Alejandro Gallardo

I use Sierra Club's 'Cool School' rankings, which ranks colleges by how well they integrate sustainability in several areas, such having a robust sustainability curriculum, civic engagement etc. I obtained the data in the form of csv from the sustainability office, which can also be found here: www.sierraclub.org/sierra/cool-schools-2018/cool-schools-2018-full-ranking. The data set is a csv file where each item is an institution and each attribute is an institution's score for a particular category (score in divestment, waste,etc).

How does Carleton College compare to similar sized liberal arts colleges, and what are the areas that Carleton has the most room for improvement? Part of the goal is to incite a sense of competition with other schools. These were my guiding questions that I myself and the Sustainability office thought would be interesting to explore. The information being presented is how 7 similar liberal arts colleges scored in the different categories for the Sierra Club 'cool schools' ranking. I primarily focus on the pop out channel of color, geospatial grouping, and shapes to encode nearly all my information. Each category, represented by each axis, is below a square that is some variation of red. The color of the square encodes information about how many points Carleton could still earn in the associated category. For example, "curriculum" is the darkest red, meaning that this category has the most points available for Carleton. I did this to make it clear the areas that have the most potential to help Carleton rise the ranks in Sustainability. I then ordered the axis by color of the square, darkest red to lightest red. This makes it incredibly easy to spot biggest potential areas of improvement, as well as groups of categories with most potential. Top group of axis have the darkest reds, middle row has middle reds, and bottom row has lightest reds. Additionally, I encode the lines in the parallel coordinates plot with the name of an institution and their respective ranking. For example, the legend shows that Carleton, who is ranked 162nd, is the yellow line. I chose to make Carleton a darkish yellow because yellow is the most perceptually vibrant color, which makes it pop out over the rest. I chose to make it darkish so that it contrasts against the very white background.

In terms of feedback, I really appreciated my conversation about how to group the axis. One suggestion that I very nearly chose to do was to make each category a percent of how many points a college earned out of the total. I had this conversation with 3 people. This seemed to make sense, since it would help gauge how many points Carleton is missing in a particular category. Ultimately I didn't choose to do this because I wanted to order the axis by most potential room for improvement to least. With percentages, I would have to weight each axis, and then order it, and then explain the weighted methodology and its meaning. Compared to what I ended up doing, I thought this was unnecessary hurdles to get the argument across. With the current method, it makes intuitive sense that the "category with greatest number of available points is dark red", as opposed to "the highest weighted category is dark red."

Sierra Club Sustainability Rankings for Higher Ed

by Alejandro Gallardo

