

# Leveraging Data Visualization to Enhance Benchmarking Reports

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TAIR Conference XLII • March 1 – 4, 2020, San Antonio, TX

# What is benchmarking?

- Benchmarking compares an institution's organizational activities and key performance indicators with those of other institutions in order to provide context and gauge outcomes.
- Typically includes a combination of data collection, statistical analysis, and subjective judgment.

# Benchmarking attempts to answer the following questions

1. How well are we doing compared to others?
2. How good do we want to be?
3. Who is doing it the best (i.e., value-added)?
4. How do they do it?
5. How can we adapt what they do to our institution?
6. How can we be better than the best?

# Who are your peer institutions?

Peer – similar role, scope, mission

“The success or failure of inter-institutional comparisons hinges upon the process of selecting peer institutions. This can be one of the most political processes with which the institutional researcher will have to deal”.

(Teeter and Brinkman in *The Primer for Institutional Research*)

# Benchmarking requirements



*WASC Senior College and University Commission*

## **Standard 2, CFR 2.10**

“The institution disaggregates data according to racial, ethnic, gender, age, economic status, disability, and other categories, as appropriate. The **institution benchmarks its retention and graduation rates against its own aspirations as well as the rates of peer institutions.**”

## **Standard 4, CFR 4.6**

The **institution periodically engages its multiple constituencies, including the governing board, faculty, staff, and others, in institutional reflection and planning processes that are based on the examination of data and evidence.** These processes assess the institution’s strategic position, articulate priorities, examine the alignment of its purposes, core functions, and resources, and define the future direction of the institution.

# Trends in the use of benchmarking

1. Key performance indicators (KPIs) used increasingly in college rankings, accreditation reports, national accountability systems, and state-support funding formulas for public colleges.
2. Proliferation of public databases designed to increase transparency and report school performance (i.e., IPEDS, College Scorecard, Voluntary System of Accountability, The Opportunity Insights Project).

# Examples of benchmarking data sources



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# IPEDS Data Feedback Report & College Scorecard

**NATIONAL CENTER FOR EDUCATION STATISTICS**

## IPEDS DATA FEEDBACK REPORT 2018



**What is IPEDS?**  
 The Integrated Postsecondary Education Data System (IPEDS) is a system of survey components that collects data from about 7,000 institutions that provide postsecondary education across the United States. IPEDS collects institution-level data on student enrollment, graduation rates, student charges, program completions, faculty, staff, and finances.

These data are used at the federal and state level for policy analysis and development; at the institutional level for benchmarking and peer analysis; and by students and parents, through the College Navigator (<http://collegenavigator.ed.gov>), an online tool to aid in the college search process. For more information about IPEDS, see <http://nces.ed.gov/ipeds>.

**What is the Purpose of This Report?**  
 The Data Feedback Report is intended to provide institutions a context for examining the data they submitted to IPEDS. The purpose of this report is to provide institutional executives a useful resource and to help improve the quality and comparability of IPEDS data.

**What is in This Report?**  
 The figures in this report provide a selection of indicators for your institution to compare with a group of similar institutions. The figures draw from the data collected during the 2017-18 IPEDS collection cycle and are the most recent data available. The inside cover of this report lists the pre-selected comparison group of institutions and the criteria used for their selection. The Methodological Notes at the end of the report describe additional information about these indicators and the pre-selected comparison group.

**Where Can I Do More with IPEDS Data?**  
 Each institution can access previously released Data Feedback Reports from 2005 and customize this 2018 report by using a different comparison group and IPEDS variables of its choosing. To download archived reports or customize the current Data Feedback Report, please visit our website at <http://nces.ed.gov/ipeds/Home/UseTheData>.

 **University of Hawaii-West Oahu**  
 Kapolei, HI 

Filter Results | Edit Search | Compare 0

25 Results | SORT: % Earning Above HS Grad | PAGE: 1 2

**University of New Hampshire- Main Campus** ★  
 Durham, NH  
 12,789 undergraduates

Average Annual Cost	Graduation Rate	Salary After Attending
\$24,013	78%	\$47,700

National Median

[VIEW MORE DETAILS >](#)

**University of Connecticut** ★  
 Storrs, CT  
 18,451 undergraduates

Average Annual Cost	Graduation Rate	Salary After Attending
\$20,023	82%	\$55,800

National Median

[VIEW MORE DETAILS >](#)

**University of Connecticut- Tri-Campus** ★  
 Waterbury, CT  
 2,192 undergraduates

Average Annual Cost	Graduation Rate	Salary After Attending
\$8,258	55%	\$55,800

National Median

[VIEW MORE DETAILS >](#)

**University of Massachusetts- Lowell** ★  
 Lowell, MA  
 13,092 undergraduates

Average Annual Cost	Graduation Rate	Salary After Attending
\$18,005	55%	\$50,800

National Median

[VIEW MORE DETAILS >](#)



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University of Hawaii-West Oahu  
Kapolei, HI



## The newly redesigned College Scorecard (2019)

**U.S. DEPARTMENT OF EDUCATION**  
**College Scorecard**

71 Results CLEAR SORT SHARE

1 2 3 4

Location	Institution	Undergrads	Graduation Rate	Salary After Completing	Average Annual Cost for Largest Program
PALM SPRINGS, CA	California Nurses Educational Institute	242 undergrads	96%	\$38k	\$15k
BERKELEY, CA	University of California-Berkeley	30,574 undergrads	93%	\$16k-117k	\$15k
LOS ANGELES, CA	University of California-Los Angeles	30,994 undergrads	93%	\$21k-102k	\$14k
PASADENA, CA	California Institute of Technology	961 undergrads	92%	\$153k	\$23k


# UH West O'ahu Benchmarking Examples

CURRENT STUDENTS FACULTY / STAFF ALUMNI COMMUNITY UH Email | MyUH | Lualima | Calendar

UNIVERSITY of HAWAII WEST O'AHU

ACADEMICS • ADMISSIONS • FINANCIAL AID • STUDENT EXPERIENCE • ABOUT • Q

Home > Academics > Institutional Research



## Institutional Research

The Institutional Research Office – a unit of the Office of the Associate Vice Chancellor for Academic Affairs – produces both descriptive statistics and inferential analysis to support evaluation of university operations for executive management, campus divisions, and university constituents. The office is the campus source for reporting enrollments and student demographics, producing the Common Data Set (CDS) to support higher education surveys, conducting in-depth research on student success, and providing data for accreditation and other accountability and improvement activities.

### New Reports Recently Added:

- [How "good" are your college's retention and graduation rates? There's an IRQ dashboard for that](#) 📄 (February 2020)
- [Check out Data USA's Vizbuilder for Hawai'i](#) (November 2019)

#### Contact Information

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#### RELATED LINKS

- FACTBOOK >
- QUICK FACTS (PDF) >
- DATA DEFINITIONS (PDF) >
- ASSESSMENT >
- COURSE EVALUATIONS >
- INFORMATION/SERVICE REQUEST >
- RESEARCH AND PRESENTATIONS >
- RESOURCES >
- SURVEYS >



UNIVERSITY of HAWAI'I  
WEST O'AHU

## IPEDS Variables

- Total Enrollment
- First-Time Undergraduate Enrollment
- Transfer-In Undergraduate Enrollment
- Continuing Undergraduate Enrollment
- STEM Undergraduate Enrollment
- Graduate Enrollment
- Percent of Total Enrollment That Are Women
- Percent Part-Time Total Enrollment Undergr...
- Percent of First-Time Undergraduates (Out-...
- Percent of Undergraduate Enrollment 25-64
- Percent of Undergraduates Enrolled in Som...
- Percent of Full-Time First-Time Undergradu...
- Percent of Full-Time First-Time Undergradu...
- Number of Students Receiving a BA Degree
- Four-Year Graduation Rate (Bachelor's)
- Six-Year Graduation Rate (Bachelor's)
- Full-Time Retention Rate
- Acceptance Rate
- Admissions Yield
- Total Employees
- Full-Time Instructional Faculty
- Instructional FTE (Includes Part-Time)
- Student-to-Faculty Ratio
- Core Revenues

IPEDS Variables

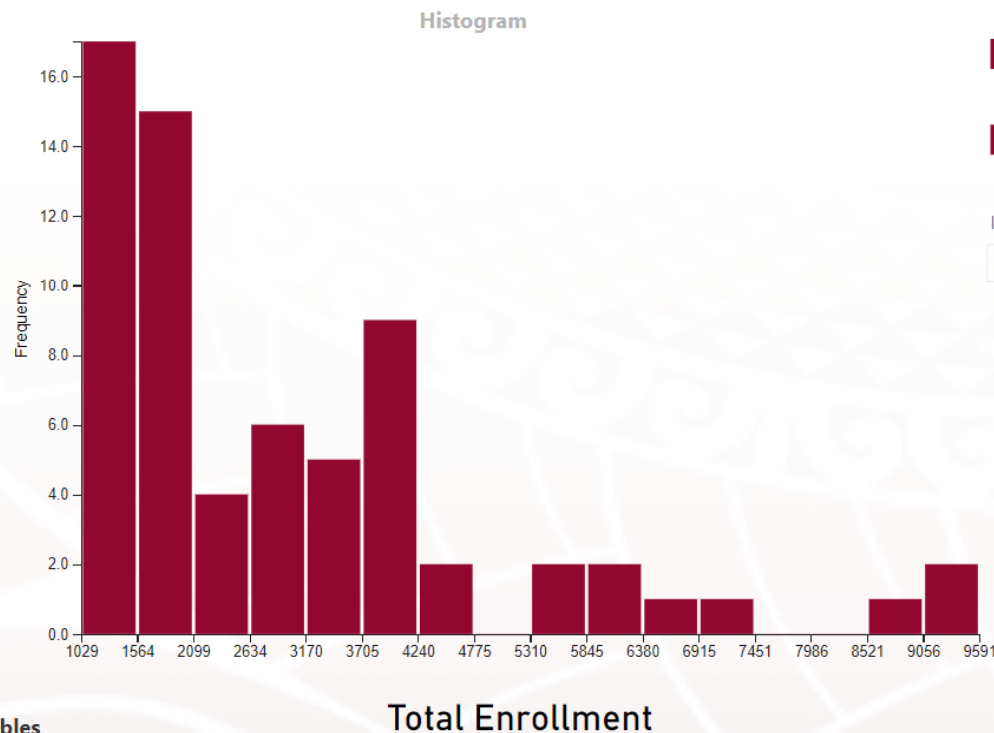


Postgraduate Variables

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## IPEDS Data Benchmarking Dashboard

2017-18 Reported Data



Total Institutions

67

Group Average

3,022.82

Group Std. Deviation

1,995.53

UHWO Value

3,082

UHWO Rank

26

Institution Name

All

Peers Selector

Peers

Comparative data are based on a set of similarly sized public, similar Carnegie classification, four-year, primarily baccalaureate universities in the United States. A link to UHWO's peer study is available [here](#).



# [www.tinyurl.com/uhwocluster](http://www.tinyurl.com/uhwocluster)



## Institutional Comparison Using IPEDS Data

Institution Name

All

Scatter Plot

Box Plot

Detail Table

### Select a Scatter Plot

Median Debt After Grad. and Median Earnings

Six-Year Grad. Rate and Full-Time Retention Rate

Total Enrollment and Number Receiving a BA

Instructional FTE and Total Enrollment

% UG Awarded Pell and Income Mobility Rate

% UG Awarded Financial Aid and Default Rate

Median Loan Principal and Six-Year Grad Rate



Comparative data are based on a sample of similarly sized public, similar Carnegie classification, four-year, primarily baccalaureate universities in the United States. Cluster groups determined using Power BI clustering function and based on selected variables in the table. A link to UHWO's peer study is available [here](#).

# www.tinyurl.com/uhwobenchmark2



## Actual vs. Predicted Retention Rates

Retention

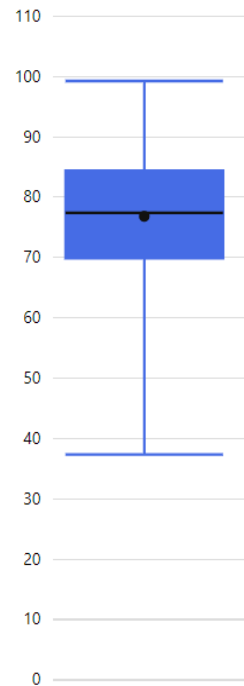
Graduation



Carnegie Classification: All | Peer School: All | Enrollment (2018): All | Sector: All | Search Institution: All

Institution Name	Web Link	Actual Retention Rate, 3-Yr Avg	Predicted Retention Rate, 3-Yr Avg	Actual vs. Predicted Retention Rate	SE Predicted
Abilene Christian University	<a href="#">🔗</a>	77.3%	82.1%	-4.8%	0.45
Adams State University	<a href="#">🔗</a>	58.7%	66.6%	-7.9%	0.56
Adelphi University	<a href="#">🔗</a>	82.3%	84.6%	-2.3%	0.39
Adrian College	<a href="#">🔗</a>	68.0%	72.5%	-4.5%	0.41
AdventHealth University	<a href="#">🔗</a>	67.7%	67.2%	0.5%	0.75
Alabama A & M University	<a href="#">🔗</a>	58.3%	64.1%	-5.8%	0.79
Alabama State University	<a href="#">🔗</a>	60.7%	61.3%	-0.6%	0.80
Alaska Pacific University	<a href="#">🔗</a>	61.7%	68.6%	-6.9%	0.48
Albany College of Pharmacy and Health Sciences	<a href="#">🔗</a>	83.3%	84.0%	-0.7%	0.46
Albertus Magnus College	<a href="#">🔗</a>	69.0%	63.3%	5.7%	0.73
Albion College	<a href="#">🔗</a>	80.3%	75.6%	4.7%	0.33
Alcorn State University	<a href="#">🔗</a>	74.3%	63.7%	10.6%	0.83
Alderson Broaddus University	<a href="#">🔗</a>	55.7%	65.2%	-9.5%	0.49
Alfred University	<a href="#">🔗</a>	73.0%	73.7%	-0.7%	0.39
Alice Lloyd College	<a href="#">🔗</a>	76.3%	64.4%	11.9%	0.55
Allegheny College	<a href="#">🔗</a>	82.3%	81.2%	1.1%	0.34
Alma College	<a href="#">🔗</a>	80.3%	79.4%	0.9%	0.42
Alvernia University	<a href="#">🔗</a>	78.3%	73.8%	4.5%	0.41

Distribution of Actual Retention Rates



Total No. of Institutions  
**1,227**

Avg. Actual Retention %  
**76.8%**

Avg. Predicted Retention %  
**76.8%**

Actual vs. Predicted  
**0.0%**

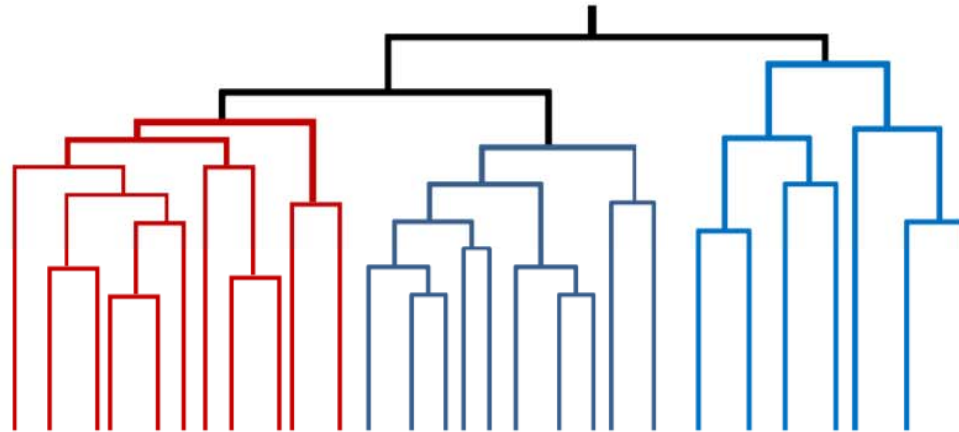
Model Fit | Research Brief

**Data Source**  
IPEDS, U.S. Public/Private (not-for-profit) four-year and above U.S. institutions with complete data (N=1,227). Three-year average data are based on the 2015, 2016, and 2017 cohorts of First-Time, Full-Time Degree-Seeking Freshmen.

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[www.tinyurl.com/uhwopeersstudy](http://www.tinyurl.com/uhwopeersstudy)

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



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*Version: 4.1: May 6, 2019*

# Questions?

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[https://westoahu.hawaii.edu/academics/  
institutional-research/](https://westoahu.hawaii.edu/academics/institutional-research/)