

# *CSUF FACILITIES PLANNING & MANAGEMENT*



## Facilities Operations Issues 2013

PRBC Presentation

April 12, 2013

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# Agenda

- Summary
- Why Building Conditions Matter
- Historical Context
- 2012/13 Budget Request
- Chargeback
- True Budget Needs
- Deferred Maintenance
- Capital Renewal
- Utility Budget
- Sustainability
- Long Term Plan



# Summary

- Significant Budget Cuts for over 30 Years
- Lowest Funded Facilities Operation
- Successful Energy Program
- \$3,500,000 to Restore Basic Service Levels
- Add \$2,500,000 to Raise the Bar
- Fund Deferred Maintenance
- Push for Capital Renewal
- Support Sustainability Efforts



# Facilities Budget Needs

○ Make Budget Whole	\$ 600,000
○ Custodial Plus 44	\$1,800,000
○ Trades add 5 Positions	\$ 320,000
○ Grounds add 4	\$ 180,000
○ Logistical Services 2	\$ 100,000
○ Office Staff 4	\$ 200,000
○ Supplies and Services	<u>\$ 300,000</u>
<b>Total (Incl. Benefits)</b>	<b>\$3,500,000</b>



# Impact of Inadequate Facilities on Learning

- *“A growing body of research has linked student achievement and behavior to the physical building conditions and overcrowding.”*
- *“Decaying environmental conditions can affect the learning as well as the health and the morale of staff and students.”*

DOE Report



# Building Conditions Matter

- Maintain Learning Environment
  - From Cleanliness to Usefulness
- Health & Safety
- Recruitment & Retention
  - Students, Faculty, Staff
- Donor Opportunities
- Aesthetics
- Titan Pride



# Additionally...

- Increasing Regulations
  - State Fire Marshal, DGS, etc.
- Executive Orders/Assembly Bills
  - 847 and 987/AB32
- Facilities & Beautification Committee
  - Recommends Budget Restoration
- Sophisticated Work Force
  - Training, Certification, Salaries
- Business Continuity



# Budget History

- Falling Behind for over 30 Years
- Campus Aged from Adolescence to Middle Age
- Additional Responsibilities:
  - Campus Doubled in Size
  - More Complex Buildings
  - Technologically Advanced Systems
  - Logistical Services
  - Non-Maintenance Services



# Custodial Services

- 1978
  - 102 Custodians (incl. 3 managers)
  - 14,400 GSF per Custodian
- 1991
  - 67.5 Custodians (incl. 4 managers)
  - 23,500 GSF per Custodian
- 2013
  - 55.5 Custodians (incl. 3 managers)
  - Eliminated Contracted Work at 400,000 GSF in 2008
  - 43,200 GSF per Custodian
  - Aging Facilities/No Capital Renewal
- Average GSF per Custodian increased by 84% since 1991 and by 200% compared with 1978!





# National Custodial Standards

## *Gross Square Feet (GSF) per Custodian*

**Cal State Fullerton 43,200 Sq. Ft.**

Level I	Orderly Spotlessness	8,500 GSF
Level II	Ordinary Tidiness	16,700 GSF
Level III	Casual Inattention	26,500 GSF
Level IV	Moderate Dinginess	39,500 GSF
Level V	Unkempt Neglect	45,600 GSF

**An additional 44 FTE (\$1,800,000/yr) would be required to bring Cal State Fullerton to Level III Cleanliness**

Source: National Association of Higher Education Facilities Officers



# Landscape Services

## ○ General Maintenance

- 18 Positions (Down from 21 in 1991)
- Irrigation; Tree Trimming; Pest & Weed Control; Gardening; and Trash Pick Up
- 3 Ground Workers for Main Campus to

## ○ Sports Complex

- Staying Competitive

## ○ Parking Lots/Structures

- Added 1.6 M sqft. Parking Structures

## ○ Waste Management



# Trades

## ○ Operation & Maintenance

- 39 Employees (down from 40 in 1991)
- Service Engineers; Plumbers, Electricians; Carpenters; Painters; Lock Smiths; Auto Mechanics
- Double Gross Square Feet
- 24/7 Coverage

## ○ Preventive Maintenance

- 20,000 pieces of equipment

## ○ Aging Facilities/Work Force

- Fifty Plus
- More Specialization

# Trades

- Complex Building Components/Systems
  - 40,000 System Nodes
  - Enterprise Energy Management
  - LEED EBOM
- Fleet Management
- IT Infrastructure
  - Public Works
- Compliance
  - Group 1 Equipment
  - Health & Safety



# Logistical Services

- Facilities Operations Funds OE&E
  - Unit Moved From Budget, Finance & Accounting to Physical Plant in 1997 with 15 Employees.
  - Currently Down by 3 Employees
- Shipping & Receiving
  - Package Delivery up by 20%
- Mail Center
  - Staffing Decreased From 6 to 4
  - Campus Population Almost Doubled
  - Pitney Bowes Equipment
- Fixed Assets, Moving Services, Archives
  - Built Storage Facility
  - Added Shredding Services @ \$25,000
  - Bar-Coding Equipment



# Facilities Operations O&M Staffing

*Comparisons 1991-2013*

	1991/92	2012/13	% Change
Building Trades	28	24	-14%
Landscape Services	21	18	-14%
Building Engineers	12	15	+25%
Custodial Services	63.5	53	-17%
Management	12	12	0%
Admin. Staff	10	10	0%
Physical Plant	146.5	132	-10%

*Additionally, Capital Project Management went from 6 to 0 funded employees.*



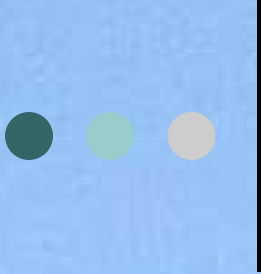
# Facilities Operations O&M Funding

## *Comparisons 1991-2013*

	1991/92	2012/13	% Change
CSUF General Fund	\$113M	\$315M	+179%
Consumer Price Index	100	170	+70%
Student FTE	17K	28K	+65%
Gross Square Footage	1.5M	2.4M	+60%
FO Budget	\$5.6M	\$8.6M	+54%
FO Budget/GSF	\$3.56	\$3.58	0%
FO Budget/GF	5%	2.7%	-46%
FO Positions	146.5	132	-10%
GSF/Position	10,733	18,182	+69%

*69% more complex and older space to maintain per employee*





# Facilities Operations Budget 02/03-12/13

- \$7,583,500 - \$8,617,101 +14%
- GF from \$226M to \$315M +39%
- Added Facilities: SHC, KHS, CPAC, SGMH, UPD. (400K GSF) +20%
- Consumer Price Index +27%
- DM Backlog \$88M - \$124M +40%
  - Does not include Utility Infrastructure
  - \$1M Annual Budget
- 2005 Presidential 3-Year Commitment
  - \$1.8M Baseline O&M Budget Increase
  - \$3M DM Baseline Increase



# Three-Year Commitment

- 2005/6 Budget Request

- Based on a 2004 Presentation to the President and Anticipated Growth

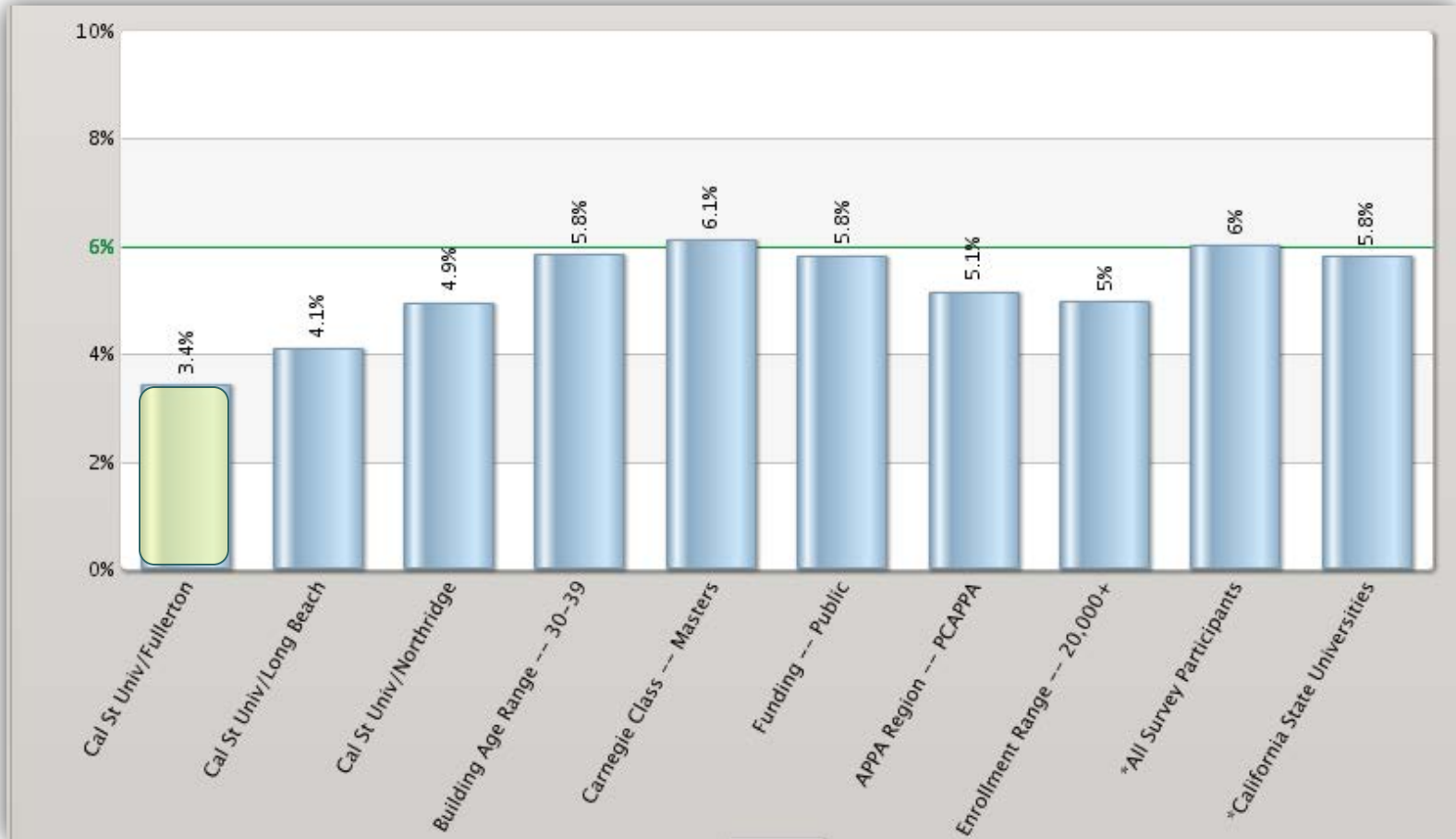
- Five-Year Projection (2005 \$\$)      Actual

- O&M Budget    \$10,408,500      \$8.6M
- DM Budget      \$ 3,450,000      \$1.0M
- Utility Budget   \$ 8,250,000      \$6.8M

- Employees

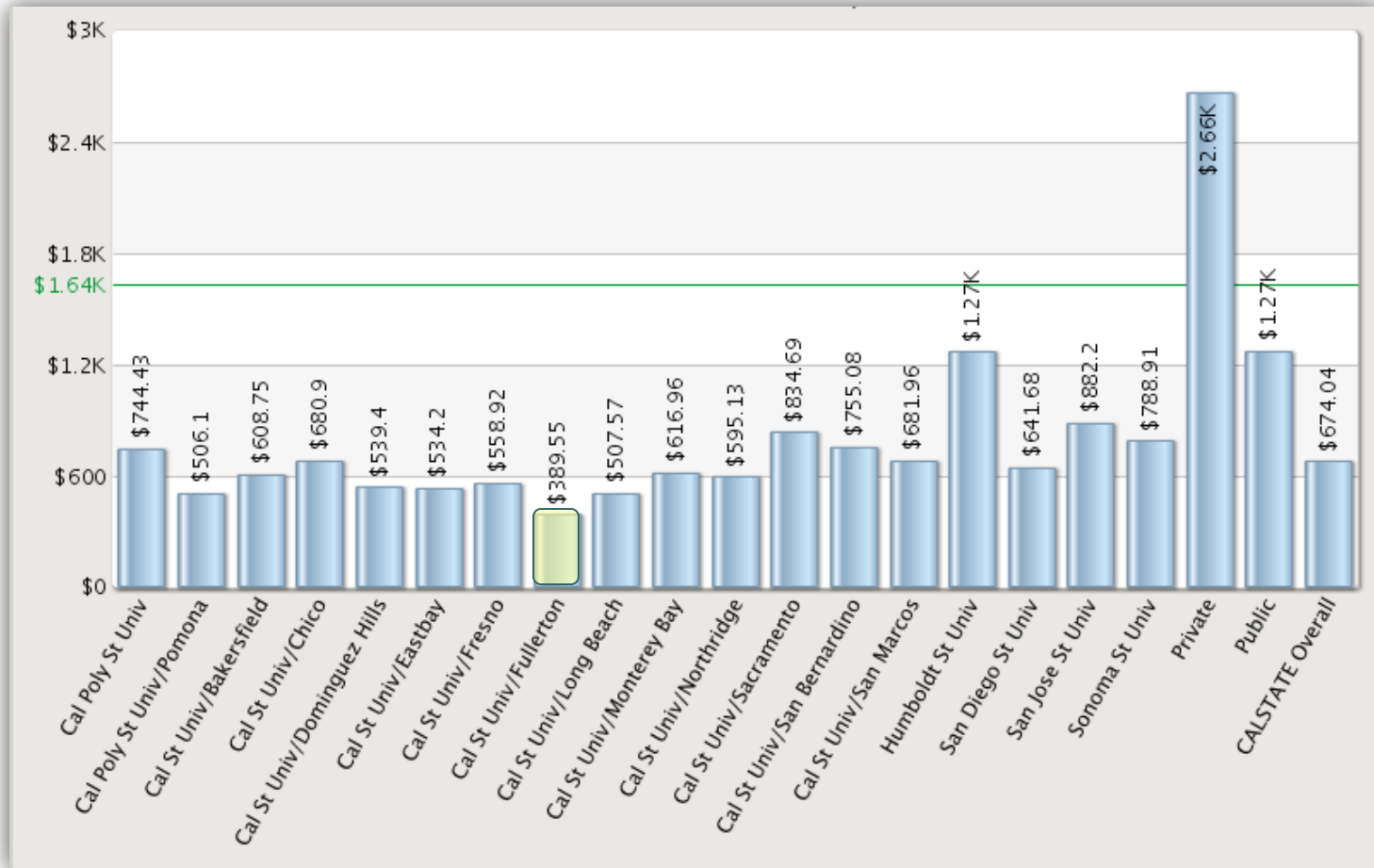
- Projected to Grow to 199      132

# Operating Expenditures per Gross Institutional Expenditures



\*See Attachment 2

# Operating Expenses per Student (Not Including Utilities)



# Changing Demands

- Building Management Technology
- Fire & Life Safety Systems
- Control Systems
- Energy Conservation
- Code Requirements
- Business Continuation
- Customer Service
- Aging, Congested Campus
- Extended Travel Times

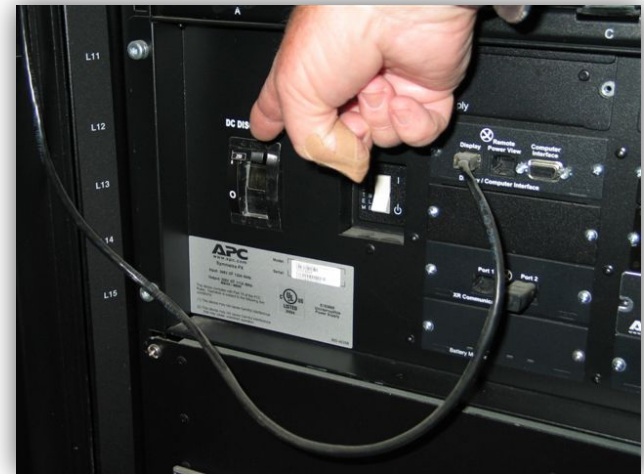


# IFMA Report: Top Ten Trends Impacting Facilities Management

*“Facility managers today are expected to understand their company’s core business and contribute to the bottom line – not only by reducing facility costs but also by improving the productivity, revenue generating capacity and image of their organizations”*

## Externally Driven

- Sustainability
- Complex Building Systems
- Aging Building Stock
- Business Continuity





# IFMA Report (cont.)

## Internally Driven

- Quantity and Complexity of Data
- Finding Top Talent
- Improve the Organization's Mission, Vision and Values

## Organizationally Driven

- Technical and Business Acumen
- Health and Well-Being of Building Occupants
- Changing Occupant Behavior

*“These trends do not stand alone as solitary influences on the profession, but rather bear strong interconnections.”*



# Facilities Operations 2012/13 Budget Request

- Modest Baseline Increase
  - From \$8,617.100 To \$9,000,000
- Stronger Focus on Operation & Maintenance
  - Develop Preventive Maintenance Programs
  - Maintain/Increase Staffing Levels
- Align Shop Budgets with Responsibilities
  - Focus Available Funds on O&M Commitments
- Limit Non-Maintenance Commitments
  - Chargeback Work Not to Interfere with O&M
- Enhance Use of P Cards, DB Cards, Vendor Cards and Service PO's
  - Limit Blanket Purchase Orders



# Budget Considerations

- Chronically Underfunded
  - Funding Cut in Half Over Last 20 Years Per Gross Institutional Expenditures (GIE)
  - Lowest Funded Campus Per Student: Students Suffer
  - Need \$6,000,000 to Get Back to Par
  - CO 2012 O&M Standard \$10/GSF
- Structural Deficit
  - \$600,000
- Rising Costs
  - S&W \$300,000
  - OE&E \$100,000
- Inadequate Refund Mechanism
  - 15% Overhead is Too Low





# Chargeback Considerations

- Requirement To Fully Recharge For Non-Maintenance Services Per EO847.
- 15% Overhead Rate Not Realistic.
- No Changes For 25 Years
- It Takes Almost Twice The Number Of Employees To Pay For One.
- JOC More Expensive For Smaller Jobs
- Maintenance Services Suffer Significantly.
- Departments Compete for Resources



# O&M Budget Request

- \$ 11,200,000 (not incl. benefits)
- 3.6% of General Fund
- Still Below State Averages
- Level 3 Cleanliness
- Enhanced Service Levels
- Improved Customer Services
- Need \$13,000,000 for Level 2



# Deferred Maintenance

- Pacific Partner/Sightlines Reports
  - Study Started in 2000 by CO
  - Calculations Based on Industry Averages
  - Verified by ISES Studies
  - Life Cycle Costing
- Building Components, Systems, Types
- ADA issues not included
- University Responsibility



# Deferred Maintenance

## *Future Critical Needs: Inevitabilities*

- **Building Exteriors/Envelopes**

Walls, roofs, window systems. Critical to keeping the integrity of the buildings intact & ensuring water does not penetrate building interiors.

- **Mechanical Systems**

Leaking Air Handlers, Coils, Pans, Fans, Declining Efficiency, Elevators, Controls

- **Electrical Systems**

Electrical panels are up to 50 years old with deteriorated wiring.

- **Plumbing Systems**

Water pumps, sewer connections and restrooms.

- **Campus Infrastructure**

Utilities, roads, plazas

# Deferred Maintenance

*Current Estimated Backlog: \$ 150,000,000*

*Estimated Backlog by 2022: \$ 225,000,000*

CSUF 2012/13 DM Budget \$1,000,000





# Capital Renewal

(Not the same as Deferred Maintenance)

- Functionality
  - Efficiencies Decrease
- Usefulness
  - Many Spaces are Under Utilized
- Aesthetics
  - Facilities Look Dated and Tired
- The Price of Doing Nothing:
  - Average Annual Backlog Increase: \$ 18,000,000
  - No Offset of Maintenance Backlog
  - Current Replacement Value \$1,000,000,000 @ Capital Renewal Index 1.8%



# Physical Services Complex

- Original 1959 Campus:
  - Temporary Classrooms and Offices
  - Run-Down Facilities Not Suited for Shops
- Capital Outlay Project      \$30,000,000
  - Has Been on List for 25 Years
  - Candidate For Lease Revenue Bond Funding
- Home Grown Alternative      \$12,000,000
  - Multi-Year Plan
  - Combination of In-House Labor and Contracting Out
  - Funding: Carry-Forward Funds; Deferred Maintenance; One-Time Funds; Set Aside Plant Funds to Borrow; Parking Funds; Divisional Contributions (e.g. UPD)





# Other Capital Renewal Urgencies

- McCarthy Hall \$100,000,000
  - Underutilization of Laboratory Space
  - Vertical Transportation
- Library South \$ 50,000,000
  - Underutilization of Many Spaces
- Ruby Gerontology \$ 10,000,000
  - Ready for Major HVAC Overhaul

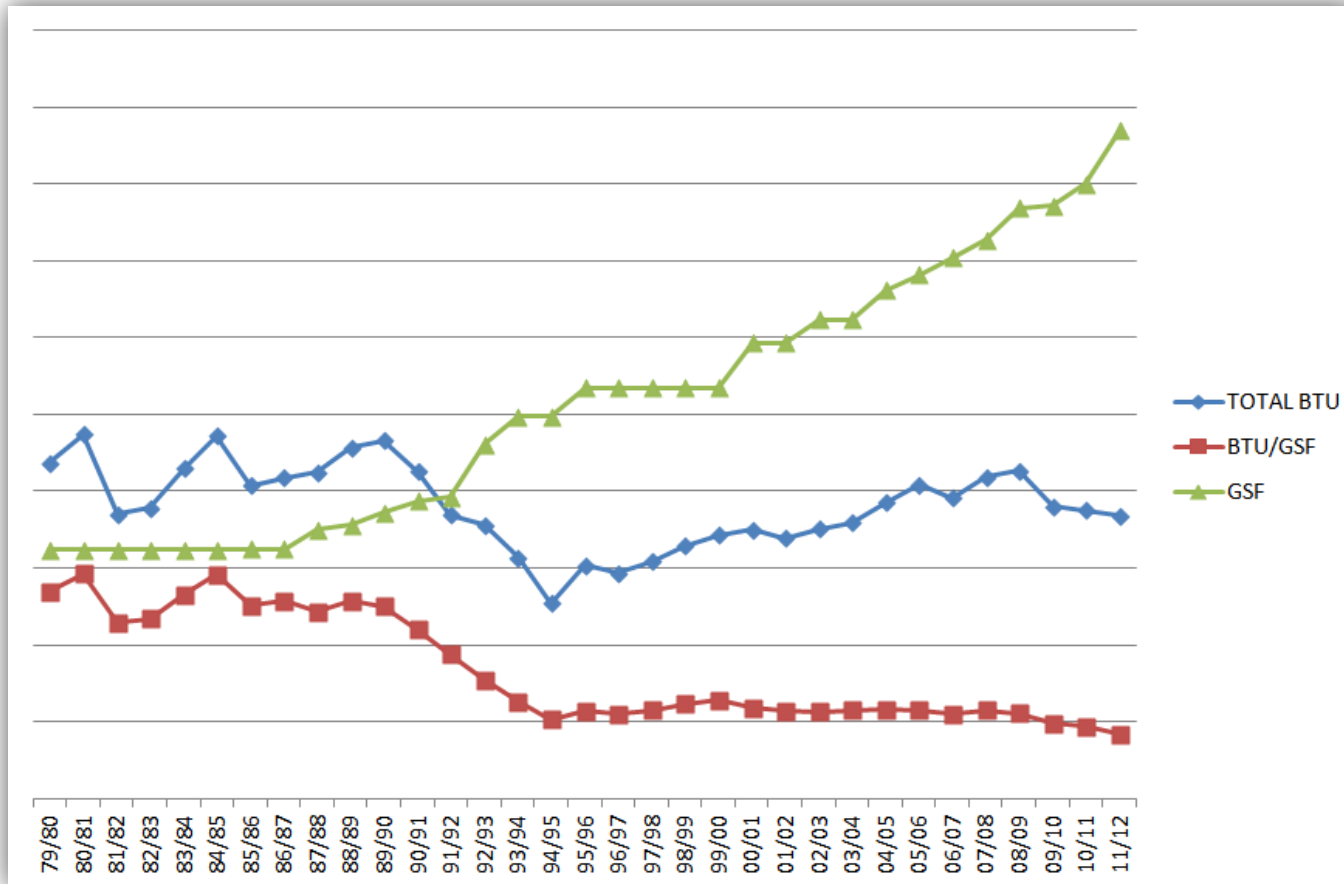
*Need a true assessment of space use on campus to identify inefficiencies. Establish proper storage policies and facilities.*

# Capital Project Management

- CPM Responsibilities
  - Capital Outlay Projects
  - Minor Construction
  - Capital Renewal
- Unfunded Staff
  - From Six to Zero
  - Employees and Consultants



# Energy Usage at CSUF





# 2004 – 2012 Electrical Consumption

	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12
<b>KWH</b>	50	53.8	51.4	55.5	52.7	50	48.5	48
<b>Campus GSF</b>	3.87	3.98	4.44	4.54	4.74	4.75	5.22	5.57
<b>Added Facilities</b>		PA	PS2	SRC	SGMH SH III	PD		CCC/PS4
<b>FTES</b>	24.4	27.2	28.3	29.6	30.3	27.8	27	27.8
<b>Annual \$\$</b>	5.4	6.6	6.0	5.8	5.6	4.6	4.7	5.2
<b>Price of Doing Nothing:</b>								8.5

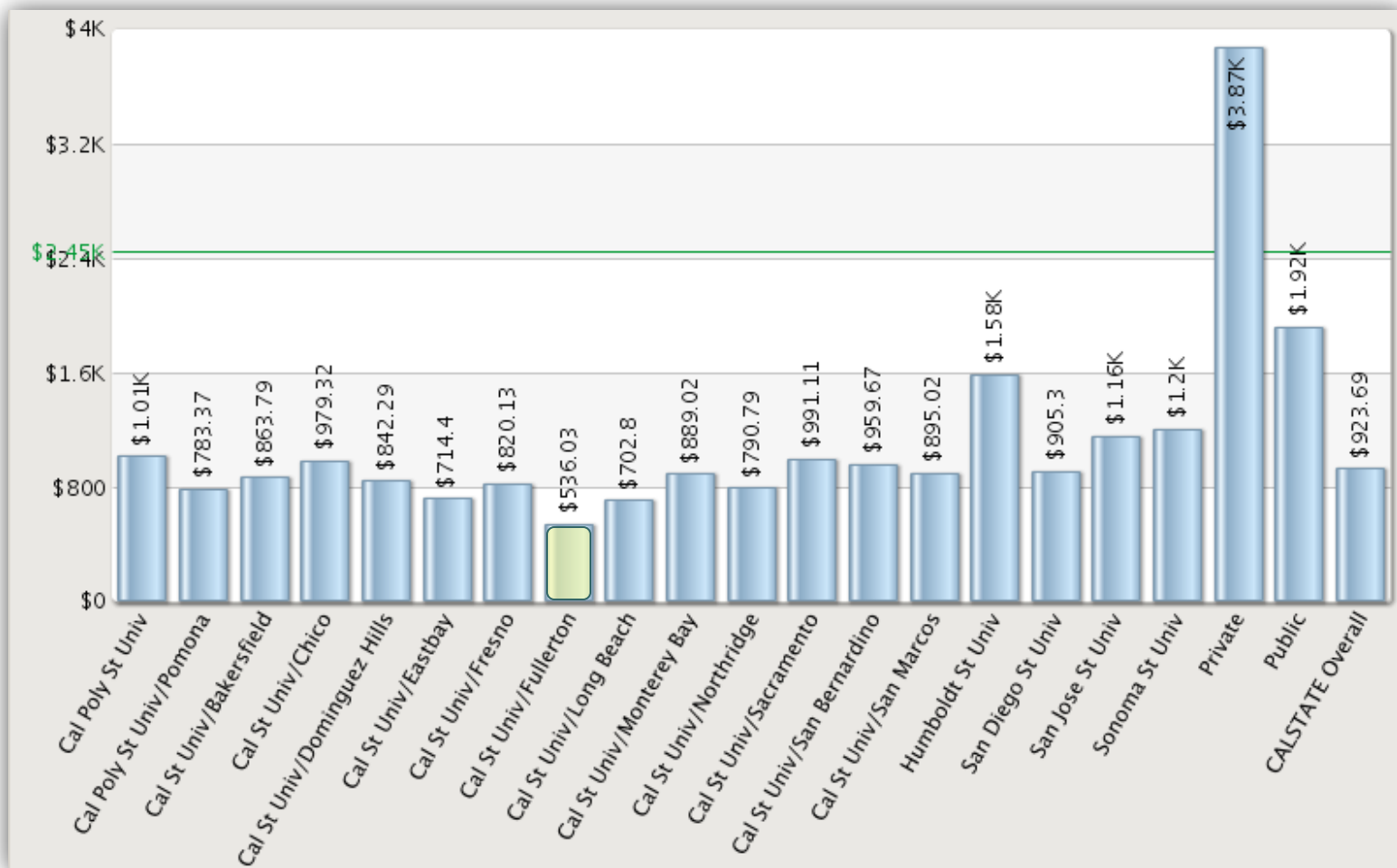
Lower costs due to higher efficiency buildings as well as energy conservation initiatives: 68/78 Degrees; Demand Response Program; Big Fix; Network Thermostats; Upgraded HVAC Systems; Tri-Gen; Photo-Voltaic; DBH Pre-Cooler; Lighting Retrofit; Building Commissioning.

# Utility Management Systems

- Energy Management Systems
- Energy Information Systems
- Enterprise Energy Management
- Computers are the new Wrenches
- Online with Utilities and Customers
- TriGen and PV Power Generation

*Technology has become a driving force for change in our industry as well as a tool for significant savings.*

# Operating Expenses per Student – with Purchased Utilities



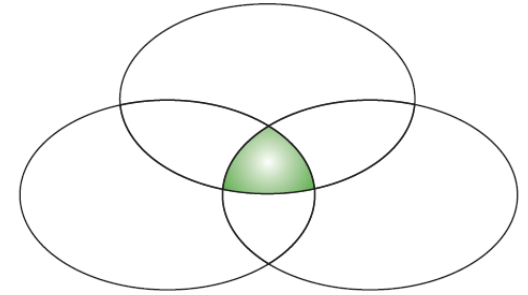
# Utility Budget

- \$7.2M
- Anticipate Rate Increases
- Continually Invest
  - Billion Dollars Green Challenge
- More Stringent Regulations
- Aging Equipment
- Sustainability
- LEED EBOM
- Master Plan





# Sustainability



- President's Climate Commitment
  - Climate Action Plan
  - Task Force to Advise President
- Bills, Laws and Executive Orders
  - Global Warming Solutions Act AB32
  - Governor's Executive Order B-18-12
  - Chancellor's Executive Order 987
- Establish Campus Responsibilities
  - Operation



# LEED-EBOM

## Existing Buildings Operation & Maintenance

- Building Technology
- Commissioning
- Cleaning Products
- Capital Renewal
  - From Building Envelope to Snowers
  - Water Efficiency
  - Indoor Environment Quality
  - Materials & Resources





# Utilities Master Plan

- Energy Conservation Strategies
- Campus Long Term Growth
  - Build Capacity
  - Reduce Carbon Footprint
- Storm Water Management
- Alternative Power Generation Strategies
- Upgrade Distribution Infrastructure
- Equipment Replacement
- Address Deferred Maintenance Issues



# In Summary

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<b>Total (Incl. Benefits)</b>	<b>\$3,500,000</b>



# Invest in our Students

- Invest in Instructional Facilities
- Invest in our Employees
- Invest in Customer Service
- Invest in Efficiency
- Eliminate Budget Shortfall
- Restore Budget Commitment
- Implement Executive Orders
- Adapt Chargeback Program
- Set Performance Targets
- Require Accountability



Thank You