Abstract:

Our project on the USDA FoodData Central, uses the datasets, SR Legacy, and Foundation Foods (FF), to gain valuable insights into analytical sampling of food components. The challenge comes from the declining resources for analytical sampling, leading to limited staffing. FDC aims to establish new methodologies for incorporating data efficiently due to the impracticality of analyzing a complete nutrient set for a single food, where costs can exceed $50,000. We focus on understanding how comparable foods have changed over time, aiding in the strategic selection of components for analysis based on variability.

Our approach involves comparing equivalent foods from the SR Legacy and Foundation Foods datasets using the unique NDB number as a link. By analyzing food category IDs and employing a separate table for mapping these IDs to category descriptions, we aim to explore shifts in food components over time. Our objectives include evaluating changes in mean values, identifying nutrients falling out of range, and assessing the the level of change in different food groups.

So far we have already cleaned the data for entries on foods that have both SR Legacy and Foundation Foods data. This allows us to make comparisons and analyses on food groups and see how they have changed in nutrient density, vitamins, and other components over the years. We've started on a website to display our visualizations and present our findings.

Our findings will shed light on the relevance of continued analysis for specific nutrients, thereby optimizing resources and enhancing the overall efficiency of the FDC.