## CAL POLY POMONA

LOCAL, REGIONAL, AND INSTITUTIONAL TRENDS | FEBRUARY 2010













# CALIFORNIA HIGHER

# EDUCATION CSU SYSTEM TRENDS



Major increase in student fees

Significant cuts in funds available for teaching

Not enough faculty → fewer classes, larger classes

Restrictions on transfer students from community colleges

Impending decreases in enrollment

#### UNIVERSITY of CALIFORNIA

#### **BROADER TRENDS**

Increased demand for college from all people of ages, especially vocational and professional degrees

Greater demand for practical education that will lead to "hard" job skills

Long-term decreases in public financial support for higher education



### LOCAL TRENDS

Continued pressure on existing road and highway systems

Long-term investment in rail-based transit, but not necessarily mass transit

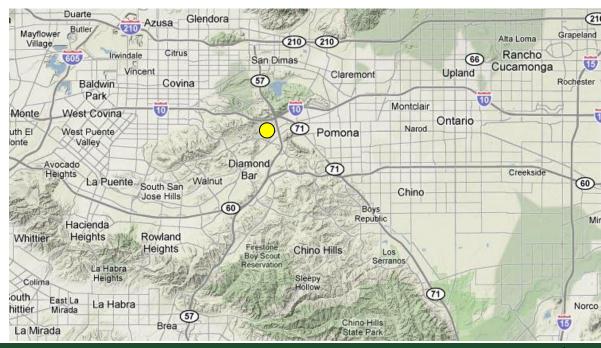
Little undeveloped land available

Loss of unprotected open space

Greater densities in new development

Increased interest in companies to locate to the area (offices, light manufacturing)

Rising costs of housing and transportation







- Cost of Higher Education
- Demographics
- Globalization
- o First-Year Experience
- Housing and Community
- o Wellness

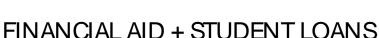
- The Expanding Campus
- Evolving Learning Styles
- o Interdisciplinary
- Public/Private & Mixed Use
- The Greening of Higher Ed



### COST OF HIGHER EDUCATION

#### **TUITION + FEES**

Over the last quarter-century, average tuition and fees have increased more rapidly than rates of inflation, per-capita personal income, consumer prices, prescription health care, and health insurance



The unmet financial need of students from the lowest family income group (less than \$34,000) has grown by 80% since the early 90s

Credit crisis is affecting ability to pay for college – 16.3% increase from 2007 to 2008 in students requesting federal financial aid

Average debt for graduating college seniors = \$23,200

Average debt of CPP graduates in 2008 was \$12,527



Sources: Department of Education, the Chronicle of Higher Education, Project on Student Debt



### DEMOGRAPHICS

By 2025, California will gain 7 to 11 million new residents

In 2020, California will account for 13% of all people between the ages of 18 and 31 in the US, a cumulative increase of 2 million people

By 2030, Hispanics between the ages of 15-34 will account for +50% of the population in California

Edmonton MANITOBA SASKATCHEWAN Vancouver ONTARIO Winnipeg NORTH DAKOTA MONTANA **Bismarck** IDAHO **OREGON** SOUTH Poise WYOMING **New York** Philadelphia Cheyenne Reno Washington, D.C. **NEVADA** San Francisco COLORADO Atlantic Nashville cific Los Angeles ARIZONA ARKANSAS Phoenix **NEW MEXICO** Jacksonville Baton Rotige Hermosillo San Antonio, Miami Chihuahua Nassau Monclova<sub>©</sub> Hidalgo del Parra THE BAHAMAS

Sources: Public Policy Institute of California. Department of Education, US Census



### **GLOBALIZATION**

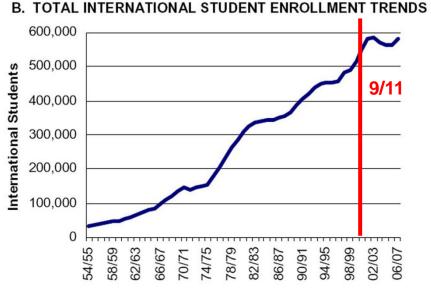
Asia sends the largest number of students to US (59%)

California hosts the largest number of international students

14% of all international students (78,000 students) study in CA

In 2006-07, University of Southern California hosted the largest number of international students in the US (7,115 students or 17% of total

students)



Source: Institute for International Education, Open Doors





#### FIRST-YEAR EXPERIENCE

#### TRANSITION

First year is critical to academic and social success of students

- Difficult for Millenials making the adjustment to life at college
- Average six-year graduation rate is only 63% nationally

#### SUPPORT

Preceptorial programs

Summer programs

Freshman seminars

Peer mentoring programs

Accessible faculty advisors

Counseling services

Academic support services





### HOUSING + COMMUNITY

#### TRENDS

Increased percentage of undergraduates housed on campus

Increased provision of housing for graduate students and faculty (especially in high cost of living areas)

Increased integration of living/learning and theme housing

Universities and colleges as developers

Non-student residential housing projects being provided on or adjacent to campus



Living Learning Center, North Dakota State



**UC Davis** 

Source: NY Times, Chronicle of Higher Education





### WELLNESS

#### **FACILITIES**

36% of students site the quality of recreational facilities as a "very important" factor in selecting a school

#### **PROGRAMS**

#### Colgate Wellness Initiative

- Multicultural awareness events
- Student health surveys for entering students
- Sponsoring athletic and sporting events



#### Princeton University Health Promotion and Wellness Services

- Customized workshops for student groups and organizations
- Individual health assessments
- Online health evaluations
- Student Advisory Board



University Health Services

Source: Chronicle of Higher Education





### THE EXPANDING CAMPUS





Space per student tripled between 1973 and 2004

Colleges and universities completed \$15 billion worth of building in 2006

Significant increases in recreation facilities, student centers, and housing

Source: The Economist, College Planning & Management, NIRSA Construction Report, 2006

#### NEW LEARNING STYLES

Peer-to-peer learning
Collaborative
Value engagement and experience
Visual and kinetic
Experiential learning
Service learning

#### **NEW LEARNING ENVIRONMENTS**

Flexible learning spaces
Self-directed learning spaces
Informal learning spaces
Interdisciplinary spaces
Multi-purpose spaces
Learning commons
Virtual spaces





### FLEXIBLE LEARNING SPACES

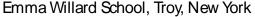
Circulation as teaching and gathering spaces

Gives students/teachers control over their spaces

Opportunities for art exhibitions and other displays

Able to accommodate subject-based or cross-disciplinary learning







Illinois Institute of Technology, Chicago, Illinois





SELF-DIRECTED LEARNING SPACES

Modeled after corporate research centers

Quiet contemplative spaces as well as social spaces

Separate project rooms within classroom



St. Olaf College, Northfield MN



University of North Carolina, Chapel Hill NC



Putnam, Norwood MA





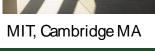
#### INFORMAL LEARNING SPACES

- Group projects and group study are critical for active roles in a collaborative world
- Group study occurs in and out of classrooms, libraries, residence halls and informal study areas
- Informal spaces emerging as key demonstration spaces
- Repurposing of circulation space to promote learning

















#### INTERDISCIPLINARY SPACES - MIT STATA CENTER

#### **Programs**

- Computer science
- Information / intelligence sciences
- Linguistics
- Philosophy

#### Spaces

- Flexible research facilities
- Classrooms
- Auditorium
- Social spaces
- Fitness facilities
- Childcare center









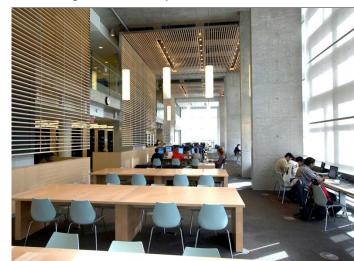
#### ROLE OF THE LIBRARY

Information Commons → Digital Commons
Increasingly caters to collaborative learning
Repurposing of desktop computer labs
New library elements include:

- Social spaces
- Informal spaces
- Teaching spaces / smart classrooms
- Group study spaces
- Collaboration spaces
- Technology centers
- Coffee shops and cafes



Washington University, St Louis MO



UOIT, Oshawa Ontario





#### VIRTUAL SPACES

Increased reliance on online course management systems, data sharing, instant messaging and virtual learning environments for instructional purposes

Second Life: Real time educational gaming environment

- Types of spaces
  - Classrooms
  - Amphitheaters
  - Libraries and Art Galleries
  - Social Spaces
  - Visitor and Resource Centers
- Over 8 million Second Life accounts created since 2003
- Over 170 educational institutions had accounts as of 2007, including MIT, Harvard, NYU and Stanford



Campus Tour



Amphitheater



Art Gallery at Ohio University





### PROGRAMMED OPEN SPACE

For teaching, recreation, and interaction







St. Edward's University, Austin, TX





### INTERDISCIPLINARY

#### **TEACHING**

Movement toward team teaching

Academic subjects increasingly seen as spanning multiple disciplines

- Sustainability
- International studies
- "New" fields like behavioral economics

#### RESEARCH

Research grants often going to interdisciplinary teams Interdisciplinary fields are sometimes temporary or dynamic. May need flexible curriculums and space.

Some universities building interdisciplinary science buildings



University of Waterloo, Canada



**UOIT**, Ontario





### INTERDISCIPLINARY

California Institute of Telecommunications and Information Technology (Cal(IT)<sup>2</sup>) @ UCSD

Size:

215,000 gsf

Completion:

2005

Program:

Shared Flexible Laboratories
Classrooms
Clean Room
Media / Visualization Studios
Exhibit Galleries
Digital Cinema Theater
Black Box Theater

Construction cost:

Faculty Offices

\$60.0 M

Location:

UCSD, La Jolla, CA



Focus on discovery and innovation at the intersection of Science, Engineering and the Arts





### PRIVATE/PUBLIC & MIXED USE

Public-private partnerships and mixed-use development



University of Calgary – West Campus



### THE GREENING OF HIGHER ED

Princeton Review now includes a 'Green Rating' in its rankings Green operations are now expected by students

"Six out of 10 college applicants and parents say the environmental factor would affect their decision to apply to or attend a school, according to a Princeton Review survey this year."

Source: Khadaroo, Stacy "Now, 'green' report cards for U.S. colleges," Christian Science Monitor, 8 July 2008.



### THE GREENING OF HIGHER ED

Sustainability, better use of resources, and environmental protection

Carbon reduction plan

Strategic and master plans address sustainability

Office of Environmental Sustainability + faculty sustainability committee

'Buy Local' dining program

Campus Resource Monitoring System (56% reduction in dorm electricity use); 50% electricity from green sources

Largest PV array in Ohio, with a total rated production of 159 kW

Living Machine processes wastewater into reusable grey water

College organic farm and creation of experimental wetland

Campus car-sharing program

Sustainable Reserve Fund supports local energy conservation and greenhouse gas reducing projects





Oberlin College





### QUESTIONS

What facilities does CPP need to support its mission?

What facilities does it need to compete?

Can facilities be used more efficiently?

What types of learning environments are needed at CPP?

How does technology – both hardware and software – affect current pedagogies?

What does the move toward non-classroom learning mean for the campus?

When people come together, where does it happen?

What would an integrated learning and student life environment look like at CPP?

How might campus facilities and outdoor spaces facilitate engagement?

How can students (including commuter, graduate and professional students) and faculty be more engaged to define a distinctive CPP community?

What are the opportunities for enhancing academic excellence at CPP?

What are CPP's goals for sustainability in the future?



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