THE HUMANE SOCIETY OF THE UNITED STATES

The business case for serving more plant-based foods

The financial benefits of replacing animal products with plant-based products in food service.

PHOTO BY: AMANDA TRENCHARD/THE HSUS

Meat prices are rising and are expected to continue rising. Reducing meat purchases by increasing plant-based fare can help meet the demand for more plant-based options while saving your dining operation money. Whole-food plant-based ingredients such as legumes offer several benefits for businesses including lower cost, longer shelf-life than conventional animal products, and less price volatility.

Cost savings

Simple substitutions such as using plant-based ingredients in place of meat or replacing dairy or eggs with plant-based ingredients can help save on food costs.

Possible cost savings of replacing animal products with plant-based products from a cost analysis conducted by the Humane Society:

- Replacing beef with lentils in Sloppy Joes would save $0.52 per 4 oz. serving.
- Using aquafaba in place of dairy in chocolate mousse saves $0.57 per 4 oz. serving.
- Substituting dairy in nacho cheese sauce with potatoes and carrots can help save $0.20 per 4 oz serving.
- Using tofu instead of chicken in Bahn Mi can save $0.68 per 4 oz. serving.

Full cost analysis here.

The hidden costs of animal products

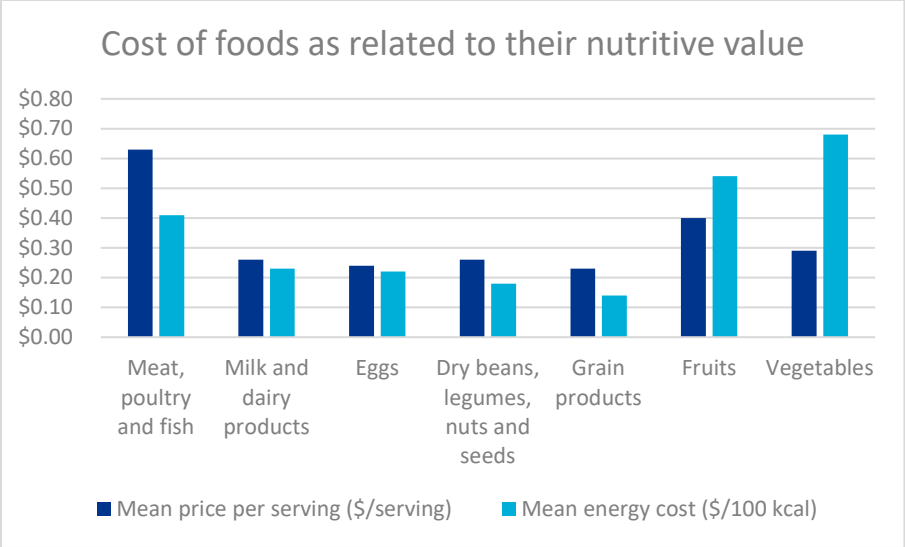
- The cost consumers pay does not reflect upon the true cost of animal products—these costs are externalized to the environment, human health, public health and the welfare of farm animals
- Human health – animal products like processed and red meat are harmful to human health
- Public health – a major driver of the evolving crisis of antimicrobial resistance is the overuse of antimicrobials in farm animals
- Environment – animal agriculture industries' practices are environmentally destructive
- Animals – industries prioritize profit, which comes at the cost of the welfare of farm animals

Plant-based alternatives

- The production of plant-based meat is more efficient than that of conventional meat—plant-based meat uses less energy and is less environmentally destructive.
- As larger food companies such as Tyson Foods continue to establish themselves in this field, the cost of plant-based meats will be driven down drastically.
- Major plant-based meat company Impossible Foods is, on average, slashing wholesale prices by 15%.
- JUST, a major food company with 100% plant-based eggs on the market, is targeting a 35% price reduction across the board.
- Think tank RethinkX even predicts that plant-based meat alternatives will be "five times cheaper than traditional animal proteins by 2030 and 10 times cheaper by 2035." – full report here.

Comparing food groups by mean cost per serving and energy cost

Data depicted in the graph below are from an analysis that explored relations between food cost, energy, and nutrients using nutrient composition and food prices data from the United States Department of Agriculture (USDA).



DATA: DREWNOWSKI, 2010

Popular protein sources in university programs	Estimated commercial pricing
Beans, ½ cup serving	$0.15 - $0.28
Beyond Meat crumbles, 2 ounces	$0.37 - $0.42
Morningstar Farms black bean burger	$0.64
American Bean Company falafel, 4 pieces	$0.53
Vegetarian chili, 1 cup	$0.51
Dark and white meat chicken, diced, 2 ounces	$0.33 - $0.53
Chicken patty, white meat, 4 ounces	$0.67
Beef crumbles, 2 ounces	$0.33 - $0.53
Beef patty, 3 ounces	$0.53 - $0.83
Shredded BBQ pork, 3 ounces	$0.57

CHART BY: THE HSUS (FORWARD FOOD)

The takeaway

As illustrated in both the cost savings analysis and this analysis of the cost of US foods as related to their nutritive value, substituting animal products with whole-food, plant-based ingredients, particularly legumes, nuts, seeds and grains, can help cut food costs.

As shown in the graph

- The meat, poultry and fish food group had the highest mean prices per serving ($0.63/serving) and a high mean energy cost ($0.41/100kcal)
- Comparatively, dry beans, legumes, nuts and seeds had a much lower mean price per serving ($0.26/serving) as well as a lower mean energy cost ($0.18/100kcal)
- Grain products had the lowest average price per serving ($0.23/serving) and mean energy cost ($0.14/100kcal) of all food groups
- Though the fruit and vegetable food groups had the highest energy costs (fruits: $0.54/100kcal, vegetables: $0.68/100kcal), the mean price per serving for both groups (fruits: $0.40/serving, vegetables: $0.29/serving) was lower than that of the meat, poultry and fish food group ($0.63/serving)
- Furthermore, the vast majority of the plant-based substitutions utilize beans, legumes, nuts, seeds and grain products which are among the food groups with the lowest price per serving and energy cost

Real world cost-savings success stories

- St. Joseph Health System reported that "Vegetarian entrees cost about 50% less than meat entrees." The hospital projects saving $5,000 a year by serving more meat-free meals.
- As for K-12 institutions, many districts have reported an estimated $0.10 - $0.20 cost savings per meal served.
- Students in universities are, in particular, moving towards more plant-based eating. According to Technomic, 21% of college students limit their consumption of meat by sticking to a vegetarian or vegan diet or eating meat only occasionally.

Find out more information by visiting *forwardfood.org.*

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