

BEST PRACTICES IN DATA VISUALIZATION

Utah System of Higher Education

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Assistant Commissioner for Institutional Research & Analysis

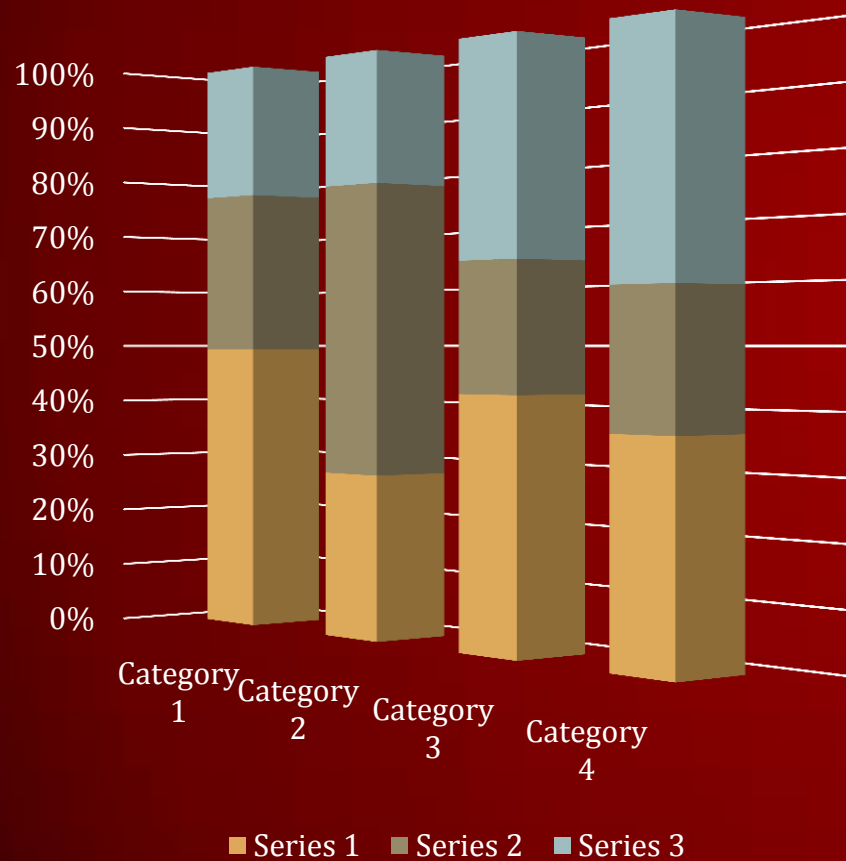
2016 IPEDS Coordinator Workshop & State Data Conference – Arlington VA
April 27, 2016

GENERAL RULE OF THUMB - USHE

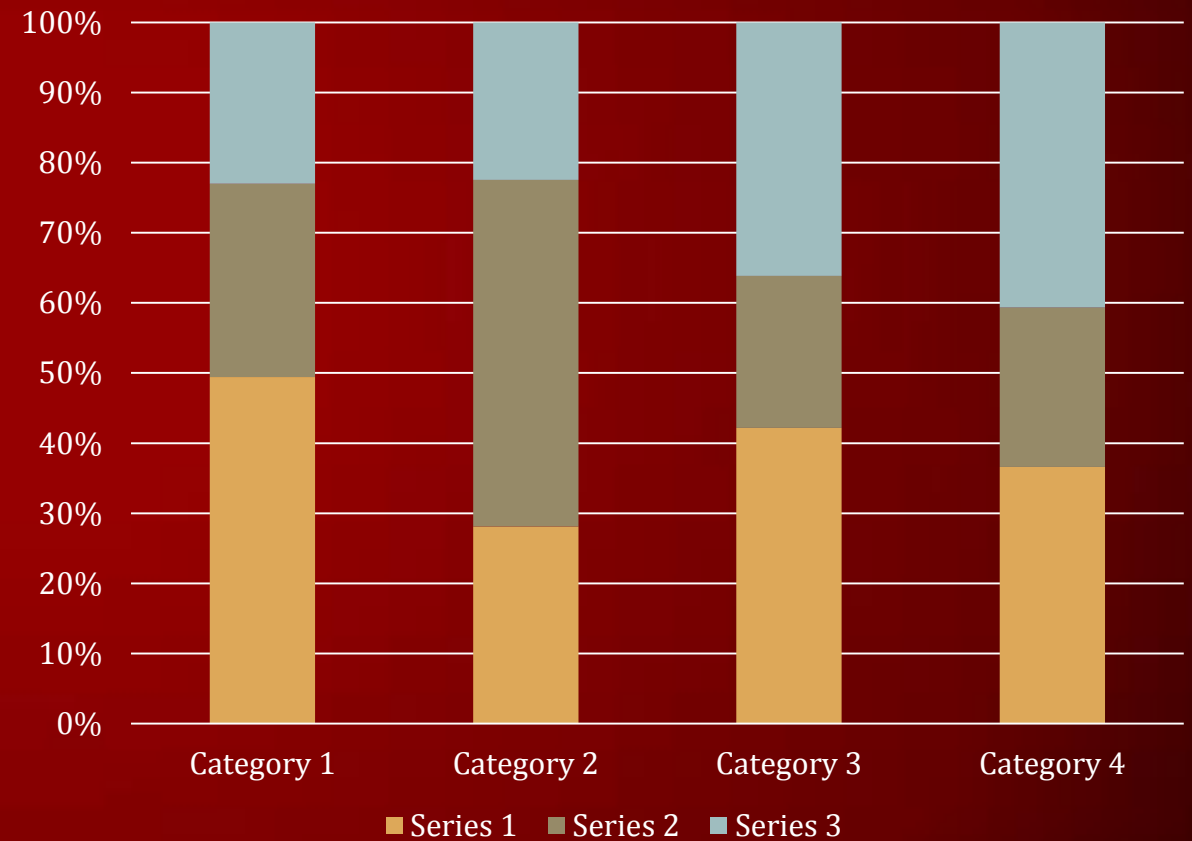
- No 3-D graphics
- Keep the number of filters to a minimum
- Organize visualization
 - Only related data on the page
 - Minimize clutter
- Provide appropriate context

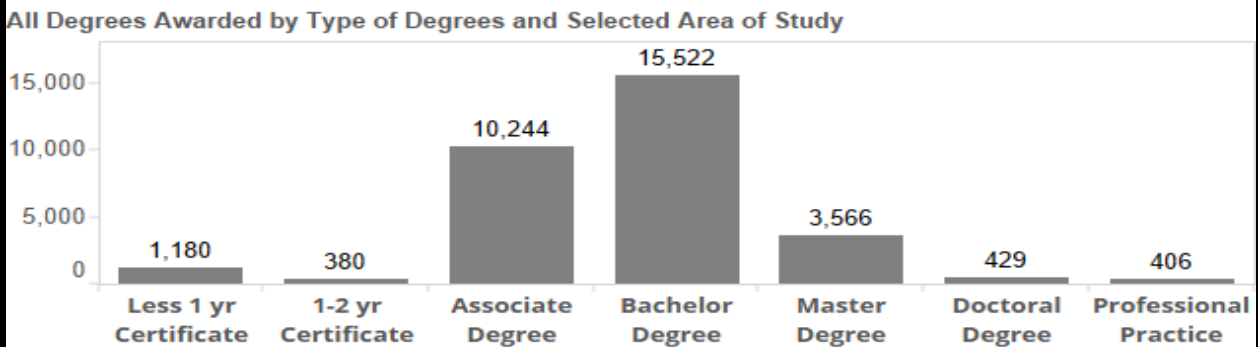
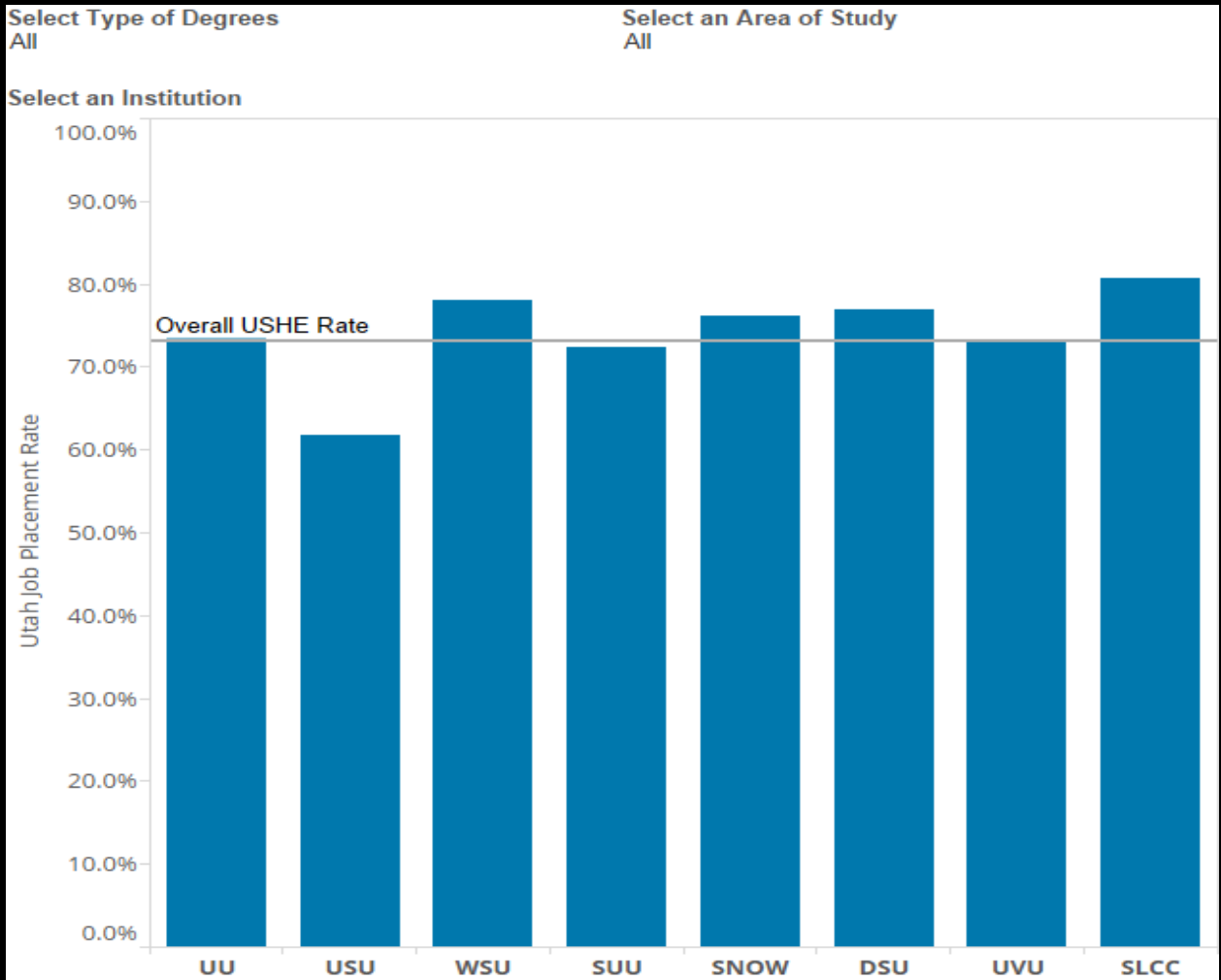
Which Graphic Provides the Best Understanding of the Data?

3-D



Standard





JOB PLACEMENT RATES OF USHE GRADUATES – BY DEGREE TYPE AND DISCIPLINE

The percentage of USHE graduates in 2013-14 employed in 2014, according to the Department of Workforce Services

Filters:

All Postsecondary Graduates Industry Where Employed First Year After Award

Select Area of Study

FAMILY AND CONSUMER SCIENCES/..

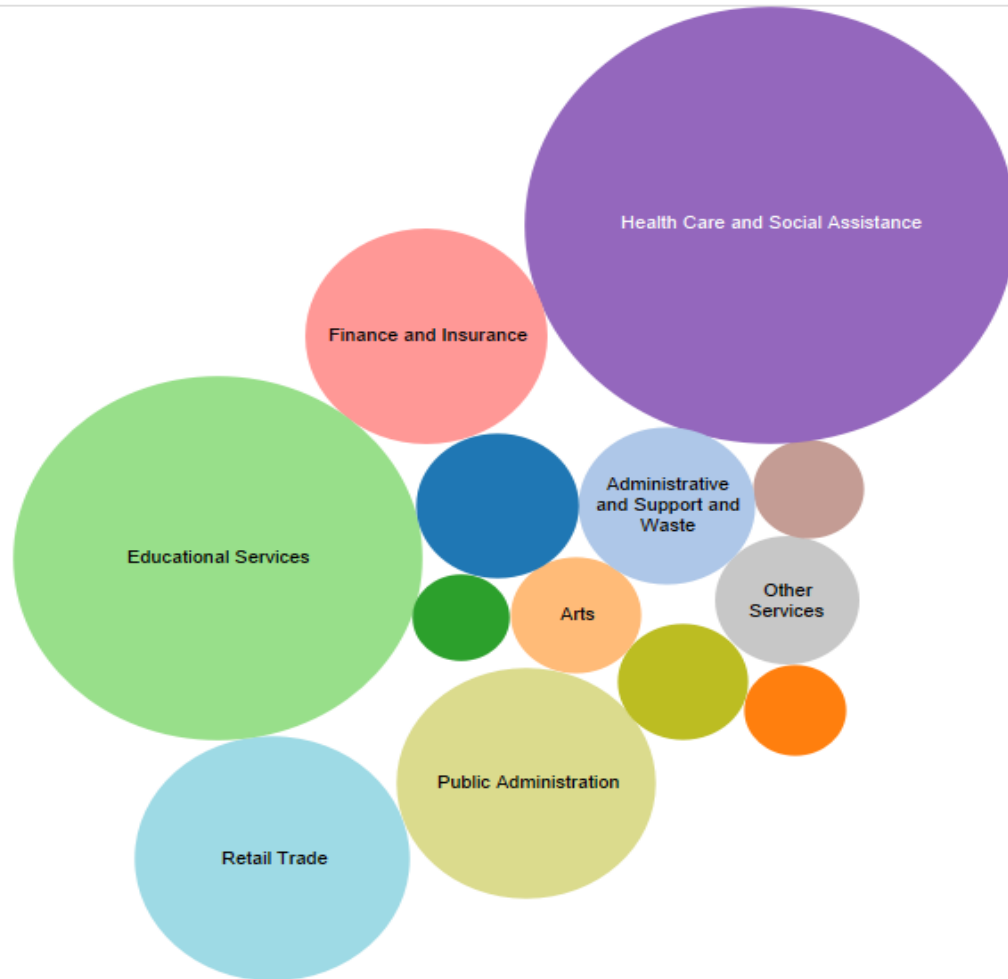
Select Institution

Weber State University

Graduation Academic Year

All

Area of Study: FAMILY AND CONSUMER SCIENCES/HUMAN SCIENCES



Labels are shown when mouse pointer is on bubble

WHERE ARE UTAH COLLEGE GRADUATES EMPLOYED

The relationship between a college degree or certificate and a career is very complex. The idea that a specific area of study will qualify a person for employment in only one industry is simply untrue. The interactive chart below illustrates the industries in which USHE graduates are employed. This data is compiled through USHE's partnership with the [Utah Data Alliance](#).

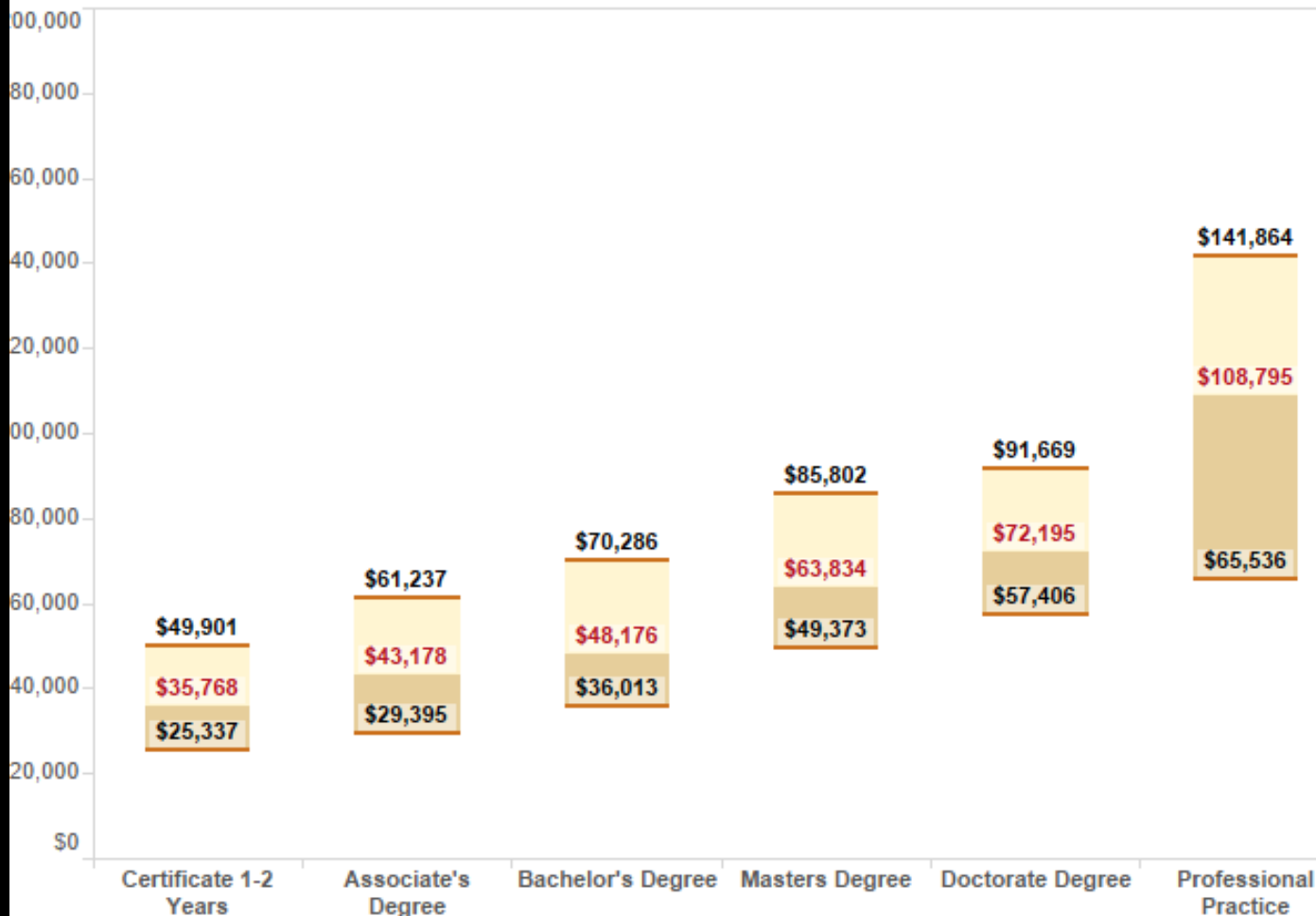
2005-2007 Postsecondary Graduates Salary by Area of Study

Select an Area of Study

Select Institution

All

Fifth Year Salaries by All



UTAH WAGE INFORMATION BY FIELD OF STUDY

Cautions

While informative, this data does not guarantee that an individual who earns a degree or certificate in a given field of study at a USHE institution will obtain these wages in their first or fifth year of employment.

This data does not account for inherent factors associated with wage earning potential including geography, specific circumstances of an individual or business, or current economic and regulatory conditions.

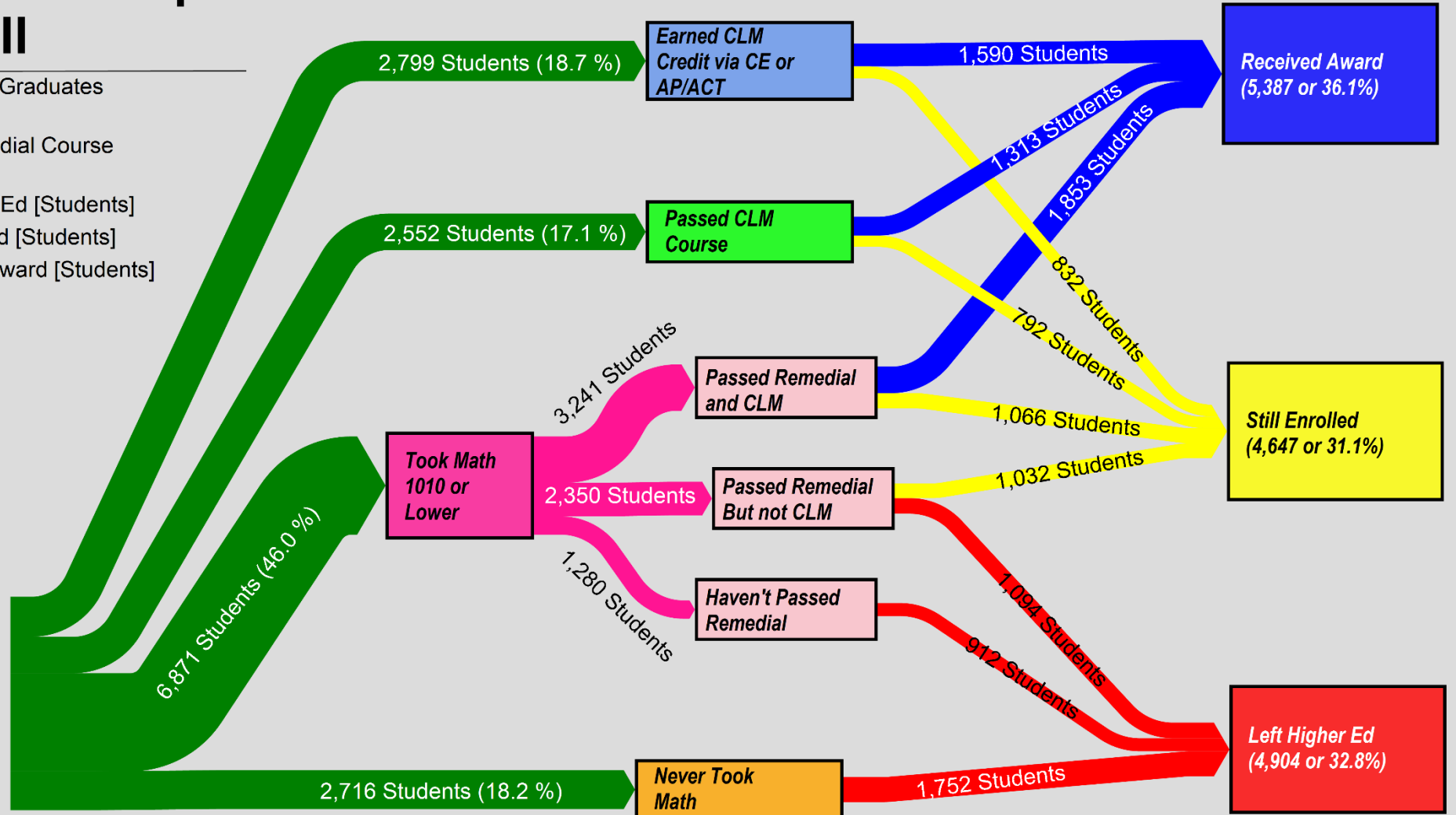
SANKEY CHARTS

What Adds Up? Overall

For clarity, student flows with less than 5% of total population (747) were suppressed.

- █ Recent HS Graduates [Students]
- █ Took Remedial Course [Students]
- █ Left Higher Ed [Students]
- █ Still Enrolled [Students]
- █ Received Award [Students]

2008 FH
Students
(14,938)



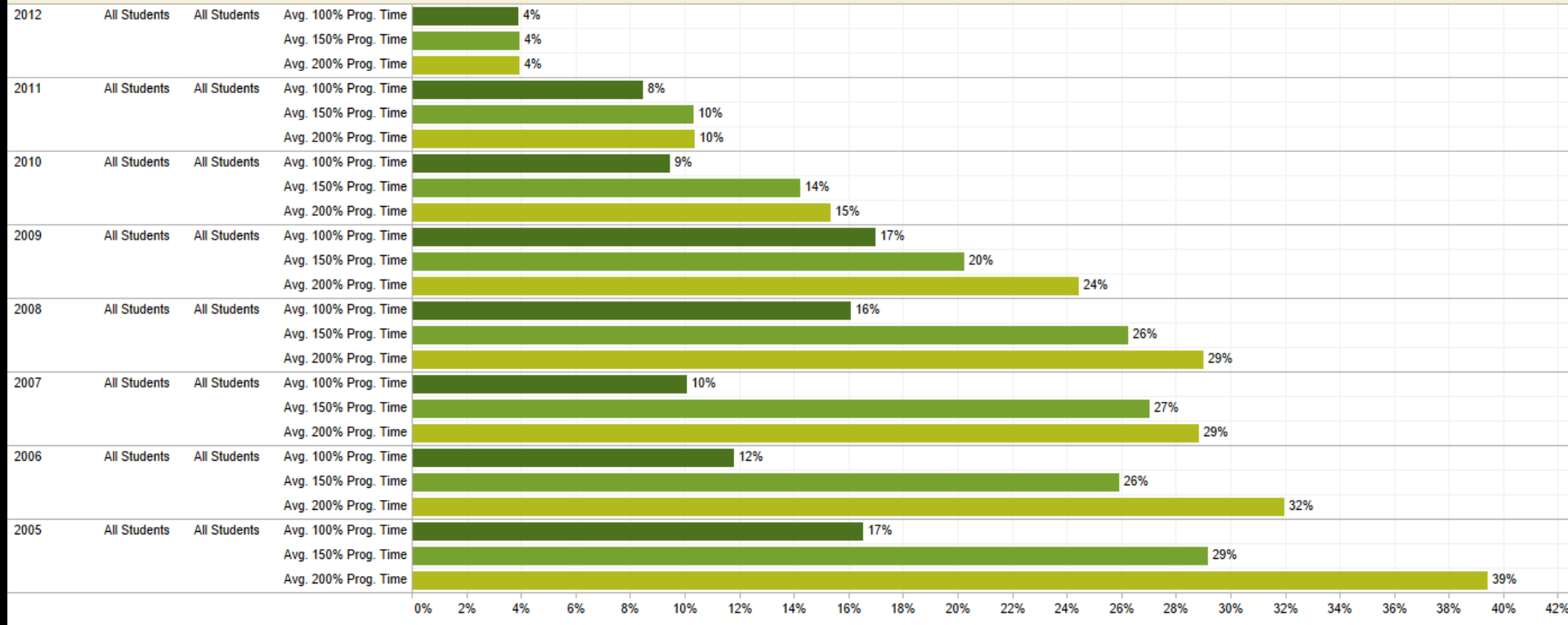
UVU COHORT PROGRESS REPORT

Small Multiples



Cohort Progress Report - Graduation Rate

Cohort Any-degree Graduation Progress, 2005-2012



Show this rate...
Any-degree Graduation

Degree Level
All

PT/FT
Full-time

College
All

Department
All

Major
All

Concentration
All

...broken down by this characteristic...
All Students

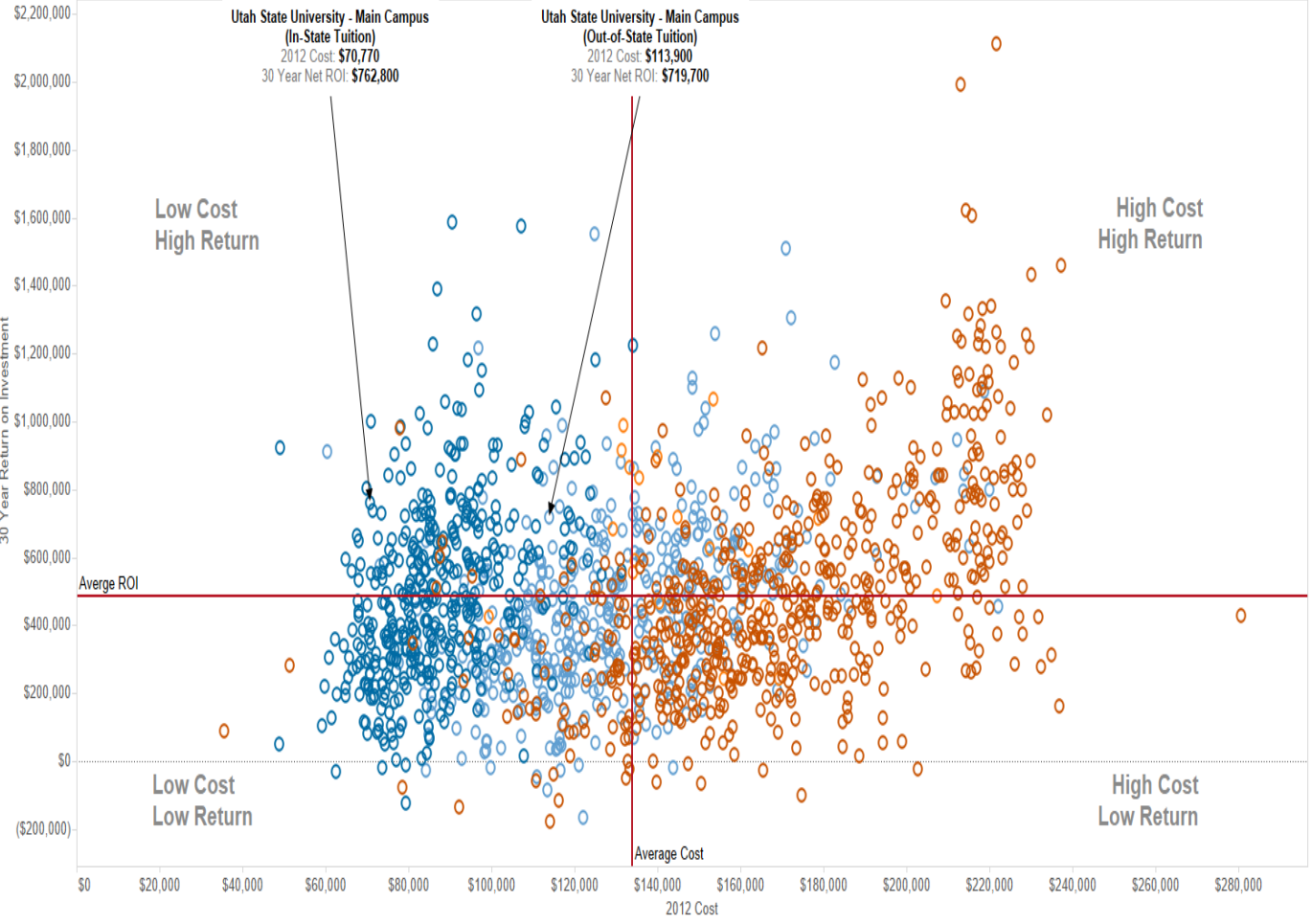
...and by this characteristic...
All Students

...from the cohort entering in...
2005

...to the cohort entering in...
2012

Last updated 6/25/2014 5:47:37 PM.

Return on Educational Investment - 30 Year Net ROI



Without/Aid
30 Year Net ROI

Category
(All)

Type
All

USU IPEDS Peers
All

Utah Institutions
All

School Name
All

Click to highlight

- Private not-for-profit
- Private for-profit
- Public (In-State)
- Public (Out-of-State)

Based on a study by PayScale, Inc.
<http://www.payscale.com/college-education-value-2013>

RETURN ON INVESTMENT -



PayScale, Inc.

<http://www.payscale.com/college-education-value-2013>

THINGS TO CONSIDER

- Distribution method
 - Dashboard
 - Electronic documents (.pdf)
 - Paper document
- Audience
 - Internal use (Executive Council v. Staff positions)
 - State/ Board Leadership
 - General Public

Summary of Edward Tufte's Visualization Course

DDGARCIA@CS.BERKELEY.EDU

Tufte, Edward R. *The Visual Display of Quantitative Information*, Graphics Press, Cheshire, CT 1983.

Tufte, Edward R. *Envisioning Information*, Graphics Press, Cheshire, CT 1991.

