The Cost of Education and Proposed UH Analytical Metrics to Promote Greater Efficiency and Productivity

Presented to the Board of Regents
March 21, 2013
Office of Institutional Research & Analysis
The Cost of Education

Total Education and General Expenditures
- Instruction
- Research
- Public Service
- Academic Support
- Student Services
- Institutional Support
- Operations and Maintenance
- Scholarships and Fellowships expenses

Total Education and Related Expenditures
- Instruction
- Student Services
- Pro-rated share of Academic Support, Institutional Support and Operations and Maintenance
- Does not include Research, Public Service and Scholarships and Fellowships expenses
Total education and general expenditures has increased an average of 6.6% annually while education and related expenditures has increased by 3.7%.

Components of Education & General Expenditures – UH System

Average Annual Percentage Growth:
- Total: 6.6%
- Education: 3.7%
- Research: 11.3%
- Public Service: 3.1%
- Scholarships: 25.6%

Total E&G Exp, 2012
- $1,341.5M

Components:
- Scholarships: $85.3M
- Public Service: $84.6M
- Research: $525.0M
- Education: $646.7M
Growth in E&R spending was higher in percentage terms at UHH and UHWO than at UHM and the UHCCs.

The graph shows the Total Education & Related Expenditures – UH Units from 2000 to 2010. All dollar amounts are adjusted to 2010 dollars.

- UH Mānoa, $342.9
- UHCCs, $203.7
- UH Hilo, $73.7
- UH West O‘ahu, $11.1
Instruction expenditures comprises 75% of total E&R expenditures for UH Mānoa.

E&R Expenditures by Type – UH Mānoa

All dollar amounts adjusted to 2010 dollars.

Fiscal Year

2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010

$ Millions

Instruction  Student Services  Academic Support  Institutional Support  Operation & Maintenance

$275.2  $261.8  $257.2  $290.1  $290.9  $292.8  $311.8  $317.4  $333.4  $357.9  $342.9
Instruction expenditures comprise 54% of E&R expenditures at UH Hilo

E&R Expenditures by Type – UH Hilo

All dollar amounts adjusted to 2010 dollars.

Fiscal Year | Instruction | Student Services | Academic Support | Institutional Support | Operation & Maintenance
--- | --- | --- | --- | --- | ---
2000 | $36.6 | $1.4 | $1.2 | $2.5 | $1.7
2001 | $36.4 | $1.6 | $1.2 | $2.6 | $1.7
2002 | $37.2 | $1.8 | $1.2 | $2.8 | $1.7
2003 | $41.9 | $2.3 | $1.5 | $3.3 | $2.1
2004 | $44.1 | $2.5 | $1.6 | $3.5 | $2.3
2005 | $46.8 | $2.7 | $1.8 | $3.7 | $2.5
2006 | $49.8 | $2.9 | $2.0 | $4.0 | $2.7
2007 | $53.2 | $3.1 | $2.2 | $4.2 | $2.9
2008 | $62.3 | $3.9 | $2.6 | $5.1 | $3.5
2009 | $69.8 | $4.6 | $3.0 | $5.6 | $4.1
2010 | $73.7 | $5.2 | $3.4 | $6.1 | $4.7

All dollar amounts adjusted to 2010 dollars.
Instruction expenditures comprise 58% of E&R expenditures at UH West O‘ahu.
Instruction expenditures comprise 59% of E&R expenditures at the UHCCs.

E&R Expenditures by Type – UHCCs

All dollar amounts adjusted to 2010 dollars.
Instructional expenditures have been rising at average annual rates of 2.5% for UHM, 5.1% for the UHCC, 8.7% for UHH and 11.7% at UHWO.
Student services expenditures have been rising at average annual rates from 5% to 9% at all campuses.
Academic support expenditures have been rising by 3% to 4% at UHM and the UHCCs, but by more than 11% at UHH and UHWO.

All dollar amounts adjusted to 2010 dollars.
Institutional support expenditures have been rising sharply at all campuses, except at UH Mānoa.

![Graph showing institutional support expenditures for UH units from 2000 to 2010.](image)

- **UH Mānoa**: $8.0
- **UH Hilo**: $12.2
- **UH West O‘ahu**: $2.3
- **UHCCs**: $22.5

All dollar amounts adjusted to 2010 dollars.
Operations and maintenance expenditures have been rising modestly, with the largest percentage increases at the UHCCs and UHWO.

All dollar amounts adjusted to 2010 dollars.
Goal: To produce metrics and goals annually which promote greater efficiency and productivity

Summary of Proposed Categories
1. Cost of Completion
2. Student / Staff Ratios
3. Student Success Rates

Major source of data:
Use common national data, *US Department of Education, Integrated Postsecondary Education Data System (IPEDS)*, to allow for comparisons with peer institutions.
## Peer Institutions

<table>
<thead>
<tr>
<th>Campus</th>
<th>Revision date</th>
<th>Peers</th>
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<tbody>
<tr>
<td>UH Mānoa</td>
<td>2012</td>
<td>Colorado State University; Mississippi State University; Oregon State University; University of Arizona; University of Illinois at Chicago; University of Kentucky; University of New Mexico, Albuquerque; University of South Florida; University of Utah</td>
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<td>UH Hilo</td>
<td>Proposed 2013</td>
<td>California State University-Channel Islands; Delaware State University; Langston University; New Jersey City University; SUNY College of Environmental Science and Forestry; SUNY College at Potsdam; SUNY at Purchase College; Tennessee State University; University of Alaska Southeast; University of Baltimore; University of Washington-Tacoma Campus</td>
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<td>UH West O'ahu</td>
<td>2001</td>
<td>California State University – Monterey Bay; Eastern Oregon University; Great Basin College; Texas A&amp;M University – Texarkana; The Evergreen State College; University of Hawai‘i at Hilo; University of Washington – Bothell Campus; University of Washington – Tacoma Campus</td>
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<td>UHCC System</td>
<td>1998</td>
<td>City College of San Francisco; College of DuPage; Cuyahoga Community College District; Kirkwood Community College; Lane Community College; Mesa Community College; Miami-Dade College; Milwaukee Area Technical College; Montgomery College; Mt. Hood Community College; Nassau Community College; Portland Community College; Saint Louis Community College – Forest Park</td>
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Education and Related (E&R) Spending per Completion

Goal: Increase productivity (more completions per $)
Source: US Department of Education, Integrated Postsecondary Education Data System (IPEDS)

Definitions:

• Completions = Certificates >1 year and all degrees
• E&R Spending = Cost of instruction (salaries and wages, fringe benefits, other expenditures), student services, and the instructional share of academic support, institutional support and operations & maintenance (excludes cost of research, public services and CIP)
Inflation adjusted costs for E&R spending per completion have been relatively stable overtime, with the exception of UH West O‘ahu with its new lower division and UH Hilo with its new College of Pharmacy.

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>UH Mānoa</th>
<th>UH West O‘ahu</th>
<th>UHCC Average</th>
<th>UH Hilo</th>
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<tr>
<td>2000</td>
<td>$81.9</td>
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All dollar amounts adjusted to 2010 dollars. Completion excludes Certificates <1 Year.
In 2010, UH Mānoa’s E&R expenditures per completion were 36% higher than its peers.
UH Hilo’s E&R expenditures per completion increased beginning in 2007, with the establishment of the College of Pharmacy, and in 2010 were 45% higher than its peers.
E&R expenditures per completion have been rising for UH West O‘ahu, but remain 34% below its peers.
The UHCCs E&R expenditures per completion have increased slightly but remain 4% below their peers.

All dollar amounts adjusted to 2010 dollars. Completion excludes Certificates <1 Year.
Student/Staff Ratios

1. FTE Students per FTE Instructional Faculty
2. FTE Students per Executive / Managerial
3. FTE Students per Professional / Technical
4. Student Semester Hours (SSH=credits per class X number of students X number of classes) per FTE Instructional Faculty

Goals:
• Increase ratio of students per instructional faculty comparable to peers
• Increase SSH production per instructional faculty
Sources: IPEDS

Definitions:

FTE students: Full-time plus part-time multiplied by a factor that varies by sector of institution and level of student (IPEDS method)

FTE Instructional Faculty: All faculty whose responsibility is primarily instruction, with an adjustment for part-time faculty.

Executive / Managerial: Persons whose assignments involve management of the institution, or a customarily recognized department or subdivision thereof. Assignments require the performance of work directly related to management policies or general business operations of the institution, department or subdivision.

Professional / Technical: Other Professionals plus Technical and Paraprofessionals (excludes clerical and maintenance workers)

SSH: 12-Month Semester Hours offered (all levels)
FTE students per FTE faculty have increased slightly in recent years and are highest at UHCC (19.4) and lowest at UHM (11.9).
FTE students per FTE faculty measured 11.9 for UH Mānoa and 17.5 for its peers in 2012, or 32% lower than its peers.
UH Hilo’s FTE students per FTE faculty ratio at 14.8 is 10% lower than its peers.
UH West O‘ahu’s ratio has been rising, but FTE students per FTE instructional faculty remain 11% below its peers.

FTE Students per FTE Instructional Faculty
UH West O‘ahu Comparison Group

- Peer Group, 19.7
- UH West O‘ahu, 17.6
UHCCs FTE students per FTE instructional faculty ratio has been rising, but is still 5% below their peers.
FTE students per E/M has been flat at UH Hilo and UH Mānoa but increasing at UHCC and UH West O‘ahu.

FTE Students per Executive / Managerial – UH Units

Academic Year

UHCC Average, 369
UH West O‘ahu, 242
UH Mānoa, 186
UH Hilo, 165
UH Mānoa has 91% more students per E/M than its peers.
UH Hilo has 44% more FTE students per E/M than its peers
UH West O’ahu FTE students per E/M has increased in recent years and in 2012 was 23% higher than its peers.
The UHCCs have 10% more FTE students per E/M than their peers
FTE students per professional staff is the one area where all campuses have exhibited a decreasing ratio.
UH Mānoa, with 9 FTE students per professional staff, is comparable to its peers.

![Graph showing FTE Students per Professional Staff over Academic Years from 2003 to 2012. The graph compares UH Mānoa with its peer group. UH Mānoa consistently has 9 FTE students per professional staff. The peer group has 8.5 FTE students per professional staff.](image-url)
UH Hilo, with about 19 FTE students per professional staff, is comparable to its peers.
UH West O‘ahu, with 18.6 FTE students per professional staff, is comparable to its peers.

FTE Students per Professional Staff
UH West O‘ahu Comparison Group

Academic Year


Peer Group, 22.2
UH West O‘ahu, 18.6
The UHCCs, with the highest ratio among UH units, have 28% fewer FTE students per professional staff than their peers.
Faculty at the UHCCs generate 558 student semester hours per year (students X credit hours carried) while UH Mānoa faculty generate 332
UH Mānoa faculty generate 39% fewer student semester hours per FTE instructional faculty than their peers.
UH Hilo faculty generate 23% fewer student semester hours per FTE instructional faculty than their peers.
UH West O‘ahu faculty generate 30% fewer student semester hours per FTE instructional faculty than their peers.
UHCC faculty generate 23% fewer student semester hours per FTE instructional faculty than their peers.
Student Success Rates

1. IPEDS 150% (6 years for 4 year institutions and 3 years for 2 year institutions) graduation rates for the First-Time Full-Time (FTFT) cohort

2. Retention First Fall to Second Fall (FTFT cohort)

3. Graduation and Success Rates (FTFT cohort)
   - For 4 years, 100% graduation rate from any 4 year
   - For 2 years, 100% graduation rate from any 2 year or transfer to any 4 year by fall of third year

Goal: Increase retention and completion rates
150% graduation rates have been relatively steady but are below the national average.

- National average in 2012:
  - 4-Years: 57.4%
  - 2-Years: 31.2%

Graduation Rates within 150% of Normal Time – UH Units

- UH Mānoa, 54.8%
- UH Hilo, 36.3%
- UHCC Average, 14.9%
UH Mānoa’s six-year graduation rate is slightly below its peers at 54.8%
UH Hilo’s six-year graduation rate is 8.8 percentage points below its peers.
UHCC three-year graduation rates are comparable to their peers at 14.9%

Graduation Rates within 150% of Normal Time
UHCC Comparison Group

Academic Year


UHCC Average, 14.9%
Peer Group, 14.8%
First fall to second fall retention rates have been steady at all campuses, except for UH West O‘ahu.
The first fall to second fall retention rate for UH Mānoa, at 79%, remains slightly below its peers.
UH Hilo first fall to second fall retention rate, at 69%, is slightly below its peers.
UH West O‘ahu, with its new freshman class, has seen retention rates fall.

Retention Rates – Initial Full-Time Cohorts
UH West O‘ahu Comparison Group

Retention data were first collected in the 2004–05 IPEDS Fall Enrollment Survey. First cohort at UH West O‘ahu was Fall 2007.
The UHCC retention rate, at 60%, is comparable to their peers.
Graduation and Success Rate

To be completed
Concluding Remarks

• This is a work in progress
• Comments are welcome
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