

IC-Team 50 USDA FDC Challenge



Team 50



Sriket Komali



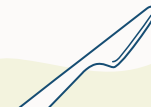
Khoa Huynh



Ethan Pham



Trinity Kilip



Background Information

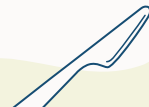
- USDA's Agricultural Research Service (ARS) has analyzed foods and determined nutrient/component values for foods consumed in the U.S.
- SR Legacy has been the primary food composition data type in the United States for decades. It is considered historic food composition data and will not be updated further.
- FoodData Central (FDC) was launched in 2019 to provide an expanded nutrient and food component data in one location.
 - Expensive and time consuming
 - Analysis of 1 food can exceed \$50,000.



Research Question

Can we use historical data and see how the data has changed and remained the same?

Can insight be derived to get a better understanding of which nutrients or components should be analyzed and which ones remain constant?



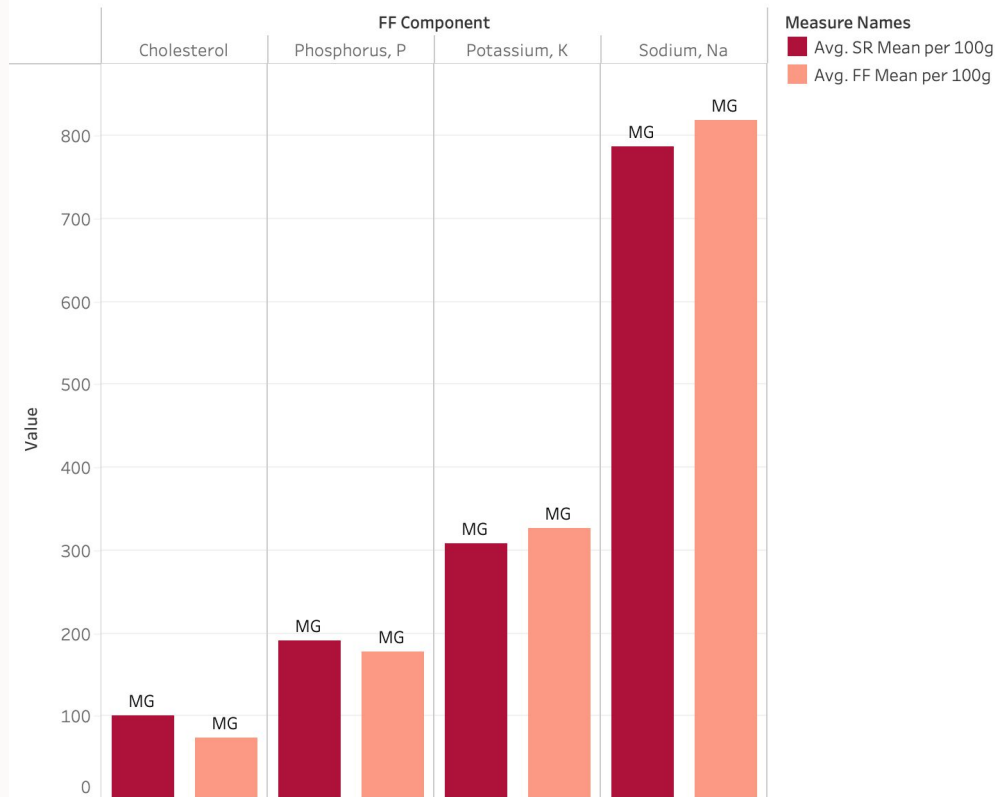


Nutrients of Foods Categories



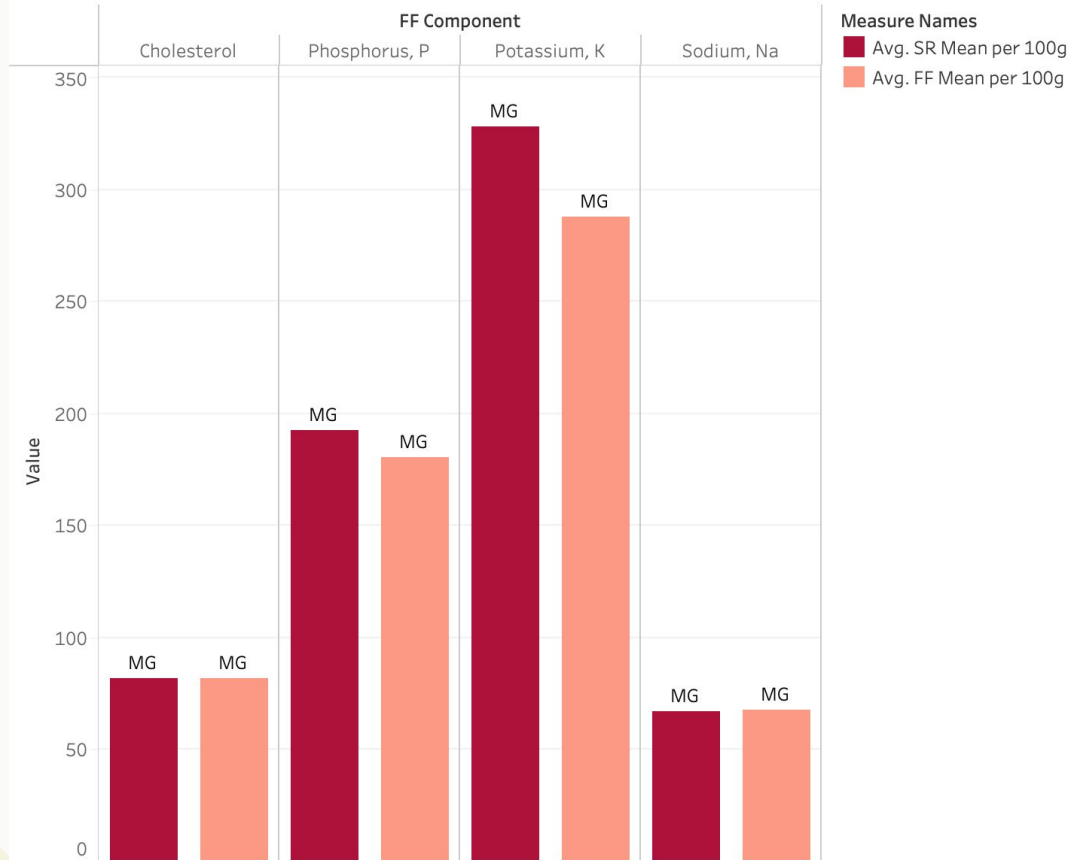
Sausages and Luncheon Meats

Comparison of Nutrients in Sausages and Luncheon Meats



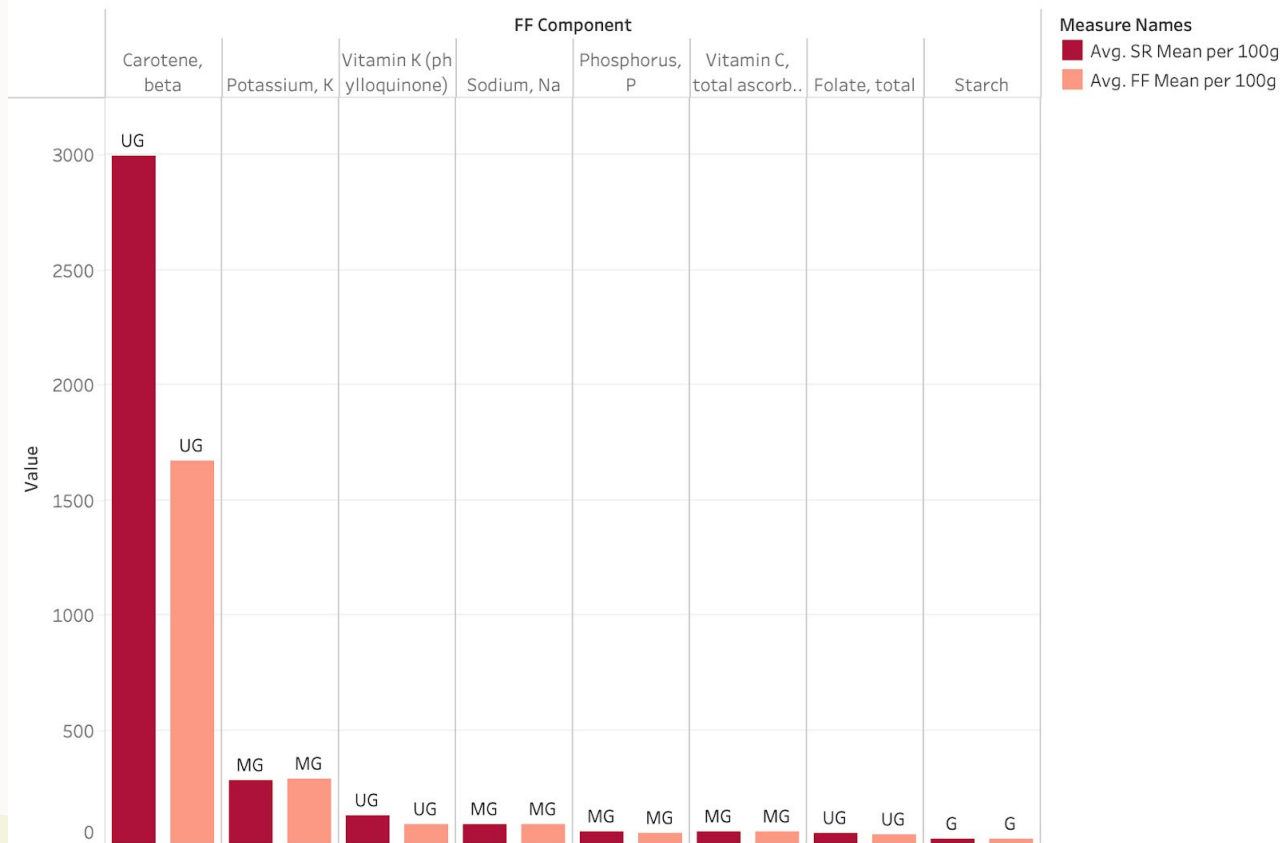
Poultry Products

Comparison of Nutrients in Poultry Products



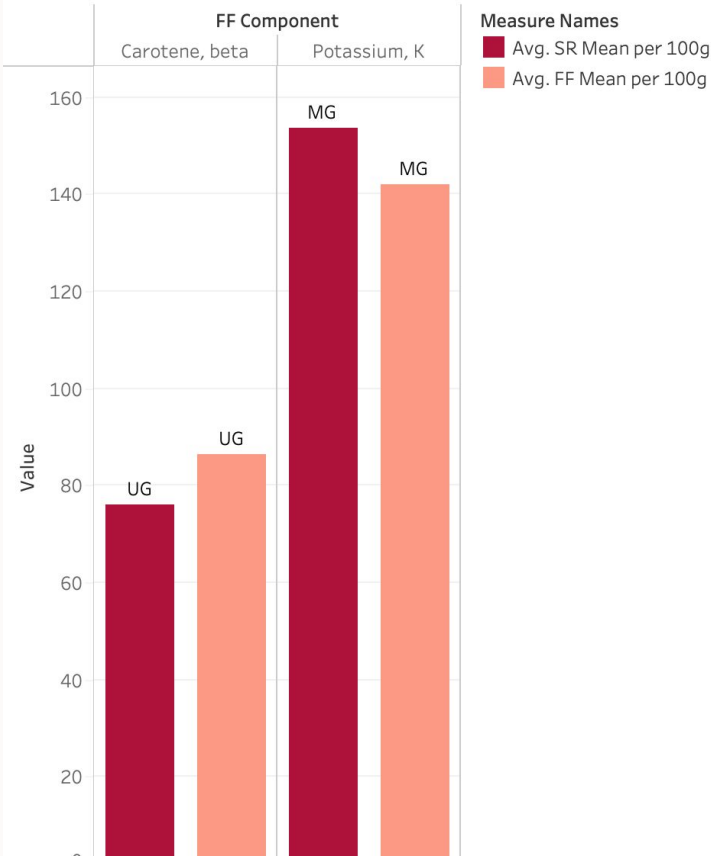
Vegetables and Vegetable Products

Comparison of Nutrients in Vegetables and Vegetable Products



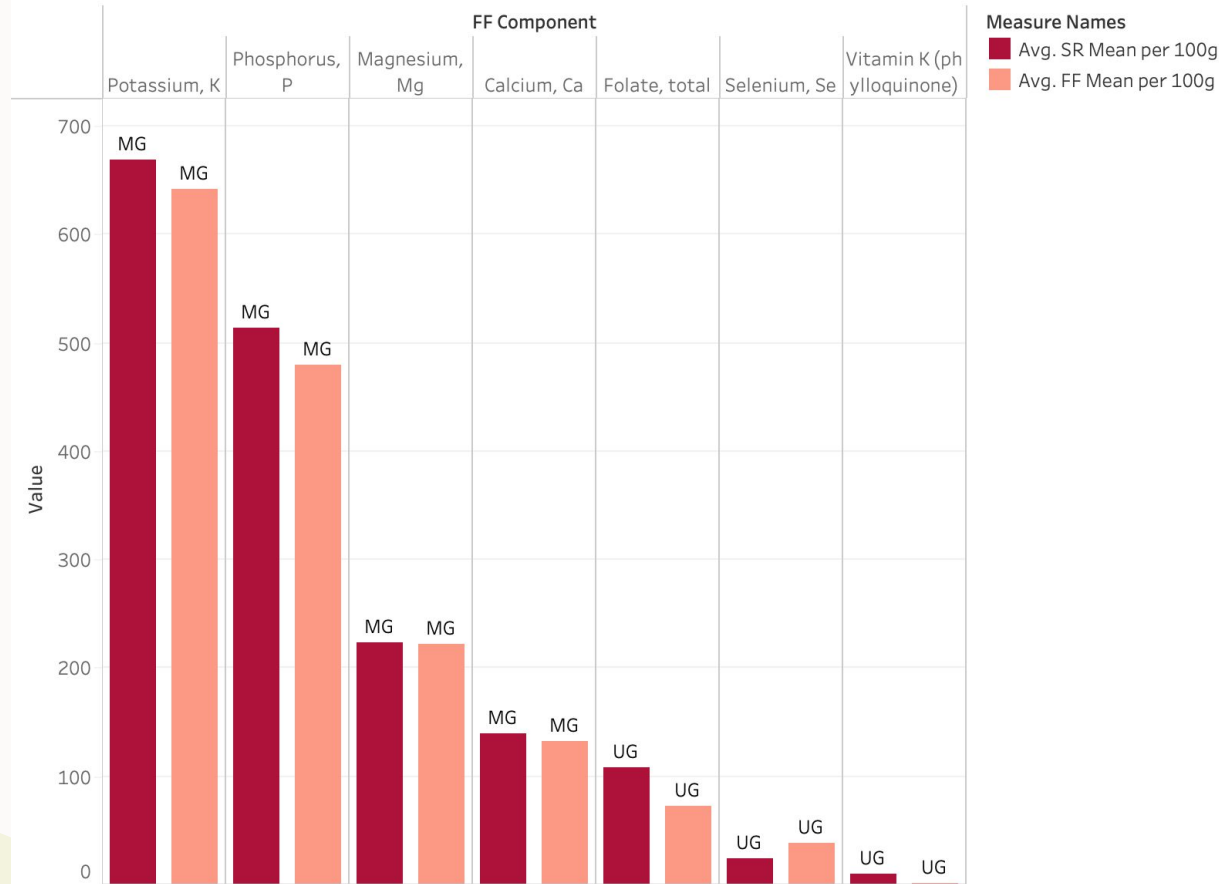
Fruits and Fruit Juices

Comparison of Nutrients in
Fruits and Fruit Juices



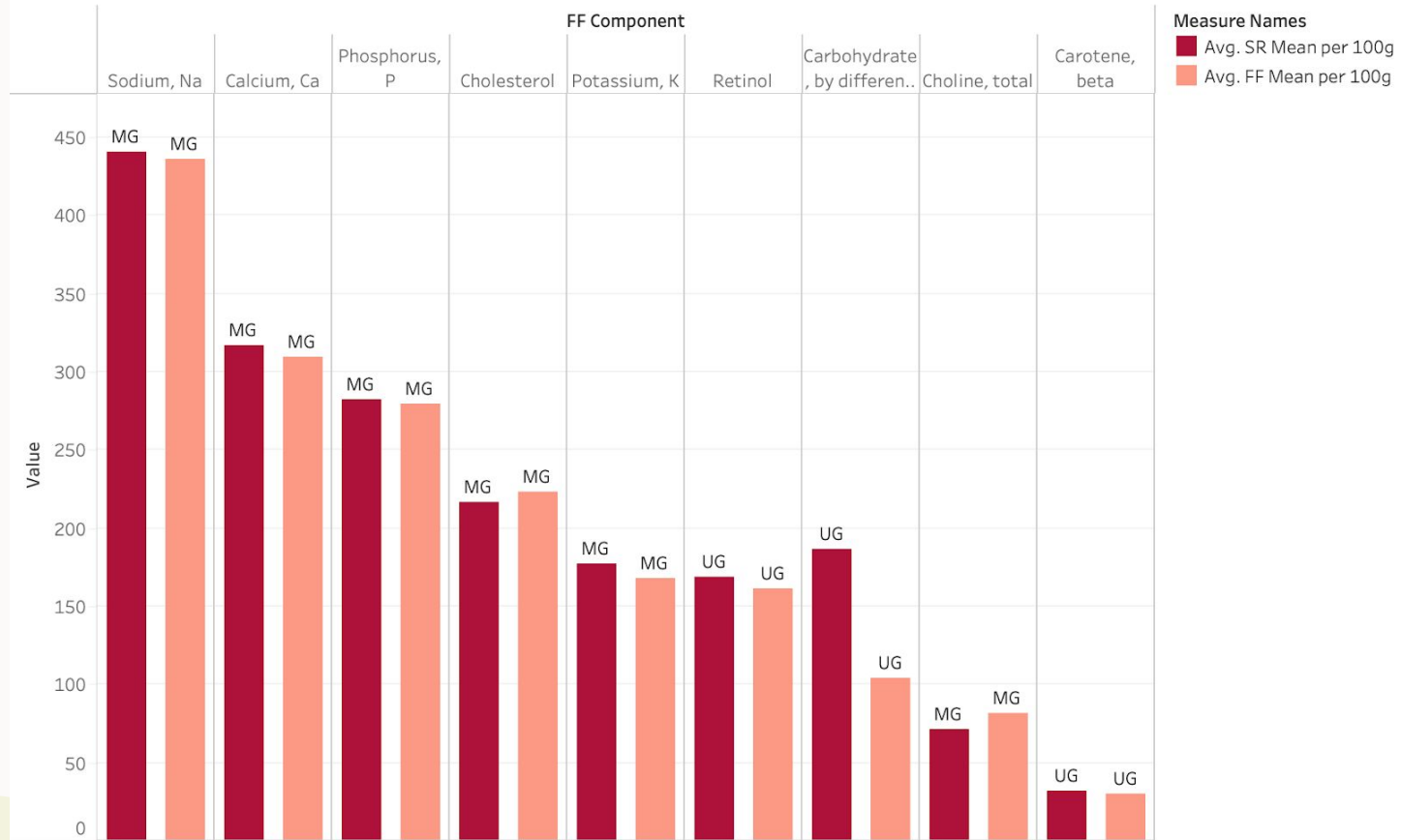
Nut and Seed Products

Comparison of Nutrients in Nut and Seed Products



Dairy and Egg Products

Comparison of Nutrients in Dairy and Egg Products



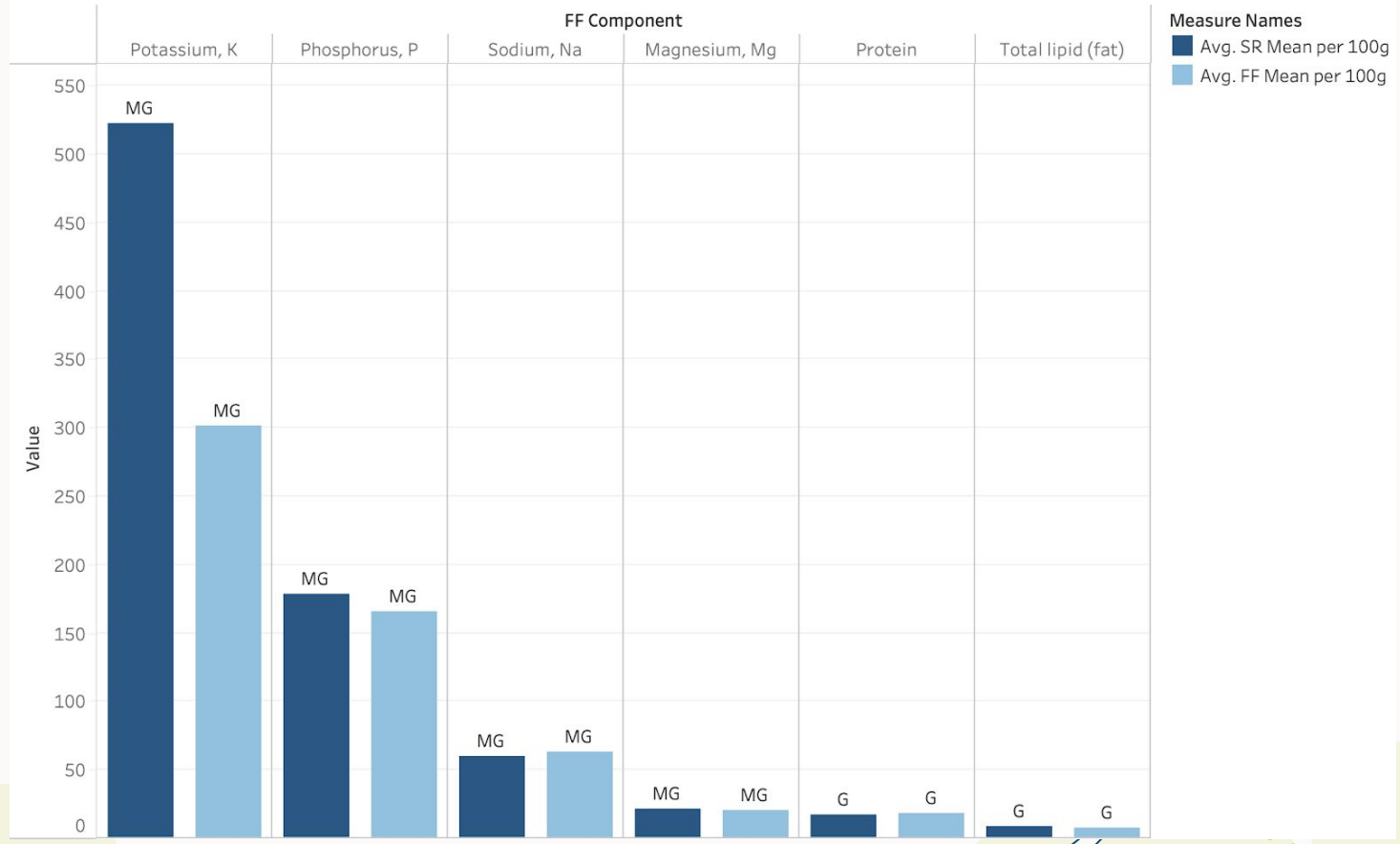


Nutrients of Foods



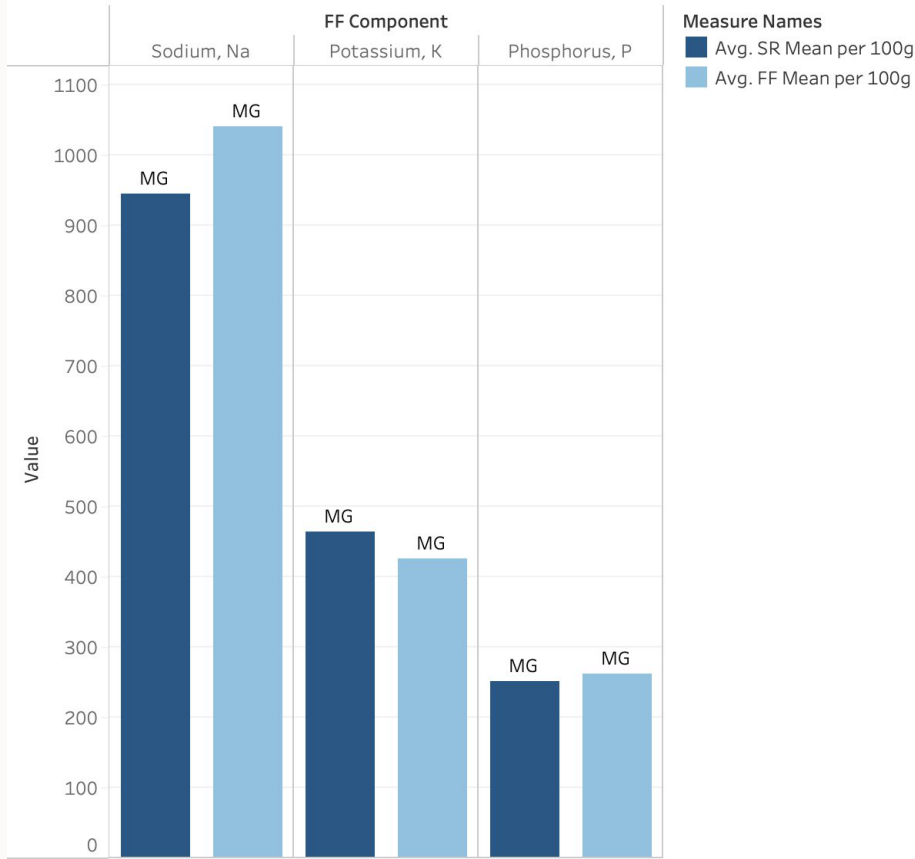
Nutrients in Chicken

Comparison of Nutrients in Chicken (ground with additives, raw)



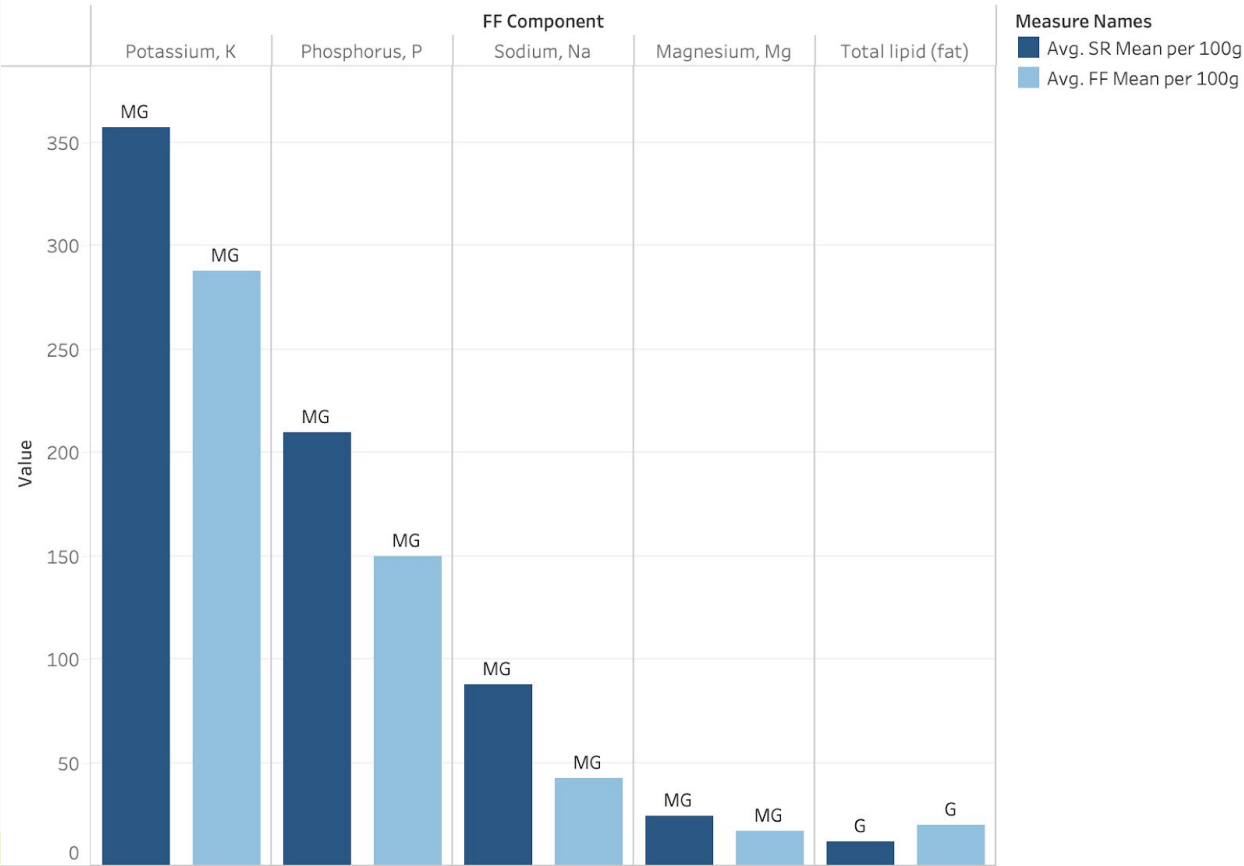
Nutrients in Ham (sliced, prepackaged, & deli meat)

Comparison of Nutrients in Ham (Sliced, pre-packaged, deli meat, 96% fat free)



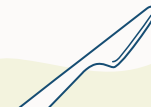
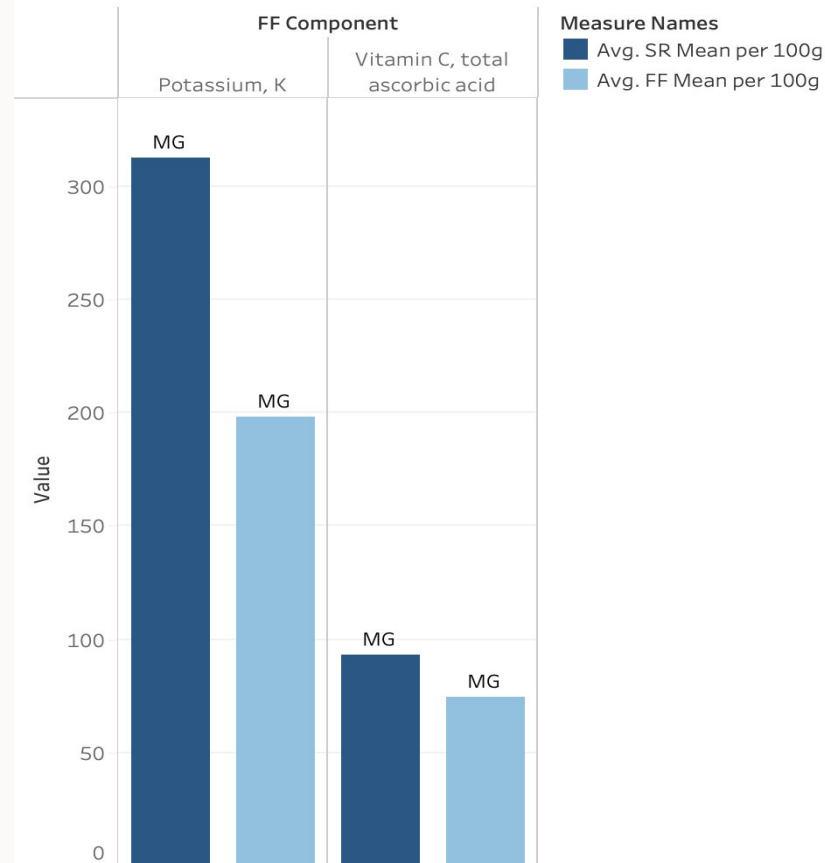
Nutrients in Beef

Comparison of Nutrients in Beef (ribeye steak, boneless, choice, raw)



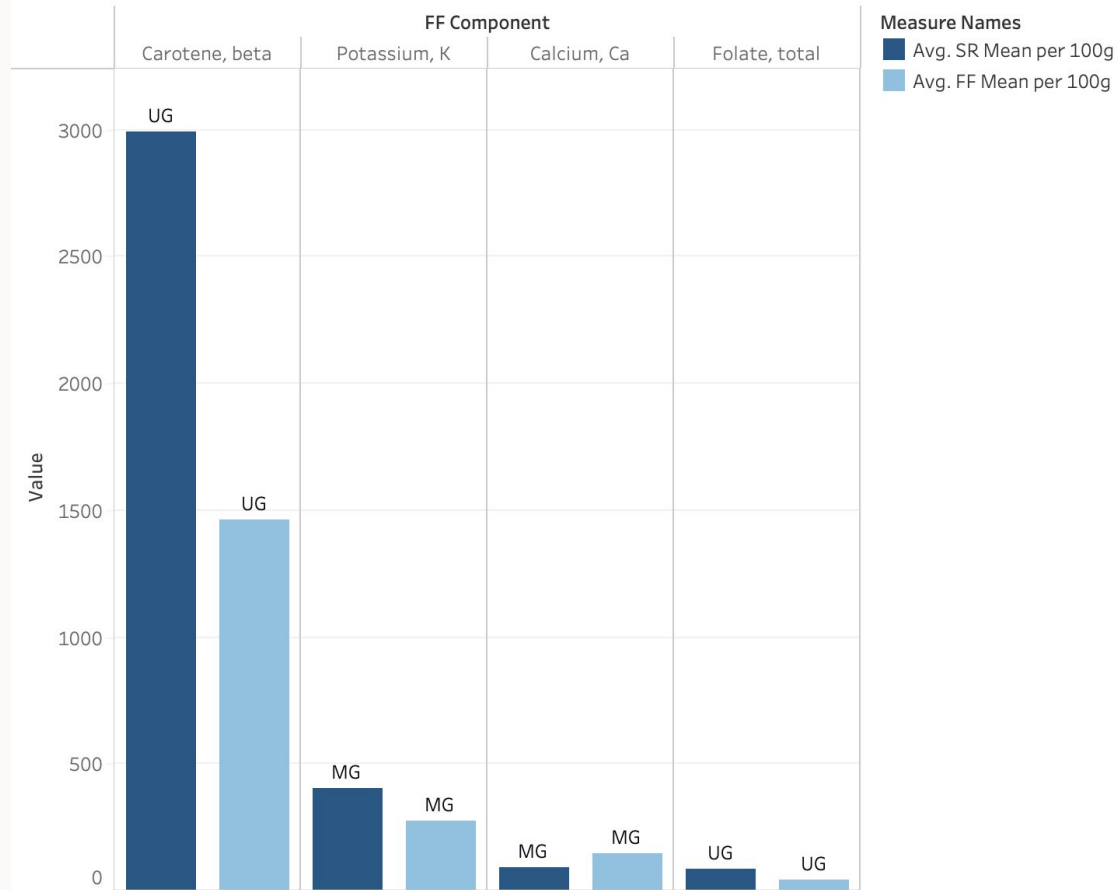
Nutrients in Kiwifruit (green, raw)

Comparison Nutrients in
Kiwifruit (green, raw)



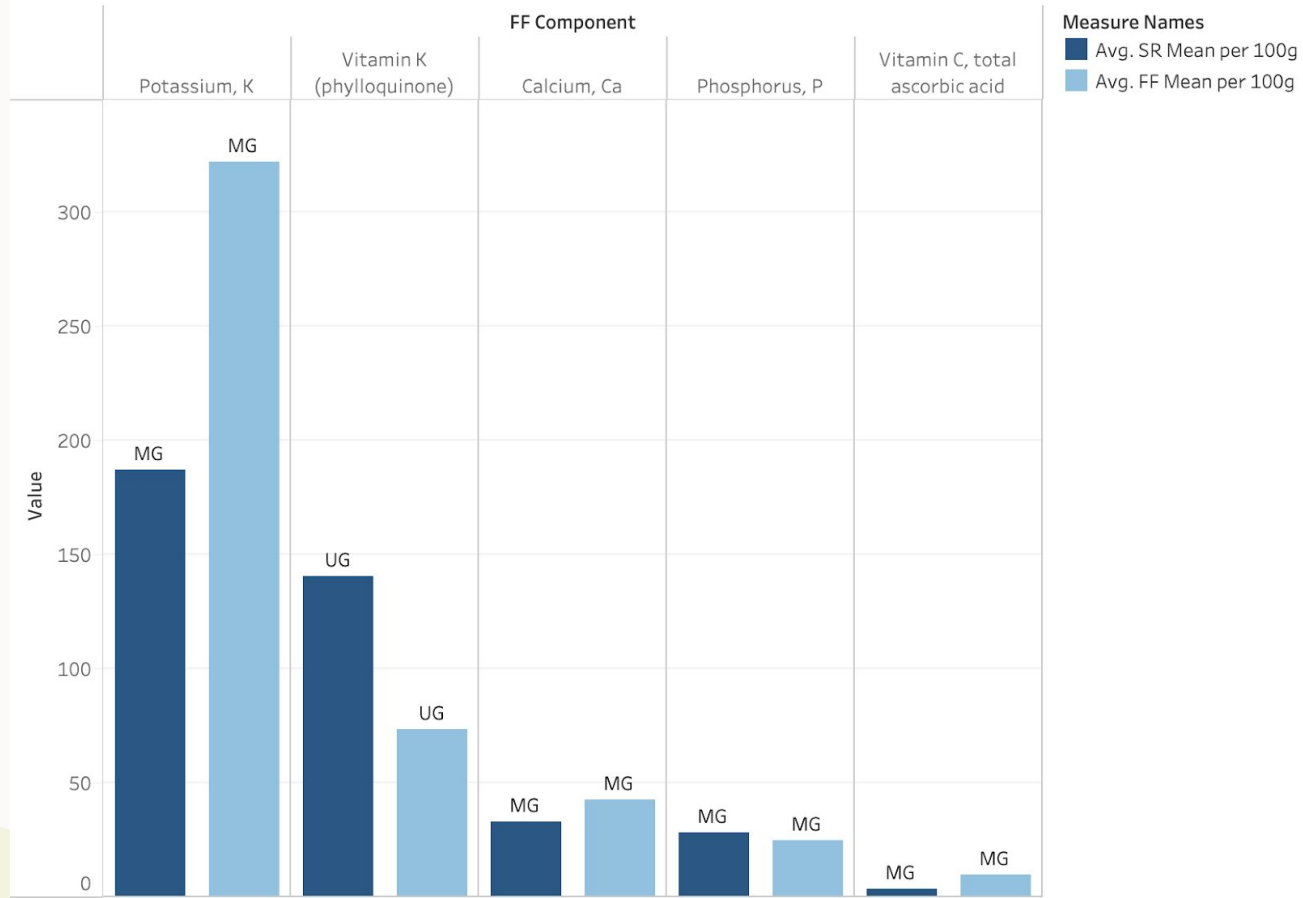
Nutrients in Kale

Comparison of Nutrients in Kale (raw)



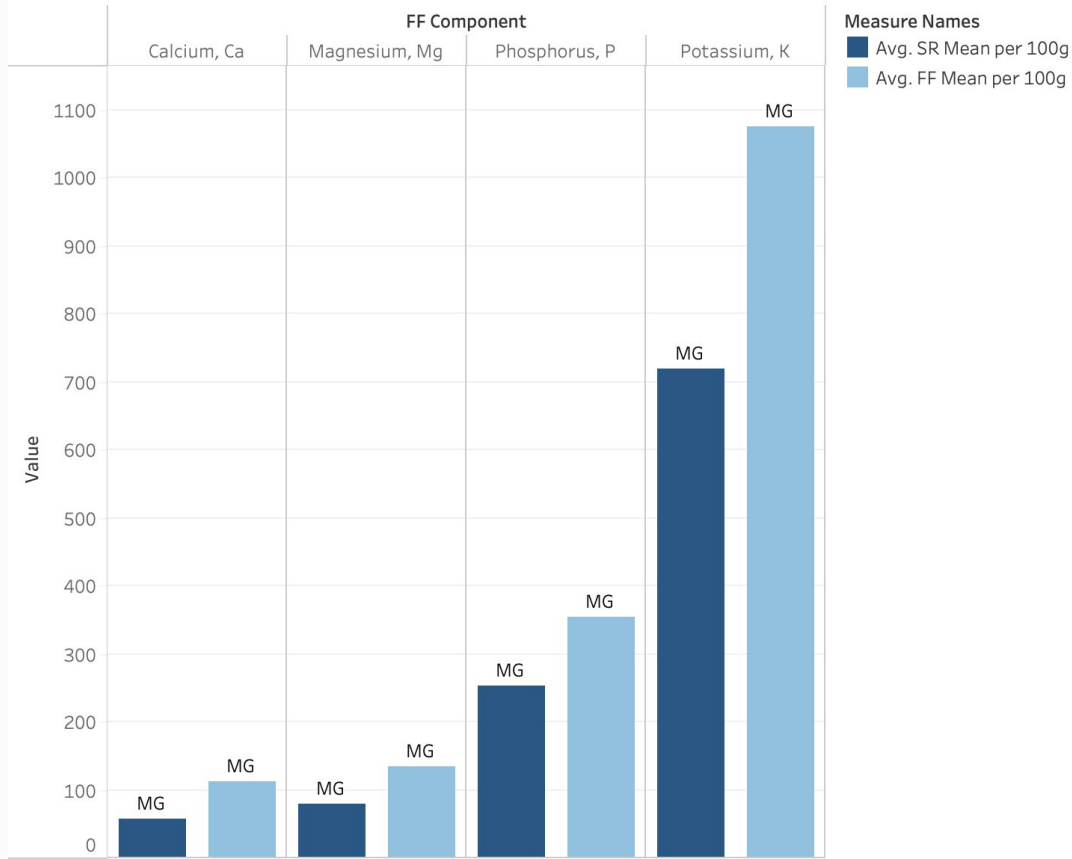
Nutrients in Lettuce

Comparison of Nutrients in Lettuce (leaf, red, raw)



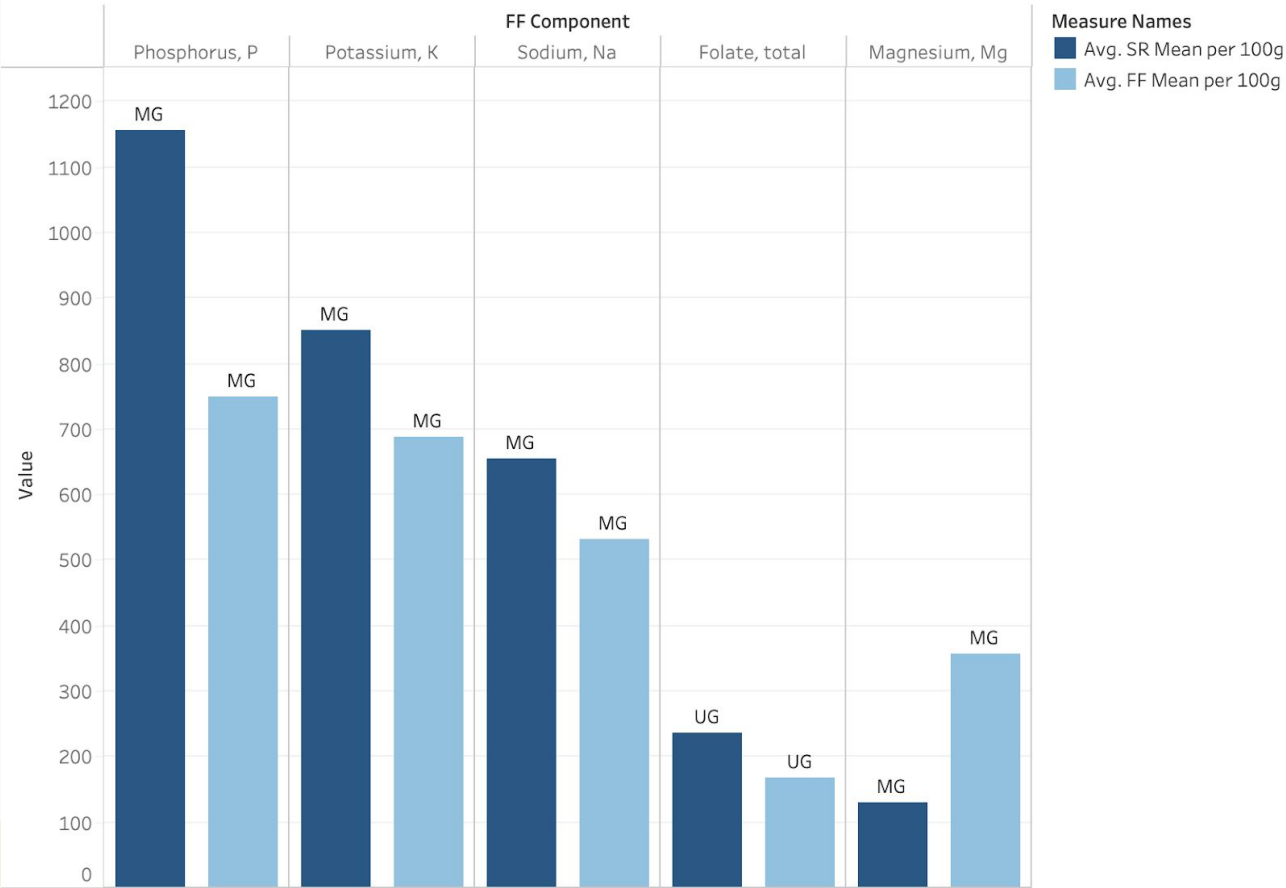
Nutrients in Chickpeas

Comparison of Nutrients in Chickpeas (garbanzo beans, bengal gram)



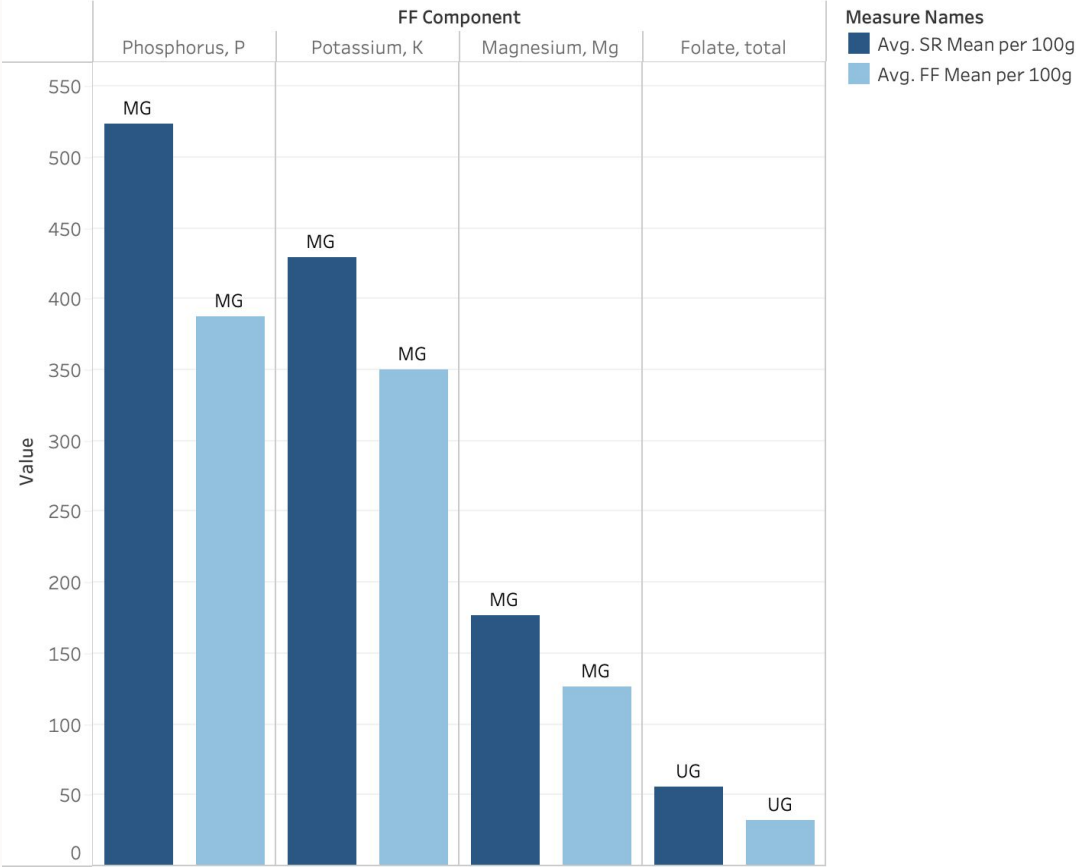
Nutrients in Seeds (sunflower seed kernels)

Comparison of Nutrients in Seeds (sunflower seed kernels)



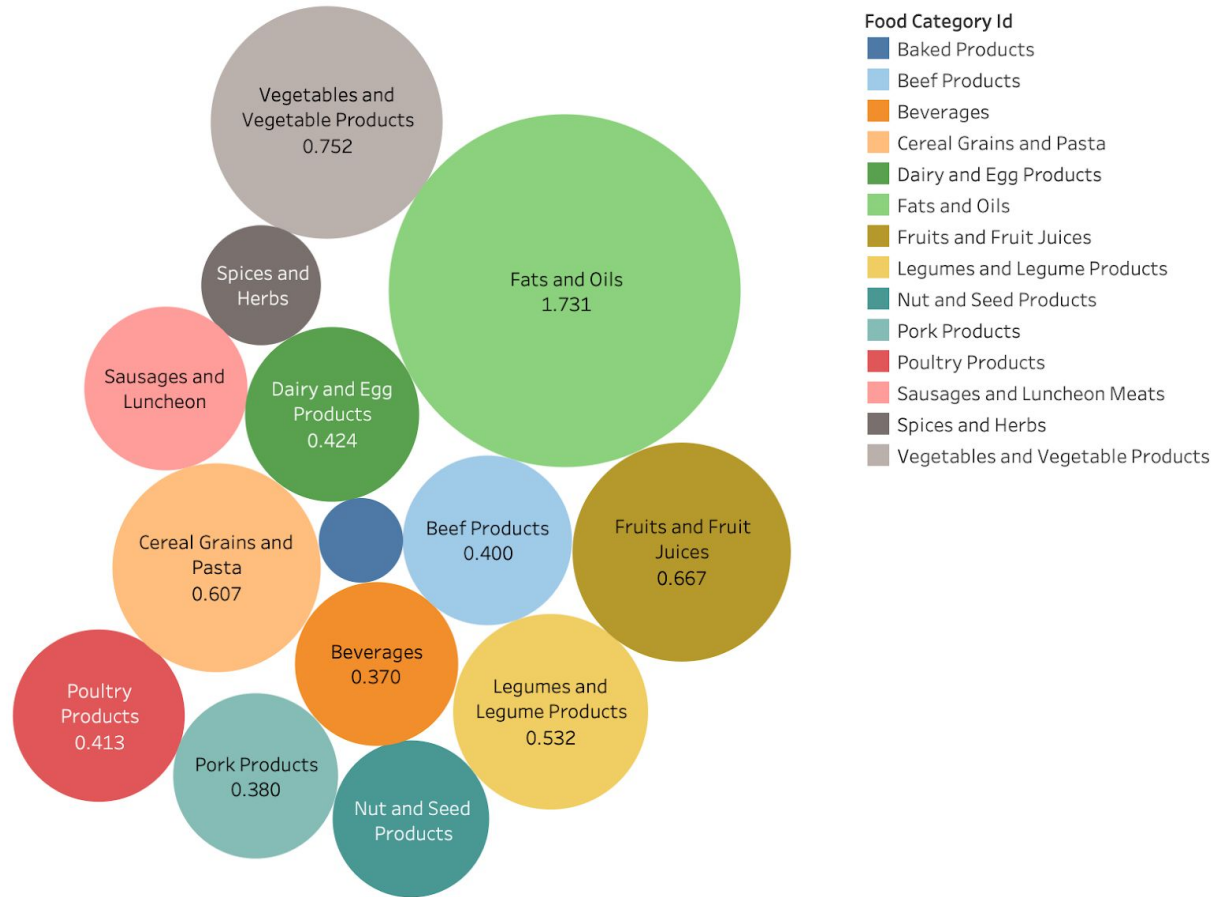
Nutrients in Oats

Comparison of Nutrients in Oats (whole grain, rolled, old fashioned)



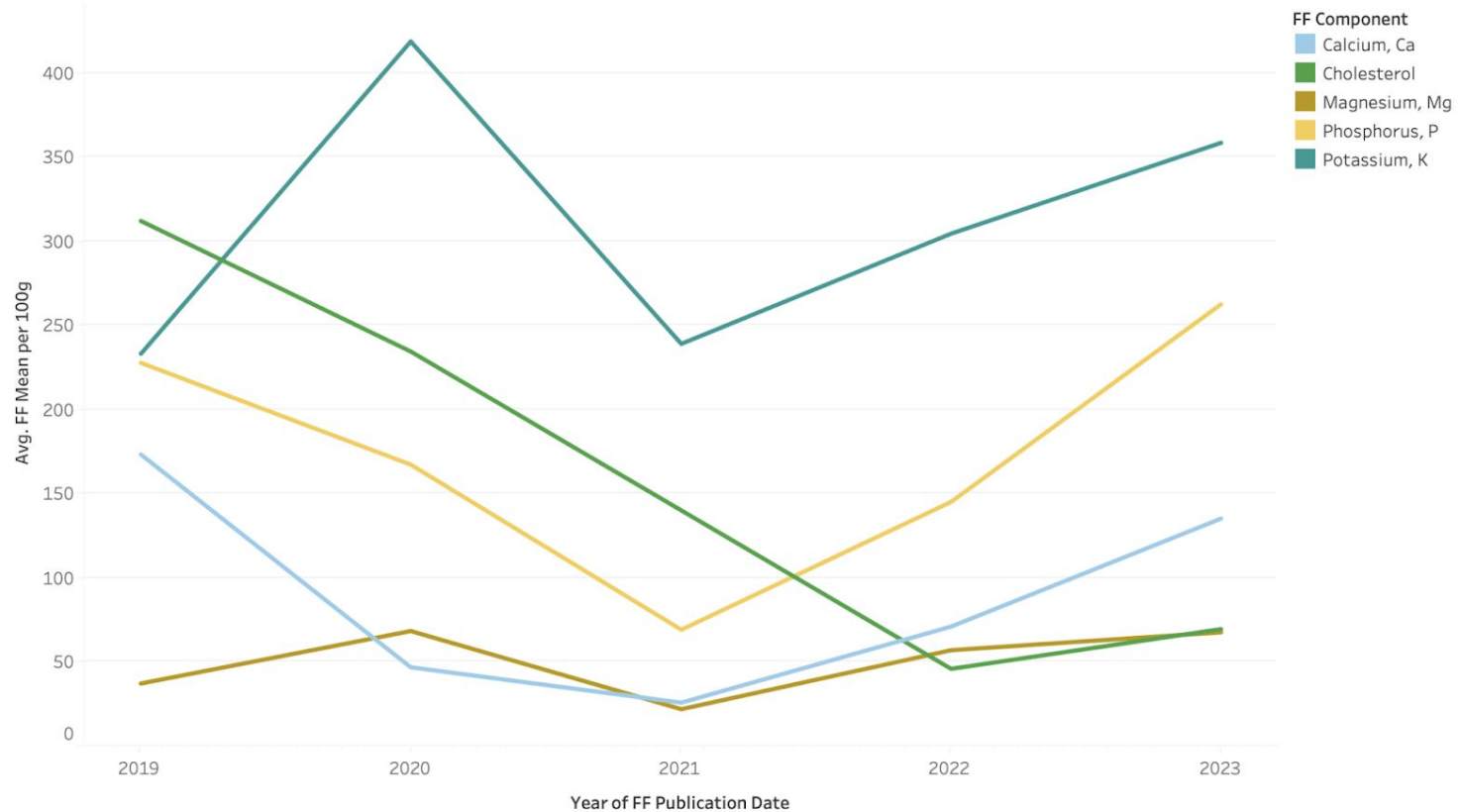
Average Discrepancies in Different Food Groups

Average Discrepancies in Different Food Groups



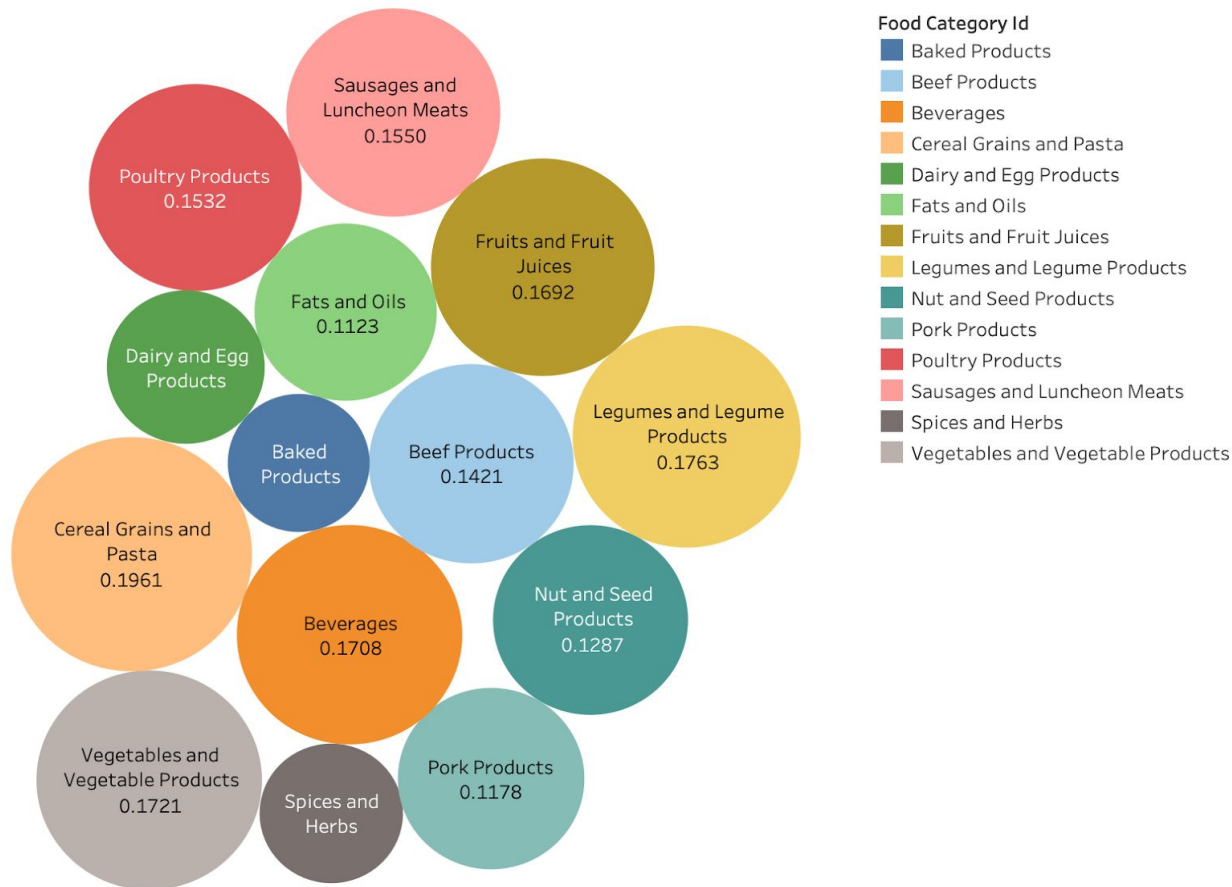
Nutrient Change Over Time (2019-2023)

Nutrient Change over Time (2019-2023)



Median Discrepancies in Different Food Groups

Median Discrepancies in Different Food Groups



Questions

