Proposed UH Productivity and Efficiency Metrics

Presented on behalf of the UH Officers
July 18, 2014
Work in progress
(Hawaiʻi CC)

UH Strategic Directions

• Hawaiʻi Graduation Initiative
• Hawaiʻi Innovation Initiative
• 21st Century Facilities
• High Performance System of Higher Education
Hawai‘i Graduation Initiative (HGI)

1. Number of degrees and certificates (CA and higher)
2. Student success (IPEDS, APLU-SAM)
3. Gap between above graduation rate and graduation rate for Native Hawaiian students
4. Gap between above graduation rate and graduation rate for PELL eligible students
5. Average unmet need of resident undergraduate students
6. Average total debt per undergraduate completer
7. Tuition as a percent of median household income

Degrees & Certificates of Achievement Earned

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Actual</th>
<th>Current Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>7,835</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>7,996</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>8,084</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>8,291</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>8,988</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>9,628</td>
<td>10,001</td>
</tr>
<tr>
<td>2014</td>
<td></td>
<td>10,507</td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Degrees & Certificates of Achievement Earned Hawai‘i CC

Number of Certificates of Achievement and Higher

Fiscal Year
2008 2009 2010 2011 2012 2013

Hawai‘i CC
346 386 426 405 452 552

UH Mānoa
4,566 4,496 4,414 4,675 4,737 5,784

UH Hilo
588 614 601 731 915 809 794

UH West O‘ahu
180 221 242 301 349 291

UH Community Colleges
2,662 2,753 3,034 3,327 3,645 4,106 3,638

Fiscal Year
Graduation and Success Rates

- First-time, full-time, freshmen student graduation and transfers-out from a 2-year to any 4-year institution is tracked at each campus where they registered as their home campus.
- First-Time Freshman students are first-time classified students
  - 4-year campuses: BA seeking students and excludes DARCH and second BA seeking students
  - CC campuses: Includes Certificate and Associate degree-seeking students.
- Transfer-out from a 2-year to any 4-year students are students who transfer to internal (UH) and external (other than UH) 4-year institutions.
- Full-time attendance status is defined as undergraduate students taking 12 or more semester hours.
- Native Hawaiian includes Hawaiian Race only (Ethnicity = ‘HW’). Does not include Hawaiian Ancestry.
- Pell is received in entry term.
- Success Rates for UHCCs = Graduation Rate + Transfer Out to any 4-year institution rate.
IPEDS Graduation Rates

1. Based upon cohorts of first-time, full-time students.
2. Source: IPEDS GRS and GRS 200 surveys and IRAO tracking tables.
3. Maui College is a four-year campus in the IPEDS universe. Maui College at present does not have first-time baccalaureate degree seeking students. Therefore, certain measures, such as the transfer-out rate, are not available.

Graduation + Transfer Out Rates within 150% of Normal Time

Hawai’i CC (in red) and Comparison Groups

<table>
<thead>
<tr>
<th>Year</th>
<th>Hawai’i CC</th>
<th>UHCC Average</th>
<th>Peer Group</th>
<th>IPEDS Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>47.1%</td>
<td>36.9%</td>
<td>35.7%</td>
<td>40.0%</td>
</tr>
<tr>
<td>2004</td>
<td>38.4%</td>
<td>33.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>37.8%</td>
<td>33.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>37.8%</td>
<td>33.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>37.8%</td>
<td>33.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>37.8%</td>
<td>33.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>37.8%</td>
<td>33.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>37.8%</td>
<td>33.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>37.8%</td>
<td>33.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>37.8%</td>
<td>33.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>37.8%</td>
<td>33.3%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Cohort Graduation Year
Student Achievement Measure

New way of looking at success by including part-time and transfer students. Uses National Student Clearinghouse data to look at transfers and degrees from other institutions

Bachelor’s-seeking cohorts entering in fall 2007:
1. first-time, full-time (cohort one)
2. full-time, transfer-in (cohort two)

Associate/Certificate-seeking cohorts entering in fall 2007:
1. full-time (cohort one)
2. part-time (cohort two)

Source: Student Achievement Measure
### Student Achievement Measure

**UH 2 Year - First-Time at Institution, Part-Time Students Starting Fall 2007 Within 6 Years**

<table>
<thead>
<tr>
<th>Institution</th>
<th>Graduated: Reporting Institution</th>
<th>Enrolled: Reporting Institution</th>
<th>Transferred: Other Institution</th>
<th>Current Status Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haw</td>
<td>38</td>
<td>8</td>
<td>21</td>
<td>33</td>
</tr>
<tr>
<td>Hon</td>
<td>35</td>
<td>5</td>
<td>29</td>
<td>31</td>
</tr>
<tr>
<td>Kap</td>
<td>35</td>
<td>5</td>
<td>37</td>
<td>23</td>
</tr>
<tr>
<td>Kau</td>
<td>45</td>
<td>8</td>
<td>24</td>
<td>23</td>
</tr>
<tr>
<td>Lee</td>
<td>22</td>
<td>10</td>
<td>32</td>
<td>37</td>
</tr>
<tr>
<td>Mau</td>
<td>33</td>
<td>5</td>
<td>29</td>
<td>33</td>
</tr>
<tr>
<td>Win</td>
<td>28</td>
<td>6</td>
<td>30</td>
<td>36</td>
</tr>
</tbody>
</table>

### Graduation and Success Gaps for Native Hawaiian and Pell Students

- **Native Hawaiian** includes Hawaiian Race only (Ethnicity = 'HW'). Does not include Hawaiian Ancestry.
- **Pell** is received in entry term.
Success Rates*: Gap for Full-Time Native Hawaiian Students
UH 2-Year Institutions

First-time, Full-time, Freshmen

100% (2 yrs) Grad Rate Percentage Point Diff

Haw Hon Kap Kau Lee Mau Win

Fall 2011 Fall 2010 Fall 2009 Fall 2008 Fall 2007

150% (3 yrs) Grad Rate Percentage Point Diff

Haw Hon Kap Kau Lee Mau Win

Success Rates*: Gap for Full-Time Pell Students
UH 2-Year Institutions

First-time, Full-time, Freshmen

100% (2 yrs) Grad Rate Percentage Point Diff

Haw Hon Kap Kau Lee Mau Win

150% (3 yrs) Grad Rate Percentage Point Diff

Haw Hon Kap Kau Lee Mau Win

*Success Rates for UHCC's = Graduation Rate + Transfer Out to any 4-year institution rate.
Native Hawaiian includes Hawaiian Race only [Ethnicity = 'HW']. Does not include Hawaiian Ancestry.

* Success Rates for UHCC's = Graduation Rate + Transfer Out to any 4-year institution rate.
Pell earned at entry.
1. **Average Unmet Need** is the average Total Cost of Education amount that is not covered by Scholarships or Grants.

2. Based on students who are Undergraduate, Residents, Full Year (enrolled in Fall and Spring), and has Need.

3. **Total Cost Need headcount** = (Total Cost of Education – Expected Family Contribution (EFC) – Aid from Private Sources) > 0

4. **Unmet Need $ Amount** = Need – Scholarships or Grant Aid Provided

5. **Total cost** = tuition, fees, room & board (anywhere), books, supplies, computers, transportation, personal expenses, and other educational costs.

### Average Unmet Need (Total Cost) of Resident Students

- **AY08-09**: [Amount]
- **AY09-10**: [Amount]
- **AY10-11**: [Amount]
- **AY11-12**: [Amount]
- **AY12-13**: [Amount]

### Average Unmet Need (Total Cost) of Resident Students – Full Year Students

- **MAN**: [Amount]
- **HIL**: [Amount]
- **WDA**: [Amount]
- **HAW**: [Amount]
- **HON**: [Amount]
- **KAP**: [Amount]
- **KAU**: [Amount]
- **LEE**: [Amount]
- **MAU**: [Amount]
- **WIN**: [Amount]

*Note: The table and chart show the average unmet need for different years and institutions.*
Percent of Direct Cost Met of Undergraduate Resident Students

1. **Percent of Direct Cost met** is the proportion of students whose Direct Cost of Education amount has been covered by Scholarships or Grants.

2. Based on students who are Undergraduate, Residents, Full Year (enrolled in Fall and Spring), and has Need.

3. **Direct Cost Need headcount** = (Direct Cost – Expected Family Contribution (EFC) – Aid from Private Sources) > 0

4. **Unmet Need headcount** = (Need – Scholarship or Grant Aid Provided) > 0

5. **Met Need headcount** = Direct Cost Need headcount – Unmet Need headcount

6. **Direct cost** = tuition, fees, books, supplies, and transportation costs.

---

Percent of Direct Cost Met of Undergraduate Resident Students – Full Year students

[Bar graph showing percent of direct cost met for different years and institutions]
Average Total Debt Per Undergraduate Completer

1. Based on Common Data set survey methodology
   Includes:
   • First-time, undergraduate students at the institution
   • Only loans made to student while enrolled at the institution
   Excludes:
   • Transfer-in students
   • Money borrowed at other institutions
   • Parent PLUS loans
   • Pharmacy BA degrees since Pharmacy BA students are graduate degree seekers

2. Based on first degree earned

3. Adjusted for inflation using CPI for Honolulu
   where FY11-12 = 100 (Source: U.S. Bureau of Labor Statistics)

Average Total Debt Per Undergraduate Completer
– UH 2-Year Institution (Adjusted for Inflation)
Percent of Non-Transfer Graduates with Debt

*Based on first degree earned. Students that were awarded a degree earlier than an aid year are not counted in subsequent years.
*Includes summer.

Total Tuition and Fees as Percentage of State Median Household Income

- Calculations made using current dollars.
- Tuition and fees based on Undergraduate Full-time Resident rates.

Sources


UH Tuition ad Fees data: UH Executive Policy E6.201 and UH Tuition and Fees Report, Institutional Research and Analysis Office

- Peer and Benchmark data: IPEDS Data Center
Total Tuition and Fees as Percentage of State Median Household Income

**UH Units**

- UH Mānoa Undergraduate, 15%
- UH Hilo Undergraduate, 10%
- UH West O'ahu, 9%
- UHCC Average, 4%

Source: U.S. Census Bureau; UH Executive Policy E6.201.

---

Total Tuition and Fees as Percentage of State Median Household Income

**Hawai'i CC and Comparison Groups**

- Peer Group, 7%
- IPEDS Group, 6%
- UHCC Average, 4%
- Hawaii CC, 4%

Source: U.S. Census Bureau; UH Executive Policy E6.201.
Hawai‘i Innovation Initiative (HI2)

1. Number of invention disclosures, patents, licenses and start-up companies and jobs
2. Total extramural funds
3. Number of STEM degrees

Patents, Invention Disclosures, and Licenses and Start-ups

Source: UH Office of Technology Transfer and Economic Development.
Total Extramural Funds

- Includes research and non-research awards recorded in Office of Research Services extramural fund award database.
Total Extramural Funds, UHCCs

Source: Office of Research Services. Includes awards recorded in ORS extramural fund award database.

STEM Degrees Awarded

- Includes Certificates of Achievement and higher.
- Includes programs previously identified as STEM by UH, plus programs identified as STEM by the Department of Homeland Security.
**STEM Degrees Awarded, UHCCs**

Includes Certificates of Achievement and higher.

**STEM Degrees Awarded**

Includes Certificates of Achievement and higher.
21st Century Facilities (21CF)

1. Maintenance backlog
2. Electricity purchased per gross square foot
3. Gallons of water purchased per gross square foot
4. Reported number of crimes on campus

Deferred Maintenance

• Includes facilities that have failing sub-systems, or sub-systems that are operating beyond their useful lifetime.
Deferred Maintenance

Source: Office of Capital Improvements. Notes: UH West O'ahu does not have any deferred maintenance. Includes community college system backlog.

Deferred Maintenance

Source: Office of Capital Improvements.
Cost of Utilities:
kWh and Gallons of Water Purchased

- Based on gross square footage as reported by campuses
- Purchased amounts based on campus utility records.

Cost of Utilities:
kWh Purchased Per Square Foot Per Year

UH Units

Source: Campus records.
Based on gross square footage.
UH Mānoa gross square footage based on FY 2013 information. Accurate historical GSF not available.
UH West O’ahu also includes landscaped square footage.
Cost of Utilities:
\textit{kWh} Purchased Per Square Foot, UHCCs

\begin{itemize}
\item \textbf{kWh} Purchased Per Square Foot per Fiscal Year
\item HAW: 10.9, 10.0, 6.4, 7.6, 6.9, 9.0, 11.0, 13.0
\item HON: 13.0, 11.5, 7.5, 7.5, 7.5, 7.5, 11.9, 13.1
\item KAP: 11.1, 14.1, 17.0, 14.9, 14.9, 13.1, 17.0, 13.1
\item KAU: 10.0, 13.0, 7.5, 7.5, 7.5, 7.5, 11.9, 13.1
\item LEE: 14.9, 14.9, 14.9, 14.9, 14.9, 14.9, 14.9, 14.9
\item MAU: 15.5, 15.5, 15.5, 15.5, 15.5, 15.5, 15.5, 15.5
\item WIN: 14.9, 14.9, 14.9, 14.9, 14.9, 14.9, 14.9, 14.9
\end{itemize}

\textit{Note}: Source: Campus records. Based on gross square footage.

---

Cost of Utilities:
\textit{Gallons of Water} Purchased Per Square Foot Per Year

\begin{itemize}
\item UH Units
\item \textbf{UH} West O'ahu, 0.12
\item \textbf{UH} Mānoa, 0.06
\item \textbf{UH} Hilo, 0.04
\item \textbf{UHCC} Average, 0.09
\end{itemize}

\textit{Note}: Source: Campus records. Based on gross square footage.

UH Mānoa gross square footage based on FY 2013 information. Accurate historical GSF not available.

UH West O'ahu also includes landscaped square footage. UH Hilo FY 09 usage is estimated.

The rail project has an agreement with Leeward CC to tap into its water supply during construction, resulting in higher consumption levels in FY 12 & FY 13.
Cost of Utilities:
Gallons of Water Purchased Per Square Foot Per Year, UHCCs

Number of Criminal Offenses, On-Campus

Criminal Offenses On-Campus includes on-campus student housing facilities.

Data represent alleged criminal offenses reported to campus security authorities and/or local law enforcement agencies.

- Data do not reflect prosecutions or convictions for crimes.
- Data cannot be compared against FBI’s Uniform Crime Reporting System which only collects statistics from police authorities.

Data pulled from the U.S. Department of Education, Office of Postsecondary Education, on June 3, 2014, as reported by campuses in accordance with the Clery Act. (http://www.ope.ed.gov/security/)
- Source data can vary depending on the date pulled.
Number of Criminal Offenses On-Campus, University of Hawai‘i, 2010-2012

Total Number of Criminal Offenses On-Campus
Hawai‘i Community College

1These are criminal offenses that are reported by the campuses to the U.S. Department of Education in accordance with the Clery Act.
# High Performance System of Higher Education

1. Cost per completion  
2. SSH/instructional faculty FTE  
3. FTE Students/FTE all staff ratios  
4. FTE students/FTE E&M ratios  
5. Number of programs with low number of graduates per year  
6. Classroom utilization  
7. Number of Native Hawaiian employees (faculty/staff/administrators)  
8. Student enrollment in Native Hawaiian courses in language and culture  
9. Number of international undergraduate students enrolled in credit courses

## Education & Related Expenditures per Completion

Source: IPEDS Finance survey.

1. Education and Related expenditures consist of Instruction and Student Service expenditures, plus a pro-rata share of expenditures for Academic Support, Institutional Support and Operation & Maintenance of Plant.
2. Finance data for Fiscal Year 2010 and later have been adjusted to account for changes in the IPEDS collection, so that data as reported on the IPEDS New Aligned Form are comparable to data for prior years.
3. Completions include all degrees as well as certificates with duration of one year or more (Certificate of Achievement and above).
Education & Related Expenditures per Completion

Hawai‘i CC and Comparison Groups

Fiscal Year

All dollar amounts adjusted to 2013 dollars. Completion excludes Certificates <1 Year.

Full-Time Equivalent (FTE) Calculations

Source: IPEDS Enrollment survey.

1. FTE calculations follow the IPEDS methodology.

2. The calculation for FTE student is the sum of the full-time headcount (full-time as defined by the institution) plus a share of the part-time headcount. The share of part-time is calculated using a constant which varies by the level of the institution (2-yr or 4-yr) and the level of the student (undergraduate, graduate or professional practice).

3. FTE for faculty and staff is the sum of the full-time headcount plus one-third of the part-time headcount.
Faculty and Staff Definitions

Source: IPEDS Human Resources Survey.

1. Instructional faculty is a derived variable in the IPEDS Data Center. It includes faculty whose primary focus is instruction, as well as those whose focus is instruction combined with research and/or public service.

2. Executive / Managerial is a primary function or occupational activity category used to classify persons whose assignments require management of the institution. Assignments require the performance of work directly related to management policies or general business operations of the institution, department or subdivision.

3. All Staff includes Professional Support/Service, Technical and Paraprofessional, Clerical and Secretarial, Skilled Crafts and Service/Maintenance workers.

4. Student Semester Hours (SSH) are the total number of credit hours all students are engaged in during the fiscal year (July 1 to June 30). Note that the graduate total includes professional practice for years prior to AY 2002-03 and for AY 2009-10 to AY 2010-11. For all other years professional practice SSH are excluded.

12-Month SSH per FTE Instructional Faculty

Hawai'i CC and Comparison Groups

- Peer Group, 792
- IPEDS Group, 766
- UHCC Average, 544
- Hawai'i CC, 489

Academic Year

FTE Students per FTE All Staff

Hawai’i CC and Comparison Groups

- IPEDS Group, 23.7
- Peer Group, 20.7
- UHCC Average, 19.4
- Hawai’i CC, 19.3


Academic Year

*Non-faculty, non-executive/managerial

FTE Students per FTE Executive / Managerial Staff

UH Units

- UHCC Average, 246
- UH West O'ahu, 163
- UH Hilo, 121
- UH Mānoa, 111


Academic Year

Beginning AY 2012-13, IPEDS changed the SOC coding in the Human Resources survey. The declines shown are due to the higher number of Managerial staff now being included.
FTE Students per FTE Executive / Managerial Staff

### Hawai‘i CC and Comparison Groups

- **UHCC Average, 246**
- **Peer Group, 224**
- **Hawai‘i CC, 181**
- **IPEDS Group, 156**

![Graph](image)

### Number of Programs with Low Number of Graduates Per Year

**Programs Included**
- Undergraduate programs with <10 grads/yr
- Master programs with ≤5 grads/yr
- Doctorate programs with ≤3 grads/yr

**Types of programs**
- Includes programs with outcome types of Certificate of Achievement (CA) and above.
- Includes programs approved by the UH BOR by effective term Fall 2009. Programs approved after are excluded.
- Excludes programs now terminated or stopped-out for any time during 3 year period.

**Methodology**
- 3 year average of degree or certificates awarded from FY 2010 to FY 2012 and FY 2011 to FY 2013 by major.

**Source:** Banner Operational Data Store Iro Degree
Number of Programs with Low Number of Graduates Per Year

FY 2012 & 2013: 3 year rolling avg
Programs Included
Undergraduate programs with <10 grads/yr
Master programs with ≤5 grads/yr
Doctorate programs with ≤3 grads/yr

Classroom Utilization
(Definitions to be refined and data to be collected)

- Usage calculated for two time periods: 8:00 a.m. to 5:00 p.m.
  and 5:01 p.m. to 9:00 p.m.
- Usage calculated as percent of each time period that room is in use.
- Two types of rooms:
  - Classrooms (all traditional classrooms regardless of organizational occupancy)
  - Labs and other instructional spaces (labs, shops, etc. where instruction takes place).
- When space is shared, the campuses will decide on how space is allocated.
Number of Native Hawaiian Employees and Graduate Assistants (Faculty/Staff/Administrators)

- Employees who self-identified as Hawaiian or Part-Hawaiian per UH-EEO data. Casual employees are excluded.
- Source: UH Human Resource Data Mart
Number of Native Hawaiian Employees and Graduate Assistants (Faculty/Staff/Administrators) UHCCs

These are employees who self-identified as Hawaiian or Part-Hawaiian per UH-EEO data. Casual employees are excluded.

Student Enrollment in Courses in Native Hawaiian Language and Culture

- Under discussion with campuses
Number of International Undergraduate Students Enrolled in Credit Courses

- International student is a student who self-identified him or herself as a non-citizen (IRO_BASE Citizenship Type = ‘N’).

Number of International Undergraduate Students Enrolled in Credit Courses

<table>
<thead>
<tr>
<th>Year</th>
<th>UHCCs</th>
<th>UH West O’ahu</th>
<th>UH Hilo</th>
<th>UH Mānoa</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>741</td>
<td>622</td>
<td>9</td>
<td>182</td>
</tr>
<tr>
<td>2010</td>
<td>1,429</td>
<td>522</td>
<td>8</td>
<td>178</td>
</tr>
<tr>
<td>2011</td>
<td>1,352</td>
<td>468</td>
<td>7</td>
<td>175</td>
</tr>
<tr>
<td>2012</td>
<td>1,446</td>
<td>435</td>
<td>6</td>
<td>167</td>
</tr>
<tr>
<td>2013</td>
<td>1,486</td>
<td>440</td>
<td>10</td>
<td>162</td>
</tr>
</tbody>
</table>

International student = students who identified themselves as non-citizens. Source: IRO_BASE Citizenship Type = ‘N’.
Number of International Undergraduate Students Enrolled in Credit Courses, UHCCs

International student = students who identified themselves as non-citizens. Source: IRO_BASE Citizenship Type = ‘N’.