Behavioral Economics Insights to Improve Diets

Note: No conflict of Interest or Disclosures

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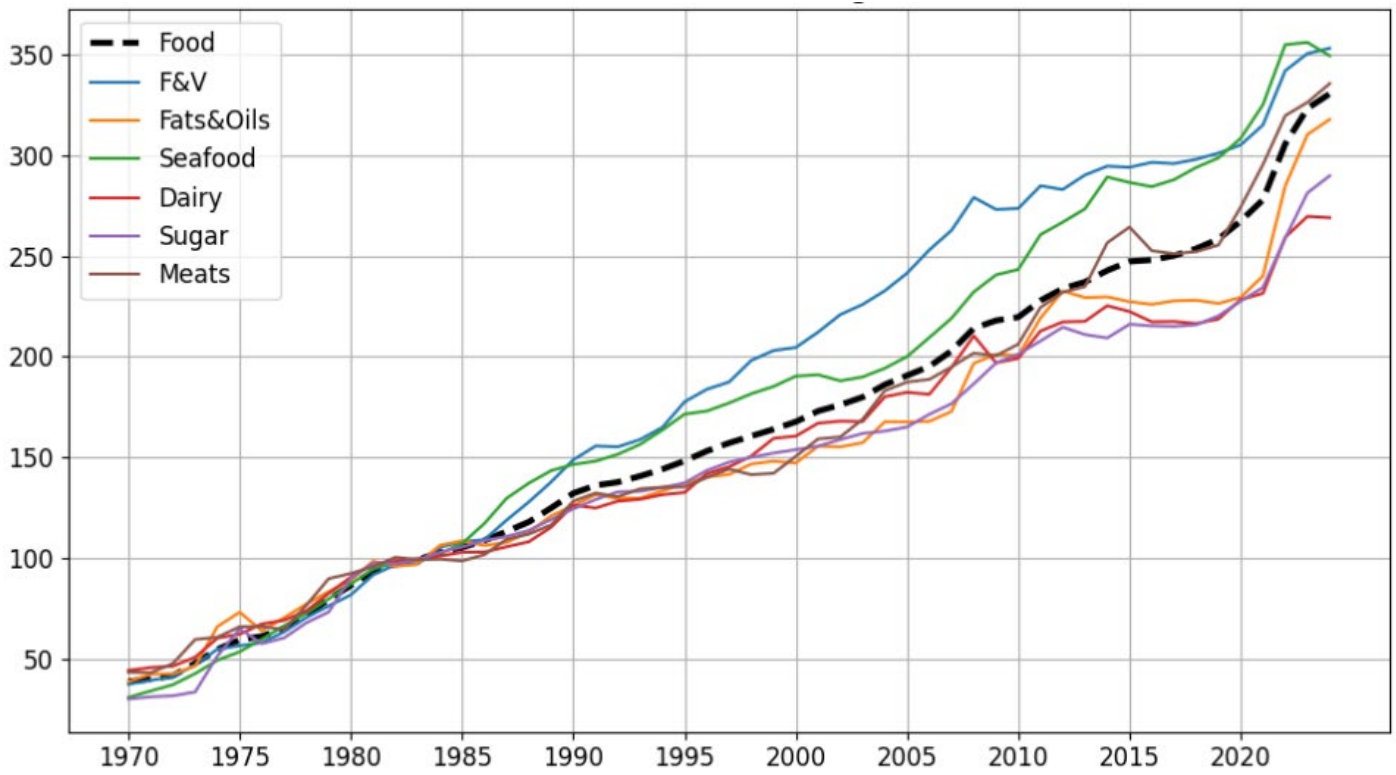
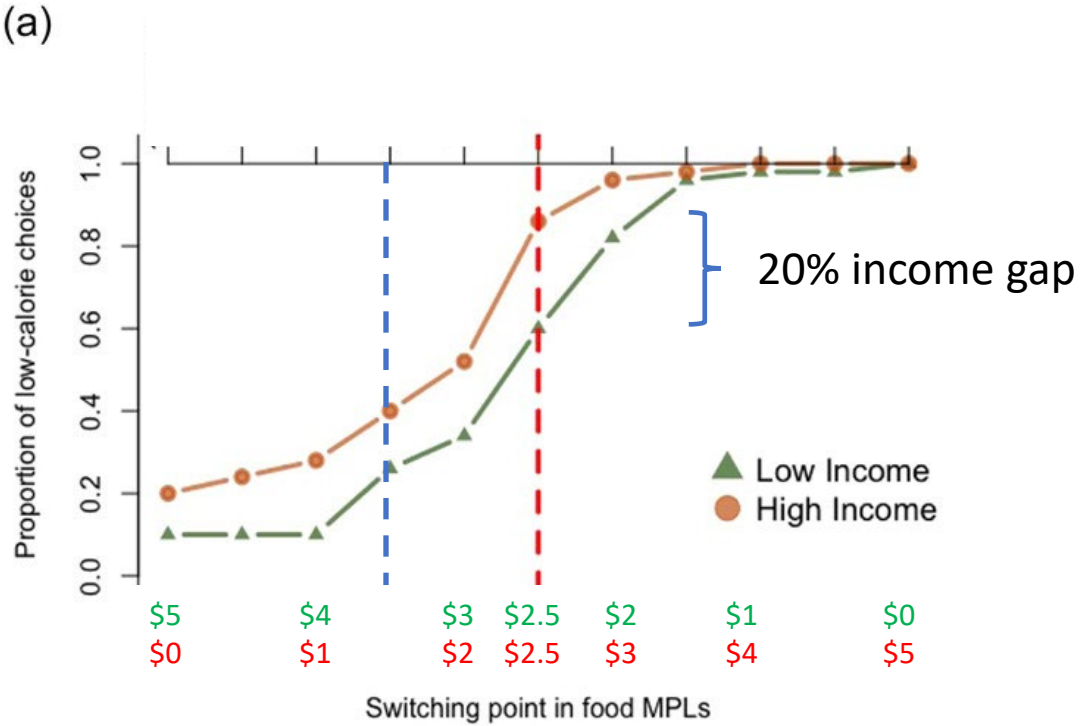
What is Economics?

Relative Food Prices (CPI)



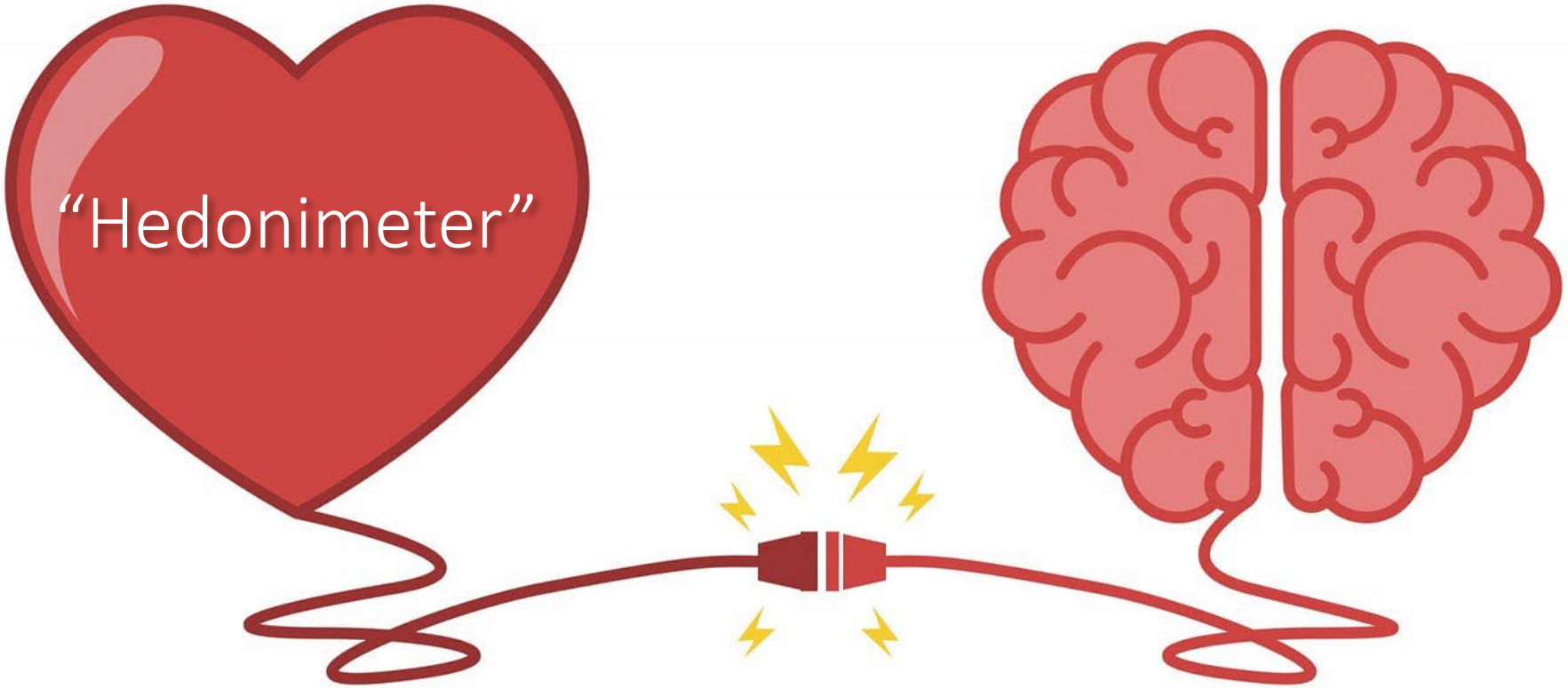
Source: U.S. Bureau of Labor Statistics

Adjusting Market Prices – Subsidies and Taxes

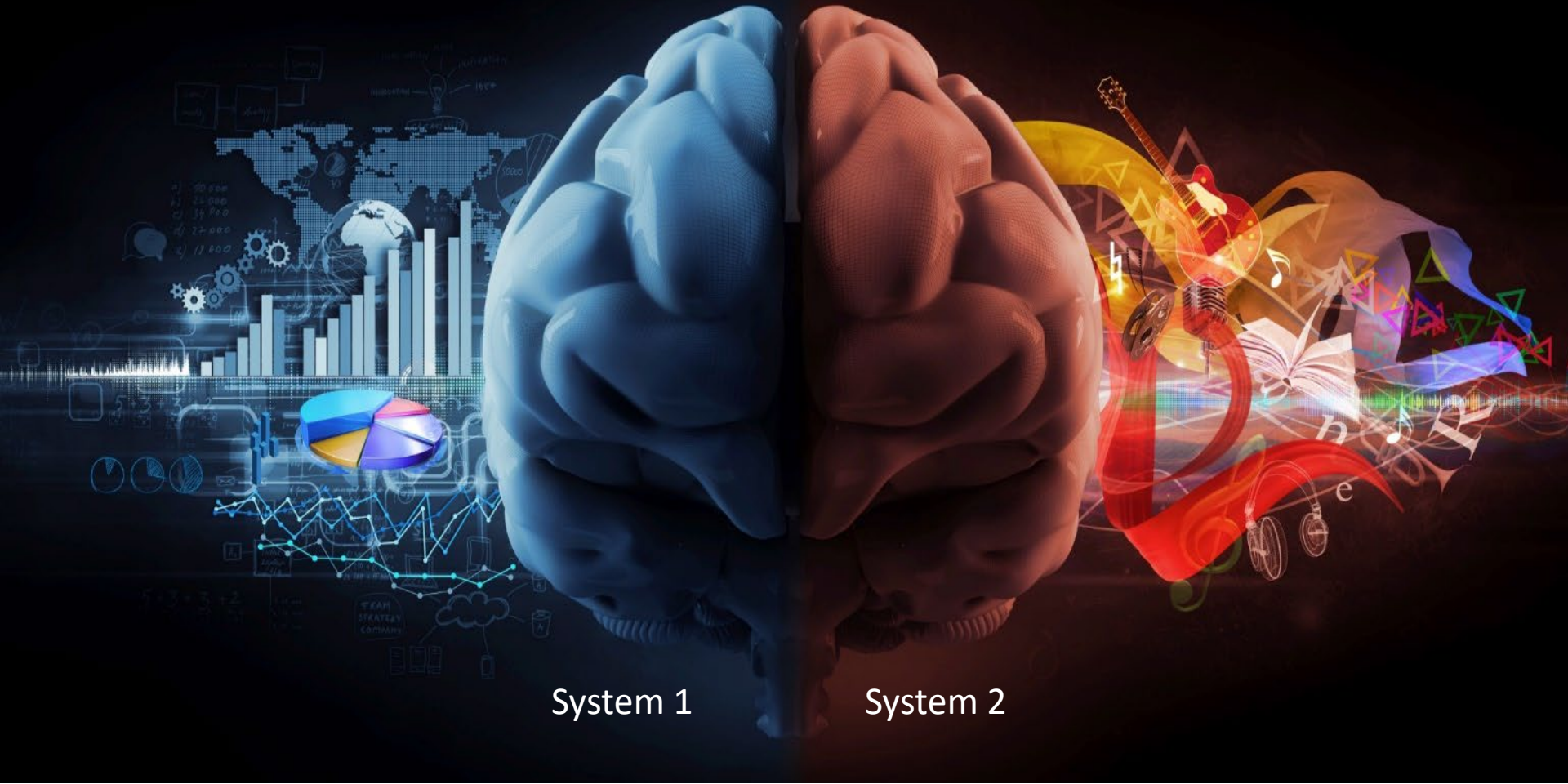


Huseynov, Palma, and Segovia (2023)

“Hedonimeter”



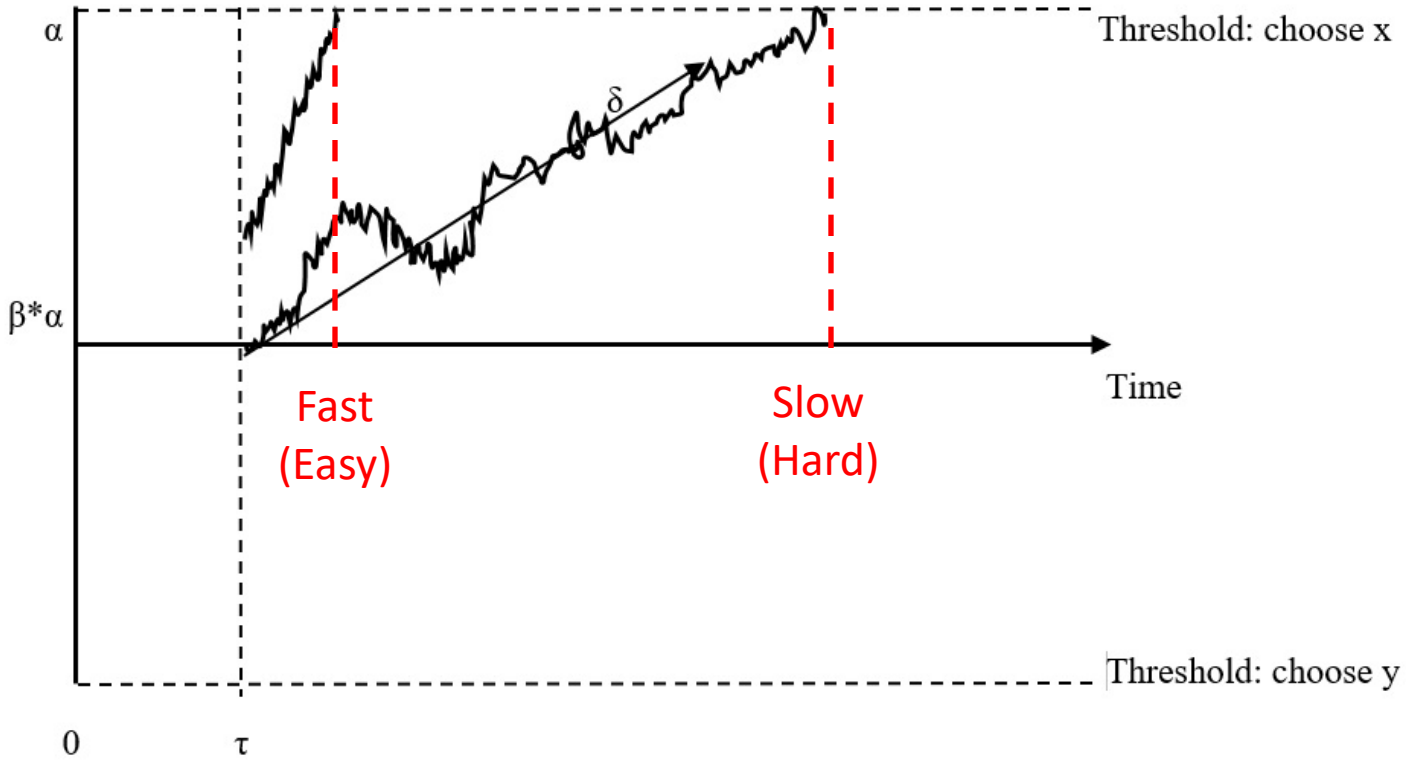
The Two Selves Framework



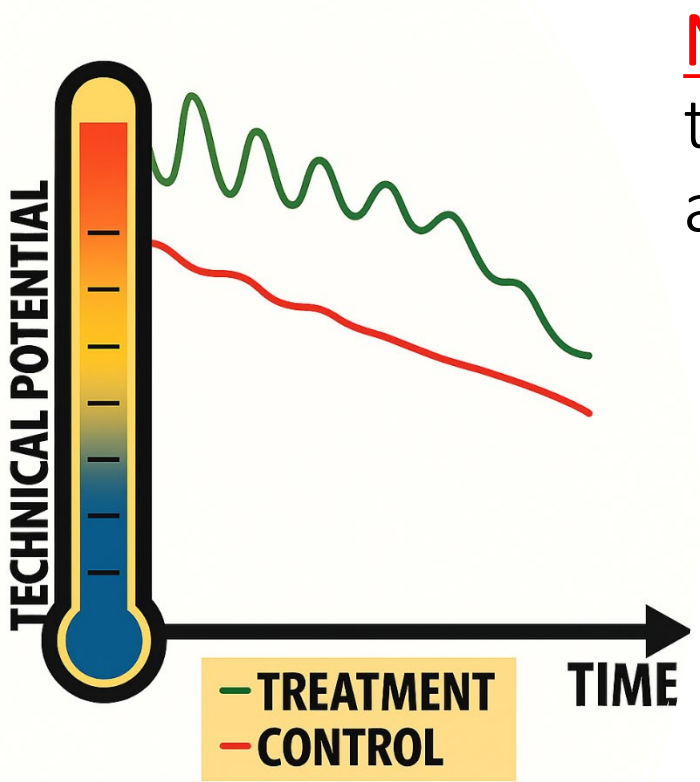
System 1

System 2

The DDM of “Value” Accumulation & Choice



Huseynov and Palma (2021). Note: DDM Stands for Drift Diffusion Model introduced by Ratcliff (1978).

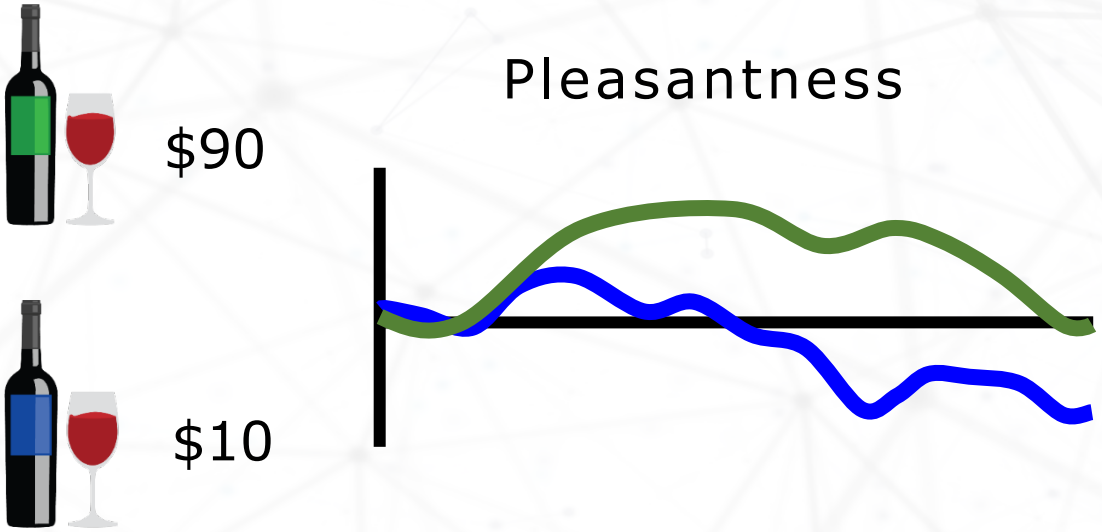


NUDGE: A gentle push towards welfare improving action

- One-time decisions with lasting effects (i.e., organ donations, saving commitment, energy conservation, etc)
- Caveat: Food choice, nutrition, and exercising require continuous effort - self control failures

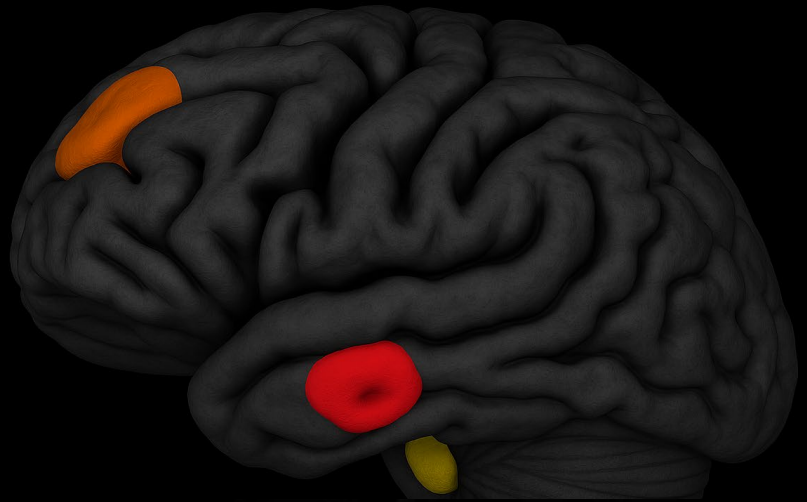
Hosni, Palma, and Segovia (2025)

The ”Thin” line: Perception | Reality



Plassman et al. (2008)

Not everyone faces the same “urges”



Health & Nutrition Messaging = Self-control

Hare et al 2011

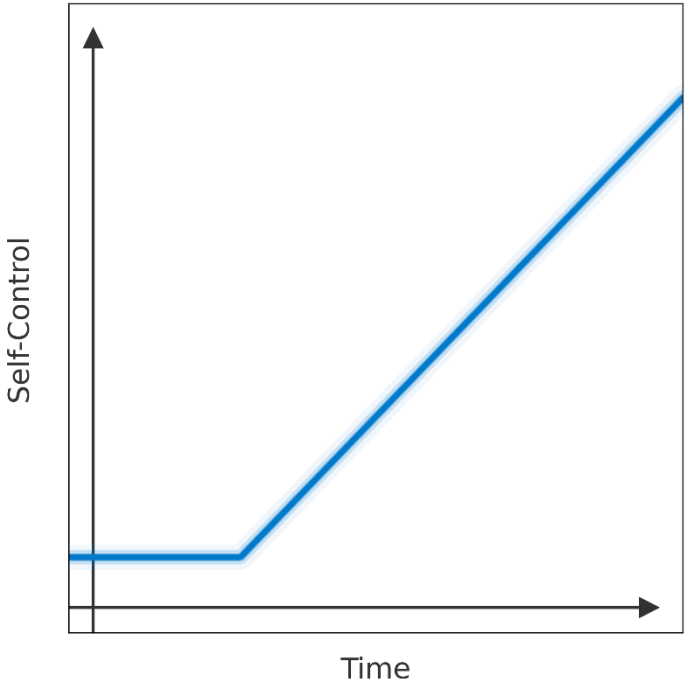
Taste Messaging = Pleasure

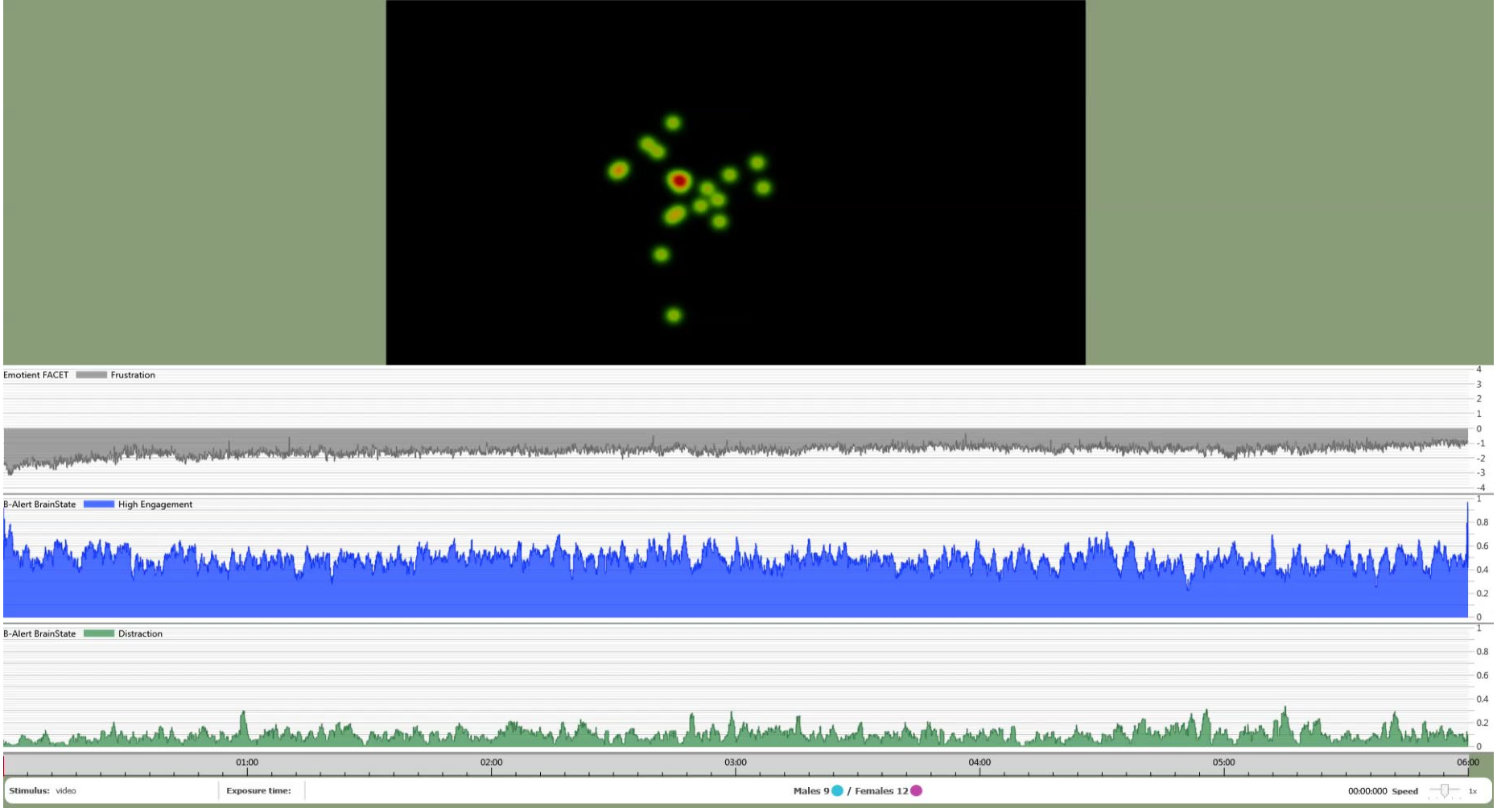
Plassman et al 2008

SELF-CONTROL FAILURES

Image credit: http://newshour-tc.pbs.org/newshour/wp-content/uploads/2015/01/marshmallowtest.jpg

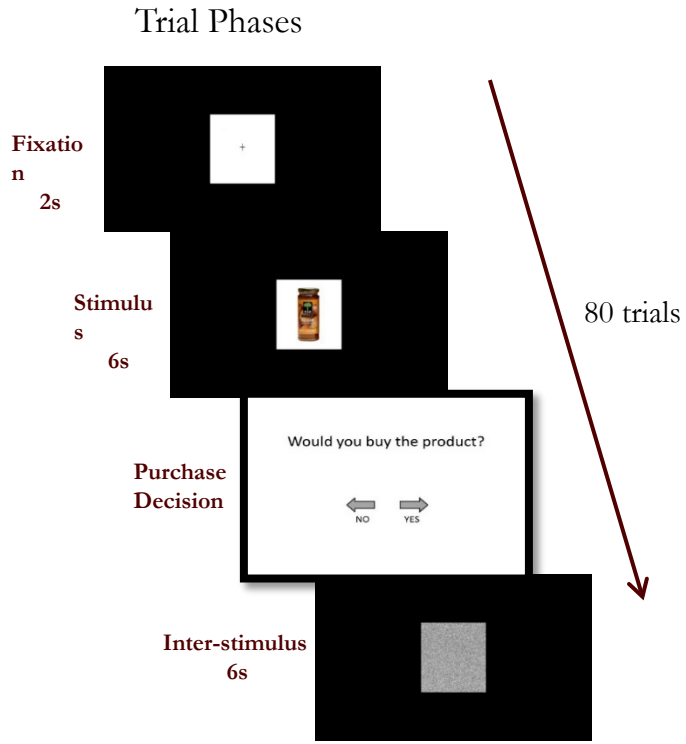
Knowledge/Motivation vs “Ego” Depletion



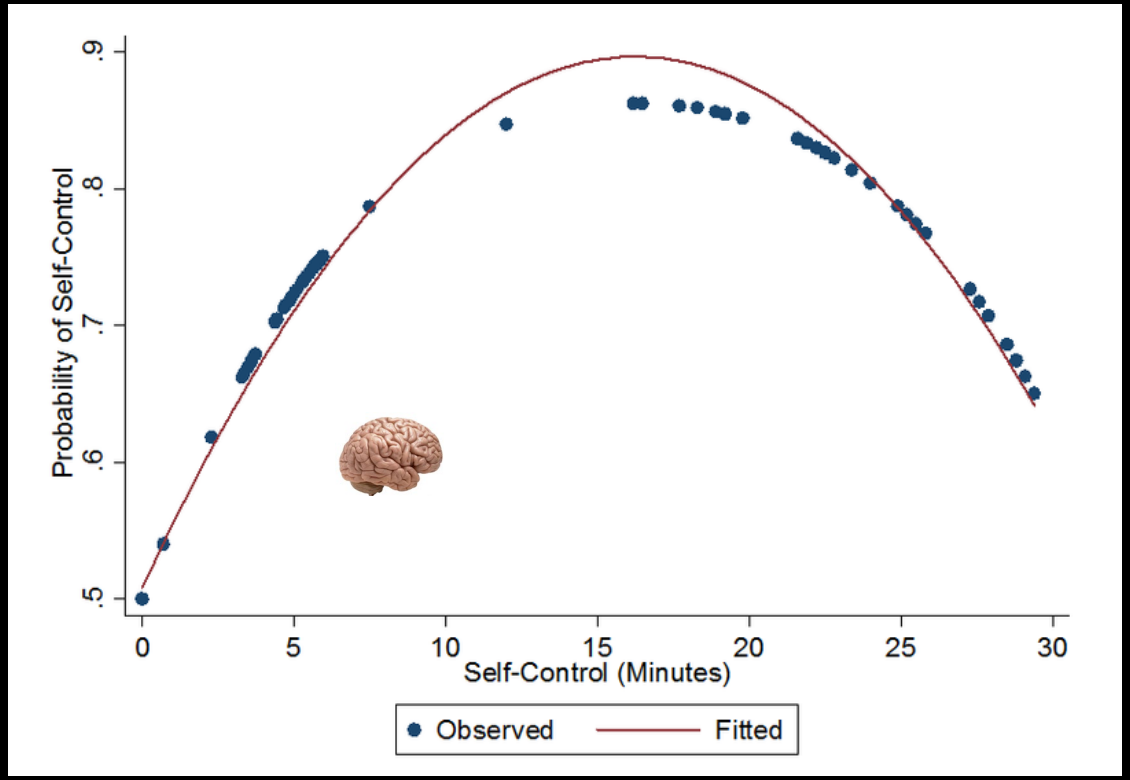

Emotient FACET
Frustration
4
3
2
1
0
-1
-2
-3
-4
B-Alert BrainState
High Engagement
1
0.8
0.6
0.4
0.2
0
B-Alert BrainState
Distraction
1
0.8
0.6
0.4
0.2
0
01:00
02:00
03:00
04:00
05:00
06:00
Stimulus: video
Exposure time:
Males 9 / Females 12
00:00:000 Speed
1x

Experimental Design

Non-hypothetical
Purchasing Task
for a product worth
$10 at **50%** Discount

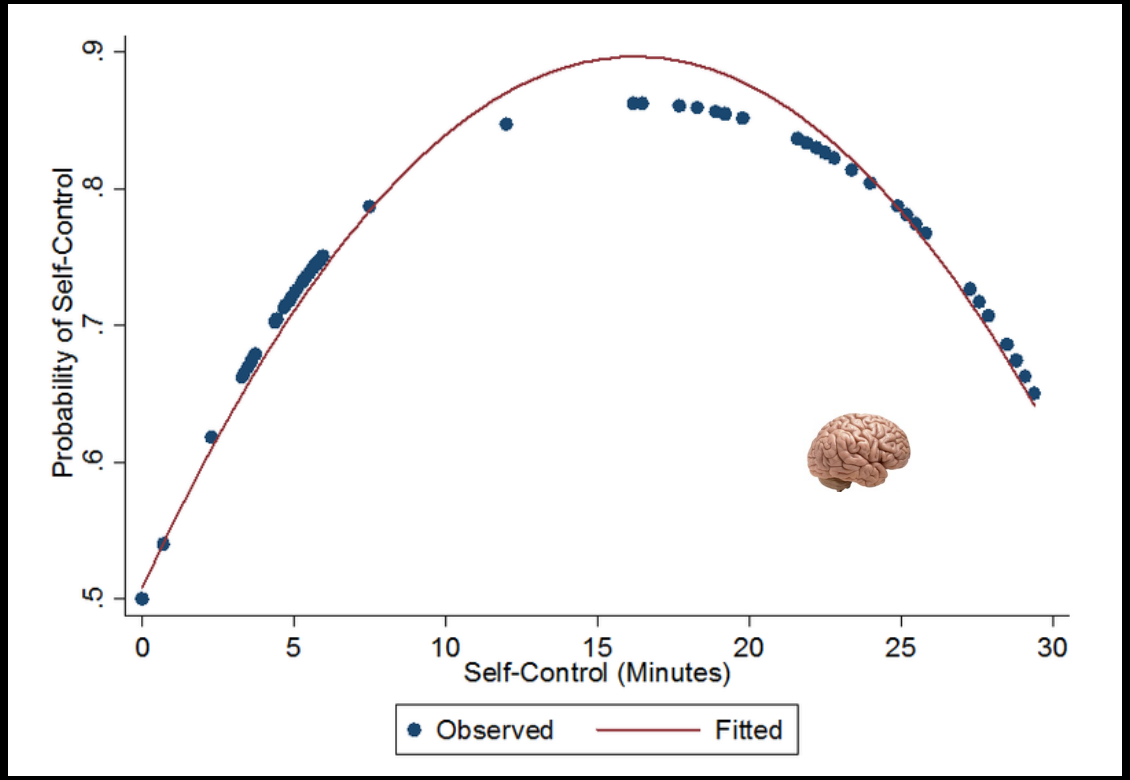


Enough to Stay **Motivated**



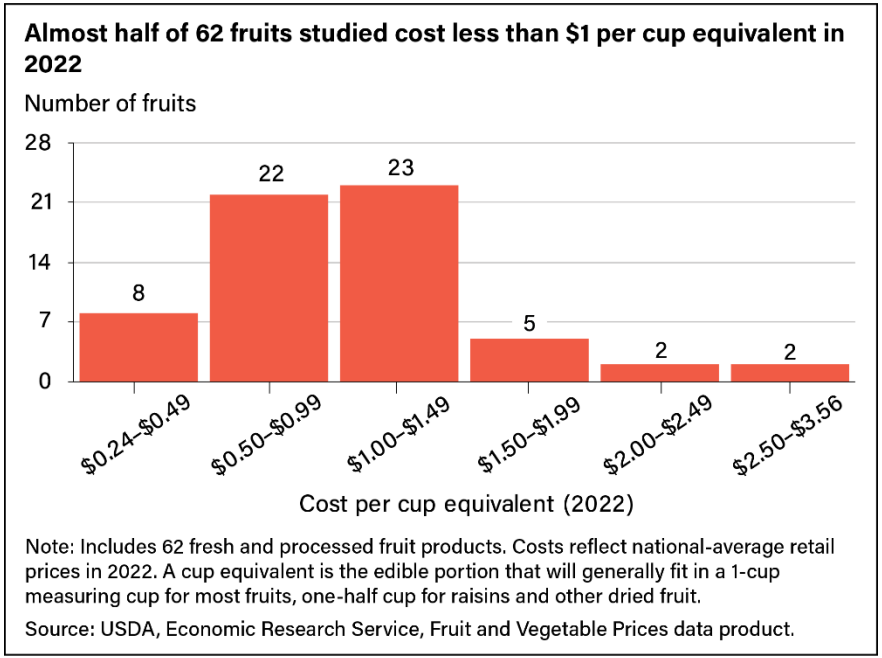
Palma et al 2018

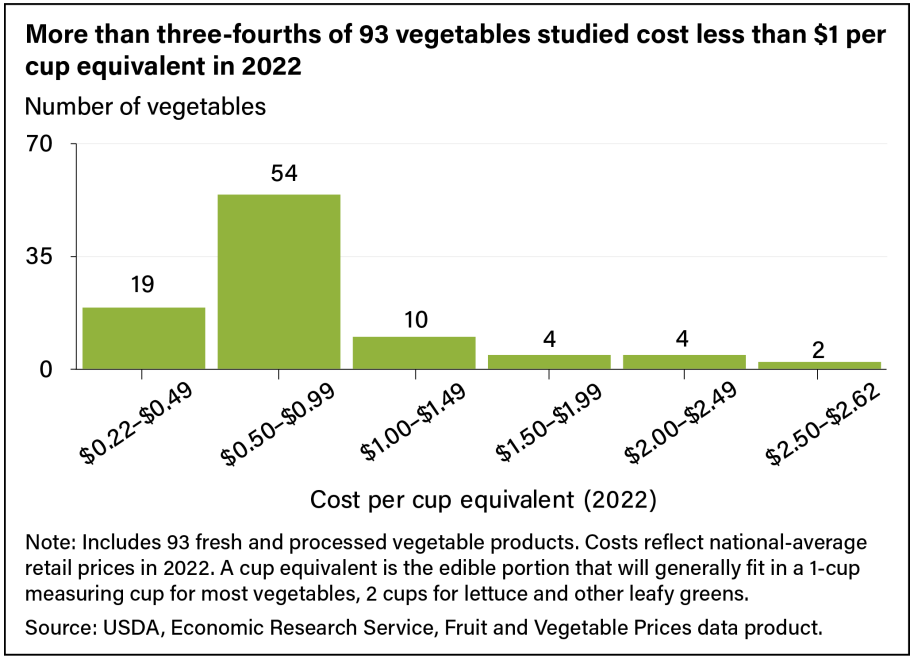
Not Too Much to "**Drain**" Resources



Palma et al 2018

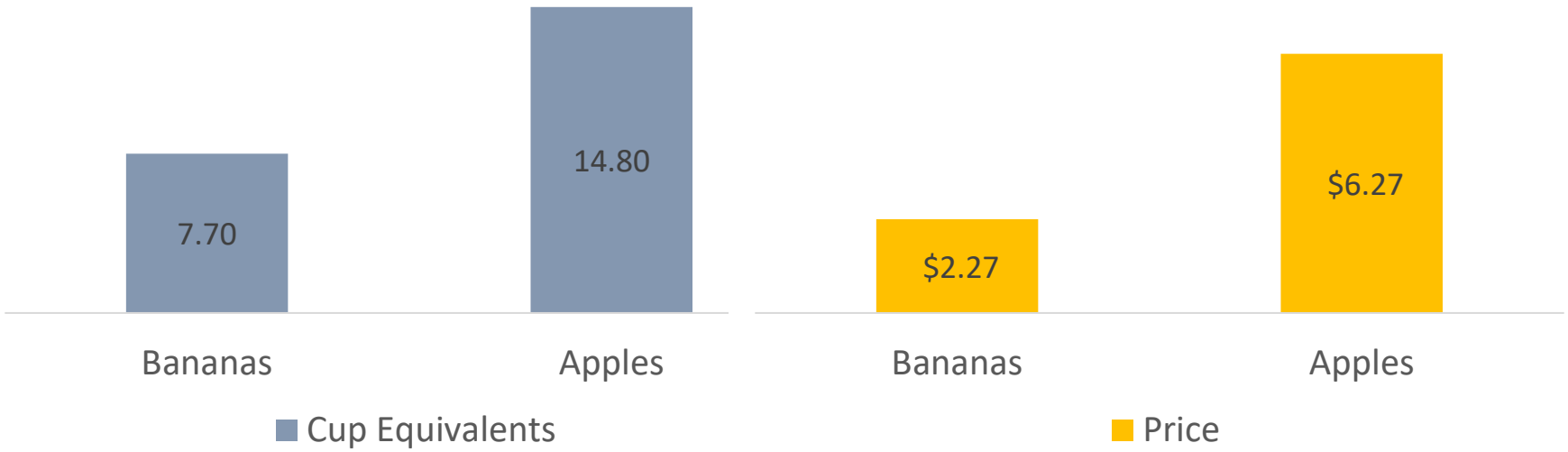
Personalized Nutrition Economics: Using Value-Based Recommendations





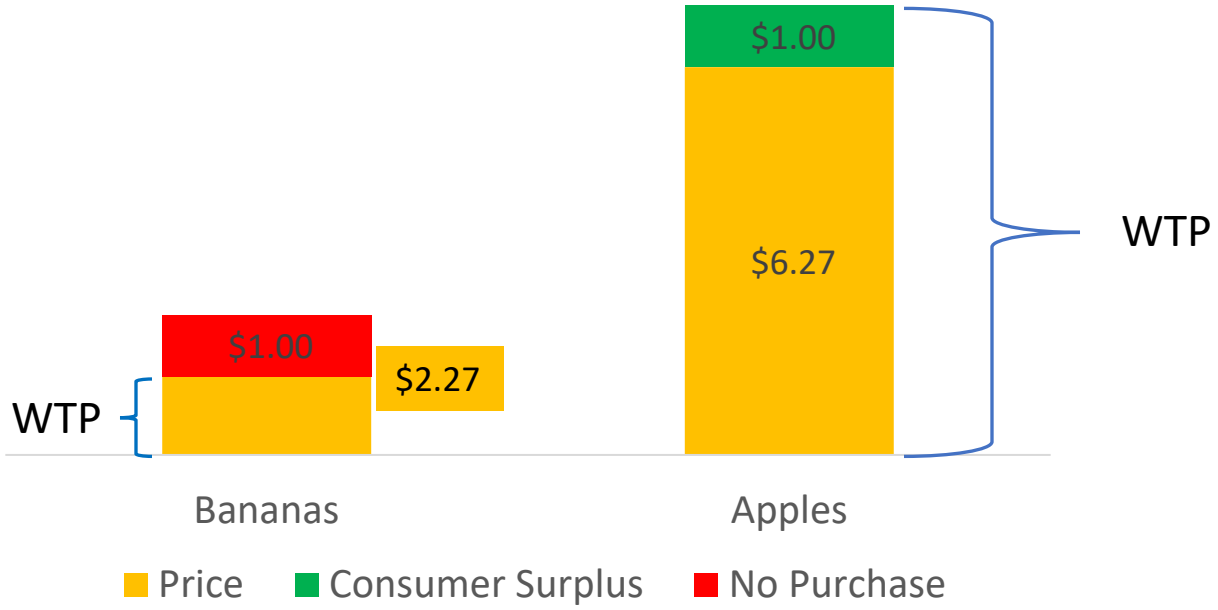
Source: ERS, USDA

DGA Recommendation and Cost



Cost for a four-person family. Source: ERS, USDA

Value-based Personalized Recommendations within Budget



Cost for a four-person family. Source: ERS, USDA

Thank you!