community volunteering and service learning courses
- Faculty public service roles
- Economic Development Programs
- University Extension
- Natural Reserve System
- Health/Medical

Knowledge Production

- Technology Transfer
- New Business Start-Ups biotech industry and the Bay Area
- Labor Force Needs path of UC graduates
- Economic Impact of Berkeley/UC

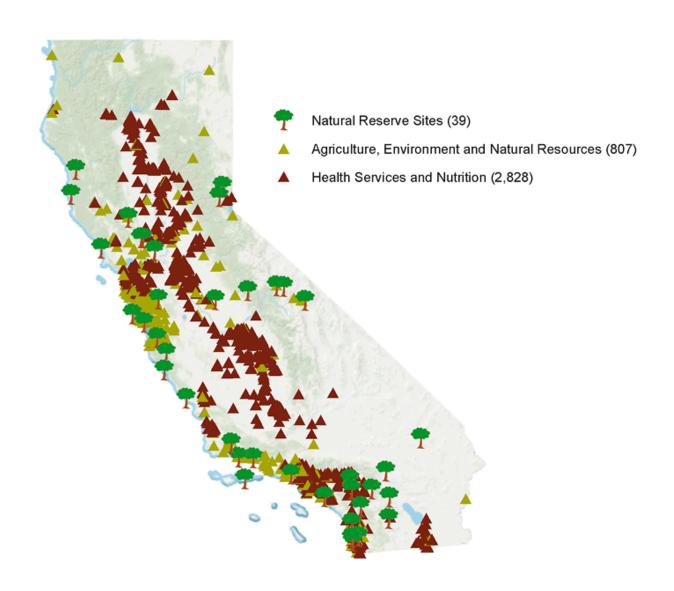


UC business and economic development, community and social services, cultural resources and arts, public policy and university extension programs, Fall 2012



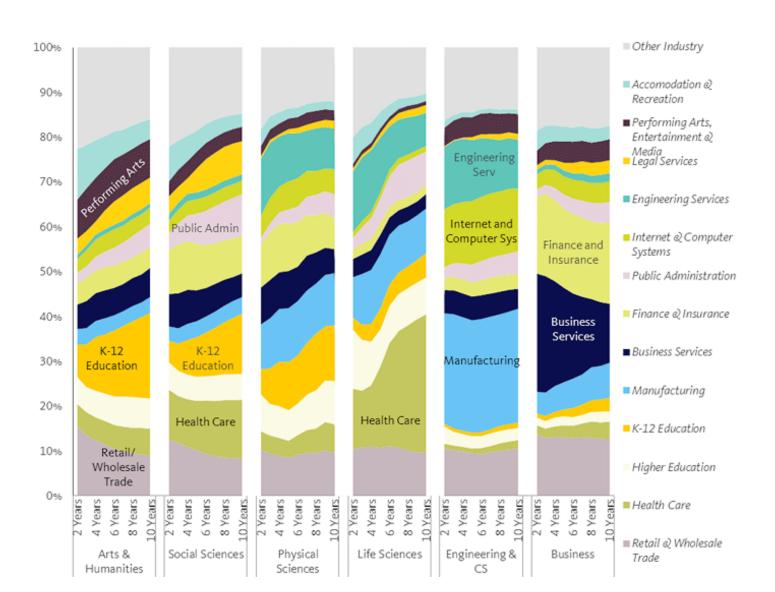


UC health services/nutrition programs, natural reserve sites and agriculture, environment and natural reserves, Fall 2012



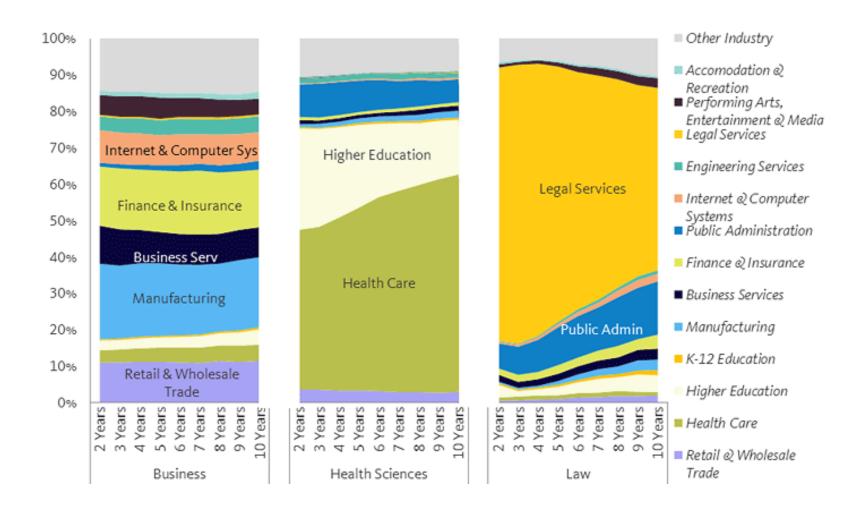


Industry of employment of UC bachelor's graduates, by years after graduation, UC Universitywide, 2000 to 2012



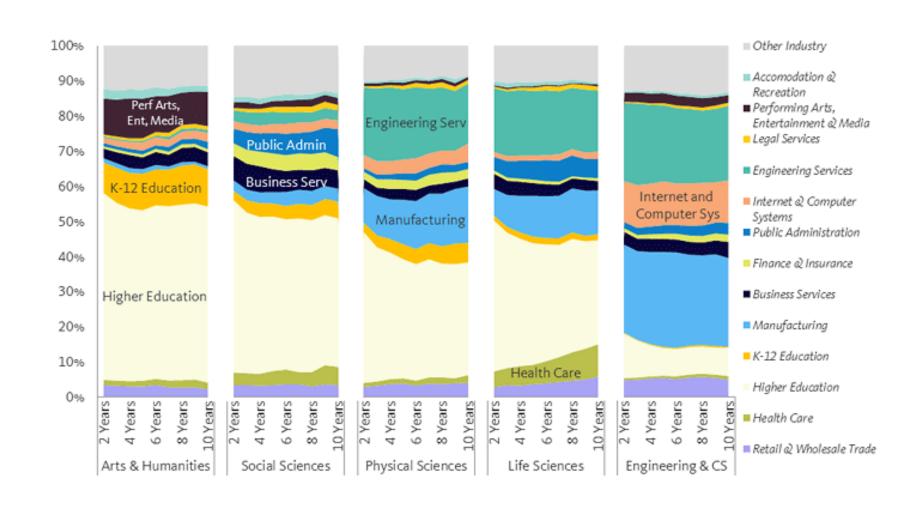


Industry of employment of UC graduate professional students in CA, by year after graduation, UC Universitywide, 2000 to 2012

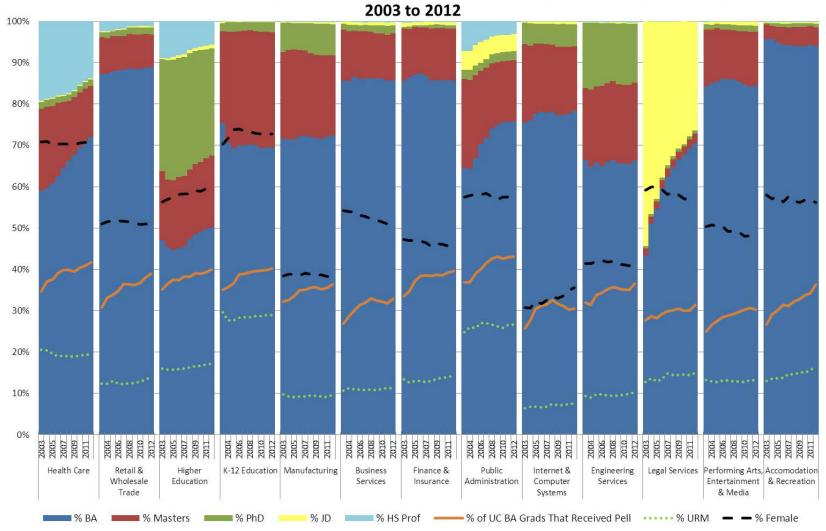




Industry of employment of UC graduate academic students in CA, by year after graduation, UC Universitywide, 2000 to 2012



Highest UC Degree Completed, Recent UC Graduates Working in CA by Major Industry,





Technology Transfer and Entrepreneurship

UC Berkeley Report 2014 - An Exploration of the Economic Contributions of UC Berkeley through Company Formations by Alumni, Faculty, and Affiliates

- With significant variations by industry, the 2,610 firms identified in the study account for 542,433 total jobs and on average employ 208 workers each.
- Total global revenues of these identified firms are estimated at \$317 billion.
- Fifty-two percent of all firms established by Berkeley founders are in the fields of Professional, Scientific & Technical Services.
- Manufacturing and Computer Systems Design top the list for Berkeley founders in the generation of jobs and revenues.
 - o Manufacturing reports the highest levels of both employment and revenue. With average employment of 1,592 workers, the aggregate \$273 billion annual revenue of these companies leads all other sectors.
 - o Computer Systems Design firms report average employment of 518 workers and aggregate annual revenues of \$19 billion.
- While Berkeley founders have started businesses around the world, their activities, and the employment they generate, are concentrated in the Bay Area.
 - Fifty-five percent of companies established by Berkeley founders are located in the Bay Area. These companies account for 91
 percent of total employment attributed to Berkeley founders globally.
 - Berkeley founders have particularly deep roots in Silicon Valley. Computer & Electronic Manufacturing firms in Santa Clara
 - County make up 86 percent of total revenue in the Bay Area and 51 percent of total employment in the region associated
 - with Berkeley founders.

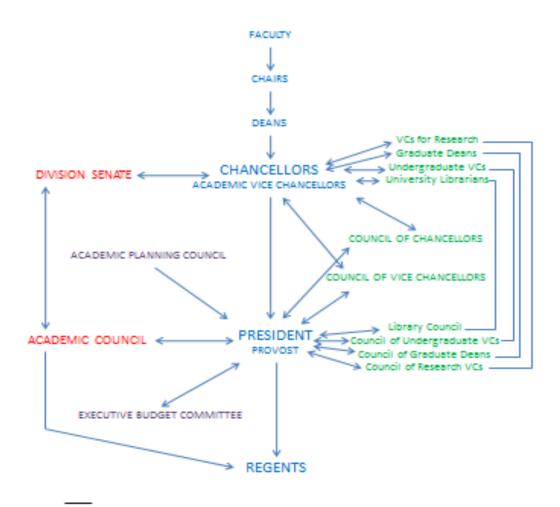


- Institutional Autonomy
- Governance
- Academic Freedom
- Quality Assurance/Faculty Advancement
- Leadership



- Mission Land Grant history, public trust status and autonomy
- Board of Regents model of the lay board linked to California constituencies
- Academic versus Administrative Realms of Responsibilities
- Faculty Advancement tenure and post-tenure review, public service/consultancy and other public roles of faculty and researchers

UNIVERSITY OF CALIFORNIA ACADEMIC GOVERNANCE



Line Administration

Academic Senate

Combined Administration and Senate

System-wide Groups (informal roles)



GOVERNANCE AND THE PUBLIC

- Board of Regents as representatives of the public
- Accountability and transparency
- Public access to information
- Open meeting laws, including public comments
- Open access to Academic Personnel Manual with criteria and processes for faculty advancement



EXTERNAL FORCES OF CHANGE

- Less public funding; diversification of revenue
- Capabilities of information technology
- Globalization
- The nature of the media
- Increasing income disparity



MAINTAIN EFFECTIVENESS OF GOVERNANCE WHILE RETAINING PUBLIC CHARACTER

- Put the decisions where the knowledge and needs are: Subsidiarity
 - Many revenue streams are local
 - Decentralization
 - Tiered boards, with public accountability
- Incentivize desired outcomes
 - e. g., visible, public-benefit research



TRANSPARENCY AND ACCOUNTABILITY

- Public awareness and confidence
- Approaches:
 - Partnerships and compacts
 - Direct linkage to funding
 - University-initiated and defined reports
- Beware of accountability measures that are too few or too specific
 - "teaching to the test"
- Find true measures of quality that are valued by government and the public



PUBLIC MISSION AND ACCOUNTABILITY WITHOUT BUFFETING BY POLITICAL WINDS

- Constitutional autonomy
 - o Michigan, Minnesota, California
- Tiered, but understanding, governance
- Academic freedom



The Evolving Public Role of Berkeley?

A set of concluding questions:

- 1. Has reduced state funding for Berkeley/UC resulted in less of a public role (perhaps defined as service to the state, and via governance like the regents as public representatives)?
- 2. Or more, but in a different way less California focus and more national/global?
- 3. Is this the inevitable evolution of major public research universities just accelerated and made more complex as public enrollment based investment has declined in a state with a growing population?



