



Cornell University

Is Healthy Food Appealing, Accessible, Credible, and Profitable?

The Economics of Agrifood Transformation to Promote Nutritious Diets

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Composition to Better Fulfill Dietary Recommendations
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Both human and environmental health depend on the diets we choose. Economics is the scientific study of choices and their consequences. Perhaps useful?

What drives food production/consumption choices?

- (1) Preferences:** does it appeal (sensorily, socioculturally)?
- (2) Constraints:** is it accessible (money, time)?
- (3) Information:** Are claims about a food's desirable attributes known and credible (to consumers/producers)?
- (4) Incentives:** does it pay (productivity, prices, risk)?



Consumer demand drives economic phenomena, including (especially?) around food.

Foods bring joy and are central to culture, not just a means to producing good health.

People therefore seek foods that yield immediate sensory and social satisfaction. Especially in 'fast thinking' mode around the >200 food decisions we make each day.

Tastes can be cultivated, but typically change slowly as culture (and genetics) evolve.

An improved food product only gains acceptance if **it appeals to consumers on a basic sensory and sociocultural level.**



Norman Rockwell, Freedom from Want (1943)

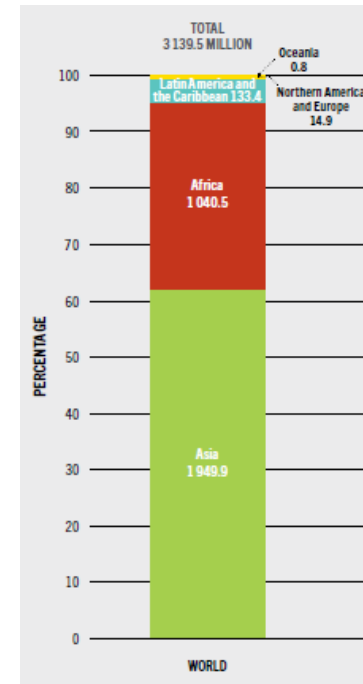


Choice is limited by time/money (which resolve physical access limitations).

Cost – >3.1 bn people worldwide cannot afford a healthy diet. More nutrient rich foods are typically more expensive. Healthy foods that aren't affordable for the poor and working class, won't get eaten at scale.

Convenience – Time is scarce. As wages rise, so does the opportunity cost of time spent on meals. In US, \$ spent on food away from home > food at home. FS is fastest growing.

More nutritious foods only get eaten if affordable/convenient for consumers.



FAO, *Cost and Affordability of a Healthy Diet* (2023)

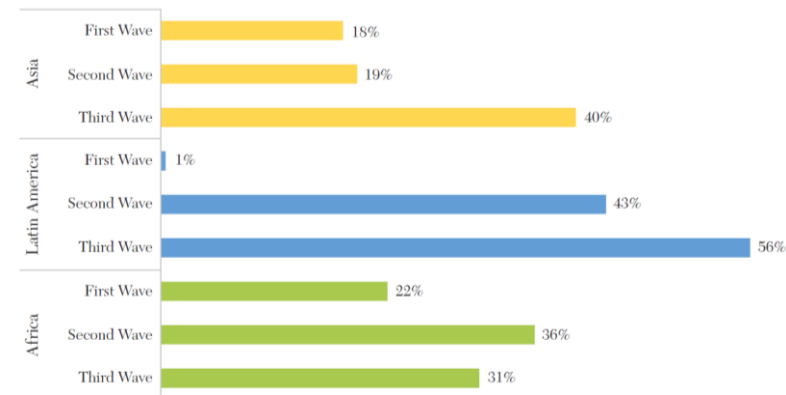


Figure 5. Multinational Food Service Chains Real Annual Sales Growth, 2008–2018



People will pay a (small) premium for products or processes good/safe for them, others, or the planet if claimed benefits are credible (hopefully true!). Fundamental problems of 'credence goods', noisy signals and misinformation.

But if the cost to provide/communicate that benefit > consumers' WTP, then need gov't or industry to set/enforce standards (e.g., mineral/vitamin fortification).

Producers must know the production process that yields the benefits (extension).

Need extension and credible/cost-effective labeling .





Producers must profit w/acceptable risk exposure. No producer can sustain losses indefinitely. Many can't withstand one catastrophic loss.

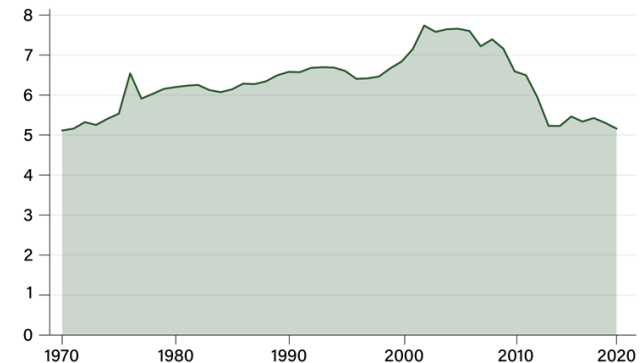
Ag productivity turns on pests, soils and weather. So need to accelerate R&D to adapt and produce more food off-farm. (Yet it's falling in the US!!!)

Productivity and prices drive profits. Farm prices driven by mid-stream actors who get >70% consumer \$ and influence consumer preferences.

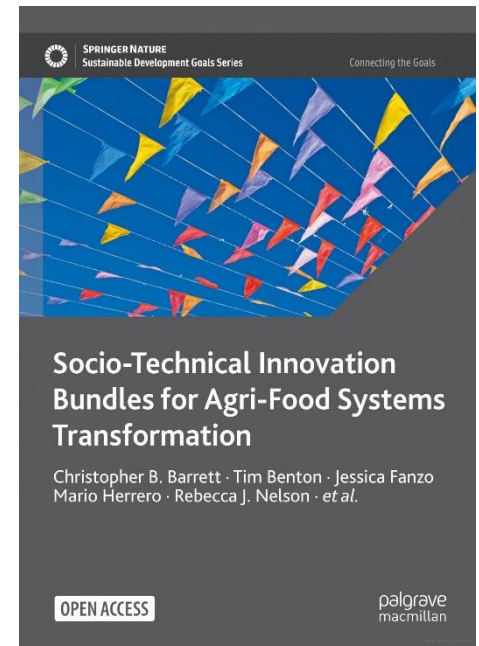
Need R&D for novel, healthy foods and processes, as well as extension and insurance for farmers and standards for processors/retailers.

Public spending on agricultural research and development (R&D) fell over the 2000s in the United States

Inflation-adjusted 2019 U.S. dollars, billions



Source: [USDA ERS](#)





Agrifood systems innovations can advance health, equity, resilience and sustainability goals.

Requires foods that are affordable, convenient, sensorily and socio-culturally appealing to consumers and profitable for producers and distributors.

Any non-obvious benefits must be credibly/cheaply communicable or enforce via science-based standards.

Thank you for your interest!

