



EATING FROM THE EARTH

"How we eat determines, to a considerable extent, how the world is used."

– Wendell Berry, Kentucky author and farmer



Sustainable
EATING

From Field to Table



Thinking about Food

Food systems generally include growing, processing, distributing, retailing, preparing, eating, and the disposal of food waste. A 2010 USDA study of local food systems found that local markets account for a small but growing share of total U.S. agricultural sales. Over the decade of 1997 to 2007, direct-to-consumer sales rose from \$551 million to \$1.2 billion. The number of farmers' markets grew 92 percent from 1998 to 2009. Farm-to-school programs quintupled from 400 in 2004 to 2,095 in 2009. Other federal, state, and local government programs increasingly support local and regional food systems.

Figure 1 illustrates how a community food system is related to social viability, economic capacity, and environmental stewardship. A community-based food system can be defined as being socially embedded, economically invested, and integrated across food production, processing, distribution, consumption, and waste disposal to build social, economic, and environmental assets in a particular place.

At the beginning of the industrial era, the food industry focused on producing affordable food, and households were concerned with getting enough to eat for survival. Over the last few decades, food

suppliers have grown more centralized and efficient, supplying the U.S. food consumer with excess calories. The Food Routes Network, a national organization that promotes local foods and sustainable growing, cites these reasons why consumers should eat more local foods.

- Exceptional taste and freshness
- Strengthening the local economy
- Supporting family farms
- Protecting and promoting family health
- Sustaining the environment

Social, Economic, and Environmental Issues Related to Food

Values related to society, the economy, and the environment help consumers choose the foods they will eat based on what they consider to be important. For example, if you are concerned about pesticide residues on food, organic foods may be of interest to you. USDA certifies organic foods as produced without synthetic chemicals or fertilizers, genetic engineering, radiation or sewage.

Some local producers may use best management practices for pest control rather

Figure 1. Community food system flow.



"Food does not come from the store; it comes from the earth."

—Martha Yount, Kentucky Extension Agent for Family and Consumer Sciences

than organic certification. This approach minimizes use of pesticides while yielding the best possible product. Local producers may also use less packaging.

People who eat organic due to environmental concerns may be interested to learn that, by far, one of the most powerful decisions a consumer can make is to reduce meat intake. Following the MyPlate guidelines, making half your plate fruits and vegetables is a significant step to reduce one's



carbon footprint. If variety and taste are important food attributes, local and seasonal should be a priority. Heirloom tomatoes don't ship well, but they are bursting with flavor. If

concern for farmers earning a living wage is a consideration, look for fair trade or equal exchange certification on products like coffee and be willing to pay a fair price for locally produced foods.

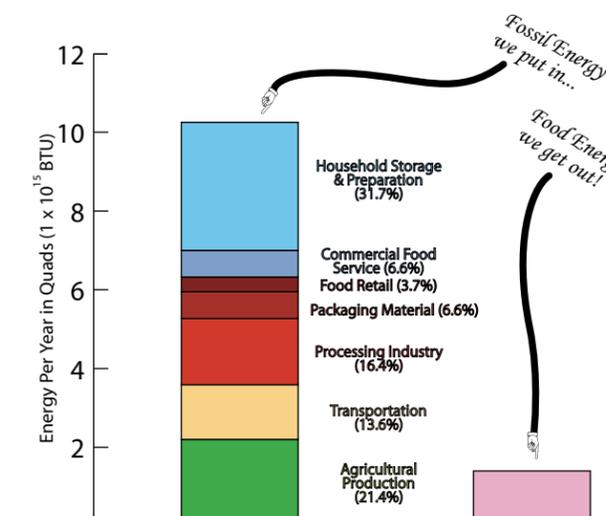
People often ask if local foods are more expensive for consumers and what kind of impact local food sales have on an economy. Assessing the economic impact of local and regional food systems is a complex task and relatively new area of study for economists. One study in 2009 from the Leopold Center for Sustainable Agriculture collected data on a vegetable market basket. Purchasing one pound of each vegetable resulted in a basket cost of \$8.84, compared to a supermarket basket price of \$10.45. The local price advantages are due primarily to an abundant supply of zucchini and summer squash at the time of the study. However, consumers who value high-quality foods produced with low environmental impacts may be willing to pay more for locally produced foods.

Environmental concerns about food may be related to water quality, ecological stewardship, fertilizer and pesticide use, or energy consumption. A food mile is the distance a food

travels from where it is grown to where it is purchased by consumers. A USDA Agricultural Marketing Service study tracked food miles for produce passing through the Chicago, Illinois terminal market over several decades. In 1981, the average distance traveled was 1,245 miles. By 1998, the average distance increased by 22 percent to 1,518 miles. In addition to energy for transportation, food systems also require energy for agricultural production, processing, packaging, and household storage and preparation.

Figure 2 compares energy consumed to produce food (left) to the energy produced in the form of food calories (right). Household storage and food preparation account for nearly one-third of the energy consumed to prepare foods for eating. Processing and transportation account for about another one-third. Agricultural production is about one-fifth of the energy. Food consumers, farmers, and food processors can all play a significant role in energy conservation in the food system. Figure 3 shows how this energy flow changed from 1997 to 2002.

Figure 2. Energy flow in the food system.



Source: U.S. Food System Factsheets, Center for Sustainable Systems, University of Michigan, Publication Number CSS01-06, October 2012.

Steps to Sustainable Eating

To help society shift toward healthy, ecological eating, the Leopold Center at Iowa State University recommends that consumers consider these actions:

- When possible, buy direct from local producers. The food will be fresher and tastier, and fruits and vegetables are less likely to be varieties that have been bred to increase yield and travel well at the expense of nutrient value.
- Reduce your consumption of overly processed foods and eat a variety of fresh foods. Eating a more diverse diet will encourage biodiversity in the fields used to raise your food, especially if it is produced by diversified family farms rather than mass-production industrial monocultures.
- Encourage hospitals, schools, restaurants and caterers in your region to buy from regional farmers whenever possible.
- Ask the manager of your local supermarket to feature locally grown, organic or sustainably produced foods

If you are interested in learning more about the foods you eat, contact your Cooperative Extension Service office for learning opportunities and a reading list on related topics. By joining the conversation about community food systems, you may find a new appreciation for everyday food.

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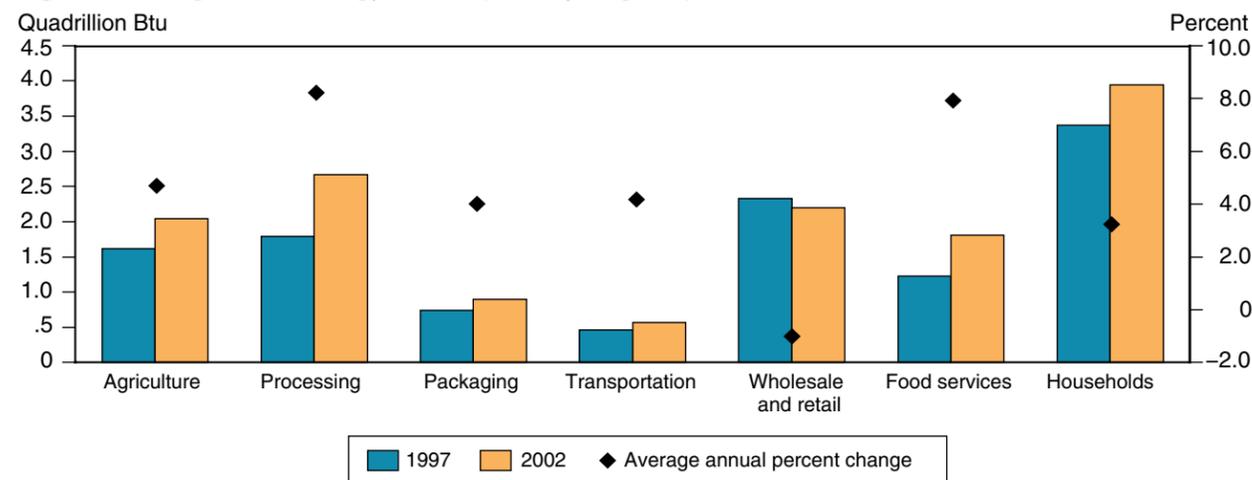
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Figure 3. Change in U.S. energy consumption by stage of production, 1997 to 2002.



Source: USDA, Economic Research Service.

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