



# **CSR Tableau Public User Guide for the 2018 CAPCSD Salary Survey**

January 23, 2019 by Neil Carlson  
Designed for Tableau Public

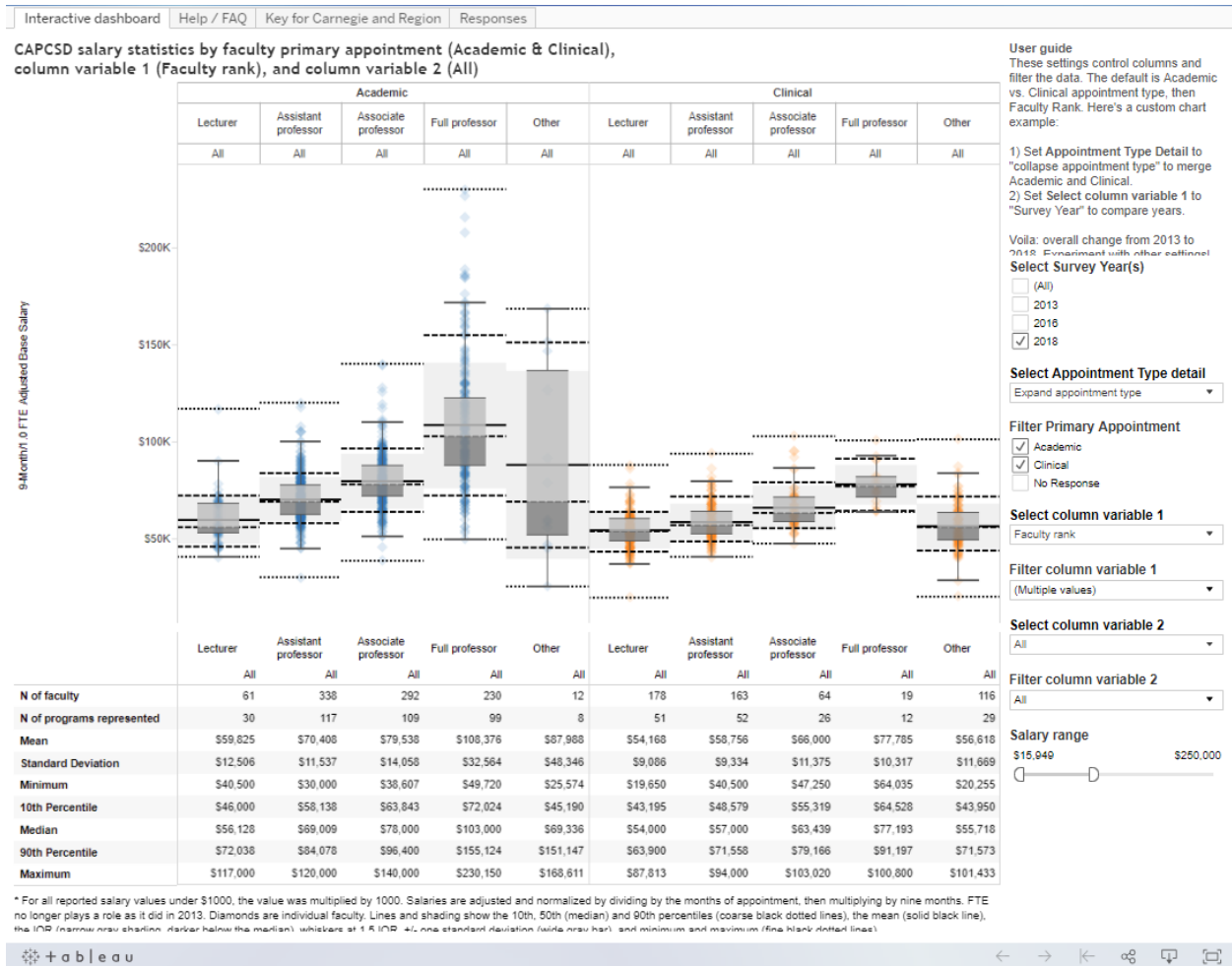
## Accessing Tableau Public

You can view the data visualization online by clicking on this [link](#).

**Note:** The workbook is best viewed on a large HD-compatible monitor (1920x1200 pixels or larger).

## Navigating a Workbook

Clicking on the Tableau Public link will open the file and display an interactive dashboard like this:



The top section is a boxplot by appointment type (academic or clinical) and faculty rank; hovering over data points and reference lines will reveal popup details. The bottom section is a table with the same range of statistics shown in the box plot.

The settings controls on the right will allow you to reorganize, filter, and interrogate the data in just about any way you can imagine.

**Select column variable 1** and **Select column variable 2** feature dropdown lists that allow you to view data according to variables such as institution region, Carnegie classification, and gender.

**Filter column variable 1** and **Filter column variable 2** are dropdowns that display check boxes that correspond to the unique values available in the selected column variables.

For example, if **Select column variable 1** is set for “Faculty gender,” **Filter column variable 1** displays “(All),” “Male,” “Female,” and “No Response.” You can check or uncheck boxes to control how much information you see at a time.

**Salary Range** sets the minimum and maximum salary displayed. You can drag either side of the scale to display different salary ranges. Alternatively, you can click on either dollar amount and type in a different one. Because the 2018 data included a few very large six-figure outliers (which may be errors removed upon clarification), the maximum is set to \$250,000.

At the lower right corner below the visualization, you will see three arrows in light grey and some icons in darker grey:



As you explore the data, you may find you want to go back (left arrow, “Undo”) and look at how it was visualized a few clicks ago or as it was at the beginning (left arrow with line, “Reset”). These buttons allow you to undo or redo actions and reset the workbook easily.

The other three icons allow you to Share, Download, and view Full Screen versions. More about downloading images and PDFs below.

## Interacting with the Data

The default view is set to include 2018 data only, to exclude a handful of faculty with no response to the appointment type and faculty rank questions, and those with very large outlier salary values. But you can get just about any view you can imagine. If, for example, you would like to view an overall comparison of 2016 to 2018 with totals and no subdivision by appointment type or faculty rank, you’d do the following:

### Select Survey Year(s)

- (All)
- 2013
- 2016
- 2018

- Change **Survey Year** at upper right to check “2016” and “2018”

### Select Appointment Type detail

Collapse appointment type

- In the **Appointment Type detail** dropdown list, select “Collapse appointment type.”

### Filter Primary Appointment

- Academic
- Clinical
- No Response

### Select column variable 1

Survey Year

- In the **Select column variable 1** dropdown list, switch from “Faculty rank” to “Survey year.”

### Filter column variable 1

(All)

### Select column variable 2

All

### Filter column variable 2

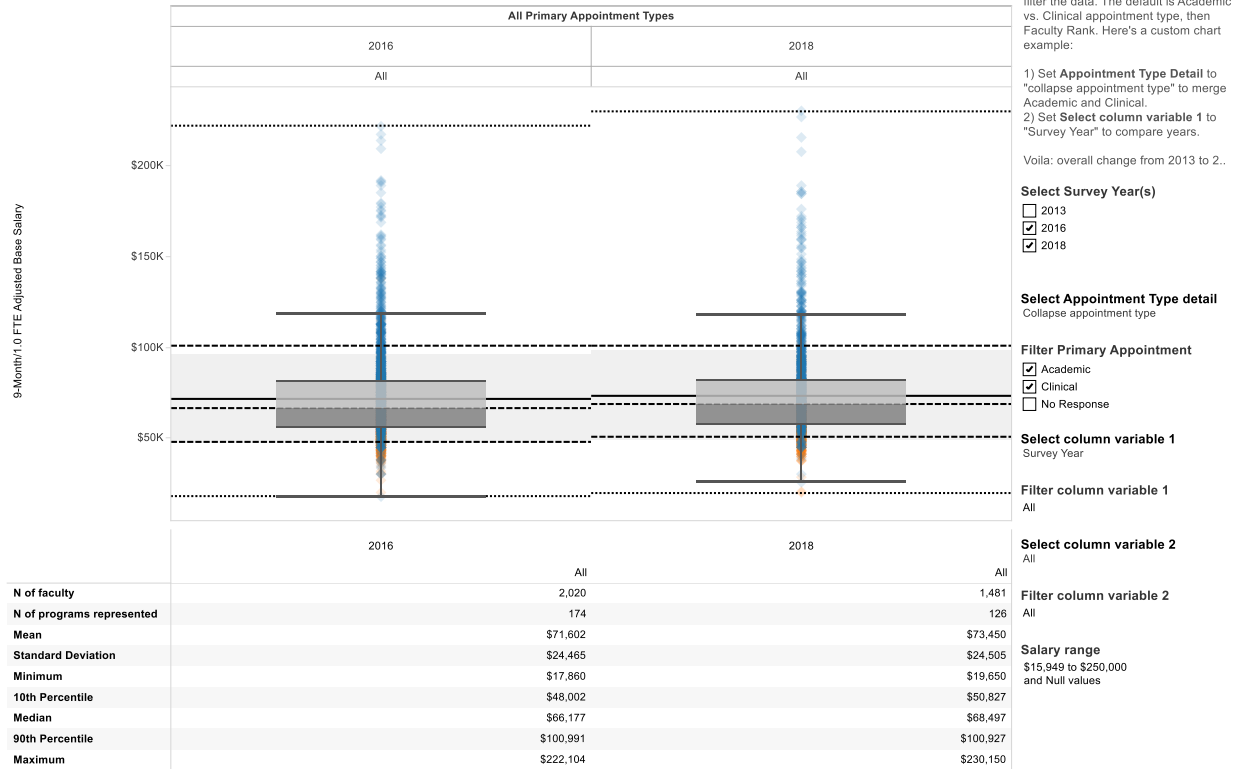
All

### Salary range

\$15,949                      \$250,000

The resulting graphic looks about like this, showing here that median salaries (at the time of this guide’s writing) rose from \$66,177 in 2016 to \$68,497 in 2018:

CAPCSD salary statistics by faculty primary appointment (Academic & Clinical), column variable 1 (Survey Year), and column variable 2 (All)



\* For all reported salary values under \$1000, the value was multiplied by 1000. Salaries are adjusted and normalized by dividing by the months of appointment, then multiplying by nine months. FTE no longer plays a role as it did in 2013. Diamonds are individual faculty. Lines and shading show the 10th, 50th (median) and 90th percentiles (coarse black dotted lines), the mean (solid black line), the IQR (narrow gray shading, darker below the median), whiskers at 1.5 IQR, +/- one standard deviation (wide gray bar), and minimum and maximum (fine black dotted lines).

## Comments on the Data

As shown above, our N of reported faculty salaries was 2,020 in 2016 and 1,481 in 2018 (down 26.7%). N of institutions was down from 174 to 126 (down 27.6%). The mean salary increased from \$71,602 to \$73,450 (up 2.6%).

These Ns differ from the response rates for multiple reasons, none of which is an error:

1. To align 2013 with 2016, we dropped two groups:
  - a. faculty from Bachelor’s-only programs and
  - b. faculty below 0.86 FTE.
2. Some faculty were reported without valid salary numbers.
3. Some faculty were reported without an appointment type.
4. Some faculty were reported without a faculty rank.

Other filters and changes will affect the Ns; for example, you might want to report a range with maximum salaries of \$200,000, ignoring the biggest outliers. You can do that at lower right, replacing the current maximum of \$250,000 by typing in “200,000” and hitting enter (or dragging the right handle on the filter to \$200,000, which is hard to get exactly right). That action will reduce the Ns and the means and medians accordingly, since faculty with salaries between \$200,000 and \$250,000 will be excluded.

## Exporting Data

### Tableau Public

At the lower right corner of the data visualization, there are “Download” and “Share” buttons.



Clicking on the “Download” button will bring up a menu that has PDF and image download options enabled. As this post is public on the Internet, download of the Tableau Workbook, Crosstab, and Data are disabled.

### Downloading PDFs

You can choose page layout, paper size, and what type of content you want in the PDF. Once the PDF is downloaded, you can open the file and save it as you wish. You can reset the data visualization setting to display a different aspect of the data and repeat this process to generate a variety of PDFs.

### Downloading Images

If you click on the Image option, it will immediately be generated as a .png file and you will be asked to download it.

This image may open in an image editor, your web browser, or a variety of other image viewers.

## Contact us

We welcome your questions during calendar 2019:

Name	Role	Email	Phone
Neil Carlson	Director	<a href="mailto:neil.carlson@calvin.edu">neil.carlson@calvin.edu</a>	616 526-6420
Nathanael Baugus	Research Assistant (through May 2019)	<a href="mailto:nwb3@students.calvin.edu">nwb3@students.calvin.edu</a>	616 526-7799

Thank you!

