

# Best Project 1 Awards

---

## DSC 106: Data Visualization

Sam Lau

UC San Diego

Given to the top 4% of submissions (**top 12** out of 237 students).

Include on your resume + portfolio website!

# Walmart Is Consistently the Cheapest Grocery Store Regardless of How Processed the Food Is

Whole Foods and Target both charge more per calorie than Walmart across all NOVA processing levels.



Edison Ayrán

# Whole Foods is healthier — but still mostly ultra-processed

Owen McFadden

67% of Whole Foods products are ultra-processed vs. 80–84% at Walmart and Target. Yet in everyday categories, the gap nearly disappears across all three chains. Analysis of 26,250 products via GroceryDB, classified using the NOVA scoring system.

## ALL PRODUCTS

### Whole Foods



67%

ultra-processed

### Walmart



80%

ultra-processed

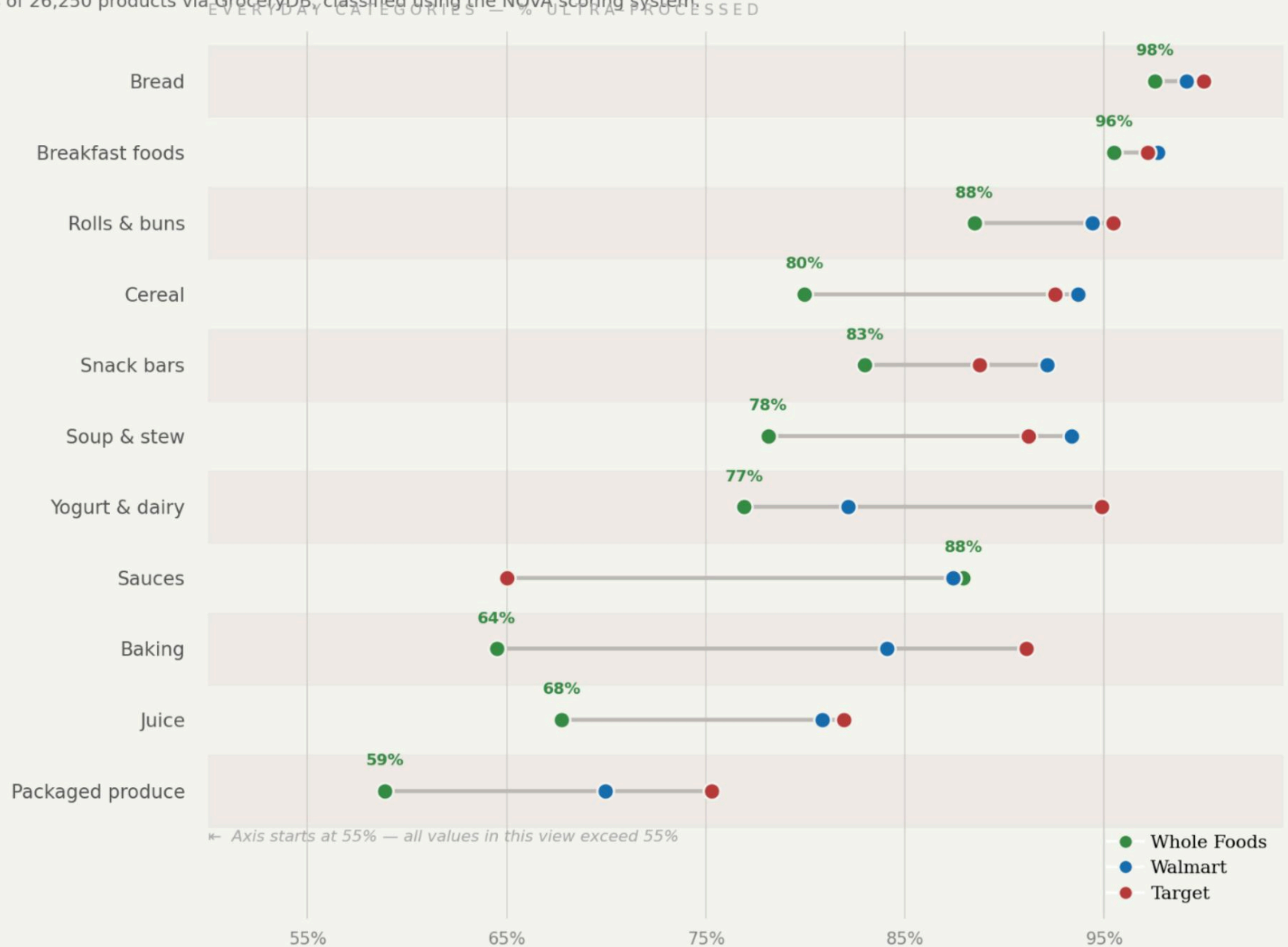
### Target



84%

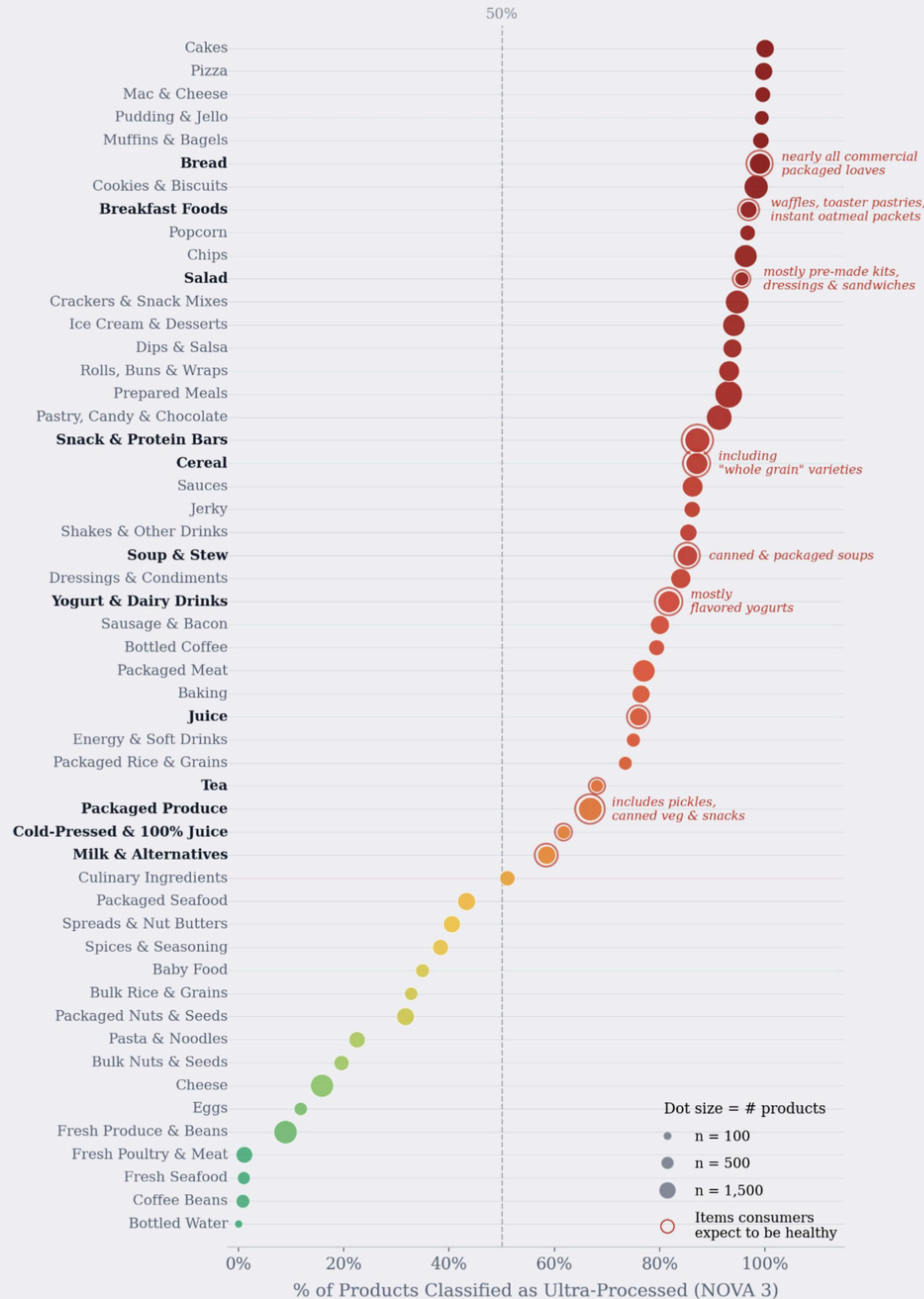
ultra-processed

Share of all stocked products classified as NOVA 4 (ultra-processed)



Categories with ≥15 products per store. Sorted by average ultra-processed share descending. Source: GroceryDB, NOVA classification.

# Ultra-Processing Extends Into Categories Consumers Expect to Be Healthy

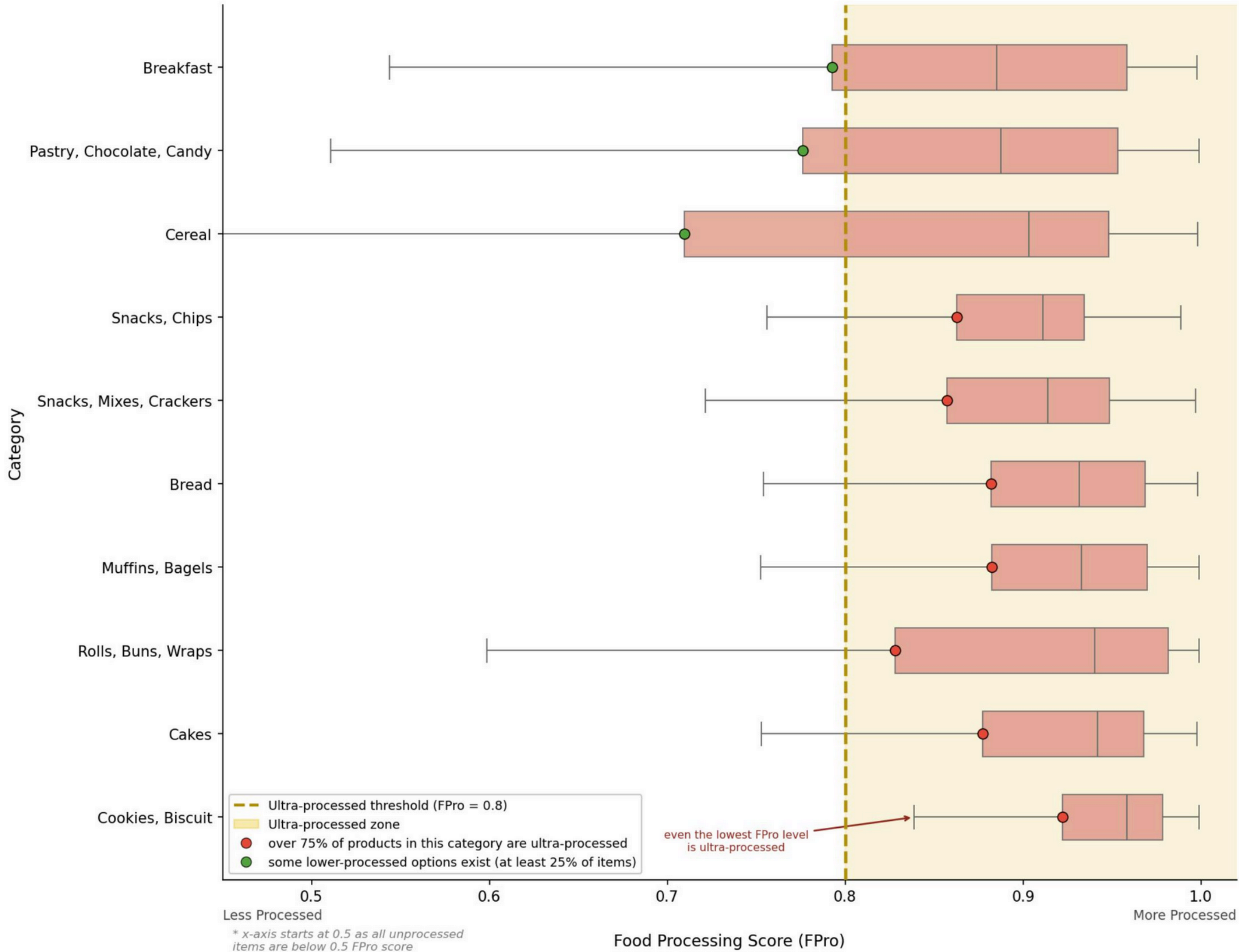


All 26,250 products across GroceryDB (Walmart, Target, Whole Foods). NOVA 3 = ultra-processed per GroceryDB random forest classifier. Red ring = categories a typical consumer would expect to be relatively healthy. Source: GroceryDB.

Diego Menchaca

# No Escape: Top Ultra-Processed Categories Offer Almost No Lower-Processed Options

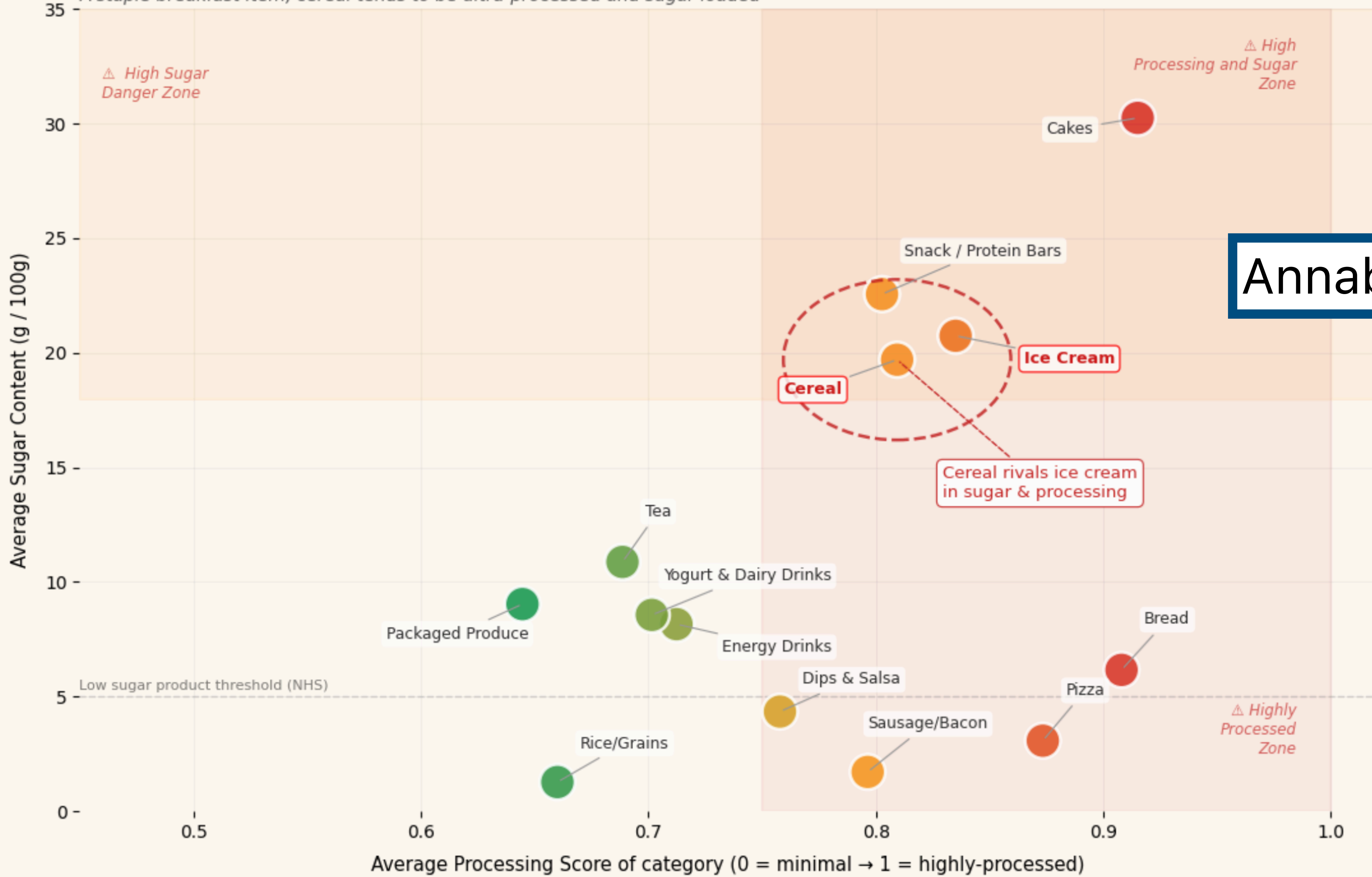
Top 10 categories with the highest median Food Processing Score (FPro) in ascending order having all erroneous outliers removed, statistical outliers not displayed, and displaying the FPro range 0.5 to 1.0



Lina Seto

# Breakfast or Dessert? The Hidden Sugar & Processing in Cereal

A staple breakfast item, cereal tends to be ultra-processed and sugar-loaded



Annabelle Guiditta

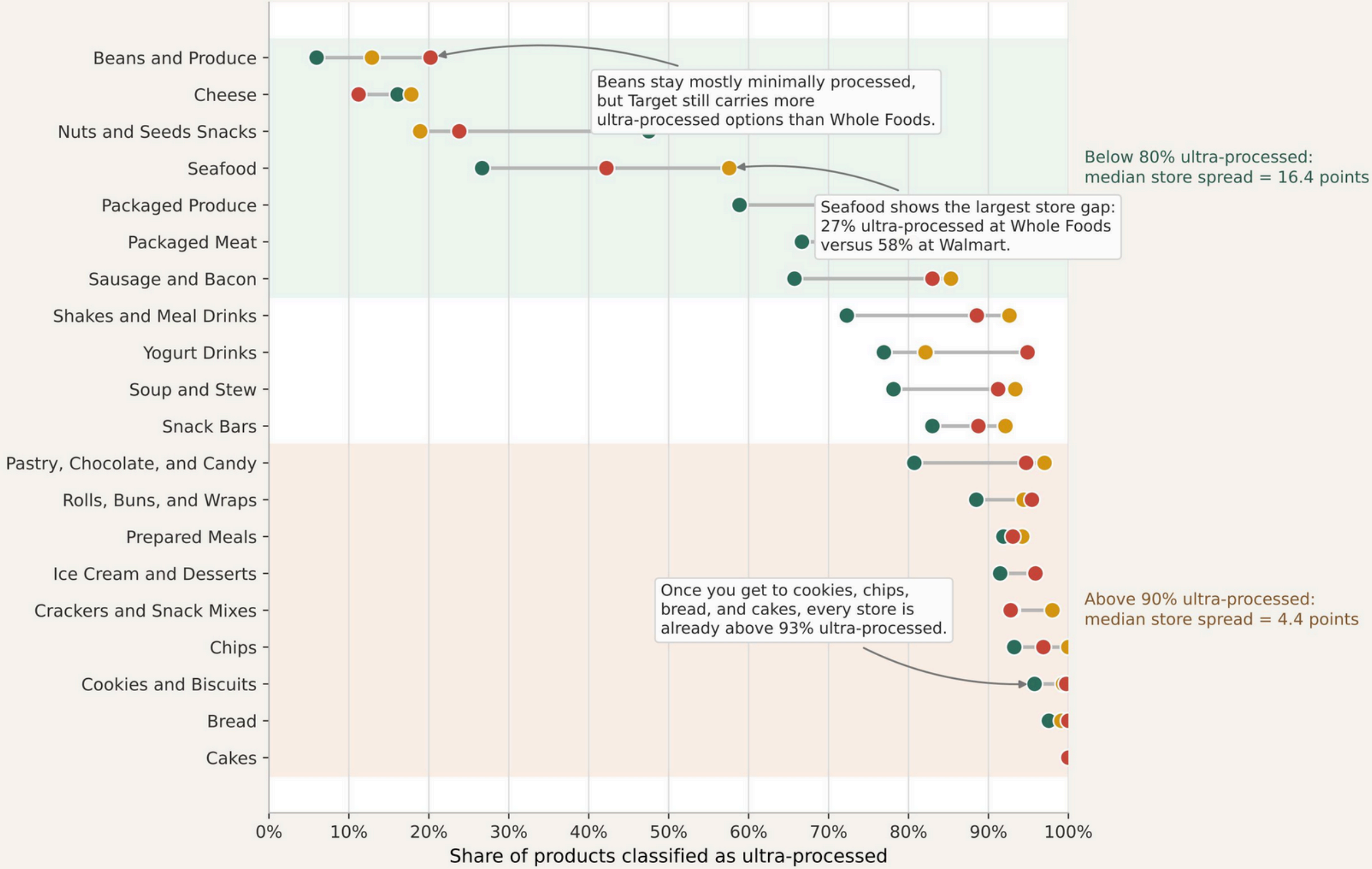
# Store choice matters most in the fresh aisle; snack foods are ultra-processed everywhere.

Share of products classified as ultra-processed (NOVA 4) in categories sold by Whole Foods, Walmart, and Target. Main chart keeps only categories with at least 75 items in every store (20 categories, 17,999 products); categories are sorted by average ultra-processed share.



## Overall assortment mix

Whole Foods is the least processed overall and in 17 of the 20 comparable categories below.



Source: simplified GroceryDB dataset used in course materials. Each product counts once, so the chart reflects assortment mix rather than shelf space or sales volume.

Thomas Deitel

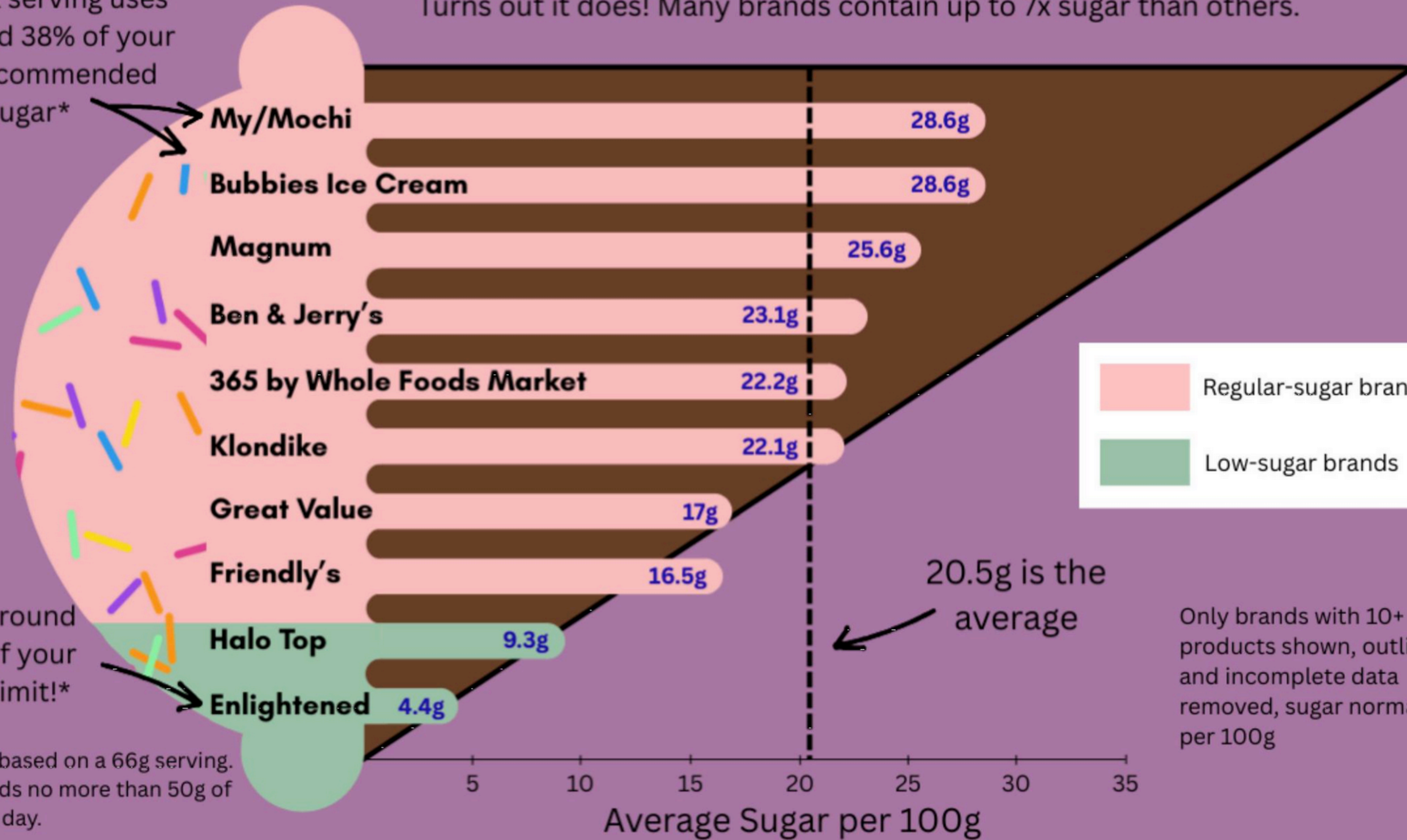
# Does Ice Cream Brand Actually Matter?

Turns out it does! Many brands contain up to 7x sugar than others.

A typical serving uses up around 38% of your daily recommended sugar\*

Only around 5.8% of your daily limit!\*

\*% is calculated based on a 66g serving. WHO recommends no more than 50g of added sugar per day.



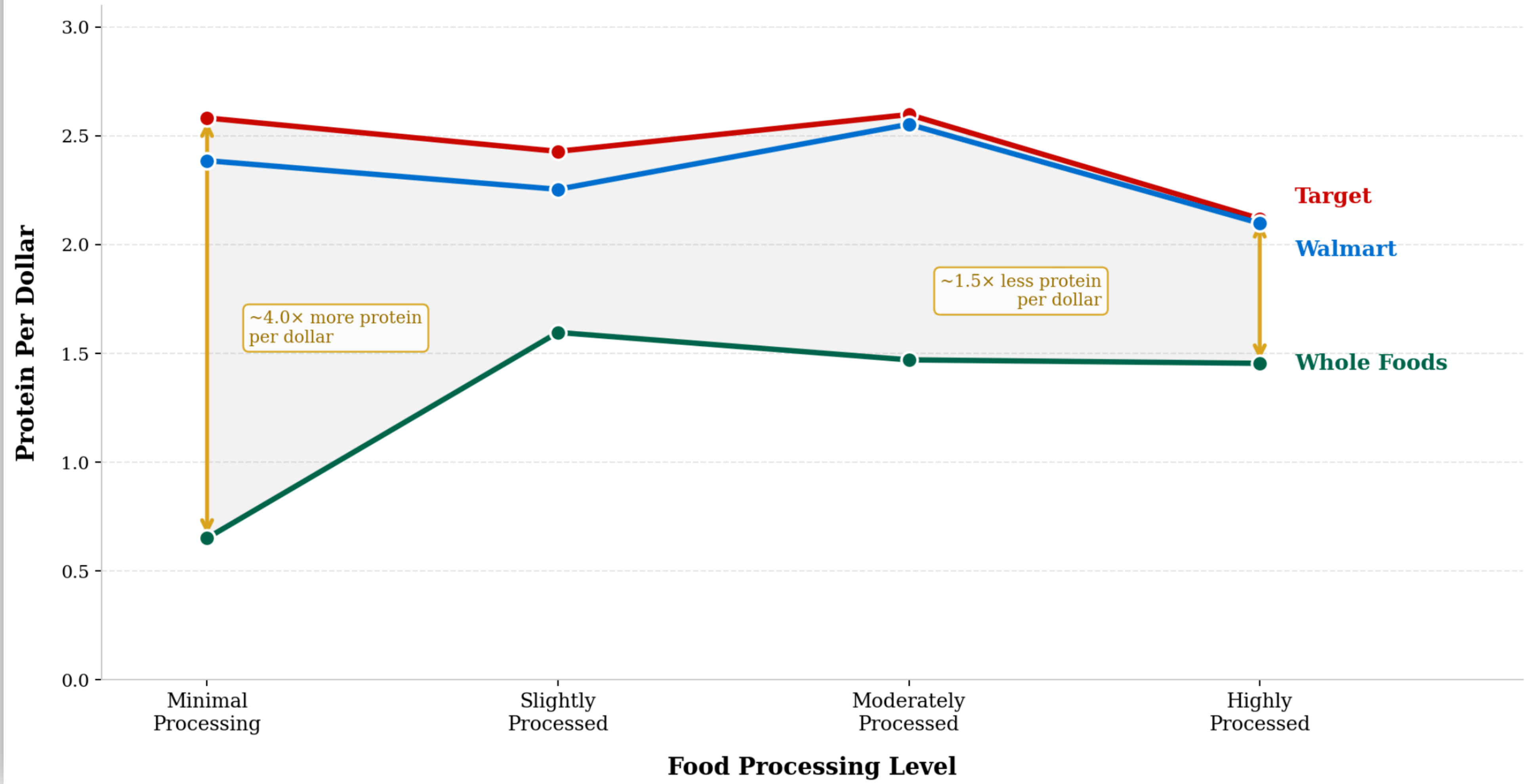
Regular-sugar brands  
Low-sugar brands

20.5g is the average

Only brands with 10+ products shown, outliers and incomplete data removed, sugar normalized per 100g

Nayana Naineni

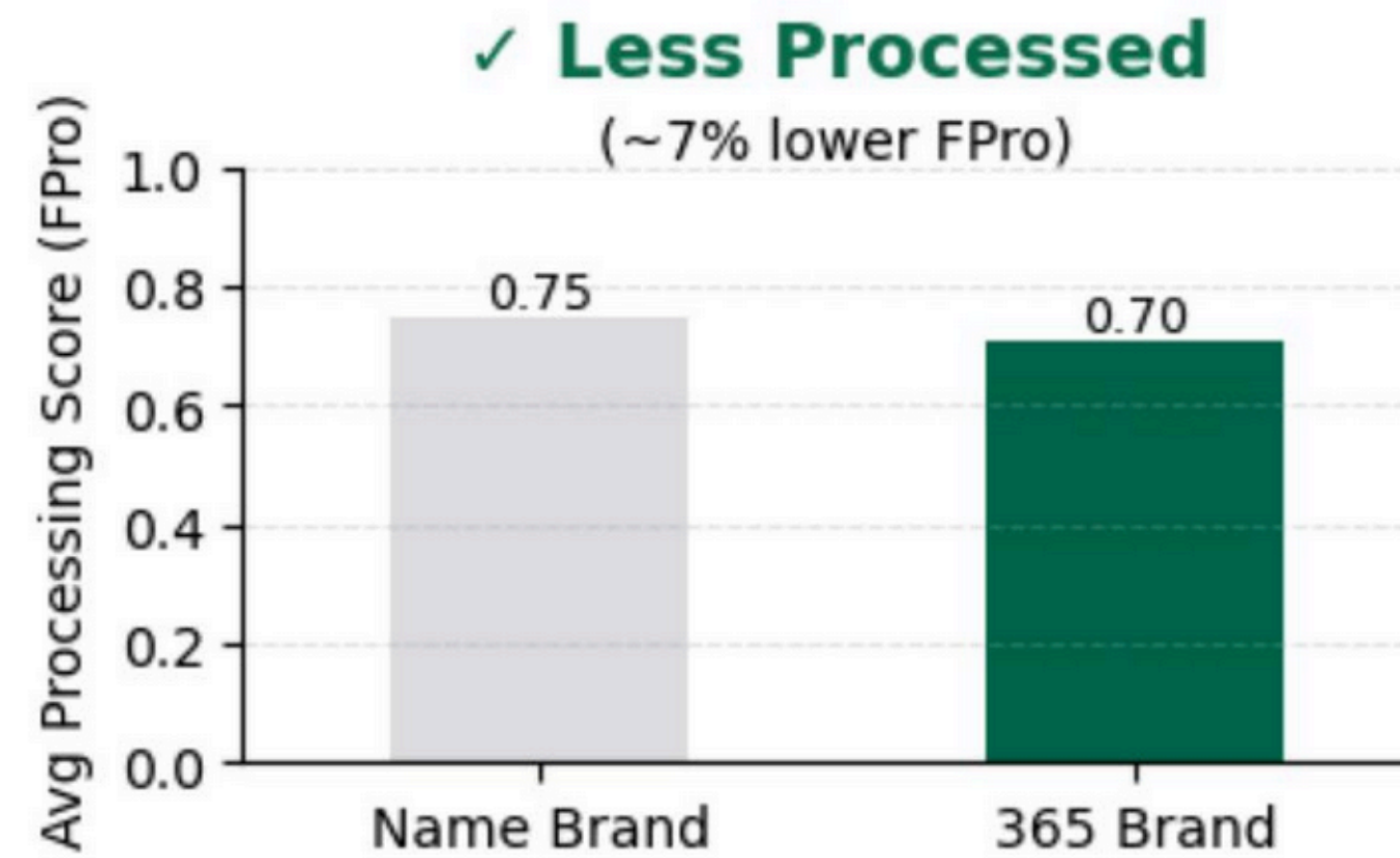
# Whole Foods Isn't Built for Budget Lifters — Even at Higher Quality



**Triton Stewart**

## Getting More Bang for Your Buck on a Lazy Day — Even at Whole Foods

Average price per calorie, processing score (FPro), and package weight for prepared meals at Whole Foods, grouped by brand type (name brands like Rao's or House Foods vs. the 365 store brand).

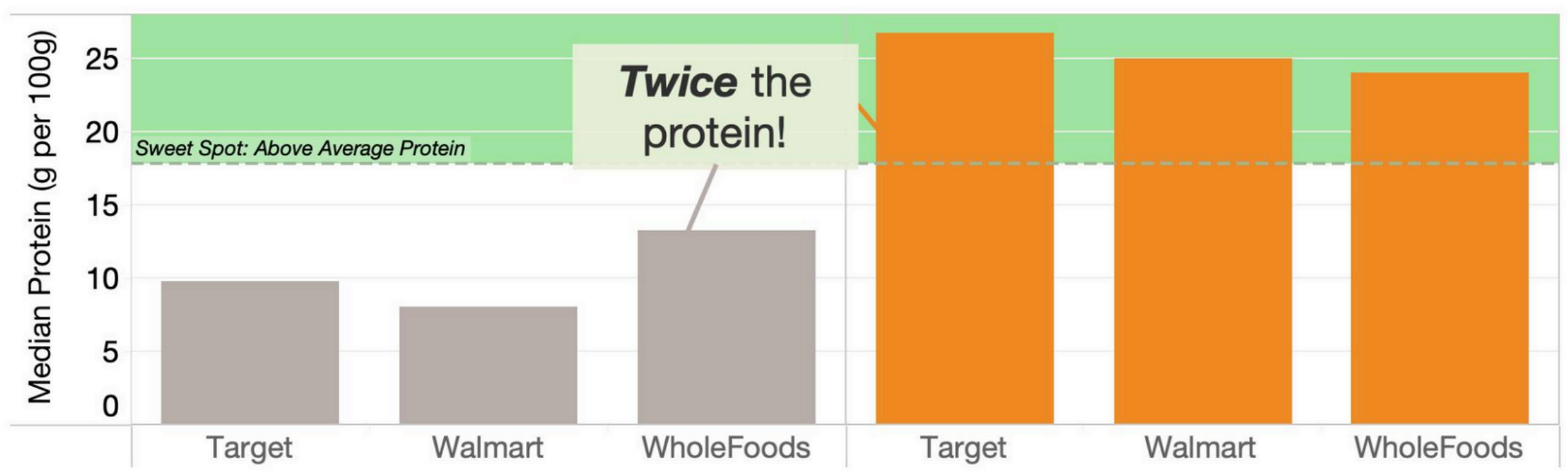
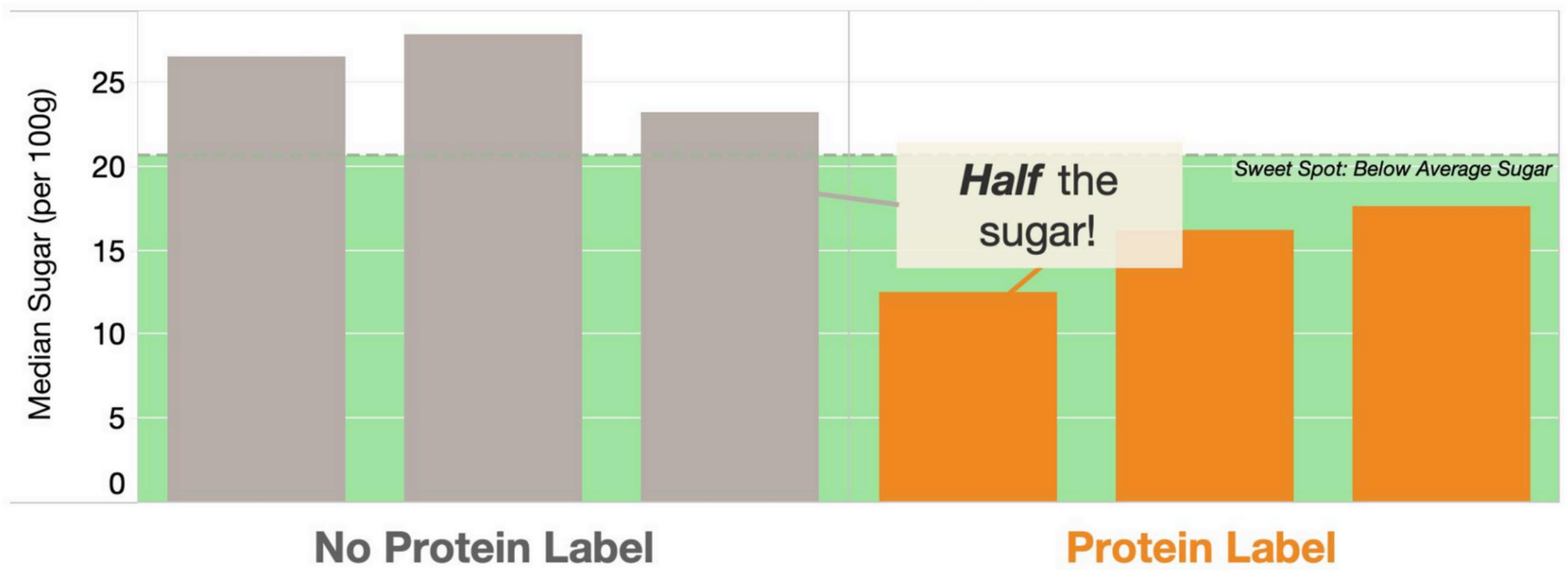


Jessica Lu

# Protein Snack Bars Consistently Hit the Nutrition

## 'Sweet Spot'

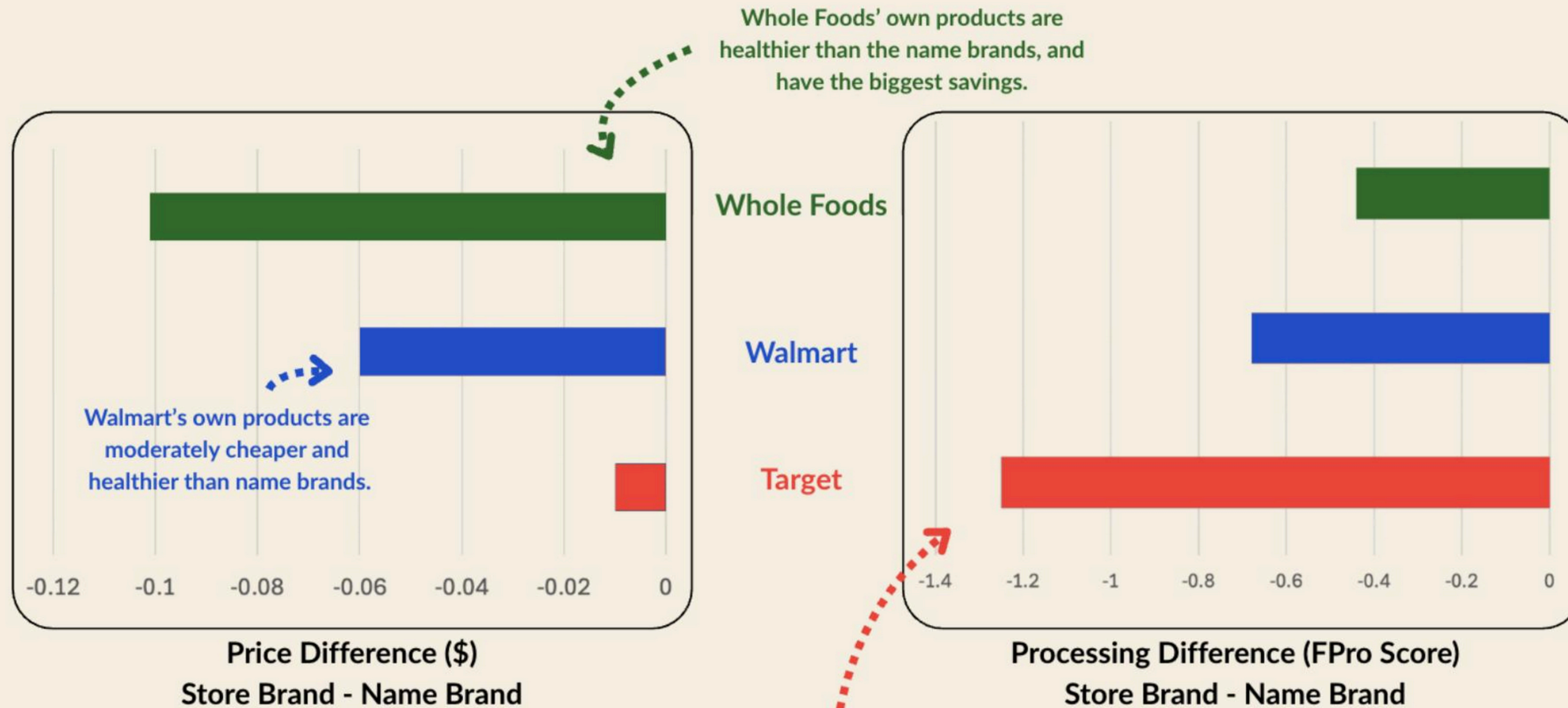
Filtered on snack bars with and without 'protein' in the name. Median sugar and protein per 100g, across major grocery stores.



Ani Boppana

# The Case for Store Brands Just Got a Lot Stronger

Per-product averages across Whole Foods, Walmart, and Target show that in-store brands like *Good and Gather* and *Whole Foods Market* score lower on food processing and cost less than their name brand equivalents (no matter where you shop).



Whole Foods' own products are healthier than the name brands, and have the biggest savings.

Walmart's own products are moderately cheaper and healthier than name brands.

Target's own products come with the biggest healthiness boost, but are almost identical to name-brand counterparts in terms of pricing.

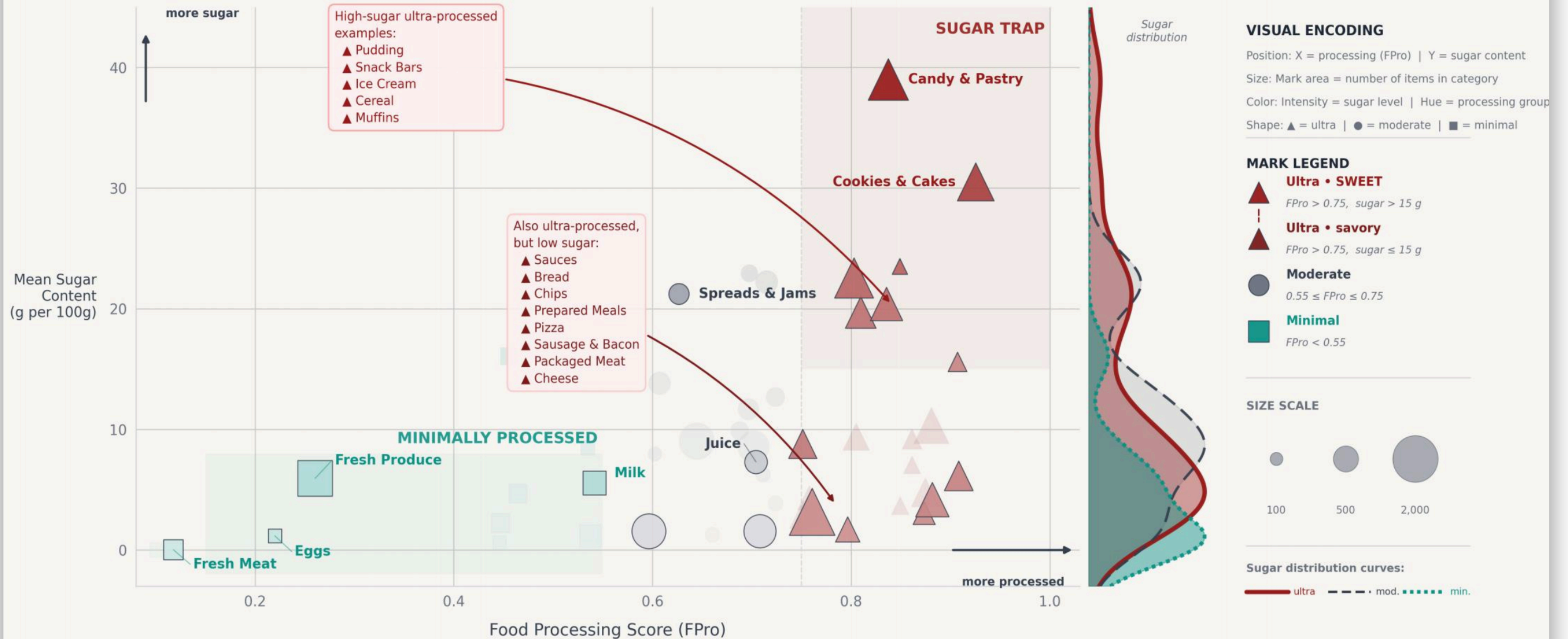
FPro score: 0 = minimally processed, 1 = highly processed. Differences calculated as store brand minus name brand average per store.

Ananya Wasker

# Sugar Hides in Ultra-Processed Sweets, Not in All Ultra-Processed Foods

76% of grocery items are ultra-processed (predicted NOVA class 3)

Each mark = one food category · Right panel shows each group's sugar distribution.



Source: GroceryDB (Ravandi et al., Nature Food 2023) · 49 categories with at least 100 items · 26,221 products · Walmart, Target and Whole Foods

Maxime Chung