

5/28/2010

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**Working for California:  
The Impact of the  
California State University  
on Workforce Development for Alternate and  
Renewable Fuel and Vehicle Technologies**

Presentation to California Energy Commission | May 18, 2010

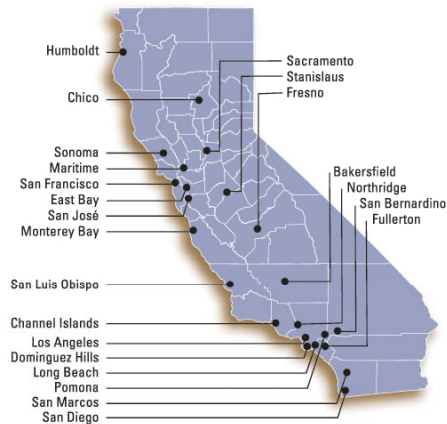


## **Our Goal Today**

- **Present** what CSU is currently doing in terms of:
  - General economic impact to State of California
  - Specific education and research programs relating to alternative fuels areas
- **Propose** that CEC strengthen focus on workforce development
  - CSU should be a key partner
  - Future degree and certificate programs at the Bachelor's and Master's level

## CSU: Size and Diversity

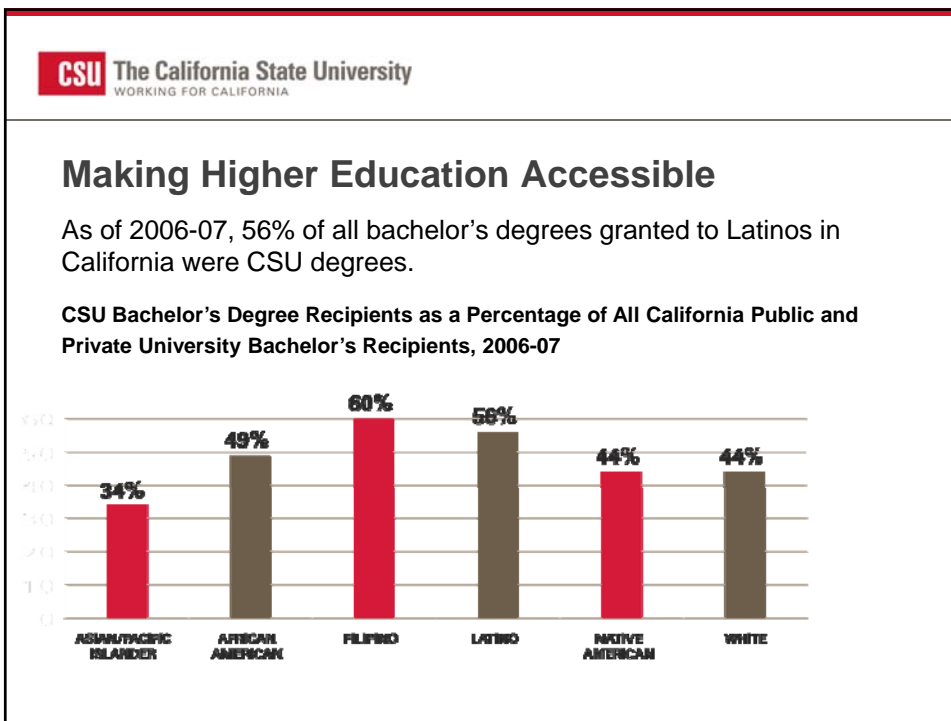
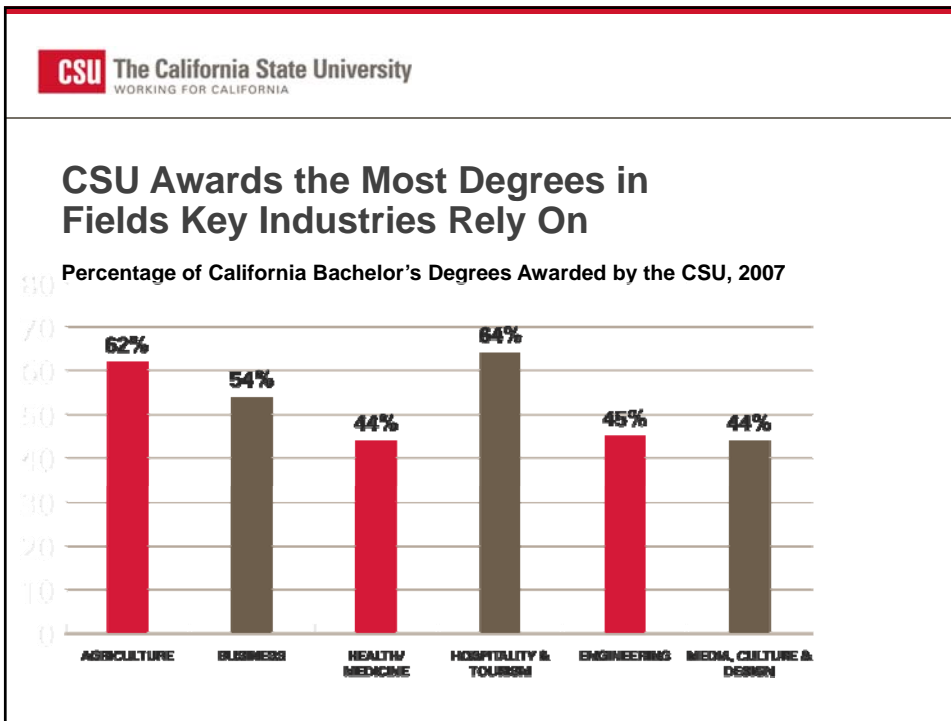
- CSU is the largest, most diverse, bachelor's degree-granting public higher education system in the United States; it serves **430,000** students
- CSU graduates more than **80,000** students per year
- CSU graduates more African American, Hispanic, and American Indian students than ***all other*** California universities combined



## CSU Serves the Needs of California's Workforce

CSU Awarded:

- 71,000 bachelor's degrees in 2006-07, half of all the bachelor's degrees statewide.
- 18,000 master's degrees in 2006-07, one-third of all the master's degrees statewide.




## **CSU on Sustainability: Environmental Consciousness and Energy**

- Educating the sustainable leaders of tomorrow
  - Increased course offerings in sustainability and Green Business Certificate programs
  - Example: CSU Sacramento's Smart Grid research and educational programs
  
  - Environmental Research and Clean-Tech Innovation Centers
  - Example: CSU Chico's Oroville Clean-Tech Innovation Center
  
  - The CSU "Green Campus" program
  - Example: Staff work with students to monitor campus energy usage and improve efficiency; campus is a "living laboratory" of best practice



## **California State University: Institutional Commitment to Sustainability**

- Campus commitment
  - Energy: In April 2009, the U.S. Environmental Protection Agency recognized the CSU in the Top 20 list of the largest national green power purchasers.
  - Sustainable Design: The CSU currently has 33 LEED™ certified/to-be-certified projects across 16 campuses.
  - two campus hydrogen fueling stations (Humboldt and Los Angeles)




## ongoing training

Designed to provide additional training for teachers to further their understanding of related course tools, content, and concepts after the completion of Core Training.

## Summer Training in CA 2010



**Cal Poly Pomona**  
**June 20 to July 2**

- Computer Integrated Mfg (CIM-4 spaces)
- Engineering Design & Development (EDD-3 spaces)
- Gateway To Technology Basic (GTT, full)

**July 18 to 30**

- Introduction to Engineering Design (IED, full)
- Principles of Engineering (POE, full)

**San Diego State University**  
**June 20 to July 2**

- Digital Electronics (DE)
- Introduction to Engineering Design (IED, full)
- Principles of Engineering (POE, full)

**July 5 to 16**

- Aerospace Engineering (AE)
- Civil Engineering/Architecture (CEA)
- Gateway To Technology Advanced (GTT advanced)

## CSU Los Angeles

- Center for Energy and Sustainability
  - NSF funded, 5 years
  - 14 faculty, 7 departments
  - Photovoltaic materials, direct methanol fuel cells, biofuels and combustion, carbon sequestration
- Hydrogen Research and Fueling Facility
  - Operation in Jan. 2011

