**Embodied Energy in Food**

**Class activity for Chapter 8**

***Food, Farms and Community***

**Material Requirements: None**

**Time Requirement: 25-30 minutes**

It takes energy to produce food, often a lot of it. Data in Figure 8.1 on page 124 estimates the amount of energy required in different sectors of the food system to produce, distribute and consume food. This energy can be thought of as the *embodied* energy in food, or in other words the total amount of energy required to produce food and deliver it to a consumer’s fork.

For this activity, break students into small groups of three to five and invite them to think critically about the amount of energy used in the different sectors of the US food system. According to Figure 8.1, for instance, only about 20 percent of the energy used to produce, distribute and consume food is used in the agricultural sector. Is this percentage higher or lower than students might have expected? According to the same figure, about 10 percent of the energy used to produce food is used to transport it to market post-harvest and post-processing. Does this seem high or low? This is a particularly salient question given how the local food movement advertises the benefits of reducing ‘food miles’ as being substantial, although the energy costs associated with these food miles do not seem to be all that great compared to other energy costs in the food system. What about the energy used to process and package food? Energy used in the sale of food at the retail level, either in a grocery store or food service establishment such as a restaurant? Finally, energy used in residential households to store and prepare food seems to be the single largest share, requiring over 30 percent of the energy used in the food system. Does this substantial share surprise students? If so, why?

What does the data presented in Figure 8.1 say about the value of making better personal decisions with respect to the goal of reducing food system energy use? What are some of the personal decisions people can make that might reduce energy use? What are some of the ways energy is used in people’s homes that relate directly to food, and what are a few ways to reduce that energy use?

In addition to offering students an opportunity to discuss these questions in small groups, it may also be useful to bring the class together to discuss what the small groups talked about.