SUPPLEMENTAL LEARNER'S PACKET

Overview

Session 4 introduced the concepts of price, cost, and value in the context of a food system. The activities highlighted the fact many of the indirect costs and benefits that impact the environment and public health and wellness are not reflected in the actual price of food. The session also included a basic introduction to the Farm Bill.

This supplemental packet provides more in-depth reading selections about one portion of the Farm Bill, the commodity subsidy program (Title I)[1]. While the program is aimed at supporting farmers, the program's subsidies impact consumers, farm workers, food production methods, and other aspects of the food system. These widespread impacts on the food system are the focus of this supplement. The relationship between corn and ethanol is not addressed here, as the tax credits for ethanol production are under a different program ("title") of the Farm Bill (Title XV, Trade and Tax Provisions).

The packet begins with a two-page review of the Farm Bill in order to place the subsidies program in context.

Note that for this reading, 'commodities' refers to unprocessed crops such as corn, soy and cotton.

Contents:

Directions:
Select one or more of these readings as directed by your facilitator. You will read your selection and share your information with the larger group based on the questions provided.

[1] "Titles" are the sections and programs of the Farm Bill. The 2008 legislation has fifteen titles. For a full overview see http://www.ers.usda.gov/FarmBill/2008/Overview.htm

Review: Introduction to the Farm Bill

Why is "junk" food often so cheap? Why does pasture-fed meat cost more than corn-fed meat? Why is soda pop often less expensive than bottled water?

The price of food is affected by many factors including the cost of inputs, weather conditions, and supply and demand factors (prices tend to rise when supply is down and/or demand is up)[2].

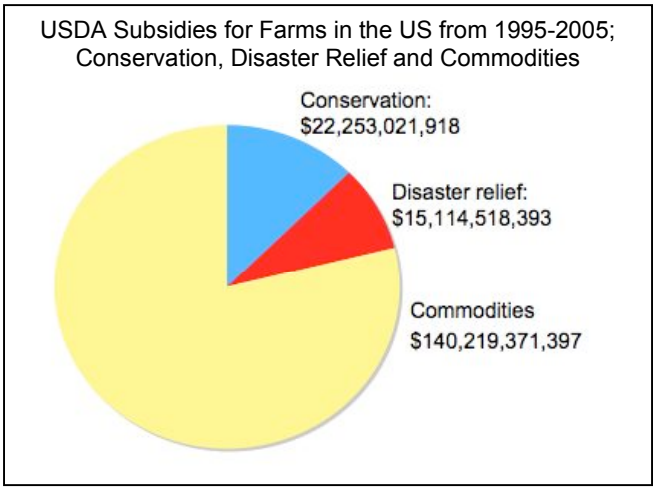
Governmental policies (law and regulations) can also affect prices in the food system. In the US, the Farm Bill is the major piece of federal legislation that affects how food is grown and the economics of price and cost. The first Farm Bill dates back to 1933 (during the Great Depression), and the legislation has typically been revised every four to six years; the latest Farm Bill (as of this writing) was passed in May 2008, and is called The Food, Conservation, and Energy Act of 2008 (United States Department of Agriculture, 2008).

The Farm Bill provides funding for a variety of programs; the 2008 Farm Bill has a $300 billion budget through 2013. Some Farm Bill programs directly affect consumers and families; examples include food stamps and nutrition programs. These programs account for the largest share of the Farm Bill's budget. Other Farm Bill programs affect farmers; these programs include conservation, crop insurance, agricultural research, and production of commodities.

The following section--and the rest of this packet--focuses on subsidy programs affecting farmers and in particular, the impact of commodity subsidies on other aspects of the food system.

Subsidy programs

The Farm Bill provides subsidies to farmers for programs such as conservation farming, disaster relief, and for growing commodities (unprocessed crops) such as corn and soy. Historically, commodities have received the heaviest share of support. The pie chart compares spending for each area between 1995 and 2006. Within that time (1995—2005), corn producers received $50 billion and soybean producers, $13 billion (Environmental Working Group, 2006).



Supporters of these commodity subsidies say that they help ensure an abundant supply of reasonably priced food while helping family farmers.

But critics point out that the majority of subsidies go to farms with an average income of $200,000 (Riedl, 2007; Wise, 2005; Environmental Working Group 2006). As of 2006, large family farms (defined by the USDA as those with revenue of more than $250,000) accounted for 7% of all farms, yet received about 50% of government subsidies (USDA ERS 2006; Gaul et al 2006). Supporters say these payments are justified since these large farms account for about 60% of agricultural production (as measured in price) (American Farm Bureau, 2008).

The distribution of the commodity (crop) subsidies is not the only criticism; opponents also point to unintended environmental, health and social impacts (costs) that are "paid" for indirectly by consumers,

[2] Over the past decades, many aspects of food industry (especially meat production and seeds) have become increasing concentrated in the hands of fewer corporate players, calling into question the extent to which there is a "free market" in which supply and demand function well (Hedrickson & Heffernan, 2002).

farmers, animals and the environment. As illustrated in this lesson's simulation game, some of these criticisms include:

- Environmental impacts of growing corn with synthetic nitrogen fertilizers. In addition to requiring fossil fuels to produce these fertilizers, excessive nitrogen can run off into waterways where it stimulates excessive algae growth that can choke off other life forms.
- Environmental impacts from raising beef cattle in confined animal feeding operations. The manure from these facilities is rich in nitrogen and can pollute waterways if not managed effectively.
- Health impacts of diets rich in unhealthy foods. Obesity and diabetes, diseases affected by diet, have emerged as major health problems in the US, and are growing problems in rapidly industrializing countries such as India and China.

Changes in the 2008 Farm Bill

At the time of this writing, early analysis of this bill indicates that there has not been significant reform in the distribution of commodity subsidies. According to the United States Department of Agriculture (2008), "the 2008 Farm Act continues many of the commodity programs introduced in recent farm legislation, adjusting payment levels and eligibility while introducing a new average crop revenue election program, called the Average Crop Revenue Election, or ACRE. ACRE is an income insurance program that is meant to protect farmers against both low yields and price drops. Crop insurance, including insurance covered in the Farm Bill, protects only against crop loss or low yields will be aimed at producers of corn, soybeans, wheat, cotton and rice regardless of prices or whether the farmer needs the assistance.

Updates and analysis

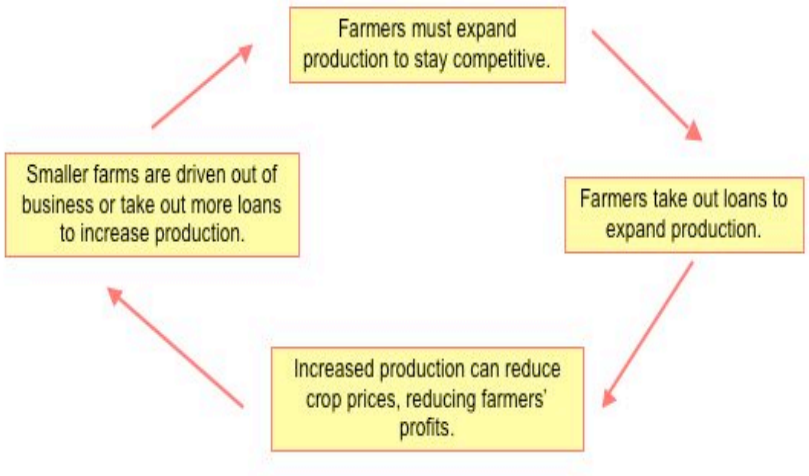
- The US Department of Agriculture has an overview of the Farm Bill with all fifteen titles, along with a side-by-side comparison of past bills: http://www.ers.usda.gov/FarmBill/2008/Overview.htm. The complete text can be found at http://agriculture.house.gov/inside/FarmBill.htm. The Congressional Budget Office has an overview of spending by program area ("title"): http://www.cbo.gov/showdoc.cfm?index=9061&sequence=0&from=6
- The USDA Natural Resource Conservation Service also has information and updates about the conservation programs of the 2008 Farm Bill at http://www.nrcs.usda.gov/programs/farmbill/2008/.
- Food writer Michael Pollan shares his initial impression of the 2008 Farm Bill on the Grist website: "After many, many months of wrangling, the bill was just passed by Congress, overriding a veto by the President. In my view, it is not a very good bill-- it preserves more or less intact the whole structure of subsidies responsible for so much that is wrong in the American food system. On the other hand, it does contain some significant new provisions that, with luck, will advance the growing movement toward a more just, sustainable, and healthy food system." (http://gristmill.grist.org/story/2008/6/4/43736/55179)
- "The Center for Rural Affairs opposed passage of the new farm bill because it commits the federal government to subsidizing the destruction of family farming for another five years and invests little in the future of rural communities. The bill does have some good provisions – including a rural microenterprise program, livestock reforms, beginning farmer provisions, grants for value added agriculture, and strong conservation programs. Those positive features are overwhelmed, however, by subsidies for mega farms to drive smaller operations out of business." (http://www.cfra.org/newsletter/2008/05/overview-2008-farm-bill)
- The American Farm Bureau supported the passage of the 2008 Farm Bill and has their summary of the bill on their website at: http://www.fb.org/issues/docs/farmbill08.pdf

Selection 1) Impacts of Subsidies on Commodity Farming (page 1 of 2)

1970s policies reward growth

The first Farm Bill was passed during the Depression to aid struggling farmers, and aimed to support the price of commodities such as corn by limiting production (Pollan, 2006). The government established a target price, and provided loans for farmers to store grain to keep it off the market (limiting supply). This system began to unravel in the 1950s and 60s, and underwent a dramatic change in the 1970s under the direction of then-Secretary of Agriculture Earl Butz.

Butz shifted the focus of federal policy to encourage production by paying farmers based on their output of key commodities; these included corn, soy, wheat, cotton and rice. Butz advised farmers to plant "from fencerow to fencerow."



To stay "competitive" in a system rewarding size, smaller family farmers took out loans for more land, larger machinery, and new hybrid seeds that were bred with thicker stalks to stand up to the machines. But as yields increased, prices dropped, creating the need to expand even more to pay back the loans. This created a vicious cycle of loans, expansion and increasing debt. Larger farms with greater assets snapped up more land, forcing many smaller operations out of business. This cycle is shown in the diagram above.

Over time, this cycle has resulted in an overall decline in the number of farms, an increase in the average farm size, and a decrease in the number of commodities grown.

Year	# of US farms	Average farm size (acres)	Ave # of commodities grown/farm
1946[3]	5.9 million	195	4.6
1975	2.9	376	2.7
2006	2.1	441	1.3

(Compiled from USDA Agricultural Census, multiple years)

Consolidation in overall sales

In terms of sales, the share of total sales for large and very large farms (those with sales of $250,000 or more) increased steadily from 47 percent in 1982 to 76 percent in 2002. Farms with sales of $1,000,000 to $4,999,999 and $5 million or more doubled their share of sales between 1982 and 2002. The two largest sales classes now account for nearly one-fourth of agricultural sales, although they make up only 1% of farms

[3] These trends have roots in technological changes in farming after World War II—specifically, the increase in production made possible by the development of new nitrogen fertilizers. See earlier reading in this document.

Impacts of Subsidies on Commodity Farms (page 2 of 2)

Larger farms rewarded more

Federal payments for commodity subsidies in recent decades have contributed to these trends, with larger farms receiving an ever-increasing share of the support. Between 1989 and 2003, the share of federal payments to the largest farms (those with annual sales of $500,000 or more) jumped from 13% to 32%. In the same time, the share of payments going to small and medium-size farms -- those with $250,000 or less in sales -- dropped from 63% to 43% (Gaul et al, 2006). The incentives encouraged farmers to expand production of just a few crops such as corn and soy.

What do farmers think?

Read the voices from the farmers quoted below. Then respond to the questions following.

Voices from commodity farmers

- "If the purpose of farm policy was to save the family farm and help stabilize rural communities, then it hasn't worked. What the government is really doing is subsidizing land and assets, not people." (Thomas Oswald, Iowa farmer, as quoted in Gaul et al, 2006)
- "I think [the payments] do us more harm than good," John Phipps, Illinois farmer of corn and soy. "It's embarrassing. My government is basically saying I am incompetent and need help."
- "Sure, you might get a yield bump, but whatever you make on the extra corn goes right back to cover the premium for the seed." (George Naylor, as quoted in Pollan, 2006)

Voices from non-commodity farmers

- "I have chosen small-scale agriculture because it is something I can do myself. I can make the decisions, I can be in control, I can manage the system myself. I really like growing food and products I can use directly as opposed to commodity crops which are a little more removed. I like the directness of it and the small scale." (Janette Ryan Bush, Iowa City, Iowa, as quoted in *Voices of Iowa Farm Women*, Vagnetti, 2004).
- "I don't see any future for the farm. I have to wonder about what's going to happen. I don't want to sell, and then sometimes I think we should, but I don't know. I don't think my father would want us to sell, I feel it's special to us because it came down from my grandfather to my father to us." (Opal Ragsdale, Jacksonville, Texas, as quoted in Vagnetti, 2002)

Questions

- Describe at least two impacts of the commodity subsidies as described in the reading.
- Who or what has been affected? Who or what has benefited?
- What kinds of policies do you think the farmers quoted would support?

Selection 2) Impacts of commodity subsidies on meat production methods (p. 1 of 2)

Subsidies for corn have helped encouraged massive corn production. Much of this corn is used for animal feed. About 60% of commodity corn is used for animal feed (Pollan, 2006), and less than 10% of the U.S. corn crop is used in corn-based foods for humans, such as corn meal, corn starch, and corn flakes. The remainder is used for exports, ethanol production, seed, and industrial uses (Leibtag, 2008).

The availability of subsidized feed has contributed to changes in how animals are raised. The main trend has been a trend away from grazing animals in pastures to raising animals in Concentrated (or Confined) Animal Feeding Operations (CAFOs). As defined by the US Environmental Protection Agency (EPA, 2008), CAFOs are "agricultural operations where animals are kept and raised in confined situations." CAFOs generally congregate animals, feed, manure, and production operations on a small land area, and feed is brought to the animals rather than having the animals graze in pastures.

CAFOs are categorized as "large" and "medium" based on the number of animals; a large CAFO includes 1000 cattle (other than dairy, which is 700), 2500 hogs over 55 pounds, or 125,000 chickens. Since the late 1980s, the trend has been toward larger scale operation. For example, the size of a typical hog enterprise increased nearly twenty-fold from 1987-2004, growing from 1,200 head to 23,400 (Hoppe, et al, 2007). Cattle and dairy enterprises doubled and tripled (respectively) during the 15-year period, and chicken broiler and cow/calf enterprises increased about 70% between 1987 and 2002. As of 2008, CAFOs comprised only about 5% of all U.S. animal operations, but these operations produced more than 50 percent of our food animals (Gurian-Sherman, 2008).

Environmental implications

The shift away from raising animals in pastures has had implications for energy use and water quality, in part due to shifts in what--and where---the animals eat. Consider the case of beef cows. In a pasture system, farmers grazed cows in fields; this provided the grass with a free source of fertilizer (manure), making the soil fertile for a future grain crop. In this system, manure is not waste, but "food" for the soil. Such a system is considered cyclical or "closed-loop" because the outputs serve as inputs.

In a CAFO system, on the other hand, cows are not in the fields, but live in an indoor facility. The feed for the animals comes from corn and soy. These crops are grown on farmland that, depending on its location, once was grassland or pastures.

As pasture, the land was essentially covered with grasses that were nourished with solar energy and manure from the cows. To contrast, the grains in a CAFO system (if not organic) are typically grown with heavy inputs of nitrogen fertilizers, manufactured from fossil fuels. The USDA estimates it take about 7 pounds of corn to result in a pound of meat (USDA, 2008). In terms of oil usage, every bushel of this corn (47.32 pounds) requires, by one estimate, approximately a quarter to a third of a gallon of oil to grow; this is the equivalent of near 50 gallons of oil per acre of corn (Pimental et al, 2005). While calculations on these figures vary, the issue of energy use in food production has given rise to the concept of the food "footprint": the environmental impact created by carbon emissions and other facets of food production (See Session 3).

Water pollution is another potential problem with CAFOs. The animals produce about 300 million tons of manure per year—more than double the amount generated by the entire US human population. This waste and wastewater can enter water bodies from spills or breaks of waste storage structures. This manure and wastewater may contribute pollutants such as nitrogen and phosphorus, organic matter, sediments, pathogens, heavy metals, hormones, antibiotics, and ammonia to the environment. Excess nutrients (i.e., nitrogen and phosphorus) can result in or contribute to low levels of dissolved oxygen (anoxia), eutrophication, and toxic algal blooms, conditions that may be harmful to human health (EPA, 2008; Gurian-Sherman, 2008).

Controlling pollution: Regulation and preventative measures

There are numerous programs, both voluntary and involuntary, to aid farmers in developing management plans to decrease the risk of manure spills and contaminated run-off. For example, the Michigan Agriculture Environmental Assurance Program (MAEAP) is a voluntary program that provides farmers with support for environmental issues related to livestock activities, including the application of animal manure to farm fields and the use of appropriate conservation practices to protect water and prevent soil erosion. The EPA regulates the discharge of pollutants from "point" (identifiable) sources through a program called the National Pollutant Discharge Elimination System. CAFOs that meet the regulatory definition of a concentrated animal feeding operation (CAFO) have the potential of being regulated under the NPDES permitting program.

Health implications

In a pasture system, grazed animals get access to sunshine, fresh air, exercise and a natural grass diet; this helps maintain animal health and reduces the need for antibiotics. In contrast, animals in CAFOs are typically provided with feed made with grain, corn and soy, and additives such as molasses, beet pulp, and farm waste. This can create digestive problems, stomach ulcers, and fatigue, requiring antibiotics as treatment.

This unnatural diet can also impact growth, sometimes requiring the use of hormones to "beef" up animals and increase milk production. The crowded conditions can further spread illness, requiring more antibiotics and supplements. When hormones and antibiotics are released into the environment, potential health impacts include water pollution, increased resistance to antibiotics, or reaction to growth hormones in humans and organisms that live in water (Clancy, 2006; Gurian-Sherman, 2008).

Healthier animals can result in healthier meat for humans. Numerous scientific studies have shown that the meat and milk from pasture-raised animals are higher in healthy Omega-3 fats and Vitamin E than cattle that are fed corn and soy based diet (Clancy, 2006; Sooby et al., 2007).

Despite their external costs, CAFOs appear economically viable because grain subsidies make the feed artificially cheap. Feed accounts for 50-60% of the costs of producing hogs and chickens and is also an important cost for dairy and been cows (Gurian-Sherman, 2008). As a result, it is typically cheaper for farmers to buy corn rather than to allow animals to graze. These artificially lower prices have made cheap and abundant meat a cornerstone of US diets. But even as worldwide demand for meat increases, rising grain prices have shifted the economics, raising the cost of feed and with it, consumer prices (Bittman, 2008; FAO 2008).

The potential environmental problems with CAFOs and higher grain and fuel prices have spurred interest among some consumers and farmers in pasture-raised meat (see Session 6). Pasture-raised meat can have positive environmental and health impacts, but also means new challenges for farmers and potentially higher prices for consumer. As Francis Thicke, an Iowa farmer states, "It's really a learning process, using controlled grazing. It's not like planting a crop and then leaving it for the summer. It takes a lot of management to watch how the grasses grow." (Vagnetti, 2002).

Questions

- Who or what has benefited from the subsidies described? Give at least two examples. Who are what has been negatively impacted? Again, give at least two examples.
- Come up with a policy that would reward a pasture system--a "closed loop" system in which manure is fertilizer, rather than waste.
- What changes would farmers and consumers experience if meat production shifted back to a pasture system?

Selection 3) Impacts of commodity subsidies on consolidation the meat industry

Reading Selection 1 described the increased consolidation in commodity farming, with a trend toward fewer, larger farms that has roots in the 1940s (See also Session 5, How did we get here?). While these farms have been getting bigger and more concentrated in terms of land ownership and overall production, they are still largely in the hands of family-based operations (USDA, 2007; Wise, 2005). But the US meat industry--including animal feeding, slaughter, and packing--is a different story, with a trend toward greater consolidation in the hands of a small number of corporations. Companies such as Cargill, ConAgra, and Tyson are among the dominant players.

Consolidation in the meat industry has accelerated since the 1970s, when then-Secretary of Agriculture Earl Butz instituted the policy of subsidizing commodity production--a policy which continues in the 2008 Farm Bill. In the hog industry, for example, the number of farms declined by over 90% between 1970 and 1997 even as overall pork production expanded dramatically. By 1997, three companies controlled almost 80% of feed-cattle slaughtered and by 2004, four companies controlled 64% of pork packing (Molnar et al 1997; Hendrickson and W. Heffernan, 2005). These large corporations are among the top buyers of commodities of feed made of subsidized corn and soy, the main ingredient in most animal feed (Gurian-Sherman, 2008).

The policies of subsidizing corn and other commodities has helped give rise to the practice of raising animals in confined (or concentrated) feeding operations (CAFOs). As defined by the Environmental Protection Agency (EPA), CAFOs are agricultural operations that concentrate animals, feeding, manure, and other aspects of production on a small land area. Feed is brought to the animals rather than having the animals graze in pastures, a more traditional practice. As described in the previous reading, poorly run CAFOs have been criticized for the inhumane treatment of the animals, pollution from excessive manure, and health problems for animals and humans (Clancy, 2006; Gurian-Sherman, 2008; Sooby et al., 2007).

The rise in CAFOs has gone hand-in-hand with an increase in **vertical integration**, a business model in which one company controls animal production, slaughter, processing, and marketing of final product. This contrasts with a more traditional model, in which farmers owned and raised their animals, then sold them to processors in an open market.

In many vertical integration systems, farmers do not own the animals, but rather raise them under a contract to a corporation which owns the animals and controls the slaughter, processing and marketing of the final product. This gives the corporations considerable economic power over the farmers; corporations can demand lower rates from farmers or set exclusive contracts with larger operations, driving prices down and forcing smaller farms out of business. As a result, livestock farmers that once owned and grazed their own animals have lost control over the means of production, the quality of the animals' lives, relationships with consumers, and the quality of the final product. Smaller producers have been squeezed out, as processors favor larger producers. (Hendrickson and W. Heffernan, 2005). As Ron Dubas, a Nebraska farmer notes, "Big companies don't want to take care of the land…they don't want to be playing in the dirt like us, because that's where the risk is. They just want the cheapest product they can get" [4] (Schildgen, 2004).

Questions

- Describe some of the trade-offs in a vertical integration system. What is gained and lost in terms of factors such as control, costs, and quality? Who benefits from these trade-offs?
- What role do you think consumers have in this system?

[4] Note: Ron Dubas and his son Clint, along with fellow neighbors, organized to keep a confined hog facility from moving near their farm, the Lazy D Ranch outside of Fullerton, NB. The family has lost markets to large agricultural operations, whose exclusive contracts with packers and processors have driven prices down.

Selection 4) Impacts of commodity subsidies on consumer prices and diets (p. 1 of 2)

Corn and soy, two heavily subsidized commodities, are key ingredients in the production of meat and processed foods. Subsides for corn and soy have had the effect of encouraging, and lowering the price, of producing meat, of high fructose corn syrup (a key ingredient in processed foods), and large-scale meat production which is made "profitable" through cheap animal feed. Subsidies for corn have encouraged massive production, and the need to create new uses for the corn. Two major uses for the corn have been cheap, corn-based animal feed, and high fructose corn syrup, a sweetener used in many processed foods from soda to bread.

U.S. consumption of HFCS increased more than 1,000 percent from 1970 to 1990 (Bray et al, 2004). The average grocery store has approximately 45,000 items, and more than twenty-five percent contain corn (Pollan, 2006). HFCS is not digestible in the stomach and makes its way, undigested, to the liver, and triggers the overproduction of tryglicerides (fat cells). HFCS also decreases the emission of the hormone leptin, which plays a key role in signaling fullness (Critser, 2003). Health experts thus believe HFCS has contributed to the global rise of obesity and type II diabetes.

According to the American Farmland Trust "U.S. agricultural policy establishes sound nutrition guidelines, grounded in science, which call for increased consumption of fruit, vegetables, nuts and whole grains—and then heavily subsidizes producers of corn, soy, cotton, and rice. This allocation of resources has an impact on prices. From 1985-2000, the real price of fresh fruits and vegetables increased by almost 40 percent, while the real price of fats and sugars declined. Subsidies for corn, soy, and other commodities have caused overproduction and artificially depressed the prices of derivatives like high-fructose corn syrup and hydrogenated vegetable oils" (Farmland Trust, 2006).

The artificially low prices for animal feed and HFCS help support the production of cheap meat and processed foods as seen in a typical fast food meal (See Session 4 for additional information):

- hamburger: animals fed with subsidized corn
- bun: contains HFCS, which is made from subsidized corn
- soda or milkshake: contains HFCS, which is made from subsidized corn
- French Fries: Potatoes don't receive the same subsidies as corn, but benefit from the fact that the indirect environmental impacts of production and transport aren't factored into the price.

The subsidies for corn (and in turn, HFCS) are one reason foods such as candy, pop, cookies are less expensive (from a price standpoint) than fresh vegetables, fruit, whole grains--foods that do not receive the same subsidies. For example, one study found that one dollar could buy 1,200 calories of potato chips and cookies, but only 250 calories of carrots (Drewnowski and Specter, 2004). Such price imbalances create incentives for people with limited budgets to choose calorie-dense, processed foods over fresh foods. These barriers have the unintended effect of encouraging poor eating habits that health experts believe are connected to the rise in obesity and diabetes. This contradicts the government's nutritional guidelines, which call for increased consumption of fruit, vegetables, nuts and whole grains (US Department of Health and Human Services, 2005).

Impacts of commodity subsidies on consumer prices (p. 2 of 2)

Food deserts

An additional problem is access to stores that sell healthy foods, in part due to consolidation in food retailing in the United States since the 1980s; this parallels a rise in consolidation in meat production and commodity farming (see other selections in this packet). As large food retailers have entered smaller, rural markets, many local grocers have gone out of business, resulting in fewer local food retailers and ""food deserts"-- an area where residents have limited access to affordable, nutritious foods. The term originated in Europe, and has spread to the U.S. as access to healthy food has received increased attention among community leaders and policymakers (Troy and Lyson, 2003).

In “food desert” communities, residents are 23.4% less likely to consume five or more servings of fruits and vegetables than residents of non-food deserts (after controlling for age, race, gender, and education). A key reason is because such communities are less likely to have grocery stores with fresh foods or farmers markets, and more likely to have ‘convenience’ stores that offer unhealthy, processed foods. And, because these communities tend to have a higher percentage of people with low levels of income, education and employment, the health impacts of living in a food desert disproportionately impact more vulnerable segments of the population.

Support for healthier choices

The 2008 Farm Bill includes increased funding for nutrition programs, including the Food Stamp Program (soon to be renamed the Supplemental Nutrition Assistance Program (SNAP); nutritional programs are the largest component of the Farm Bill. The Fresh Fruit and Vegetable Program and farmers' market and food distribution programs also received increased funding (USDA, 2008). See Session 6 for more on farmer’s markets. (Picture: Vagnetti, 2002)

Questions

- What foods do you eat that may contain corn or corn-based products?
- How do subsidies impact the price of processed and high-calorie foods?
- How does this impact the way people/consumers make food choices? Who or what has benefited from these choices?
- What kind of food/farm policies would improve long-term health?

Selection 5) Impacts of global policies on farmers and food in Mexico (p. 1 of 2)

Who are the seasonal farm workers?

Seasonal farm worker on the Williamson family farm, Okeechobee, Florida – Okeechobee County. Photo by Cynthia Vagnetti from People Sustaining the Land, 2002.

Before World War II, many farm laborers were from China, the Philippines, and Japan. This changed in 1942, when the US and Mexico began the "bracero" program, an agreement that legally brought guest farm workers to the United States to fill labor shortages.

There is no precise or reliable number of farm workers, in part because information on farm workers as a distinct population is not available through the U.S. Census. However, several studies offer these figures for 2000 (US Department of Labor 2002; Bean et al 2002):

- There were over 2.5 million year-round and seasonal "migrant" farm workers. Seventy-five percent of the workers were born in Mexico.
- Before 1994, just seven percent of the 900,000 migrant farm workers employed in the U.S. at that time were undocumented.
- By 2000, half of the two million migrant farmer workers in the U.S. were undocumented.

What explains the rise in the number and percentage of undocumented workers? The economics of corn as shaped by global trade policies help provide the answer.

Corn, which is indigenous to the Americas, is the central staple of the traditional Mexican diet. In the 1940s, the Mexican government instituted programs to support corn prices, providing low-cost food for the country's rural poor, and a ready market for farmers; until the 1970s, Mexico was relatively self-sufficient in the production of basic staples, including corn.

Elimination of price support for corn and other basic food items began in 1985 when Mexico signed the General Agreement on Tariffs and Trade (GATT). In 1994, The North American Free Trade Agreement (NAFTA) was passed. Price support for Mexican corn began to disappear, and the Mexican government began to phase out tariffs (taxes) on corn imported from the US (phase-out was complete in Feb 2008). Meanwhile, subsidies for U.S. corn growing continued. Cheap US corn flooded the Mexican market, creating artificially low prices that Mexican farmers could not compete with. This economic pressure drove 1.7 million subsistence farm families from their land, with the added impact of driving men and women into gender-based work opportunities:

- Many women migrated to border towns to work in the growing number of export factories ("maquiladoras") producing electronics and clothing[5].
- Men tended to flee to the U.S., where they became part of the growing undocumented work force in the US. These undocumented immigrant workers account for nearly 1 in 4 farm workers, 1 in 8 food preparation workers and 27% of butchers and food processing workers.

[5] Between 1994 and 2002, 500,000 such manufacturing jobs were created, but between 1993-1999, manufacturing wages declined by almost 21%, and the purchasing power of the minimum wage fell 17.9% (INEGI, 1999 Government of Mexico employment figures).

Impacts of global policies on farmers and food in Mexico (p. 2 of 2)

Impacts on food security

Corn imported into Mexico from the US grew fifteen-fold between 1993 and 1999 to 5.6 million tons. As of 2000, US imports comprised 25% of Mexican consumption, up from just 2% before NAFTA (Kraul, 2000). By 2003 the price of tortillas--which provide 59% of the Mexican population's average caloric intake--had risen 40%, adjusted for inflation. (Ackerman et al 2003; Halwell, 2003; Kraul, 1999; Garcia-Navarro, 2000).

The volatile corn market (2006-2008), driven in part by increased demand for biofuels and speculation, has made the situation worse and contributed to social unrest as citizens protest the rise in price in tortillas and other corn-based staples. The greater the reliance on imported corn, the less ability Mexico has to create food security through local production. Moreover, consolidation in the agricultural industry have driven migrant workers from their home countries while contributing to downward pressure on wages and working conditions.

Mexican Fair Trade Cooperative: A Case Study

West of Chiapas in Oaxaca (a state in Mexico) is the home of the Association of Indigenous Communities in the Northern Zone of the Isthmus (UCIZONI), an organization of over 20,000 members that run agricultural cooperatives and promote organic agriculture, among other activities. The group is one of the many Mexican organizations that have arisen in response to NAFTA and the increased competition from economic globalization. These organizations gather under the slogan "Sin maiz, no hay pais," which means "Without corn, there is no country." They quote Beas Torres, the group's coordinator explaining, "UCIZONI buys directly from our producers at a fair price, and that pressures the local market to offer a higher price" (Call, 2008).

Questions

- Name two groups of people that have been impacted by NAFTA's agricultural policies.
- What kind of policies would enable farmers in Mexico to stay on their land?
- As a US citizen, how can you impact federal policies?

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For more information on concentrated animal feeding operations, please visit the following Web sites:

Association of State and Interstate Water Pollution Control Administrators: www.state-cafos.org

Congressional Research Service ("Animal Waste and Hazardous Substances"): www.ncseonline.org/nle/crsreports/07May/RL33691.pdf

Indiana Land Resources Council – Model Ordinances: www.in.gov/isda/2586.htm

U.S. Centers for Disease Control and Prevention: www.cdc.gov/cafos

U.S. Environmental Protection Agency: www.epa.gov/guide/cafo

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Livestock and Poultry Environmental Stewardship: www.lpes.org/CAFO.html

Purdue University - Concentrated Animal Feeding Operations: http://128.210.145.21/CAFO/index.