Developing and designing a visually clean database is no easy feat, although Steven Jenkins makes it look so simple. The Outcomes Bubble Chart is used to graph 5-point scale data to compare change between two points in time. It can also be used to aggregate program data over a single question or at the participant level.

The key concepts that drove Steven's visualization process was a focus on agency specific goals rather than client specific goals. This may seem like an odd focus, especially in the non-profit sector, but by looking at agency goals, organizations can track progress across all parts of the agency's mission, creating much straightforward data entry and reports. Furthermore, it allows organizations to be able to form questions that specifically address funder requirements. In client specific goals, the range of variety can create difficulties in aggregating data.

When developing the initial survey, Steven kept it very simple and limited one question per specific category or domain. He reminds the group to be realistic about the amount of data that organizations ask staff to collect. Then, each question is given five options to describe the situation from most ideal to least ideal.

The first prototype for mapping the survey data was a bar graph. The chart ended up getting too busy with all the factors that was trying to be recorded. It was difficult to see the direction of change and provide accurate numbers of clients making progress.

The bar graph evolved into a line and area graph. Although the line graph seemed to be helpful on the individual basis, when adding a larger population the data became too busy. The graph is limited to just being a visual representation, creating barriers for other insights.

In the end, bubble graph became the best visual representation of the survey data. It was clean in design but also illustrated the direction of change and accurate numbers of clients and their progress.
Q&A with Steven Jenkins

Is there an additional way to add another level or layers of information to integrate into the data visualization?
The process is still developing. There are no Google plug-ins, everything is raw code. Steve is more than willing to write the code and customize the visualization of the data.

What was the process in determining the scale?
Absolutely no way to write a survey to take out subjectivity, it’s a complicated process. Important to not try to focus on perfection but instead focus on trying to provide the best data outcome representation. If there is a difficulty with harder distinction questions, consider taking out since data may not be clear.

How did you develop the survey questions?
Persistent in setting up meetings. Used and shared notes on Google Doc to focus and develop the survey and scale. It’s important to not have a lot of people get involved in the construction period. In the end the survey change was presented at an All Staff meeting and had co-workers provide final feedback.

How easy is it to integrate with shared data?
All clients use Empowerdb as their one stop for their data. Steve programs database to feed in from smaller organization to larger database. Strategic partnership that has succession planning since Steve is needed to program the data linkage.

Interested in creating your own Bubble Chart?
The Bubble Chart plots each participant’s starting point on the x-axis, and their ending point on the y-axis. The numbers in the circle denotes the total amount of clients who started and ended at that combination. The circle that cut across diagonally through the chart are participants that experienced no change between their scores. Those above the median circle plots denotes positive change whereas those below illustrate negative change between the two scores.

In a collaboration between Steven and Brianna at CWU, they created an easy to use excel version of Empowerdb’s Bubble Chart to test out your own pre and post data. Click here to generate your own chart using Excel.

Directions: The chart is populated with sample data, clear sample data before adding your data. Enter your start and end data in rows B and C respectively. Client name is not required for calculation purposes.

Networking Round Robin

The networking round robin was divided into 4 sections: data visualization, survey writing geared toward measuring outcomes, research/collaborations with other non-profits, and an “up to you” category. We got some really positive feedback about this new format, and plan to integrate more networking into upcoming meetings. If you have any suggestions or feedback, please email Brianna Roche.