University of Hawai’i – West O’ahu
Peer Institution Revision 2019

Dr. Jeffrey Moniz, Vice Chancellor of Academic Affairs
Dr. Alan Rosenfeld, Associate Vice Chancellor of Academic Affairs
John Stanley, Director of Institutional Research
Christi Palacat, Undergraduate Research Assistant

Version: 4.1: May 6, 2019
What are peer institutions?

- Peer – similar role, scope, mission

- Other types of comparison groups
  - Competitor – students, faculty, finances
  - Aspirational – At UH, we call these “benchmark” institutions; those to emulate
  - Predetermined
    - Natural – athletic conference, region (WAC)
    - Traditional – historical (Ivy)
    - Jurisdictional – political or legal jurisdiction (state lines)
    - Classification – national reporting (Carnegie)
Why have peer institutions?

- Strategic Planning
  - Inform policy
  - Accreditation
- Performance Benchmarking
  - Faculty compensation
  - Teaching loads
  - Tuition schedules
  - Budget alignment
  - Used by other institutions for performance comparison
  - Surveys supply peer lists to prospective students and parents to compare cost and graduation rates
• Reminder: Peer = similar role, scope, & mission.

UH West Oahu current peers:

- California State University – Monterey Bay*
- Eastern Oregon University*
- Great Basin College
- Texas A&M University – Texarkana*
- The Evergreen State College*
- University of Hawaii – Hilo*
- University of Washington – Bothell Campus*
- University of Washington – Tacoma Campus*

*indicates Carnegie Classification 2015 (Basic): Master’s institutions
Problems with current peer list

>15 years old. UH West Oahu still upper two-year at that time

<table>
<thead>
<tr>
<th></th>
<th>Total Enrollment (Fall 2017)</th>
<th>Total Undergrad. Enrollment (Fall 2017)</th>
<th>12 month SSH: Undergraduate Instruction (AY 2016-17)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UHWO</td>
<td>3,082</td>
<td>3,082</td>
<td>63,345</td>
</tr>
<tr>
<td>Current Peer Avg* (Min; Max)</td>
<td>4,175 (2,066; 7,584)</td>
<td>3,757 (1,610; 6,764)</td>
<td>124,751 (36,855; 237,747)</td>
</tr>
<tr>
<td>Manoa; Hilo</td>
<td>17,612; 3,539</td>
<td>12,881; 2,971</td>
<td>371,541; 80,175</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th># Students Receiving a Bachelor’s Degree (FY 2016-17)</th>
<th>Retention Rate (2016 cohort)</th>
<th>4-Yr Graduation Rate (2011 cohort)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UHWO</td>
<td>612</td>
<td>65</td>
<td>17</td>
</tr>
<tr>
<td>Current Peer Avg* (Min; Max)</td>
<td>882 (75; 1,703)</td>
<td>71 (57; 88)</td>
<td>24 (0; 43)</td>
</tr>
<tr>
<td>Manoa; Hilo</td>
<td>3,023; 712</td>
<td>79; 68</td>
<td>28; 14</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>6-Yr Graduation Rate (2011 cohort)</th>
<th>% Full-time first-time undergraduates awarded Pell (AY 2016-17)</th>
<th>Core Expenses (FY 2016-17)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UHWO</td>
<td>39</td>
<td>35</td>
<td>48,550,478</td>
</tr>
<tr>
<td>Current Peer Avg* (Min; Max)</td>
<td>43 (10; 64)</td>
<td>42 (34; 57)</td>
<td>75,585,597 (26,035,683; 175,918,286)</td>
</tr>
<tr>
<td>Manoa; Hilo</td>
<td>60; 41</td>
<td>28; 49</td>
<td>917,449,892; 107,556,102</td>
</tr>
</tbody>
</table>

*average includes UHWO
What are the 10 (or n) most similar institutions to UH West Oahu?
Relevant previous research

Selecting peers

The Peer Selection Process Continuum

Data ↔ Judgment
List of key meetings and timeline

**September 20, 2017**: Presented overview of peer study at Chancellor’s senior staff meeting and Chancellor’s division chair’s meeting (minutes taken).

**November 15, 2017**: Presented descriptive statistics of IPEDS data at Chancellor’s senior staff meeting and Chancellor’s division chair’s meeting (minutes taken).

**December 1, 2017**: Presented overview of peer analysis ‘V1’ at UH West Oahu faculty senate (minutes taken, video recorded). Hosted an open house to all faculty and staff after faculty senate to present a complete analysis (including cluster analysis) of peer selection. Received feedback and incorporated it in to future iterations of the analysis.

**February 13, 2018**: Presented peer revision analysis ‘V2’ to senior executive management.

**February 21, 2018**: Presented peer analysis ‘V2’ at Chancellor’s senior staff meeting and Chancellor’s division chair’s meeting (minutes taken). Received additional feedback and incorporated it in to a third version of analysis.

**The remainder of 2018**: Work put on hold due to campus-wide strategic planning initiatives.

**January 15th and 16th, 2019**: Presented peer analysis ‘V3’ at Chancellor’s senior staff meeting and Chancellor’s division chair’s meeting (minutes taken).

**May 6, 2019**: The final peer analysis ‘V4.1’ and corresponding peer group was submitted to UH VPAPP as a request for official approval.
IPEDS Descriptive Statistics
The Integrated Postsecondary Education Data System (IPEDS) is a system of interrelated surveys conducted annually by the National Center for Education Statistics (NCES), a part of the Institute for Education Sciences within the United States Department of Education. IPEDS consists of twelve interrelated survey components that are collected over three collection periods (Fall, Winter, and Spring) each year as described in the Data Collection and Dissemination Cycle. The completion of all IPEDS surveys is mandatory for all institutions that participate in, or are applicants for participation in, any federal financial assistance program authorized by Title IV of the Higher Education Act of 1965, as amended. [1] Statutory Requirements For Reporting IPEDS Data.

Data collected in IPEDS:
- Institutional characteristics
- Institutional prices
- Admissions
- Enrollment
- Student financial aid
- Degrees and certificates conferred (completions)
- Student persistence and success (retention and graduation rates)
- Institutional resources
<table>
<thead>
<tr>
<th>Institution characteristics selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPEDS Universe ................................................................. 7,121</td>
</tr>
<tr>
<td>U.S. Public 4 year or above, degree granting ........................................ 756</td>
</tr>
<tr>
<td>Carnegie Classifications = Baccalaureate Diverse Fields and Arts &amp; Sciences; primarily baccalaureate or above .................. 87</td>
</tr>
<tr>
<td>Title IV participating, institutional Size: 1,000 – 4,999 .................. 60</td>
</tr>
<tr>
<td>+ Institutional Size: 5,000 - 9,999 ......................................................... 69</td>
</tr>
<tr>
<td>Has full-time first-time undergraduates; all programs not offered completely online ......................... 67</td>
</tr>
<tr>
<td>Final = 67 Institutions</td>
</tr>
</tbody>
</table>

(52 from Carnegie Baccalaureate Diverse Fields; 15 from Carnegie Baccalaureate Arts/Sciences)

Data retrieved March 28, 2019
Total enrollment and undergraduate enrollment

IPEDS FALL 2017

UH West Oahu = 3,082

UH West Oahu = 3,082
First-time freshmen and transfer-in enrollment

IPEDS FALL 2017

Full-time first-time degree/certificate-seeking undergraduate (current year GRS cohort) (EF2017D)

- UH West Oahu = 269

Transfer-in degree/certificate-seeking undergraduate enrollment (DEVEF2017)

- UH West Oahu = 585
Percent of part-time and percent of undergraduates ages 18-24

IPEDS FALL 2017

% Part Time UG Enrollment 2017

- UH West Oahu = 48%

% of undergraduate enrollment 18-24 (DRVEF2017)

- UH West Oahu = 50%
Percent of undergraduate ages 25-64 and out-of-state enrollment

IPEDS FALL 2017

Percent of undergraduate enrollment 25-64 (DRVEF2017)

Mean = 10.75
Std. Dev. = 12.239
N = 67

Percent of first-time undergraduates - out-of-state (DRVEF2017)

Mean = 17.45
Std. Dev. = 13.79
N = 56

UH West Oahu = 40%
UH West Oahu = 2%
Continuing and graduate enrollment

IPEDS FALL 2017

Continuing degree/certificate-seeking undergraduate enrollment (DRVEF2017)

Mean = 1816.43
Std. Dev. = 1209.259
N = 67

Frequency

0 2000 4000 6000

UH West Oahu = 1,880

Graduate enrollment (DRVEF2017)

Mean = 75.42
Std. Dev. = 103.558
N = 67

Frequency

0 100 200 300 400

UH West Oahu = 0
Business administration and education undergraduate enrollment

IPEDS Fall 2017

Grand total (EF2016CP 52.0000-Business Management and Administrative Services Undergraduate total)

- UH West Oahu = 234

Grand total (EF2016CP 13.0000-Education Undergraduate total)

- UH West Oahu = 150
STEM undergraduate enrollment

IPEDS Fall 2017

UH West Oahu = 0
Admissions selectivity and yield (first-time freshmen)

IPEDS FALL 2017

UH West Oahu = 79%

UH West Oahu = 34%
Percent of first-time full-time undergraduates receiving financial aid

IPEDS FY 2016-17

Percent of full-time first-time undergraduates awarded any financial aid (SFA1617)

- UH West Oahu = 62%

Percent of full-time first-time undergraduates awarded federal grant aid (SFA1617)

- UH West Oahu = 35%
Percent of first-time full-time undergraduates receiving financial aid

UH West Oahu = 35%

UH West Oahu = 44%
Degrees awarded and four-year graduation rate

IPEDS Note: 4-yr graduation rate is based on the 2011 cohort of first-time full-time freshmen.

UH West Oahu = 623
UH West Oahu = 17%
Five-year and six-year graduation rate

Note: 5-yr and 6-yr graduation rates are based on the 2011 cohort of first-time full-time freshmen

UH West Oahu = 33%

UH West Oahu = 39%
Retention rate

Note: The retention rate is based on the 2016 cohort of first-time full-time freshmen

UH West Oahu = 65%
In-state tuition

IPEDS AY 2017-18

Published in-state tuition 2017-18 (IC2017_AY)

UH West Oahu = $7,200

Mean = 7717.83
Std. Dev. = 2295.79
N = 87
Distance education

IPEDS FALL 2017

Percent of undergraduate students enrolled exclusively in distance education courses (DRVEF2017)

- UH West Oahu = 29%

Percent of undergraduate students enrolled in some but not all distance education courses (DRVEF2017)

- UH West Oahu = 38%
Distance education

IPEDS FALL 2017

Percent of undergraduate students not enrolled in any distance education courses (DRVEF2017)

UH West Oahu = 32%
Budget

IPEDS FY 2016-17

UH West Oahu = $44,958,120

Mean = 4955526.05
Stdev. = 2463654.44
N = 59

UH West Oahu = $48,550,478

Mean = 47063954.01
Stdev. = 20462048.50
N = 50
Total employees and non-instructional staff

IPEDS FALL 2017

Total employees (EAP2017 All staff)

- UH West Oahu = 344

Full-time non-instructional staff - number (SAL2017_NIS)

- UH West Oahu = 160
Variables included in the peer selection analysis

- **Freshmen Cohort Characteristics**
  - Retention and graduation rates
  - Acceptance rate and admissions yield
  - # of Freshmen

- **Undergraduate Demographics**
  - # Undergraduates (part-time, transfers, continuing, out-of-state, etc)
  - # Bachelor degrees awarded
  - # Undergraduates ages 25-64
  - % Enrolled in distance education

- **Institutional Size, Scope, Mission, Budget**
  - Total Enrollment, BUSA enrollment
  - Total revenues, expenses
  - Tuition and fees as % of Revenues
  - # I-faculty, # of employees
  - SSH per faculty
  - Expenses per BA completion

+ many conversations with faculty, staff, and administration to determine additional parameters...
Data preprocessing

• Considering reliability & validity of data
• Standardization
• Random ordering
• Address outliers (noise handling) & missing data
• Descriptive statistics
• Dimension reduction
• Statistical clustering is the most commonly used methodology in peer selection.

• Clustering is a statistical procedure that combines individual cases into homogeneous groups, called clusters, so that distances between clusters are maximized and distances within clusters are minimized.

• Several different clustering methods (i.e. hierarchical, two-step)

• Supporting methods to clustering include factor analysis and discriminant function analysis
• Choose clustering procedure
  – Hierarchical Agglomerative Clustering (UH Manoa)
  – 2-step sequential (UH West Oahu)

• Choose method for forming groups
  – Between-Groups Linkage (HAC) (UH Manoa)
  – Within-Groups Linkage (HAC)
  – Nearest Neighbor/Furthest Neighbor (HAC)
  – Bayesian Information Criterion (2SS)
  – Akaike Information Criterion (2SS) (UH West Oahu)

• Choose statistic to measure distance
  – Euclidian
  – Log-likelihood (UH Manoa & UH West Oahu)
  – Pearson correlation
  – Cosine
IPEDS Cluster Analysis Results
A two-step cluster analysis was employed with a fixed seven cluster group solution.

UH West Oahu’s Cluster Group #4, N=15
Ten data elements were chosen in the areas of freshmen cohort performance, institutional scope and mission, and institutional size and budget. The graph below measure the influence of each IPEDS variable in determining cluster group membership.
Cluster Group #4 relative and absolute box plots

<table>
<thead>
<tr>
<th>Metric</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. Students (Total)</td>
<td></td>
</tr>
<tr>
<td>12- Month SSH: Undergraduate Instruction</td>
<td></td>
</tr>
<tr>
<td>Core Expenses</td>
<td></td>
</tr>
<tr>
<td>Core Revenues</td>
<td></td>
</tr>
<tr>
<td>No. Employees</td>
<td></td>
</tr>
<tr>
<td>No. BA Degrees Awarded</td>
<td></td>
</tr>
<tr>
<td>No. I-Faculty</td>
<td></td>
</tr>
<tr>
<td>Six-Year Grad Rate (2017)</td>
<td></td>
</tr>
<tr>
<td>Retention Rate (3-yr avg.)</td>
<td></td>
</tr>
<tr>
<td>Percent UG Some DE Enrollment</td>
<td></td>
</tr>
</tbody>
</table>
Cluster Group #4 rank ordering

**Final step:** Schools in Cluster Group #4 were separated into two groups: WUE member schools and non-WUE schools. Next, schools were rank-ordered according to 6-year graduation rates. All WUE member schools were admitted to the peer group. Non-WUE schools with less than 30% six-year graduation rates were excluded.

<table>
<thead>
<tr>
<th>Institution Name</th>
<th>Carnegie Class.</th>
<th>State</th>
<th>WUE Member</th>
<th>Six-Year Graduation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fort Lewis College</td>
<td>Arts &amp; Sciences</td>
<td>Colorado</td>
<td>Yes</td>
<td>40</td>
</tr>
<tr>
<td>University of Hawaii-West Oahu</td>
<td>Diverse Fields</td>
<td>Hawaii</td>
<td>Yes</td>
<td>39</td>
</tr>
<tr>
<td>Lewis-Clark State College</td>
<td>Diverse Fields</td>
<td>Idaho</td>
<td>Yes</td>
<td>23</td>
</tr>
<tr>
<td>Nevada State College</td>
<td>Diverse Fields</td>
<td>Nevada</td>
<td>Yes</td>
<td>16</td>
</tr>
<tr>
<td>Lander University</td>
<td>Diverse Fields</td>
<td>South Carolina</td>
<td>No</td>
<td>42</td>
</tr>
<tr>
<td>Shepherd University</td>
<td>Arts &amp; Sciences</td>
<td>West Virginia</td>
<td>No</td>
<td>42</td>
</tr>
<tr>
<td>University of South Carolina-Aiken</td>
<td>Diverse Fields</td>
<td>South Carolina</td>
<td>No</td>
<td>41</td>
</tr>
<tr>
<td>Indiana University-Kokomo</td>
<td>Diverse Fields</td>
<td>Indiana</td>
<td>No</td>
<td>39</td>
</tr>
<tr>
<td>University of Wisconsin-Parkside</td>
<td>Arts &amp; Sciences</td>
<td>Wisconsin</td>
<td>No</td>
<td>34</td>
</tr>
<tr>
<td>University of Arkansas at Pine Bluff</td>
<td>Diverse Fields</td>
<td>Arkansas</td>
<td>No</td>
<td>29</td>
</tr>
<tr>
<td>West Virginia State University</td>
<td>Arts &amp; Sciences</td>
<td>West Virginia</td>
<td>No</td>
<td>26</td>
</tr>
<tr>
<td>Rogers State University</td>
<td>Diverse Fields</td>
<td>Oklahoma</td>
<td>No</td>
<td>25</td>
</tr>
<tr>
<td>Shawnee State University</td>
<td>Diverse Fields</td>
<td>Ohio</td>
<td>No</td>
<td>24</td>
</tr>
<tr>
<td>Kentucky State University</td>
<td>Diverse Fields</td>
<td>Kentucky</td>
<td>No</td>
<td>21</td>
</tr>
<tr>
<td>University of Maine at Augusta</td>
<td>Diverse Fields</td>
<td>Maine</td>
<td>No</td>
<td>15</td>
</tr>
</tbody>
</table>

*Non-WUE Schools*
New Peer Group

1. Fort Lewis College*^w
2. Indiana University-Kokomo
3. Lander University*
4. Lewis-Clark State College*^w
5. Nevada State College*^w
6. Shepherd University^*
7. University of Hawaii-West Oahu*^w
8. University of South Carolina-Aiken*
9. University of Wisconsin-Parkside*^w

* indicates Title III eligible institutions
^ indicates Carnegie Classification: Arts & Sciences institutions
w indicates WUE member institution
<table>
<thead>
<tr>
<th></th>
<th>UH WEST OAHU</th>
<th>OLD PEER AVERAGE</th>
<th>NEW GROUP AVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Enrollment</td>
<td>3,082</td>
<td>4,175</td>
<td>3,530</td>
</tr>
<tr>
<td>Number of I-Faculty (9,10,11,12 mo.)</td>
<td>87</td>
<td>153</td>
<td>137</td>
</tr>
<tr>
<td>12-month Total SSH per I-Faculty FTE</td>
<td>728</td>
<td>648</td>
<td>682</td>
</tr>
<tr>
<td>Bachelors Awarded</td>
<td>623</td>
<td>882</td>
<td>585</td>
</tr>
<tr>
<td>4 year Grad Rate</td>
<td>17</td>
<td>24</td>
<td>17</td>
</tr>
<tr>
<td>5 year Grad Rate</td>
<td>33</td>
<td>38</td>
<td>31</td>
</tr>
<tr>
<td>6 year Grad Rate</td>
<td>39</td>
<td>43</td>
<td>35</td>
</tr>
<tr>
<td>Retention Rate</td>
<td>65</td>
<td>71</td>
<td>64</td>
</tr>
<tr>
<td>Core Expenses (in millions)</td>
<td>$49</td>
<td>$76</td>
<td>$47</td>
</tr>
<tr>
<td>Core Expenses per Completion (in thousands)</td>
<td>$78</td>
<td>$119</td>
<td>$82</td>
</tr>
</tbody>
</table>
- Public, interactive dashboard for conducting benchmarking analysis.

- Allows comparison of UH West Oahu with 67 similarly sized, public baccalaureate colleges as well as limiting comparisons to the new peer group.
Questions?

Dr. Jeffrey Moniz, Vice Chancellor for Academic Affairs
jmoniz@hawaii.edu

Dr. Alan Rosenfeld, Associate Vice Chancellor for Academic Affairs
alan3@hawaii.edu

John Stanley, Director of Institutional Research
jstanley@hawaii.edu