

FOODFIRST

INSTITUTE FOR FOOD AND DEVELOPMENT POLICY

POLICY BRIEF NO. 6

Agricultural Restructuring and Concentration in the United States: Who wins, who loses?

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August 2003

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Executive Summary

The U.S. government has been in the forefront of bilateral and multilateral trade agreements worldwide. The government claims that its negotiating strategy has been to open markets in those sectors in which it has been competitive. The agricultural sector was, at the time these agreements were on the table, touted as one of the U.S.'s strongest industries. Yet the story of U.S. agricultural liberalization hasn't been a happy one. This report, which uses U.S. Department of Agriculture data wherever possible, finds that the U.S. has experienced

- a reduced trade surplus in agriculture
- reduced numbers of family farms
- racial discrimination against farmers of color
- increased levels of subsidy to large agricultural concerns
- increased levels of pesticide use,
- decreased crop and biological diversity in the U.S. countryside
- falling levels of rural social welfare
- increased indicators of poverty and malnutrition across the United States

Domestic policy has advanced in lock step with these agreements; the same administrations that have advanced trade liberalization have invariably authored domestic policy changes to comply with these new agreements, at least nominally. The new policies and international market structures have not been neutral in their effects. The U.S. government has created incentive structures that favor large scale monocultural farming operations; in these structures, small family farmers have been marginalized.

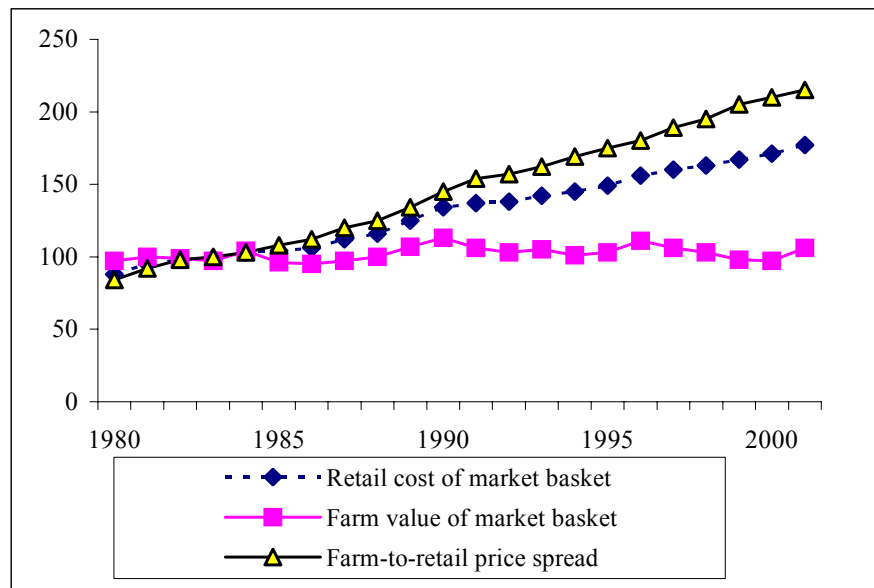
Despite strong international rhetoric against agricultural subsidies, and equally vocal domestic rhetoric for a "level playing field", the U.S.'s direct payments to agriculture are at record levels. The findings of this report suggest that these payments are not being directed to those farming operations most in need of support, but have instead gone to already affluent agricultural concerns and banks.

Farm subsidies have been and continue to be inequitably and inefficiently distributed. The report examines a range of subsidy mechanisms. The top 1 percent of beneficiaries from one program collect an average \$83,000 per year and those in the top ten percent average \$32,000; the typical program participant, however, receive just \$1,200 annually. Recipients include fifteen Fortune 500 Companies.

At the same time, small family farmers, facing falling returns from farming together with rising costs, are relying on off-farm income as a survival strategy. Fifty-five percent of U.S. farm operators work off-farm, with 80 percent working full-time jobs.¹ This is a 24 percent increase from 1979. During the same period, the percentage of farm operator spouses working off-farm increased by 65 percent, from 27.7 percent to 45.8 percent. This is indicative of self-exploitation on the part of farm operator households, as they must manage both farm responsibilities and off-farm employment.

While there is no doubt that all small family farmers are facing increasing pressure as a result of consolidation in the sector, the disappearance of American farmers has proven to be quite discriminatory. Minority farmers are at greater risk of being pushed out of the sector than their white counterparts. While 925,000 farmers (14 percent of all farm operators) were African-American in 1925, there remained fewer than 18,000 African American farmers (less than 1 percent of all farm operators) at the turn of the twenty-first century.² With black farmers exiting the sector at a rate almost five times greater than whites, a 1990 House Committee report declared that black farmers were on the verge of extinction.³

**Chart: Index of farm-to-retail spread for a market basket of goods
(1982-1984=100)**



The situation for consumers has improved little. At look at the distribution of revenue in the final prices of food shows that both consumers and farmers have been losing out (see chart above). The farm-to-retail spread, a measure of the difference between the amount farmers receive and the amount consumers pay for a basket of goods, suggests that consumers have failed directly to reap the rewards of lower farm commodity prices. This can be accounted for by the increased level of food processing and marketing, which, in turn, has had serious consequences for U.S. consumers. Over the past three years, there have been upward trends in the level of household food insecurity within the U.S. Simultaneously, as advertising, the development of new products, and increased portion sizes promote increased consumption,⁴ obesity has become a serious problem. Approximately 65 percent of Americans are overweight.⁵ While obesity among American children has doubled since 1980, it has tripled among teenagers.⁶ There now exist as many underfed persons as overfed (1.2 billion each, 2.4 billion total), creating a “global epidemic of malnutrition.”⁷

We explain the paradox whereby farmers receive a decreasing share of the price of final food products, despite record subsidy levels, by examining the agribusiness sector. Agribusiness firms have increased both their market power and wealth in the United States:

- four companies (Cargill, Cenex Harvest States, Archer Daniels Midland, or ADM, and General Mills) now own 60 percent of the nation's terminal grain handling facilities
- three companies (Cargill, ADM, and Zen Noh) are responsible for 82 percent of corn exporting
- four companies (Tyson, ConAgra, Cargill, and Farmland Nation) hold 81 percent of the beef-packing industry
- four companies (ADM, ConAgra, Cargill, and General Mills) own 61 percent of flour milling capacity.⁸

We conclude that the direction of U.S. agricultural policy is being set not by the needs of farming communities, nor by the needs of the majority of US citizens, but by the political influence of a handful of powerful corporate interests. We document these links, and suggest that, with the historic and continuing influence of corporations on the US government, agricultural policy in the public interest remains unlikely.

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I. Introduction

*Ann [Secretary of Agriculture Anne Veneman] and I will carry out this equivocal message to the world, markets must be open [sic]. The United States will not tolerate favoritism and unfair subsidies. We want to compete, and we want our farmers to compete on level ground. And agriculture will no longer be traded away or ignored when we sit down at international negotiating tables. It will be a top priority of ours . . . This administration is going to be a friend to the American farmer.*⁹

President George Bush
March 2, 2001

*And we're missing some great opportunities, not only in our hemisphere, but around the world. These are opportunities for people who earn a living the hard way. These are hard — these are opportunities for hardworking ranchers and farmers. These are opportunities for working people. I believe the more we trade overseas, the more prosperity there is at home.*¹⁰

President George Bush
June 18, 2001

Since the implementation of its first bilateral free trade agreement in 1985, the United States government has fervently pursued trade liberalization abroad and agricultural restructuring at home. As the two quotations above suggest, the government links increasing levels of trade abroad with domestic prosperity. In the words of President Bush, trade provides “opportunities for people who earn a living the hard way.”

The purpose of this report is to assess the impacts of agricultural trade liberalization on the United States. Has increased trade brought prosperity and opportunities for “hardworking ranchers and farmers”; has the administration been a “friend to the American farmer”? Moreover, who are the “winners” and “losers” of the current policy regime? In order to answer these questions, this report examines various macro-economic, micro-economic, social, and environmental data. These data are used to assess the experience of U.S. farm operators, farm workers, consumers, and agribusiness under the hegemony of a neoliberal, trade-advocating regime. Sadly, the facts contradict the President’s assertions.

When President Bush declares that the administration will be a “friend to the American farmer,” it is important to ask to which farmer he refers. While some farmers have profited from this regime, many have experienced increased debt, have found themselves facing a serious cost-price squeeze. Some have been forced to engage in self-exploitation or exit the sector entirely.

This report recognizes agricultural trade liberalization and, more broadly, ‘pro-market’ economic policy as an actively constructed process. The report will contend that agricultural trade liberalization in the United States has consolidated control of the food system and has proven itself to be a technique for the redistribution and concentration of wealth into the hands of the already rich and powerful.

II. The Pursuit of Free Trade

In an effort to advance global trade liberalization and expand market access, the U.S. has committed itself to several trade agreements, the Uruguay Round Agreement on Agriculture (URAA), the North American Free Trade Agreement (NAFTA), the U.S.-Israel Free Trade Area Agreement (USIFTA), and the Jordan-U.S. Free Trade Agreement

(JUSFTA). Most recently, on May 6 of this year, President Bush signed the U.S.-Singapore Free Trade Agreement (USSFTA).

The U.S.'s first bilateral trade agreement was the 1985 USIFTA, signed with Israel. While the agreement eliminated all tariffs on non-agricultural goods by January 1, 1995, it permitted Israel to use non-tariff barriers to protect domestically produced agricultural products. As the use of these non-tariff barriers, such as bans and quotas, were non-URAA compliant, and because the U.S. sought greater market access for its agricultural products, the two countries entered a supplemental Agreement on Food and Agriculture (AFA) in 1996.¹¹ Since signing the agreement, the U.S. has witnessed increases in frozen fruit and cereal exports, but kosher certification and weights and measures requirements remain obstacles to market access, especially with regards to meat.¹²

The JUSFTA was signed October 24, 2000 and took effect December 17, 2001. The agreement eliminates duties and commercial barriers for goods and services between the U.S. and Jordan over ten years and includes safeguard measures to protect domestic industry from market flooding.¹³ With regards to the recently signed free trade agreement with Singapore, this arrangement guarantees all U.S. products immediate duty free access. U.S. tariffs on products originating from Singapore will be phased out over a ten-year period.¹⁴

Since it effectively established international agricultural trade rules, the multilateral URAA is the most important trade agreement with regards to the scope and depth of its implications. The agreement was an outcome of the Uruguay Round of the General Agreement on Tariffs and Trade (GATT), which lasted from 1986-1994 and also resulted in the establishment of the World Trade Organization (WTO). The URAA, which began its implementation phase in 1995, binds its 146 members to provisions in three areas or "pillars"¹⁵: market access, export subsidies, and internal support.

Market access provisions demand that tariffs replace non-tariff barriers. As quotas, discretionary licenses, import bans, and other non-tariff barriers are no longer permitted, tariffs, bound and not subject to increase without compensation, become a single and transparently quantifiable barrier to market access. The agreement requires the reduction of tariff levels, using 1986-88 as the base period. As a "developed" country, the United States was required to reduce tariffs on agricultural products by an average of thirty-six percent during the URAA's six-year implementation phase from 1995 to 2000. The minimum tariff reduction for an agricultural product was fifteen percent.¹⁶

The agreement also required the reduction of export subsidies, using 1986-1990 as the base period¹⁷. The United States was required to reduce the value of its export subsidies by thirty-six percent and the quantity of subsidized products by twenty-one percent during the implementation period.¹⁸ With regards to internal support, the URAA categorizes domestic support programs into color-coded "boxes" according to their impact on trade flows:

Green box spending includes programs which have minimal impacts on trade, such as research, environmental programs, income stabilization, and natural disaster relief;

Amber box spending are programs which have important impacts on trade, such as price supports, input subsidies, and direct payments;

Blue box programs, which are "acceptable, but temporary, or transition policies that would help pave the way for further reforms over time," are explicitly allowed in the agreement.¹⁹

Red box policies are those not permitted.²⁰

While the URAA does not constrain levels of green box spending and exempts blue box programs, it limits amber box spending. Amber box spending is confined to the Aggregate Measurement of Support (AMS). The URAA, using 1986-88 as the base period, requires developed countries to reduce internal support by twenty percent during the implementation period. For the United States, the limit on amber box spending is an annual \$19.1 billion.²¹

In addition to its URAA commitments, the U.S. is also a member of NAFTA. Comprised of three bilateral trade agreements between the United States and Mexico, the United States and Canada, and Canada and Mexico, NAFTA began its implementation phase January 1, 1995. It subsumed and maintained the provisions of the earlier Canadian-United States Free Trade Agreement (CUSTA), which took effect January 1, 1989. By January 1, 1998, most agricultural tariffs between the United States and Canada had been eliminated. Restrictions on sensitive products such as dairy, poultry, eggs, and sugar- containing products, however, remain. CUSTA also permits the use of temporary “snapback” tariffs for fruits and vegetables as a safeguard against depressed domestic prices, until 2008.²²

With regards to U.S.-Mexico agricultural trade under NAFTA, there is a fourteen-year phase-out period, terminating January 1, 2008, for the elimination of all tariffs, quotas, and licenses that obstruct trade. With less than five years of the transition period left, the agreement only permits Mexican tariffs on sugar, corn, dried beans, and milk powder and U.S. tariffs on sugar, winter vegetables, peanuts, and frozen concentrated orange juice.^{23, 24}

The U.S. has also been a member of the Asia-Pacific Economic Cooperation (APEC) Forum since 1989. This trade arrangement does not define and obligate members to specific reduction commitments, but it does present the goal of free trade in agricultural products by 2010 for developed countries and for 2020 for developing countries.²⁵

Another fairly recent governmental advance towards free trade was the passage of Trade Promotion Authority (TPA) in August 2002 as part of the Trade Act of 2002. Formerly known as Fast-track Trade Negotiating Authority, TPA creates an incredibly expedited congressional consideration process for trade agreements. TPA limits congressional debate concerning trade agreement consideration in terms both of time and substance. Congress is given a mandatory deadline and does not have the option of amending the agreement, provided that the President meets national legal requirements, and can only pass or reject the legislation brought before it.²⁶

Next on the U.S. agenda are a bilateral free trade agreements with Chile and Singapore, the U.S.-Central American Free Trade Agreement (CAFTA), and the creation of the Free Trade Area of the Americas (FTAA).²⁷ The U.S. and Chile completed negotiations on a bilateral free trade agreement December 11, 2002, and President Bush formally notified Congress on January 30 of this year of his intent to sign the agreement. At the time of writing, this has been delayed because of Chile’s reluctance to support the U.S. invasion of Iraq. Following a ninety-day review period, congress will consider implementing legislation.²⁸ The negotiated agreement phases out tariffs on all products traded between the two countries over a twelve-year period. Seventy-five percent of U.S. farm exports will enter Chile duty-free within four years, while 95% of Chilean exports will gain immediate duty-free status.²⁹ As for CAFTA, formal negotiations between the U.S. and Guatemala, El Salvador, Honduras, and Costa Rica began January 8 of this year, and the governments hope to finish the treaty and have it ready for legislative approval by the end of the year.³⁰ Appendix A provides a discussion of the FTAA.

III. A Diminishing Agricultural Trade Surplus

The actual impacts of trade liberalization on U.S. agricultural producers have been unimpressive, to say the least.³¹

A. Desmond O'Rourke

Washington State University economist

The experience of the U.S. agriculture sector under trade liberalization has been somewhat contradictory. Trade volume has certainly increased but, contrary to the predictions of proponents, and despite large scale subsidy, the U.S. agricultural juggernaut has not rolled as expected. Since the implementation of NAFTA and the URAA, agricultural imports in the U.S. have outpaced agricultural exports. When adjusting for inflation, export value has fallen by 39.4 percent from 1980 to 2001. At the same time, imports have risen by 5.1 percent. The net effect has been diminishing trade surplus. While the U.S. agricultural trade surplus in 1980 was \$28.16 billion in 1982-84 dollars, it shrunk to \$7.72 billion in 2001. This represents a 72.6 percent decline. Figure 1, which depicts all U.S. agricultural trade from 1980 to 2001, illustrates this trend. Figure 2 depicts only the U.S. trade balance with its two NAFTA partners. The U.S. trade balance with its NAFTA partners is also deteriorating, with the U.S. twice, first in 1995 and again in 1999, recording trade deficits.

Not only are imports rising at a faster rate than exports but, as Figure 3 shows, the share of total competitive agricultural imports is rising as well. Competitive imports are those products that are produced domestically. Noncompetitive imports, on the other hand, are not produced domestically and consist predominantly of tropical products like bananas and coffee.³² From 1980 to 2001, the share of competitive imports rose from 57 percent to 83 percent of all agricultural imports. U.S. producers are facing a greater risk of being displaced in their domestic market by foreign producers.

The deficit in agricultural trade needs to be treated with caution. After all, it is entirely congruent with the theory of free trade that the U.S. experiences a deficit in, say, trade in bananas, but experiences a surplus in, say, trade in weapons, thus balancing the national accounts. Our concern, however, is not that there is a deficit *per se*, but that the deficit flags a discrepancy between the bill of goods sold to the U.S. public, and what has actually been received. The deteriorating trade balance prompts O'Rourke to assert that trade liberalization's results have been "unimpressive" and "not what U.S. agriculture expected."³³ More careful scrutiny suggests, further, that the reality facing small-scale U.S. farmers is, and continues to be, bleak.

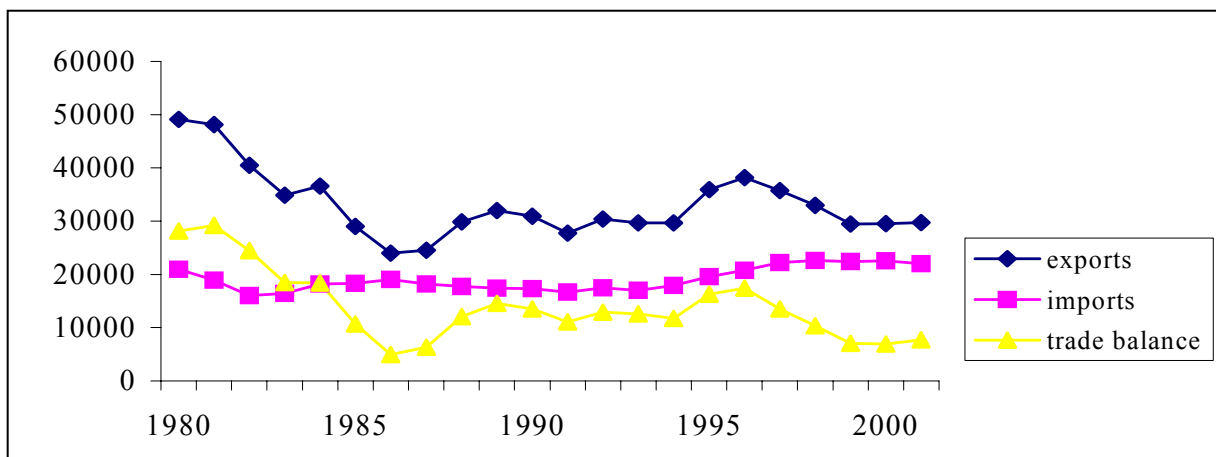


Figure 1: Value of US Agricultural trade (\$ million) Constant 1982-1984 dollars

Sources: U.S. Department of Agriculture/Economic Research Service, *Agricultural Outlook: Statistical Indicators* (May 2003). On-line at <http://www.ers.usda.gov/catalog/OneProductAtATime.asp?PDT=1&PID=291>

U.S. Department of Agriculture/National Agricultural Statistical Service, *Agricultural Statistics 2002*. On-line at <http://www.usda.gov/nass/pubs/agr02/acro02.htm>

U.S. Department of Agriculture/Economic Research Service, *Foreign Agriculture Trade of the U.S. Fiscal Year Supplement* (1996 & 1988).

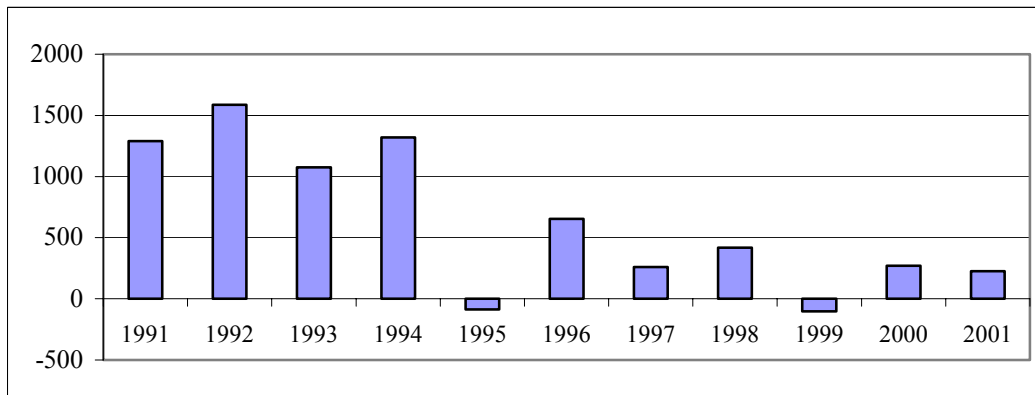


Figure 2: US NAFTA agricultural trade balance (\$ million) constant 1982-84 dollars

Sources: U.S. Department of Agriculture/Foreign Agricultural Service, *Export/Import Statistics for Bulk, Intermediate, and Consumer Oriented (BICO) Foods and Beverages*. On-line at http://www.fas.usda.gov/scriptsw/bico/bico_frm.asp

U.S. Department of Agriculture/Economic Research Service, *Agricultural Outlook: Statistical Indicators* (January 2003). On-line at <http://www.ers.usda.gov/catalog/OneProductAtATime.asp?PDT=1&PID=291>
Down on the Farm: NAFTA's Seven-Years War on Farmers and Ranchers in the U.S., Canada and Mexico, (Washington, D.C.: Public Citizen's Global Trade Watch, June 2001): 40. On-line at <http://www.citizen.org/documents/ACFF2.PDF>

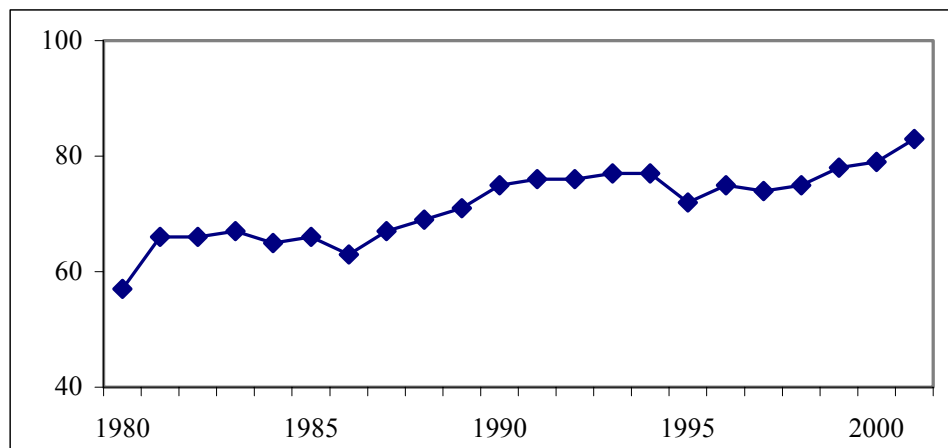


Figure 3 Competitive agricultural imports as a percentage of total agricultural imports

Source: U.S. Department of Agriculture/National Agricultural Statistical Service, *Agricultural Statistics 2002* (2001 data is preliminary). On-line at <http://www.usda.gov/nass/pubs/agr02/acro02.htm>

U.S. Department of Agriculture/Economic Research Service, *Foreign Agriculture Trade of the U.S. Fiscal Year Supplement 1996*.

IV. No Impressive Increase in Net Farm Income

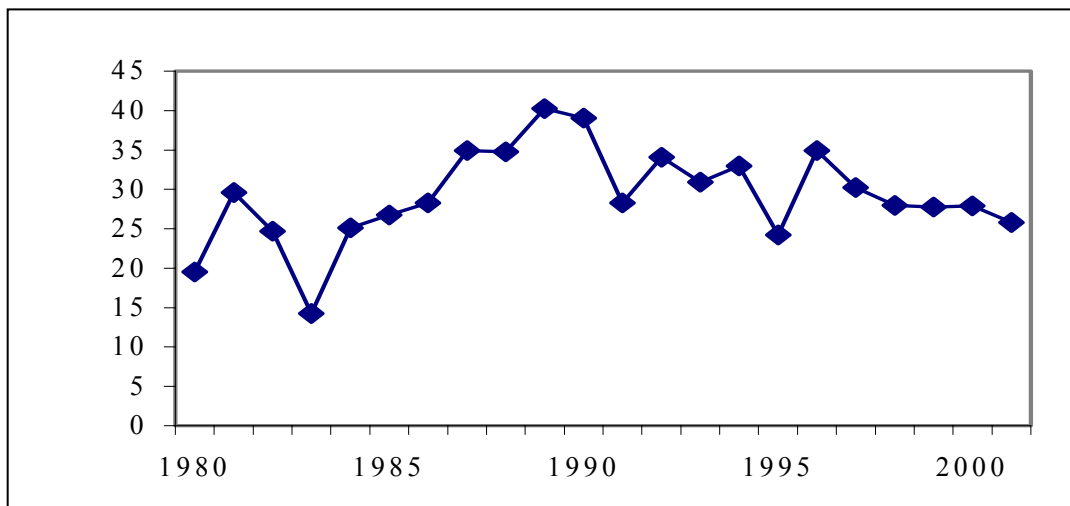


Figure 4: Net U.S. farm income (Constant 1982-1984 dollars)

Source: U.S. Department of Agriculture/Economic Research Service, *Agricultural Outlook: Statistical Indicators* (January 2003). On-line at

<http://www.ers.usda.gov/catalog/OneProductAtATime.asp?PDT=1&PID=291>

U.S. Department of Agriculture/National Agricultural Statistical Service, *Agricultural Statistics* (2002 & 1992). 2002 on-line at

<http://www.usda.gov/nass/pubs/agr02/acro02.htm>

The story hinted at by the trade data is corroborated by the data on farm income. While net U.S. farm income in 2001, when adjusted for inflation, is higher than the 1980 level, there has been a decline since peaking in 1989. Year 2001 net farm income is 35.9 percent lower than 1989 levels (See Figure 4). It is important to note that this decrease coincides with both the implementation of the URAA and NAFTA. The 1990s, which have marked the advance of the free trade agenda for the U.S., have also marked a decrease in net farm income.

IV. Domestic Agricultural Policy and (Questionable) Market Reform

When the U.S. government agrees to sign international trade agreements, it does so knowing that the provisions and obligations of these agreements will constrain domestic agricultural policy formulation in particular ways. Although it is possible to read the signing of trade agreements as contradicting the goals of domestic policy, it makes more sense to view international and domestic agricultural policy as written with a similar broader agenda. Examination of the 1996 Federal Agriculture Implementation and Reform (FAIR) Act and

the 2002 Farm Security and Rural Investment (FSRI) Act provides evidence for the preceding assertion.

The Federal Agriculture Implementation and Reform (FAIR) Act of 1996, which became law April 4, 1996, transformed the government's method of farm income support. The act replaced deficiency payments with seven-year Production Flexibility Contract (PFC) payments. Because deficiency payments were made when average farm prices fell below target prices, they were considered price-distorting and so fell in the URAA amber-box. Eligibility for PFC payments for barley, corn, grain sorghum, oats, rice, upland cotton, and wheat, on the other hand, was determined by farm operator participation in a commodity program in any one of the years 1991-1995, and PFC payment quantity was based on acreage and yields during the farm operators' previous program participation.³⁴ Because PFC payments were fixed and announced before the duration of the FAIR Act (1996-2002), they were considered decoupled and so qualified as green-box spending.³⁵

Another market reform of the FAIR Act was the elimination of set-asides.³⁶ 'Set-asides' refers to the practice of idling of land to reduce the supply of a commodity and therefore increase its price. It is a practice which dates back to Franklin D. Roosevelt's "New Deal" Agricultural Adjustment Act of 1933.³⁷ While terminating deficiency payments and set-asides, the FAIR Act continued provisions for non-recourse loans and crop insurance.

Under the original payment schedule of the FAIR Act (see Figure 5), PFC payment levels were to decrease through the seven-year period, with the goal of reducing farmer dependence on income support.³⁸

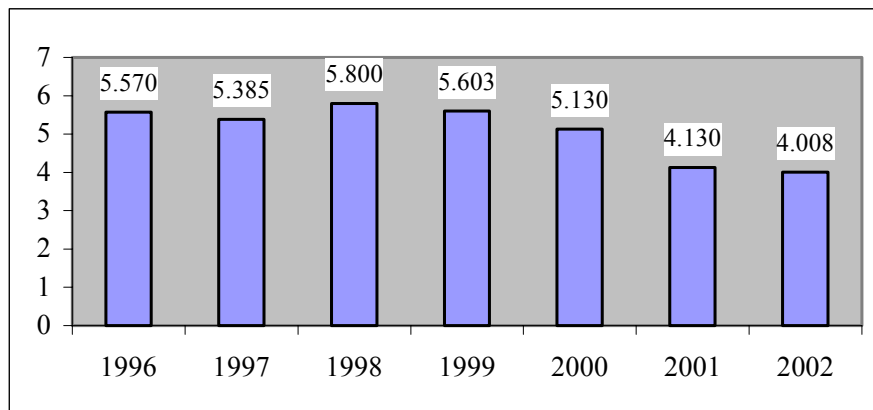


Figure 5 Production Flexibility Contracts payment schedule (\$ billion)

Source: "1996 FAIR Act Frames Farm Policy for 7 Years," *Agricultural Outlook Supplement* (Washington, D.C.: U.S. Department of Agriculture, Economic Research Service, April 1996). On-line at <http://www.ers.usda.gov/publications/agoutlook/aosupp.pdf>

Despite the intention of curtailing direct payments to farmers, support to farmers during the FAIR period actually reached record levels as Congress doled out emergency payments. While direct annual payments to farmers averaged \$9 billion in the early 1990s, payments more than doubled to over \$20 billion per year after passage of the FAIR Act.³⁹ Like PFC payments, emergency payments are classified as green box spending. This creates an interesting and troublesome scenario. As Akhtar Mahmood notes

For the U.S., [green box] subsidies have ... more than doubled, from US \$24 billion in 1986-88 to US \$51 billion in 1997. In other words, green box has legitimated higher than lower level of domestic support. Not being transparent, green box provides many possibilities for misuse ... The availability of green box has enabled the high-income countries to change the form but not the level of support.⁴⁰

So while the U.S. government preaches 'free markets' and insists that other countries must submit themselves to market discipline, the government is in reality intervening in the market, in the form of subsidies, at record-breaking levels. Figure 6 depicts the rising trend in government payment levels in both nominal and real terms. These double standards have done little to win friends internationally. Former Argentine President Eduardo Duhalde commented that "the United States promotes free trade only when it suits it, then becomes an obscene protectionist."⁴¹ Of course, what looks like protectionism to overseas competitors may in fact be a commitment to support rural communities within the U.S. Historically, the U.S. has been subsidizing rural and urban communities through food price support mechanisms. Yet, as we see below, contemporary agricultural support systematically directs subsidies to those least in need of them.

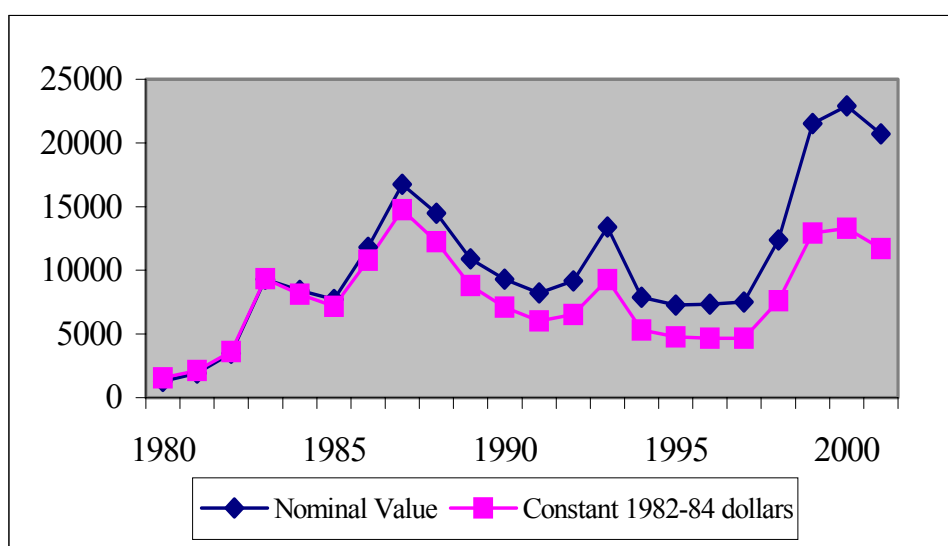


Figure 6 Direct government payments to farmers (\$ current million)

Source: U.S. Department of Agriculture/Economic Research Service, *Agricultural Outlook: Statistical Indicators* (January 2003). On-line at <http://www.ers.usda.gov/catalog/OneProductAtATime.asp?PDT=1&PID=291>

U.S. Department of Agriculture/National Agricultural Statistical Service, *Agricultural Statistics* (2002, 1998 & 1992). 2002 and 1998 on-line at <http://www.usda.gov/nass/pubs/agr02/acro02.htm>

It is important to note here the complementarity between U.S. domestic and international agricultural policy. The 2002 Farm Security and Rural Investment (FSRI) Act extended the URAA-compliant practice of making decoupled payments and has expanded the scope of these direct fixed payments to include peanuts, soybeans, and other oilseeds in

addition to traditional program crops. Counter-cyclical payments and marketing loans provide program crop producers with further income support.⁴² The bill also provides \$40 billion in conservation funding, for which all farmers are eligible.⁴³

Immediately prior to signing this \$248.6 billion⁴⁴ farm bill into law, President Bush declared, “[The bill] will strengthen the farm economy over the long run. It will promote farmer independence, and preserve the farm way of life for generations. It helps America’s farmers, and therefore helps America.”⁴⁵

V. Free Trade and U.S. Farm Policy in Practice

a. *The Disappearance of Small Family Farmers*

President Bush’s assertion that the FSRI Act will “preserve the farm way of life” is deserves critical scrutiny. Numerous indicators, in addition to the trade and net farm income statistics already presented, suggest that the livelihood of small family farmers (defined by the USDA as those farmers with annual sales less than \$250,000⁴⁶) is in jeopardy. Moreover, the government’s current income support system (i.e. the direct fixed payments discussed above) is exacerbating their plight.

Figure 7 indicates the changes which have taken place in U.S. agriculture with regards to farm numbers, average farm size, and land in farms. Since 1935, there has been a huge decline in the number of farms in the United States, while the average farm size has increased. There has been a clear trend in concentration of land, as farm operators have been and continue to be pushed out of the sector. While in 1940 there existed 6,096,799 farms with an average size of 174 acres, the number of farms in 1969 had decreased to 2,730,250, and the average size was 389 acres. By 1997, the number of farms decreased further to 1,911,859, while the average size grew to 487 acres.⁴⁷

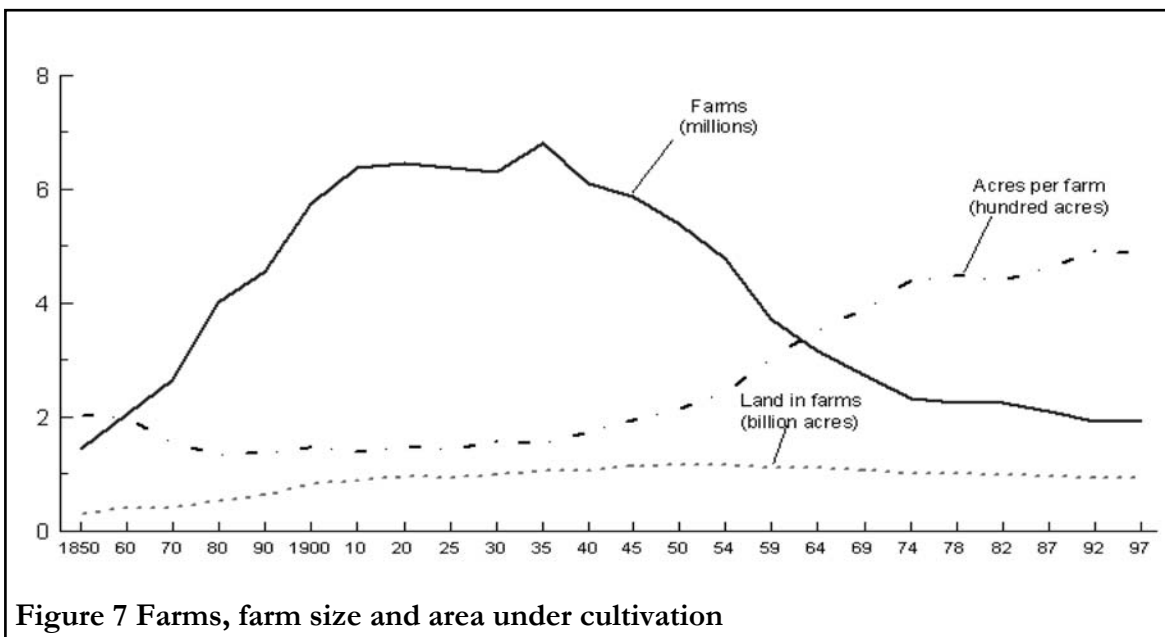


Figure 7 Farms, farm size and area under cultivation

Source: Taken directly from Robert Hoppe and Keith Wiebe, “Land Ownership and Farm Structure,” Chapter 1.3 in *Agricultural Resources and Environmental Indicators*, Ag Handbook, no. 722 (U.S. Department of Agriculture, Economic Research Service, February 2003): 10. On-line at <http://www.ers.usda.gov/publications/arei/arei2001/>

Figure 8, which depicts the changing distribution of farm sizes, further attests to the trend in land consolidation. While farms between 1-49 acres and 50-499 acres have experienced a decline, the number of farms 500 acres or greater in size has steadily increased.

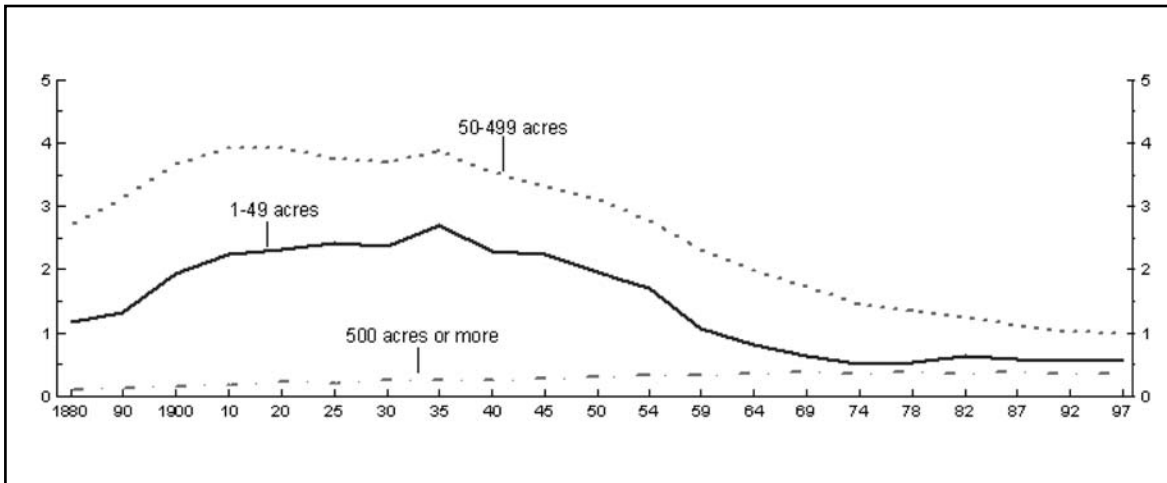


Figure 8 Distribution of farms by size

Source: Taken directly from Robert Hoppe and Keith Wiebe, “Land Ownership and Farm Structure,” Chapter 1.3 in *Agricultural Resources and Environmental Indicators*, Ag Handbook, no. 722 (U.S. Department of Agriculture, Economic Research Service, February 2003): 11. On-line at <http://www.ers.usda.gov/publications/arei/arei2001/>

Just as there has been a concentration in land, there has been a concentration of wealth in the farm sector. While in 1900, seventeen percent of farms produced half of the nation’s agricultural sales, by 1997, that figure was down to only two percent.⁴⁸

Examining, for instance, the period from 1999-2001, one can witness the persistence of these trends. The total number of farms decreased 1.16 percent. During this time the distribution of farms into economic sales classes also shifted. While the number of farms in the \$1,000-9,000 and \$10,000-\$99,999 categories declined (2.3 percent and 1.1 percent respectively), the number of farms with sales equaling \$100,000 or more, increased by 300 (one percent).⁴⁹

While there is no doubt that all small family farmers are facing increasing pressure as a result of consolidation in the sector, the disappearance of American farmers has proven to be quite discriminatory. Minority farmers are at greater risk of being pushed out of the sector than their white counterparts. While 925,000 farmers (fourteen percent of all farm operators) were African American in 1925, there remained less than 18,000 African American farmers (less than one percent of all farm operators) at the turn of the century.⁵⁰ With black farmers exiting the sector at a rate almost five times greater than whites, a 1990 House Committee report declared that black farmers were on the verge of extinction.⁵¹

The sharp demise of African American farmers can be attributed to "a combination of historical discrimination and financial lending policies that have left black farmers out of

assistance programs.”⁵² Government studies reveal that black farmers are more likely to be denied USDA loans and have to wait much longer for loan decisions than white farmers and that minorities, especially in the South, are underrepresented on the committees which determine loan decisions.⁵³ Such racist practices have prompted protests by black farmers in addition to lawsuits such as the 1997 Timothy Pigford et al. Versus Secretary of Agriculture Dan Glickman, where over 1,000 black farmers sued the USDA for material harm as a result of racist lending practices.⁵⁴

The distribution of direct fixed payments under the FAIR Act and now the FSRI Act is contributing to this imbalance in wealth and is fueling the exit of small family farmers from the rural economy. As discussed in the preceding sector, government payments are based on the farm operators’ historically growing a program crop, and the size of the payment is based on the operators’ historic yields (i.e. farmers who had larger yields in the past will receive a larger subsidy). Need is not a factor. Brian Riedl of the Heritage Foundation puts this well:

Large farms and agribusinesses—which as a result of economies of scale, are also the most profitable farms—are eligible for massive subsidies as long as they grow the crops the government wants them to grow. Meanwhile, small lower-income farms growing the same crops receive only a fraction of what large farms receive; and farmers planting the 400 other crops, regardless of their need, are completely excluded from most farm subsidies. In sum, although farm subsidies are promoted as being necessary to provide income maintenance for poor farmers, they are designed to function as the largest corporate welfare program maintained by the federal government.⁵⁵

The non-profit organization Environmental Working Group (EWG) has compiled an impressive farm subsidy database which reports who the beneficiaries of government payments have been under the FAIR Act and how much these beneficiaries have received. The database reveals some disturbing trends. While the government distributed \$22.9 billion in subsidies during the first three years of the FAIR Act, ten percent of recipients collected sixty-one percent of the income support. Recipients in the top one percent collected an average \$83,000 per year and those in the top ten percent averaged \$32,000; the typical program participant, however, received just \$1,200 annually. Yet recipients even included fifteen Fortune 500 Companies. From 1996-2000, for instance, International Paper received 375,393, Westvaco Corp. received \$268,740, Chevron received \$260,223, and DuPont \$188,732. During this same period, the average payment to the bottom eighty percent of farm subsidy recipients was \$5,830.⁵⁶

The persistence of high payment caps under the 2002 FSRI Act will ensure further disbursement of support to non-needy recipients. With regards to commodity program support (direct fixed payments, counter-cyclical payments, and marketing loans), the current combined payment cap is \$180,000 (\$40,000 for direct payments, \$65,000 for counter-cyclical payments, and \$75,000 for marketing loans). Under the “3-entity rule,” an individual farmer can receive twice the payment for direct payments and marketing loans if s/he has three separate farming operations. The farm operator would be eligible for “a full payment on the first operation and up to a half payment for each of 2 additional entities.” This means the cap for an individual is really \$295,000. Furthermore, only those producers with an adjusted gross income of over \$2.5 million dollars are ineligible for federal income support.⁵⁷

The federal crop subsidies will not go to farmers who resemble John Steinbeck's Joad family, but to rich recipients, such as fourteen members of the Congress that crafted the law; wealthy American corporations like Westvaco (a paper products conglomerate), Chevron, and the John Hancock Insurance Company; and top Time-Warner entertainment executive Ted Turner, ABC correspondent Sam Donaldson, and billionaire David Rockefeller of Chase Manhattan Bank. Most family farms will get nothing but a tax bill. The farm bill only further tilts the playing field against them.⁵⁸

And a tilted playing field means that larger farms and agribusinesses will be more able to buy out smaller operators and further consolidate the sector. Even the USDA acknowledges the reality of this threat and admits that the current farm payment scheme makes it impossible to prevent "overly stimulating production by lower-cost, large scale commercial producers."⁵⁹

Even though many intermediate farms and rural-residence farms receive some program benefits, only one in four generated enough revenue to cover economic costs. Even more problematic is the inefficiency of these farms to improve their cost efficiency at the same pace as larger commercial operations, whose investment in new technologies and ability to expand are aided by program benefits.⁶⁰

The USDA's *Amber Waves* magazine recently addressed another key fault with PFC payments. While PFC payments are directed to farm operators, if the operator is not the owner but is rather renting or crop-sharing the land, he/she must split payment benefits with the farmland owner. This stipulation is quite significant, as nearly sixty percent (1996) of PFC program acres are rented, with thirty-five percent of these acres rented from one active farmer to another and sixty-five percent rented from non-farming landlords.⁶¹ Nonfamily corporations and other forms of business organizations own ten percent of rented land. The writers of the *Amber Waves* report declare, "not all operators can be considered as true beneficiaries of the program since competitive cropland rental markets work to pass through payments from PFC recipients who are tenants to the owners of base acres. . . the ultimate beneficiaries of PFCs, then, are owners of base acres."⁶²

Because non-farming landlords receive a significant portion of PFC payments, this suggests that payment benefits are in fact exiting the farm sector.⁶³ The EWG presents strong evidence for this case. Many subsidy recipients are actually residents of urban areas and are clearly not engaged in farming. From 1996 to 2001, tens of thousands of persons residing in major U.S. cities collected \$3.5 billion in farm subsidies. For instance, in San Francisco, there were 1,319 subsidy recipients who together amassed over \$33 million (at an average of \$25,167). At the same time, 10,491 Houston residents garnered more than \$330 million (at an average of \$31,901).⁶⁴

Decoupled payments have had the effect of artificially inflating land prices; if one can buy land knowing that part of the cost can be offset by PFC payments, the market clearing price of land will adjust upward. While crop prices fell and flattened out from 1996 to 2000, land value per acre has increased.⁶⁵ USDA analysis suggests that government payments are responsible for an eight percent increase in aggregate land asset values.⁶⁶ Burfisher and Hopkins suggest that the government payments themselves offset the high land costs,⁶⁷ yet the higher land prices clearly have an effect on smaller family farms. The cost of land is a barrier to market entry, and an incentive for capital-poor farmers (usually

smaller farmers) to sell their land to capital-rich operators. This also helps to make sense of the economics behind the concentration of farmland in the United States in Figure 7 and Figure 8, and additionally points to another group of winners from federal agricultural policy: banks.

As the USDA's Economic Research Service notes, at the same time as small farmers continued to be squeezed off their farms,

Agricultural banks remained very profitable through the middle of 2002. An annualized mid-2002 rate of return on assets (ROA) of 1.3 percent is a bit higher than it has typically been since 1992. Two agricultural banks failed in 2002, and only five failed during 1994-2001.⁶⁸

Business for banks in the agricultural sector is good. It seems that when exogenous shocks hit the farming community, it is the government and not the banks that cushion the blow, but despite this farmers themselves are increasingly indebted, as the ERS shows in Figure 9 (note the credit bubble at the time of the Savings and Loan scandal).

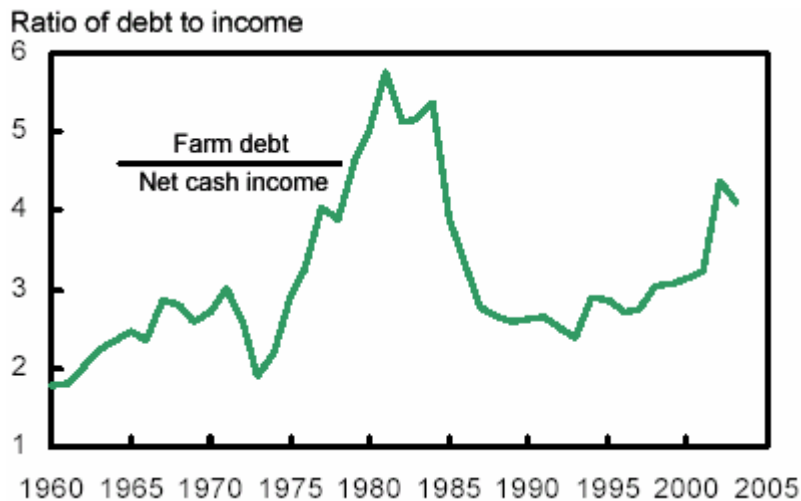


Figure 9 : Ratio of debt to income for US farmers 1960-2000

Source: Agricultural Income and Finance Annual Lender Issue, Jerome Stam, Daniel Milkove, Steven Koenig, James Ryan, Ted Covey, Robert Hoppe, and Paul Sundell, AIS-80, March 13, 2003p8. <http://jan.mannlib.cornell.edu/reports/erssor/economics/ais-bb/2003/ais80.pdf>

Part of the explanation for this ratio is the falling prices facing farmers. From 1994-1995 to 1999-2000, the price U.S. farmers received in real terms decreased 36.1 percent for wheat, 24.5 percent for soybeans, 29.2 percent for corn, and 44.4 percent for cotton.⁶⁹

Figure 10 depicts the trend in prices which farmers receive and pay. While “prices received” refers to the prices which farmers obtain for their commodities, “prices paid” refers to the prices of items farmers purchase in the production process. These items include, but are not limited to, fertilizer, fuel, feed, farm machinery, rent, and agricultural chemicals. While on average all U.S. farmers are receiving lower prices for their commodities, they are facing higher prices for production items. Last year, farmers received prices for their commodities at levels two percent below what they received in 1990-92. At

the same time, the prices they were paying in the production process were eighteen percent higher than 1990-92 levels⁷⁰.

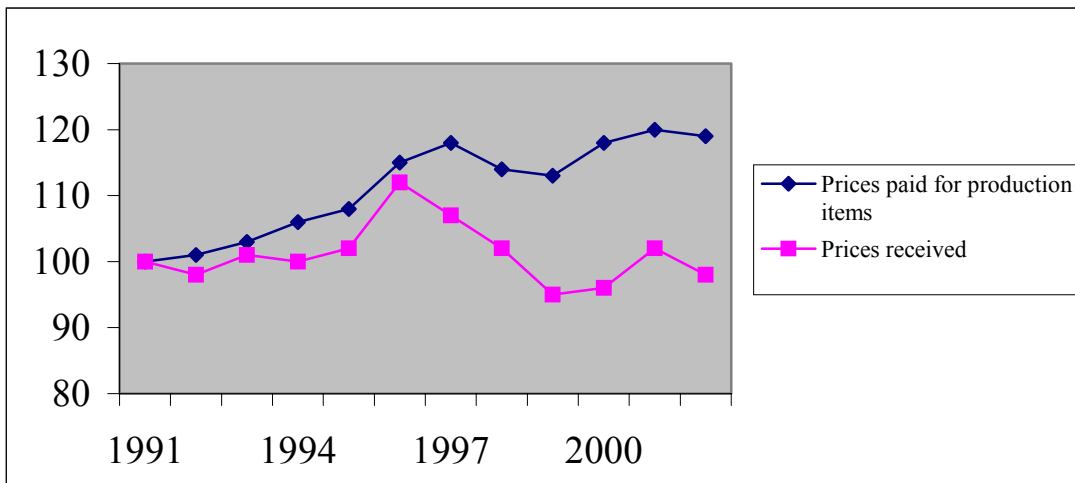


Figure 10 Indices of average prices received and paid by farmers (1992=100)

Source: U.S. Department of Agriculture/Economic Research Service, *Agricultural Outlook: Statistical Indicators* (January 2003). On-line at <http://www.ers.usda.gov/catalog/OneProductAtATime.asp?PDT=1&PID=291>

U.S. Department of Agriculture/National Agricultural Statistical Service, *Agricultural Statistics* (2002). On-line at <http://www.usda.gov/nass/pubs/agr02/acro02.htm>

Iowa corn and soybean farmer and National Family Farm Coalition (NFFC) President George Naylor declares, “the truth is obvious to most farmers that commodity prices lower than the early 1970 prices together with prices for things a consumer buys to farm and support a family at year 2000 levels means that it is almost impossible to earn a living on the farm.”⁷¹

As small family farmers are obtaining smaller returns from farming and facing rising costs, many are relying on off-farm income as a survival strategy. According to 1999 figures, fifty-five percent of U.S. farm operators work off-farm, with eighty percent working full-time jobs.⁷² This is a twenty-four percent increase from 1979. During the same period, the percentage of farm operator spouses working off-farm increased by sixty-five percent, from 27.7 percent to 45.8 percent. While the off-farm share of net total farm household income was 52.8 percent in 1960, by 1979, it had increased to 74.1 percent, and by 2000, it comprised 94.8 percent of total household income.⁷³ It should be noted that off-farm income includes not just off-farm wages and salaries but also dividends, rental income, interest, pensions, trusts, nonfarm business income, etc.

Figure 11 tabulates net farm income and net off-farm income of family farms. This table utilizes the USDA farm typology to provide more specific data about farm household income. The USDA divides small family farms (sales less than \$250,000) into five categories: limited-resource, retirement, residential, lower sales, and higher sales. Remaining categories are large family farms (sales between \$250,000 and \$499,999), very large family farms, and nonfamily farms.⁷⁴ Nonfamily farms, which are not included in Figure 11, comprised 2.1 percent of total farms in 2000.⁷⁵

In stark contrast to small family farms, large and very large family farm operator households do not rely as heavily on off-farm income. 1999 data reveals that while the off-farm income as share of total income for all operator households averaged 90.1 percent, for

large and very large farms, the averages were 40.4 percent and 17.7 percent.⁷⁶ Meanwhile, of the five types of small family farms, four actually experienced negative farm income and so relied on off-farm income for more than 100% of their total income. These four groups comprised over eighty-five percent of family farmers in 1999. Clearly, reliance on off-farm income and employment is a matter not of choice but one of necessity.

Statistics show that average farm household income has exceeded U.S. average household income in recent years. This would seem to be a vindication of U.S. farm policy. More careful scrutiny, however, suggests otherwise. First, this is an aggregate figure. Some farmers are doing very well indeed from current policies. They are not, however, the majority of family farmers. In addition, the income figures include dependence on off-farm sources for income. It is clear that agricultural returns in sustaining a farm household are insufficient. Operators are working off-farm to pay for farm expenses, to spread income risk, and to obtain income and lifestyle benefits.⁷⁷ This is indicative of self-exploitation on the part of farm operator households, as they must manage both farm responsibilities and off-farm employment.

Figure 11 Net farm and off-farm incomes of U.S. family farms, 1999

	Number of households	Distribution of households	Net farm income	Net off-farm Income	Off-farm income as share of total income
All operator households	2,147,576	100	6,359	57,988	90.1
USDA farm typology:					
Limited resource	126,920	5.9	-3,580	13,114	137.5
Retirement	297,566	13.9	-1,348	41,991	103.3
Residential/lifestyle	931,561	43.4	-4,007	87,796	104.8
Farming occupation/ lower sales	480,441	22.4	-128	39,892	100.3
Farming occupation/ higher sales	175,370	8.2	26,700	26,621	49.9
Large	77,314	3.6	51,087	34,598	40.4
Very large	58,403	2.7	165,634	35,572	17.7

Source: Ashok K. Mishra et al., *Income, Wealth, and the Economic Well-being of Farm Households*, Agricultural Economic Report, no. 812 (Washington, D.C.: U.S. Department of Agriculture, Economic Research Service, July 2002). On-line at <http://www.ers.usda.gov/publications/aer812/aer812.pdf>

b. Poverty Among Farm Workers Increasing

Since the farm sector consists of more than just farm operators, it is necessary to also assess the experience of farm workers. Findings from the National Agricultural Workers Survey (NAWS) prove to be a valuable tool in examining changing conditions for farm workers. NAWS was enacted as a result of the 1986 Immigration Reform and Control Act (IRCA) which mandated the Secretaries of Labor and Agriculture to annually determine if there is a shortage of U.S. agricultural workers performing Seasonal Agricultural Services (SAS) and to identify how seasonal agricultural wages and working conditions have changed since the passage of IRCA.⁷⁸ NAWS findings reveal information concerning characteristics, work patterns, and regional differences of SAS workers.⁷⁹ The Department of Labor began conducting NAWS in 1988. While the earliest survey is from fiscal year 1989, the most recent NAWS findings, published in March 2000, are from data collected in fiscal years 1997 and 1998.

NAWS data reveals that the percentage of farm workers living in poverty has increased. While one-half of farm worker families were living in poverty in 1990, more than sixty percent had incomes below the poverty line according to the most recent survey.⁸⁰ Half of all individual workers earned 1997 incomes of less than \$7,500, and half had family incomes of less than \$10,000. This is well below the poverty line--\$8,350 for an individual and \$12,800 for a family of three.⁸¹ Figure 12 depicts the percentage of farm worker households with incomes below the poverty line, by family size, in 1997-98. Since 1990, the

most significant change has been the growth in the poverty rate for farm workers with a household size of one. While approximately forty percent of farm workers who were the lone members of their households in 1990 were living in poverty, the rate increased to approximately sixty-five percent in 1997-98. One-fifth of farm workers actually reported having a personal income of less than \$500. Clearly, income from farm work is growing increasingly insufficient.

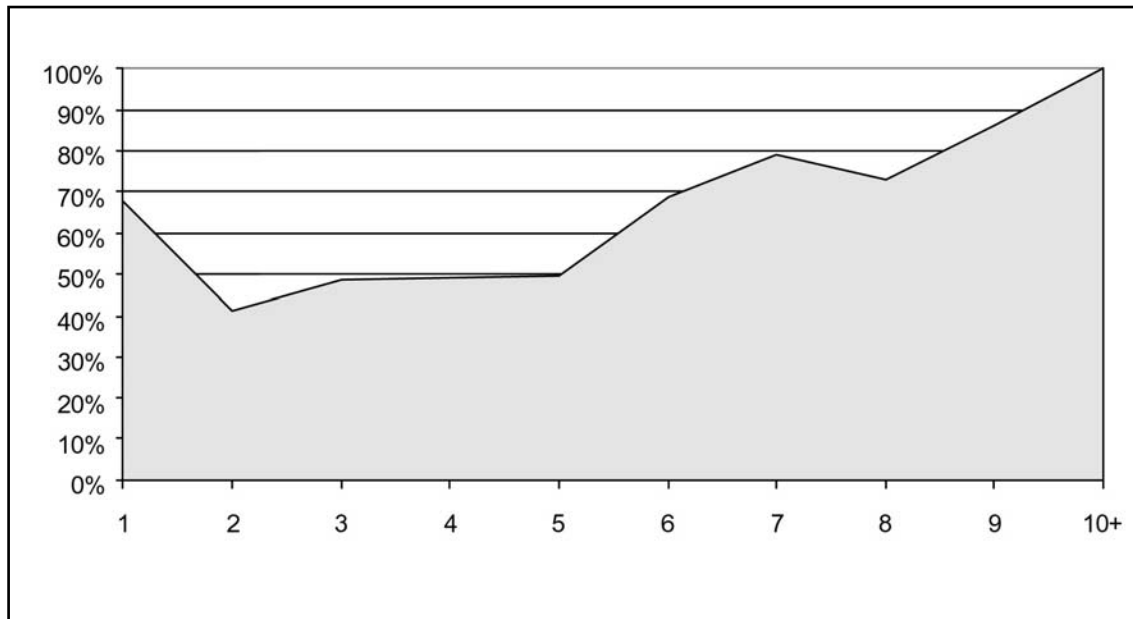


Figure 12 Percentage of farm worker households below poverty line by size, 1997-98

Source: Taken directly from *Findings from the National Agricultural Workers Survey (NAWS) 1997-1998: A Demographic and Employment Profile of United States Crop Farm Workers*, Research Report, no.8 (U.S. Department of Labor, Office of Program Economics, March 2000): 40. On-line at http://www.dol.gov/asp/programs/agworker/report_8.pdf

Examination of farm worker wages is also telling. When accounting for inflation, there has been an increase in hired farm workers' wages, but it has been minimal. Figure 13 depicts the average July wage rate for hired farm workers since 1980. No data was available for 1981. While, in 1982-84 dollars, the average July wage rate was \$4.30 in 1980, the average wage rate was \$4.68 in 2001. Despite this nine percent increase in real wage rates, U.S. farm workers still earn significantly less than non-farm workers. According to the 1997-98 National Agricultural Workers Survey (NAWS), the average hourly wage of farm workers in 1998 was 48.4 percent of the average hourly wage of production workers in the private non-farm sector.⁸² Nine years earlier, however, farm workers received wages equivalent to 54.3 percent of private non-farm worker wages.⁸³ This is evidence of a growing divergence in the wages of farm and non-farm workers. Figure 14 depicts the trend in farm and non-farm worker wages in nominal dollars from 1989 to 1998.

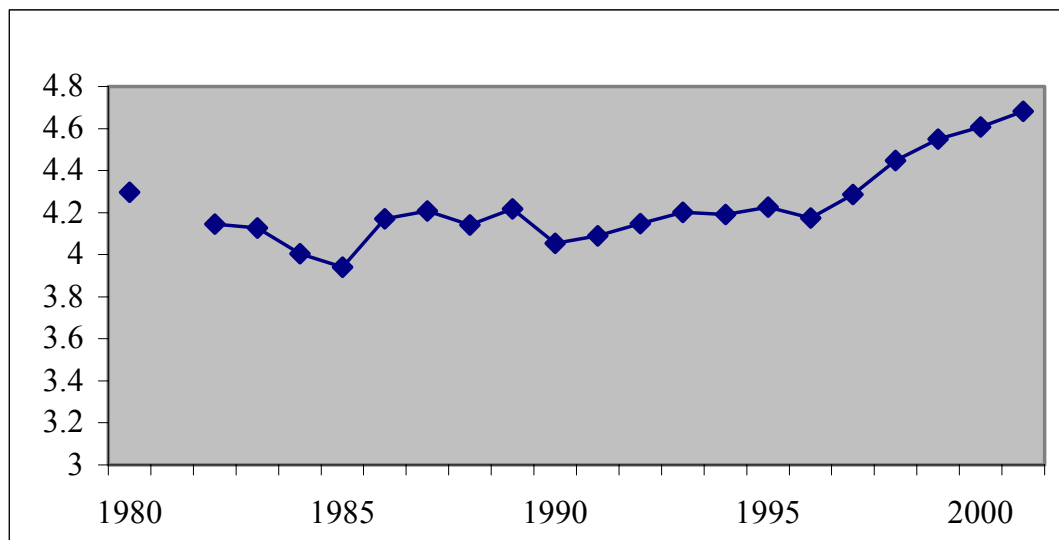


Figure 13 Average wage rates for hired U.S. farm workers (constant 1982-84 dollars/hour)

Source: U.S. Department of Agriculture/Economic Research Service, *Agricultural Outlook: Statistical Indicators* (January 2003). On-line at

<http://www.ers.usda.gov/catalog/OneProductAtATime.asp?PDT=1&PID=291>

U.S. Department of Agriculture/National Agricultural Statistical Service, *Agricultural Statistics* (2002, 1998 & 1992). 2002 and 1998 on-line at <http://www.usda.gov/nass/pubs/agr02/acro02.htm>

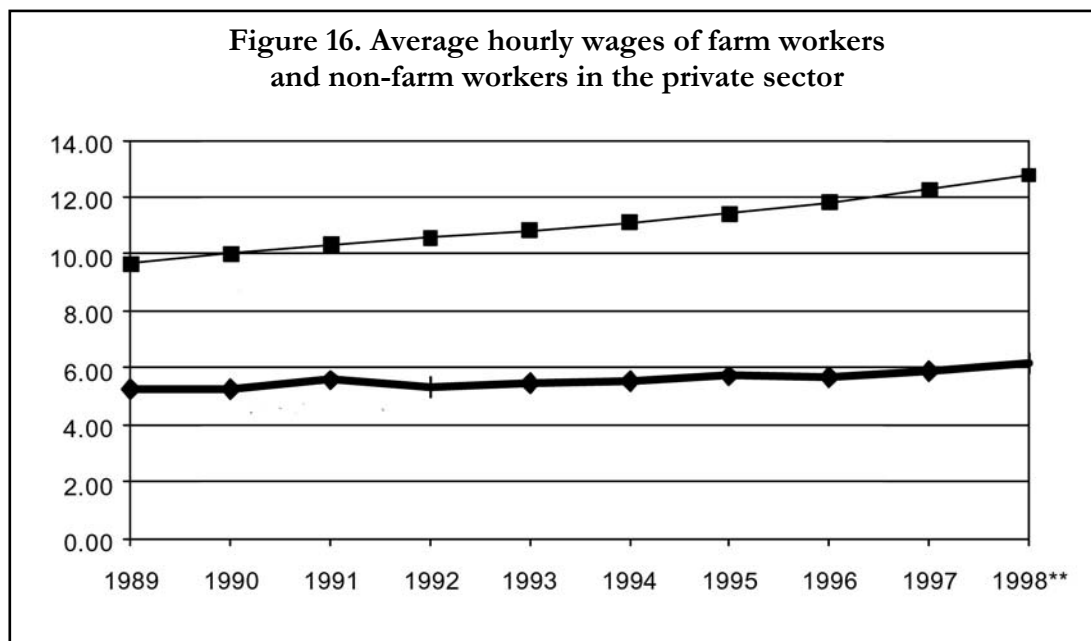


Figure 14 Average hourly wages of farm workers and non-farm workers in the private sector

Source: Taken directly from *Findings from the National Agricultural Workers Survey (NAWS) 1997-1998: A Demographic and Employment Profile of United States Crop Farm Workers*, Research Report, no.8 (U.S. Department of Labor, Office of Program Economics, March 2000): 35. On-line at http://www.dol.gov/asp/programs/agworker/report_8.pdf

In recent years, farm workers have also proven to be one of the “losers” of U.S. farm policy in the sense that both job security and fringe benefits are declining. As U.S. farm operators feel the “cost-price squeeze,” farm workers, experience wage-cutting and layoffs in an effort by farm operators to shift the burden. The number of weeks the average farm worker reports being engaged in farm work is decreasing. While in fiscal years 1990-92 the annual average was 26.2 weeks, the average was 25.0 weeks from 1993-95 and 24.4 weeks from 1996-98.⁸⁴ Unemployment rates for farm workers ranged from fifteen to twenty-three percent in 1997 depending on the time of year.⁸⁵ In terms of benefits, while thirty-nine percent of workers reported Worker’s Compensation coverage in 1989, only twenty-eight percent did in 1997-98; and while twenty-one percent of workers reported receiving off-the-job health insurance in 1989, only five percent did in 1997-98.⁸⁶

Some work conditions for farm workers have improved. For instance, while in 1989 nineteen percent of workers did not have access to toilets, nineteen percent lacked access to water for washing, and eight percent did not have access to drinking water; by 1997-98, these rates had decreased, respectively, to thirteen percent, sixteen percent, and two percent.⁸⁷ While these statistics are indicative of progress, the fact that there still exist farm workers without access to drinking water and appropriate sanitary facilities at their work sites remains a scandal. Access is a basic human right.

The preceding statistics suggest that the well-being of farm workers, like that of small family farmers, is in jeopardy. This phenomenon is not, however, contained within the domain of agricultural employment. When agriculture suffers, rural life suffers. The next section explores quality of life data in the United States.

c. Social Malaise in Rural America

The plight of small family farmers, in addition to that of farm workers, presents a serious dilemma for the rural United States. According to 1999 data, only one of the fifty poorest counties in the United States is metropolitan. The Rural Midwest is the poorest region of the country and Nebraska the state with the poorest counties.⁸⁸ Population decline, chronic and high incidences and depths of poverty, out-migration and skillful survival strategies all characterize these areas⁸⁹.

Poverty is more than an economic problem for rural areas; it is a social malaise. A recent *New York Times* article reported disturbing statistics. While drug-related homicides fell by fifty percent over the past decade in urban areas, they tripled in the countryside. The percentage of people leaving below the poverty line is thirty percent higher in rural areas than in cities. Drug abuse, particularly of methamphetamine, has become a serious problem. In 1999, there were three times more seizures of methamphetamine laboratories in Iowa than in New Jersey and New York combined. In Wyoming, an estimated one out every 100 people needs treatment for methamphetamine addiction.⁹⁰

This report is not trying to establish a direct link between the government’s free trade policy and drug use and crime in rural areas. This information, in addition to the analysis of the distribution of government direct payments and data on farm numbers, prices, and income, serves to indicate that the well-being of both small family farmers and farm workers is highly questionable, and that this is the human context in which farm policies operate, and which they exacerbate.

d. And the consumer?

While it would appear reasonable to infer that lower farm gate prices would translate into lower retail prices for these same commodities or their processed versions, comparisons between farm and retail values demonstrate otherwise. As Figure 15 indicates, the farm-to-retail price spread (i.e. “the difference between what farmers get for the food they sell and what consumers pay for food that was processed and marketed”⁹¹) for a market basket of goods is getting larger.

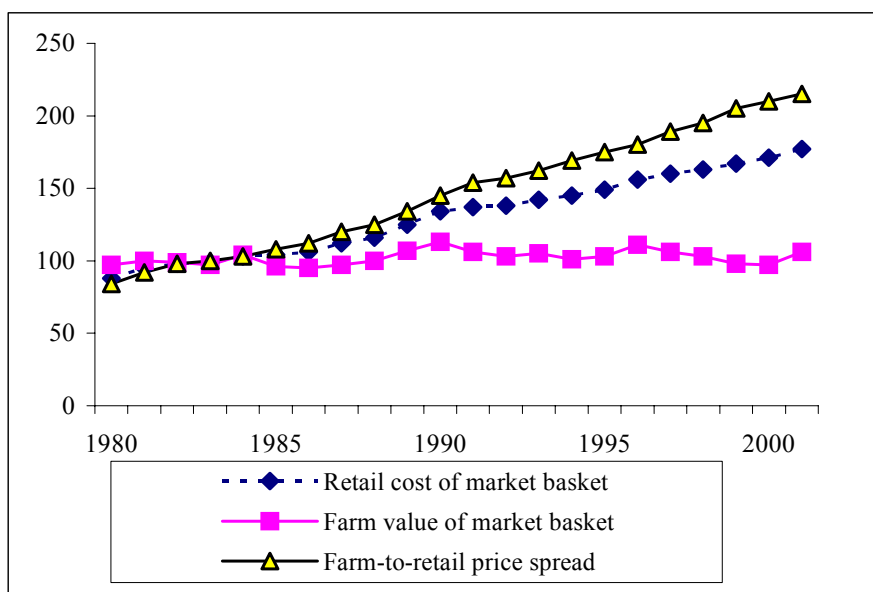


Figure 15 Farm to retail spread for a market basket of goods (1982-1984=100)

Source: U.S. Department of Agriculture/Economic Research Service, *Agricultural Outlook: Statistical Indicators* (January 2003). On-line at

<http://www.ers.usda.gov/catalog/OneProductAtATime.asp?PDT=1&PID=291>

U.S. Department of Agriculture/National Agricultural Statistical Service, *Agricultural Statistics* (2002). 2002 on-line at <http://www.usda.gov/nass/pubs/agr02/acro02.htm>

Howard Elitzak, *Food Cost Review, 1950-97*, Agricultural Economic Report No. 780

(Washington, D.C.: U.S. Department of Agriculture, Economic Research Service, June 1999).

In 2001, the farm value of a basket of goods was 106 percent of its 1982-84 value. At the same time, the retail price was 177 percent of its 1982-84 value.⁹² As the marketing bill for a basket of goods is getting larger, farm value has become almost an insignificant determinant of retail price. Figure 18 indicates how farm value is becoming a smaller percentage of the retail price. While in 1980, farm value comprised 37 percent of the retail price, by 2001 that share had decreased to 21%.⁹³

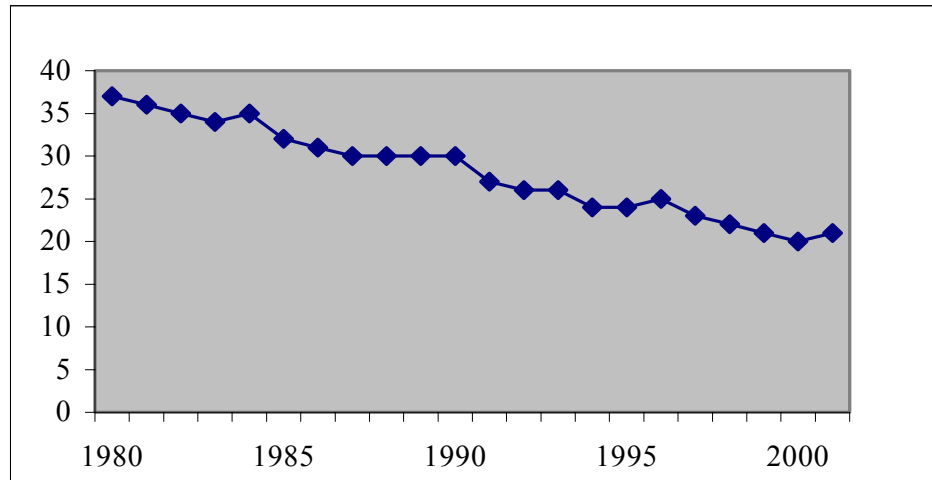


Figure 16 Farm value as a percentage of retail price

Source: U.S. Department of Agriculture/Economic Research Service, *Agricultural Outlook: Statistical Indicators* (January 2003). On-line at <http://www.ers.usda.gov/catalog/OneProductAtATime.asp?PDT=1&PID=291>
 U.S. Department of Agriculture/National Agricultural Statistical Service, *Agricultural Statistics* (2002). On-line at <http://www.usda.gov/nass/pubs/agr02/acro02.htm>
 Howard Elitzak, *Food Cost Review, 1950-97*, Agricultural Economic Report No. 780 (Washington, D.C.: U.S. Department of Agriculture, Economic Research Service, June 1999).

So not only are farmers failing to reap benefits from the market, but neither are consumers. Lower farm gate prices do not mean lower prices for them; instead, all gains are absorbed in the marketing process. Moreover, consumers are also “losing” in the sense that it is their tax dollars that are being funneled to absentee landlords, large farms, and agribusiness.

Sophia Murphy of the Institute for Trade and Agriculture Policy makes a very important observation, “the point is not that trade liberalisation cannot benefit consumers, but that in practice it has not. Both farmers and consumers face prices that diminish their welfare.”⁹⁴

In addition to the price mechanism, consumers suffer externalities from the current food system. For example, according to an American Farmland Trust study, the United States is losing two acres of “prime” farmland to development every minute.⁹⁵ This is the most rapid decline in the nation’s history and presents a serious “quality of life issue” for consumers. Not only is the integrity of urban watersheds at risk, but the “visual amenity of open space” is lost as well.⁹⁶ The next section of the paper provides a more thorough discussion of the environmental degradation which the current food system encourages.

Consumer quality of life is also at stake with regards to health and nutrition. The following excerpt from Professor of Nutrition and Food Studies Marion Nestle’s book *Food Politics* reflects on the overproduction of the U.S. food system:

The greater efficiency, specialization, and size of agriculture and food product manufacture have led to one of the great unspoken secrets about the American food system: overabundance . . . the U.S. food supply—plus imports less exports—provides a

daily average of 3,800 calories per capita. This level is nearly twice the amount needed to meet the energy requirements of most women, one-third more than that needed by most men, and much higher than that needed by babies, young children, and the sedentary elderly. Even if, as the USDA estimates, 1,100 of those calories might be wasted (as spoiled fruit, for example, or as oil for frying potatoes), the excess calories are a major problem for the food industry: they force competition.⁹⁷

Nestle goes on to argue that these excess calories create an extremely competitive food industry which is highly detrimental to health and safety regulation.

Even people who overindulge can eat only so much food, and choosing one food means rejecting others. Overabundance alone is sufficient to explain why the annual growth rate of the American food industry is only a percentage point or two, and why it has poked along at that low level for many years. It also explains why companies compete so strenuously for consumer food dollars, why they work so hard to create a sales-friendly regulatory and political climate, and why they are so defensive about the slightest suggestion that their products might raise health or safety risks.⁹⁸

Examination of food industry practices leaves little doubt that public health is not a principal concern, if one at all. With food companies spending \$33 billion annually to promote their products, almost seventy percent is for soft drinks, candy and snacks, convenience foods, alcoholic beverages, and desserts, while only 2.2 percent is spent for fruits, vegetables, beans, or grains.⁹⁹ With regards to new product development, more than two-thirds of new products in 1998 fit into the “use sparingly” (fats, oils, and sweets) category of the *USDA Food Guide Pyramid*.¹⁰⁰ The targeting of children, the “pushing” of soft drinks, the deregulation of dietary supplements, and the “co-opting” of nutritional professionals further evidences food companies’ disregard for public welfare in lieu of profits.¹⁰¹

As advertising, the development of new products, and increased portion sizes promote eating more,¹⁰² obesity has become a serious problem. Approximately sixty-five percent of Americans are overweight.¹⁰³ While obesity among American children has doubled since 1980, it has tripled among teenagers.¹⁰⁴ There now exist as many underfed persons as overfed (1.2 billion each, 2.4 billion total), creating a “global epidemic of malnutrition.”¹⁰⁵

There is another side to this. While vast sums are being spent on advertising, consumers are more poorly informed about their food than they have ever been. Biotechnology has produced genetically modified (GM) food such as *Bacillus thuringiensis* (Bt) maize and cotton and Round-up ready soybeans. As a result, by 1998, one quarter of corn, thirty-eight percent of soybeans, and forty-five percent of cotton produced in the U.S. was genetically modified.¹⁰⁶ Because current U.S. food-labeling standards do not mandate the labeling of products as GM, consumers may be eating transgenic crops without knowing or wanting. Whether or not GM products are “safe,” and the lack of independent peer reviewed studies of the effects of GM food on humans leaves this as an open question, the absence of GM labeling goes against consumer wishes and is in violation of a consumer’s right to know. Despite the fact that ninety-two percent of adults in the U.S., according to a 2001-2002 consumer survey, want the labeling of GM foods,¹⁰⁷ the U.S. government has been mobilizing actively, at home and abroad, against it.

Perhaps the greatest tragedy is that while there is more food than ever being consumed in America, and more wealth than ever in the economy overall, food insecurity has reached staggering proportions. While real per capita income is increased 18.3% from 87-01, the price of food increased 52.5%. The USDA's own figures show that, at some point in 2001, more than 33.6 million Americans had 'limited or uncertain availability of nutritionally adequate and safe foods, or limited or uncertain ability to acquire acceptable foods in socially acceptable ways' – in other words, over 10% of US households were food insecure. Women and children were particularly vulnerable, especially following the reduction in the scale of welfare state entitlements to these groups, and the shift towards mechanisms for ensuring food security that are contingent on the performance of the overall economy. These are factors identified by the USDA for the predicted increase in incidence of food insecurity in the coming years for already poor US households.

e. Environment and Health at Risk

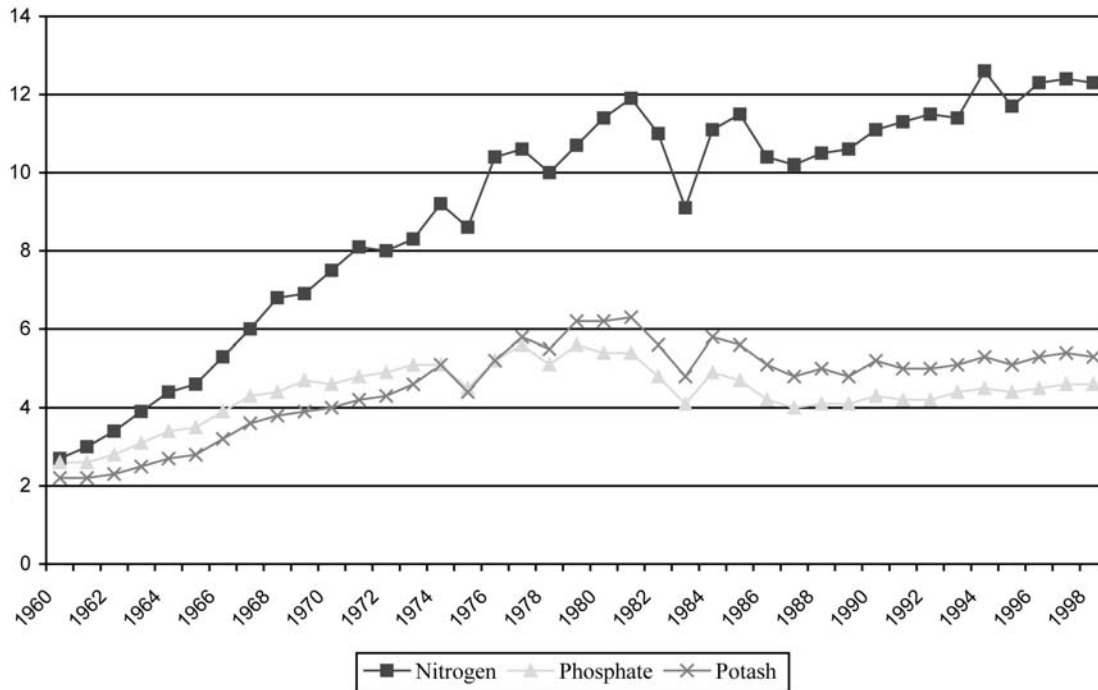
As trends in U.S. agriculture have come to the detriment of both farmers and consumers, the integrity of the environment too is at risk. Pesticide and fertilizer usage and the homogenization of agriculture promote environmental degradation.

Figure 17 Pesticide use in U.S.

	Total pesticide use (million pounds)	Pounds of active ingredient per planted acre
1964	215	1.232
1966	240.6	1.375
1971	364.4	1.911
1976	530.5	2.275
1982	572.4	2.237
1990	497.7	2.178
1991	477.5	2.113
1992	518.2	2.238
1993	498.2	2.199
1994	563.4	2.419
1995	543.3	2.383
1996	575.8	2.379
1997	587.6	2.41

Source: Craig Osteen, "Pest Management Practices," Ch. 4.3 in *Agricultural Resources and Environmental Indicators*, Ag Handbook, no. 722 (U.S. Department of Agriculture, Economic Research Service, February 2003). On-line at <http://www.ers.usda.gov/publications/arei/arei2001/>

Figure 18 U.S. commercial fertilizer usage



Source: Stan Daberkow, Harold Taylor, and Wen-yuan Huang, “Nutrient Use and Management,” Ch. 4.4 in *Agricultural Resources and Environmental Indicators*, Ag Handbook, no. 722 (U.S. Department of Agriculture, Economic Research Service, February 2003): 6. On-line at <http://www.ers.usda.gov/publications/arei/arei2001/>

Figure 17 indicates the usage of conventional pesticides on selected U.S. crops from 1964-97, and Figure 18 graphs commercial fertilizer use of nitrogen, phosphate, and potash. Throughout the past forty years fertilizer and pesticide usage has either increased or remained level. When, however, taking into consideration that the acreage of land in farms has declined, one can assert that their use is indeed intensifying.

Pesticide use first peaked in 1982 when cropland used for crops was at a record high . . . Total quantity of pesticides declined between 1982 and 1990 as commodity prices fell and land was idled by Federal programs. In 1996, total quantity of pesticides edged above the 1982 peak, due mainly to expanded use of soil fumigants, defoliants, and fungicides on potatoes, fruits, and vegetables . . . Also contributing to the increase were more intensive insecticide treatments on cotton and potatoes and an increased share of wheat acres treated with herbicides.¹⁰⁸

Both pesticide and commercial fertilizer usage cause environmental decay. Not only does the utilization of commercial fertilizers promote the deterioration of soil structure and fertility, but it also leads to water contamination and eutrophication, as mineral components of synthetic fertilizers are easily leached out of soil.¹⁰⁹ Negative impacts of pesticide

application include the development of pest resistance; the destruction of natural enemies, pollinators, and other agriculturally-beneficial organisms; water contamination and corresponding wild-life damage; and human poisoning and health impacts.¹¹⁰ Approximately 67,000 nonfatal acute pesticide poisonings occur each year in the U.S.¹¹¹, and about twenty to thirty people die each year from of pesticide toxicity.¹¹² In the state of California, there were 3,991 reported cases of occupational poisonings by agricultural pesticides from 1991 to 1996, an average 665 cases each year.¹¹³ A recent joint study on California farmworkers and pesticides by Pesticide Action Network North America, United Farm Workers of America, and California Rural Legal Assistance Foundation asserts that “the situation is even worse than these numbers indicate,” as some exposure incidents go unreported because farmworkers fear incurring medical bills and/or “retaliation from employers” or because they do not recognize their symptoms as pesticide-related.¹¹⁴ In addition to acute poisonings, pesticide exposure can also result in chronic health effects. This includes the potential for causing cancer, such as lymphoma and breast cancer, in addition to dermatitis, birth defects, infertility, and neurological disorders.¹¹⁵

The homogenization of agriculture is another environmental concern. While it can create economies of scale with regards to seed, pesticide, and fertilizer purchases, monoculture threatens biological diversity, makes plotted fields more susceptible to a devastating pest outbreak, and so favors reliance on chemical pesticides.¹¹⁶ Figure 19 indicates the changing distribution of crops present on farms and attests to the specialization of farms today. At the beginning of the twentieth century, there were many more crops present on a typical farm than there are today. While in 1997, the only crops that were present on twenty percent or more of all farms were corn and hay and forage, in 1900, corn, hay and forage, vegetables, potatoes, orchards, oats, wheat, and cotton were each produced on at least twenty percent of farms.

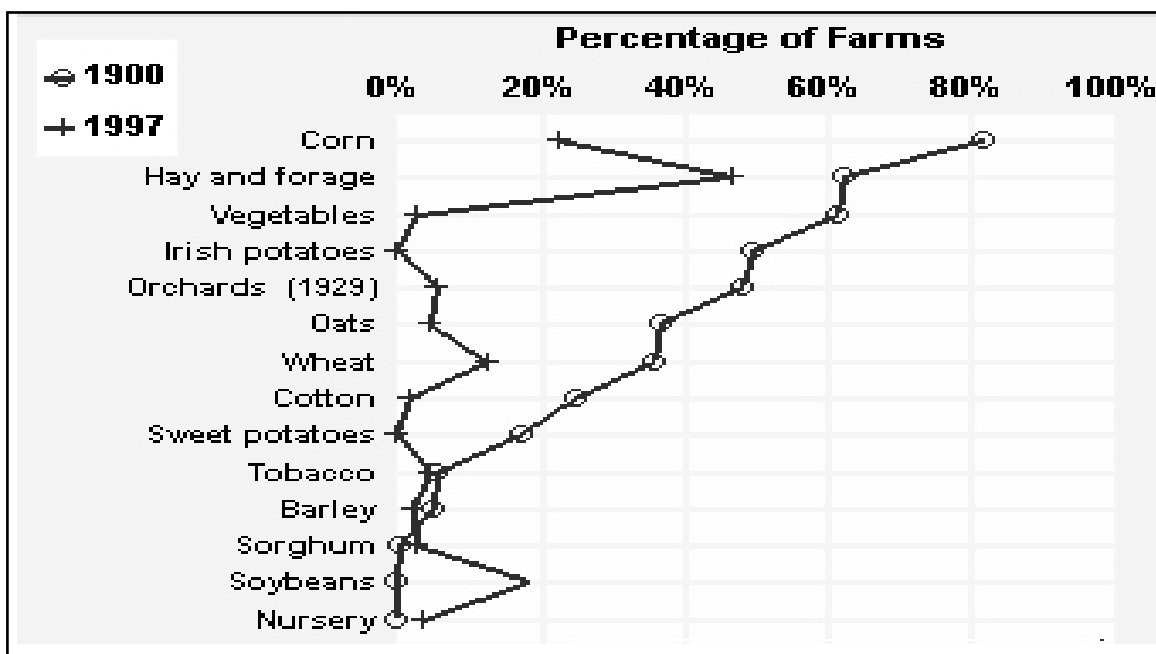


Figure 19 Crops present on U.S. farms

Source: U.S. Department of Agriculture/National Agricultural Statistical Service, “Trends in U.S. Agriculture – Market Basket.” On-line at www.usda.gov/nass/pubs/trends/marketbasket.htm

Unfortunately, the current policy environment encourages U.S. farmers to pursue these ecologically unsound practices. Government allocation of farm payments is a case of point. Because direct fixed payments go only to farmers growing one of the program crops, the government is, in effect, promoting specialization over diversification. Moreover, the current system encourages pesticide and fertilizer usage. As small farm operators cannot obtain sufficient returns from farming, they often seek employment off-farm. Using pesticides and synthetic fertilizers becomes the easiest, quickest, and least labor-intensive way to manage the farm.

While the ASRI Act does provide farmland conservation programs for which all farmers are eligible, only twenty-three percent of total farm spending is demarcated for them.¹¹⁷ According to EWG, there is a greater demand for these programs than availability, as evident in the USDA's "growing 2.5 billion backlog in applications for farmland conservation assistance."¹¹⁸ The EWG adds:

While the ASRI Act's provision of farmland conservation payments is clearly a [step] in the right direction, it is inadequate when compared to the allocated funding for program crops. While thirty-six percent of farmers share the \$130 billion allocated for direct fixed payments, all farms must compete for \$40 billion in conservation funding.¹¹⁹

VI. The Consolidation of the Food Sector and the Power of Agribusiness

But suppose you're the farmer. Want to buy seed to grow corn? If Cargill is the only buyer of corn in a hundred mile radius, and Cargill is only buying a particular Monsanto corn variety for its mills or elevators or feedlots, then if you don't plant Monsanto's seed you won't have a market for your corn. Need a loan to buy the seed? Go to Cargill-owned Bank of Ellsworth, but be sure to let them know which seed you'll be buying. Also mention that you'll be buying Cargill's Saksferco brand fertilizer. OK, but once the corn is grown, you don't like the idea of having to sell to Cargill at the prices it dictates? Well maybe you'll feed the corn to your pigs, then, and sell them to the highest bidder. No problem—Cargill's Excel Corporation buys pigs, too. OK, you're moving to the city, and renouncing the farm life! No more home-made grits for breakfast, you're buying corn flakes. Well, good news: Cargill Foods supplies corn flour to the top cereal makers. You'll notice, though, that all the big brands of corn flakes seem to have pretty much the same hefty price per ounce. After all, they're all made by the agricultural oligopoly.¹²⁰

Brian Halweil
World Watch Institute

As the number of farm operators have dropped, as more farm workers are living below the poverty line, and as consumers have watched the farm-to-retail price spread soar, agribusiness firms have increased both their market power and wealth. According to the latest available USDA data, four companies (Cargill, Cenex Harvest States, Archer Daniels Midland (ADM) and General Mills) now own sixty percent of the U.S.'s terminal grain handling facilities, three companies (Cargill, ADM, and Zen Noh) are responsible for eighty-two percent of corn exporting, four companies (Tyson, ConAgra, Cargill and Farmland Nation) hold eighty-one percent of the beef-packing industry, and four companies (ADM, ConAgra, Cargill and General Mills) own sixty-one percent of flour milling capacity.¹²¹

Examination of historic versus current food industry concentration ratios attests to the reality of consolidation. The CR4 is the concentration ratio of the top four firms in an industry relative to 100 percent. According to the 2002 update of a report to the National

Farmers Union (NFU) on food and agriculture system consolidation, the CR4 for the beef packing industry, which was seventy-two percent in 1990, has now reached eighty-one percent. The pork packing industry's CR4 has risen from thirty-seven percent in 1987 to fifty-nine percent, while the broiler industry's 1986 CR4 of thirty-five percent has risen to fifty percent. The soybean-crushing industry's current CR4 of eighty percent is up from seventy-one percent in 1987 and sixty-one percent in 1982.¹²²

It is no stretch to call firms like Cargill, ADM, and ConAgra "giants." Cargill is the nation's largest private corporation in terms of revenues.¹²³ According to its 1997 financial report, Cargill has "some 79,000 employees in more than 1,000 locations in 72 countries and . . . business activities in 100 more."¹²⁴

Everything about ADM is big, big, big, measured either by its annual sales --- \$19 billion --- or by its material holdings, which include 355 processing plants, 500 grain elevators, 2,250 barges, 33,000 railroad cars, and more than 100 ocean-going ships. ADM's home base in Decatur, Illinois, is the largest agricultural plant complex in the world. When it comes to processing corn, America's biggest cash crop, ADM is the world's leader, as it also is in producing ethanol or grain alcohol.¹²⁵

Indeed, corporate centralisation is occurring at all levels of the food system, "from seeds, fertilisers, and equipment, to processing, transporting and marketing."¹²⁶ For example, the top ten agrochemical companies dominate eighty-one percent of the \$29 billion agrochemical market, and ten life science firms control thirty-seven percent of the \$15 billion per year global seed market.¹²⁷ Moreover, "the five largest 'gene giants' (AstraZeneca, DuPont, Monsanto, Novartis and Aventis) account for 60% of the global pesticide market, 23% of the global seed market and almost 100% of the transgenic seed market."¹²⁸

The end result is a vertically integrated food system where "food-chain clustering" has expedited corporate control. Food-chain clustering is the tactic "whereby the gene giants form strategic alliances with agribusiness firms, allowing the firms with transgenic interests access to production."¹²⁹ The joint-venture of Cargill and biotechnology firm Monsanto is an example of such a food-chain cluster.

As the Halweil quote which opened this section and the following quote from the NFU report attest, the current structure of the food system leaves farmers with little market power.

In a food chain cluster, the food product is passed along from stage to stage, but ownership never changes and neither does the location of the decision-making. Starting with the intellectual property rights that governments give to the biotechnology firms, the food product always remains the property of a firm or cluster of firms. The farmer becomes a grower, providing the labor and often some capital, but never owning the product as it moves through the food system and never making the management decisions.¹³⁰

As existence of open competition at all levels of the food sector has become more and more questionable, the net losers have been small farmers. With fewer sales outlets from which to choose, small farmers have lost their negotiating power and are becoming price-takers. For example, in certain areas of the country, such as along the Ohio and Illinois rivers, a farmer's "choice" regarding a direct grain purchaser is limited to either

Cargill or ADM.¹³¹ As discussed above, farmers in an increasingly concentrated and vertically integrated food system face a serious cost-price squeeze. As the prices they receive for their crops decrease, the prices for production inputs rise.

The end result is an incredibly inequitable distribution of wealth in the food system. Net farm income since 1989 may be falling, but agribusiness profits are soaring. ConAgra's profits, for instance, grew from \$143 million to \$413 million between 1993 and 2000, while ADM's profits rose from \$110 million to \$301 million.¹³² Adjusted for inflation, this represents increases of 142.7 percent and 129.9 percent. Agribusiness giant Cargill has also significantly increased its revenues. While fiscal year 1971 revenues were \$2 billion, they grew to \$29 billion in 1982, peaked at \$56 billion in 1996, and were \$49.4 billion in 2001.¹³³ (All figures in current prices.)

Figure 20 shows how corporate profits (before taxes) in U.S. food marketing have been rising over the past two decades, most significantly during the 1990s and following implementation of NAFTA and URAA. Corporate profits, in 1982-84 dollars, were \$12.0 billion in 1980 and had fallen to \$10.1 billion by 1990. During the 1990s, which marked the advance of agricultural trade liberalization, corporate profits rose by nearly eighty percent to reach \$18.1 billion in 2000.

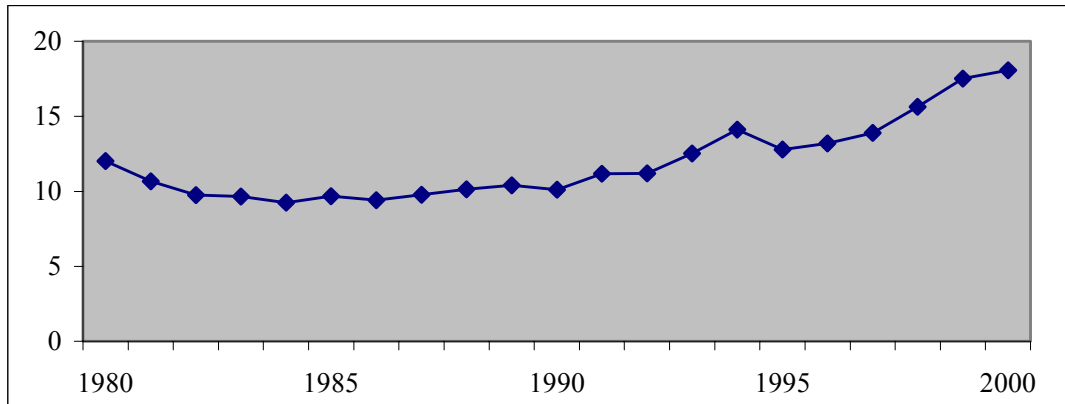


Figure 20 Corporate profits in food marketing (\$ billion) constant 1982-1984 dollars

Source: U.S. Department of Agriculture/National Agricultural Statistical Service, *Agricultural Statistics* (2002). On-line at <http://www.usda.gov/nass/pubs/agr02/acro02.htm>

Howard Elitzak, *Food Cost Review, 1950-97*, Agricultural Economic Report No. 780 (Washington, D.C.: U.S. Department of Agriculture, Economic Research Service, June 1999).

Furthermore, the disparity in wealth between small farmers and agribusiness executives is stupendous. For example, the annual compensation of ConAgra's current chief executive officer is reported to exceed \$11 million, the approximate combined average net income from for 3,300 farm households.¹³⁴

Because agribusiness and small farmers hold opposed interests, the success of transnational agribusiness inevitably comes at the cost of small farmers. Farmers, more likely to supply crops to agribusiness or sell to middlemen, are not directly engaged in exporting; consequently, "their immediate interest is in keeping production costs low and maximizing the price of the crops they sell."¹³⁵ Agribusiness firms like Cargill, however, are engaged in trade and have interests beyond the grain market. In addition to seed, fertilizer,

cotton, salt, and steel businesses, Cargill plays an important role in both beef and poultry production, owns a large financial services unit, and operates a huge worldwide transportation business, with ships, barges, railcars, and trucks.¹³⁶ For example, Cargill held a fleet of 682 barges in 2000.¹³⁷ With regards to the transportation business, ConAgra and ADM hold even more sizable roles in the transportation business. With 1,000 barges, ConAgra owns the nation's third largest barge fleet and is led only by American Commercial Barge Lines and ADM-owned Artco.¹³⁸ For agribusiness, diversified interests mean that higher volumes of commodities rather than base prices can be more important and profitable.

In fact, because the grain companies have a significant interest in keeping the barges, rail cars and ships they own busy, higher volume may at times be more important to the companies' profits than high prices. Given the diversity of grain companies economic interests, high grain prices have become a cost for them in other areas of the business: high grain prices make it more expensive to feed hogs and cattle and to make tortilla flour, all of which bear on the companies' profits.¹³⁹

And it is company profits which drives the behavior of agribusiness firms, not the well-being of farmers nor the welfare of the public. Firms like Cargill are working to build a food system which is, first and foremost, self-serving.

In helping the farmers grow more of what Cargill requires as its 'inputs' for trading and processing, and helping farmers sell their 'product' in the global system over which Cargill exercises considerable control, Cargill is building the kind of agricultural system it can best profit by, not necessarily the one that serves the farmers or the public best, or the system that ensures that everyone is adequately nourished.¹⁴⁰

The ethics of agribusiness practices are highly questionable. Price-fixing and collusion by large agribusiness have become a reality. In 1996 ADM paid a then-record \$100 million fine for conspiring to fix the price of lysine, an animal feed additive, and three of its executives went to prison. Most recently, ADM, Cargill, and A.E. Staley Manufacturing will be standing trial in a \$4 billion suit for price-fixing corn sweetener.¹⁴¹

While transnational corporations were previously called "multinationals," Brewster Kneen reflects on how this term, which "implies that they are composed of, or represent the interests of, many nations," is indeed a misnomer.

Nestle and Unilever, Cargill and Mitsubishi . . . neither consist of nor represent many nations. While these collective personalities have to be incorporated under the laws of some land of convenience or tradition, they owe loyalty to no state or nation. They cannot function in the interests of any particular country precisely because they have to serve the interests of the corporate persona and its owners first. They live everywhere and nowhere in a world of markets.¹⁴²

Despite the fact that transnational agribusiness wields a great deal of market power and so create distortions, they have largely been ignored as a barrier to open competition. Murphy considers this a fundamental flaw of international trade rules. Because they focus on

government interventions as the only source of distortion in world agricultural markets, commercial policies “have created an increasingly consolidated global agri-food sector, which in turn diminishes opportunities for farmers, consumers and developing countries to reap the benefits of agriculture as a motor for building sustainable and vibrant economies.”¹⁴³ Subsidies and tariffs are not the only barriers to market operations and proper price functioning – corporate monopolies and oligopolies, and monopsonies and oligopsonies have been the clearest beneficiaries of the multilateral liberalization and domestic shifts in support within U.S. agricultural policy. These debates have been conspicuously absent from governmental debates on agriculture, at home and abroad.

Transnational companies in the food sector, rather than national governments, really drive agricultural economics. What we don’t hear in the debate, and don’t properly know, is exactly how much of world agricultural trade is handled by Cargill, or Nestle or Carrefour—the companies that buy, process, and retail the food that finds its way to international markets. In the globalizing agricultural sector, the United States and Brazil do not actually compete with each other for share of the world soybean market. Instead, they compete for investment by Cargill, or one of the other large grain traders that operate worldwide. These companies trade in grains, and are also big end users of grain, as owners of flour mills, feedlots and food processing companies around the world.”¹⁴⁴

What makes transnational agribusiness so effective at achieving their agenda is their combination of market and political power. Cargill, in particular, has had a “disproportionate role from the start” in the design of U.S. trade policy.¹⁴⁵ Numerous Cargill executives have had direct ties with the administration. William Pearce, who retired from Cargill in 1993 as Vice-chairman, had been with the company since 1952. From 1971-1974, he took leave from Cargill to serve as President Nixon’s Deputy Special Representative for Trade Negotiations.¹⁴⁶ Cargill executive Whitney MacMillan was appointed to a GATT advisory group to “‘help congressional leaders monitor the final phase’ of the GATT negotiations,”¹⁴⁷ and Ernest Micek, Cargill President from 1994 to 1998, was appointed to President Clinton’s Export Council in 1998.¹⁴⁸ The President’s Export Council is the “premier national advisory committee on international trade.”¹⁴⁹ Most recently, President Bush has appointed current Cargill Chairman and Chief Executive Officer Warren R. Staley to serve on his Export Council¹⁵⁰ and Cargill Assistant Vice President for Public Affairs Daniel Pearson to “represent ‘farmers’” on the U.S. International Trade Commission.¹⁵¹

The most high profile Cargill executive to directly shape US policy as a member of the administration has been Daniel Amstutz . . . Amstutz started his career with Cargill as a grain merchant, moving up to the position of assistant vice-president for feed grains in 1967 and then on to the position of president of Cargill Investor Service in 1972 where he remained until 1978 when he left Cargill to become a partner in Goldman, Sachs and Company developing their commodities trading business. In 1983 Amstutz became US Under-Secretary of Agriculture for International Affairs and Commodity Programs and president of the Commodity Credit Corporation, all of which made him chief policy officer for US farm programmes. From 1987 to 1989 he held rank of Ambassador as chief negotiator for Agriculture in the GATT negotiations. From 1989 to 1992 he was a private investor and consultant, at which time he was appointed executive director of the

International Wheat Council. In 1998 he turned up as president and CEO of the North American Grain Export Association.¹⁵²

The current Secretary of Agriculture Ann Veneman also has a history of advancing free trade and transnational agribusiness interests. She was one of the previous Bush administration's negotiators for NAFTA and the Uruguay Round GATT, a lobbyist for Dole Foods, and was a member of the International Policy Council on Agriculture, Food, and Trade, an agribusiness trade association funded by Cargill, Kraft, Nestle, and ADM.¹⁵³ Veneman has also served on the board of Calgene, the corporation which developed the first genetically engineered food in 1994.¹⁵⁴

In addition to the direct participation of agribusiness executives in the administration, distribution of "soft" money has been another effective political tactic. ADM is a case in point.

'From 1980 through 1995, ADM and [its CEO Dwayne Andreas] family interests gave almost four million dollars to Democrats and Republicans with the balance tipping slightly towards the latter . . . During the 1996 presidential election, ADM gave \$295,000 in soft money to Democratic party committees and \$405,000 to Republican party committees . . . In 1994, a \$100,000 ADM check supported a Clinton presidential dinner. In 1992, ADM wrote a check for \$400,000 for a Bush dinner. Dwayne Andreas and his wife gave \$10,000 to Clinton's transition team after the 1992 election and \$70,000 to Newt Gingrich's political action committee, which mobilized for the 1994 midterm election.'¹⁵⁵

It is no surprise that the ultimate "winner" of U.S. agricultural and trade policy is agribusiness. It is their executives and lobbyists who are its direct designers, administrators, and funders. Trade liberalization and consolidation of the food sector have been concomitant, intertwined, and mutually reinforcing processes.

VII. Conclusion

*So who was benefiting from the great promise of globalization? Certainly not the average worker or consumer or farmer. So who? Those who controlled goods and services, production, distribution and sales: the multinational corporations. Free trade has long been their dream and with GATT, NAFTA and the WTO they are slowly gaining control of all goods and services worldwide. Surely their stockholders benefit, but most people don't own stock. The economies of the world are collapsing in the interest of corporate profit that benefits the very few.*¹⁵⁶

James Goodwin
Wisconsin dairy farmer

*President after president and Congress after Congress, both Democrat and Republican, have whittled away U.S. farm programs in the name of free trade, efficiency, or whatever term sounds good. In reality it's all about sticking the boot on the necks of family farmers to guarantee maximum profit for a transnational corporate cadre. That means charging farmers the maximum for seeds and fertilizers, paying them as little as possible for the crops they grow with those inputs, and then selling the final food product to the consumer for the maximum price.*¹⁵⁷

Robert Schubert
Crop Choice Editor

The findings of this report suggest that, despite President Bush's assertions, trade has not brought "opportunities for people who earn a living the hard way." Agricultural trade liberalization has brought prosperity but primarily to transnational agribusiness, the very entities that promulgated and built the advance of free trade. Meanwhile, consolidation and food-chain clustering have placed U.S. small family farmers in a serious cost-price squeeze, and the domestic subsidy system, rather than mitigating the effects of international trade policy, has served only to accentuate the concentration of wealth and power in the hands of a few wealthy farmers and landowners. While current domestic farm and international trade policy has been invoked in the name of small farmers, it has only transformed them into price-takers, pushed them into a situation of self-exploitation, and hastened their exit from the sector.

At the same time, the well-being of farm workers, consumers, and the environment have been jeopardized. The percentage of farm workers living in poverty has risen, while consumers are witnessing the farm-to-market price of food soar. Lower farm gate prices are not directly translating to lower consumer prices; instead, they are absorbed in the food marketing process and are increasing corporate profits. Moreover, the current U.S. food system, which advocates the intensive use of inputs, homogenization and economies of scale, promotes environmental degradation.

Because the current policy environment favors agribusiness at the expense small farmers, farm workers, consumers, and the environment, it is imperative to seek an alternative. It is clear that the U.S. government needs to 'trust bust' – to address the issues of market concentration and fair pricing. That Fortune 500 companies and city dwellers receive government payments designed to enhance the welfare of America's poorest citizens, those who live and work in rural areas, is unacceptable. But it is equally clear that rural communities are in desperate need of support. If U.S. government subsidy continues to be driven by an export-production model, it is unlikely that the poorest Americans will receive the support they need – the export production model is simply not suited to addressing the

needs of these communities and the environments in which they live. Ours is not an argument against subsidy, but nor is it an argument for subsidy of a model that seeks to increase domestic income through pushing into the markets of farmers overseas. There are alternatives, such as those advocated by the National Family Farm Coalition, La Vía Campesina, and other groups.

Despite the availability of these alternatives, we conclude that the direction of U.S. agricultural policy is being set not by the needs of farming communities, nor by the needs of the majority of U.S. citizens, but by the political influence of a handful of powerful corporate interests. With the historic and continuing influence of corporations on the U.S. government, agricultural policy in the public interest will have to happen despite, rather than because of, the U.S. government.

Appendix A. Free Trade Area of the Americas

Formal negotiations for the creation of the FTAA began in April 1998 in Santiago, Chile.¹⁵⁸ With a combined GDP of nearly \$13 trillion and a population of approximately 800 million in thirty-four countries, FTAA would be the largest free market in the world.¹⁵⁹

While the U.S. government is strongly committed to achieving the FTAA, a 1998 ERS “Free Trade in the Americas” report finds that U.S. inclusion in a FTAA would have a negative effect on the U.S. agricultural trade balance. While U.S. exports are expected to rise by one percent or \$580 billion, U.S. imports are predicted to increase by three percent or \$830 million.¹⁶⁰

The benefits which a FTAA could bring to U.S. producers are highly questionable. Ten FTAA countries (Argentina, Brazil, Costa Rica, Ecuador, El Salvador, Guatemala, Nicaragua, Panama, Uruguay, and Venezuela) already have lower average annual applied agricultural tariffs than Mexico, “meaning that U.S. farmers are not finding export markets in these countries even while tariff rates are already lower than the NAFTA level.”¹⁶¹

Figure 23 depicts the U.S. agricultural trade balance with prospective FTAA countries since 1991. The balance is clearly a deficit, and it has increased since the early 1990s. Larger deficits have coincided with global trade liberalization (URAA and NAFTA), and further trade liberalization will only ensure increasing deficits.

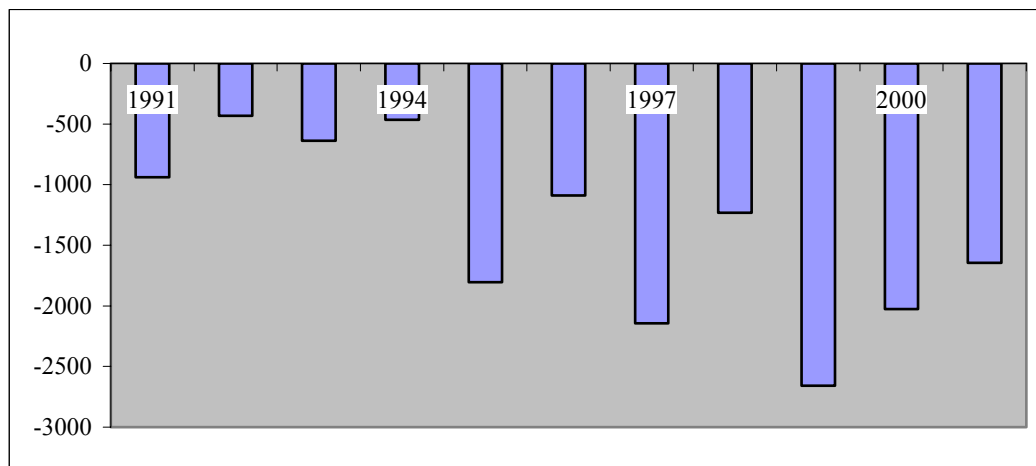


Figure 21 U.S.-FTAA agricultural trade balance \$million, constant 1991 dollars

Source: U.S. Department of Agriculture/Foreign Agricultural Service, *Export/Import Statistics for Bulk, Intermediate, and Consumer Oriented (BICO) Foods and Beverages*. On-line at http://www.fas.usda.gov/scripts/bico/bico_frm.asp

U.S. Department of Agriculture/Economic Research Service, *Agricultural Outlook: Statistical Indicators* (January 2003). On-line at <http://www.ers.usda.gov/catalog/OneProductAtATime.asp?PDT=1&PID=291>

Down on the Farm: NAFTA's Seven-Years War on Farmers and Ranchers in the U.S., Canada and Mexico, (Washington, D.C.: Public Citizen's Global Trade Watch, June 2001): 40. On-line at <http://www.citizen.org/documents/ACFF2.PDF>

As reported by Public Citizen's Global Trade Watch, the data from a 2000 USDA FTAA report "echo the 1998 projections."¹⁶²

In the short run (the first five years under the FTAA) U.S. agricultural exports would grow by 2% and imports into the U.S. would increase by 3%. However, U.S. agricultural export growth under the FTAA is projected to slow to 1% annually, while imports would maintain their 3% growth. After the first 15 years, U.S. agricultural export growth to the hemisphere under FTAA would decline below 1% . . . The updated 2000 USDA figures show that if the FTAA were implemented, the U.S. agricultural trade deficit with the FTAA countries would grow by 1% for the first five years, 2% for the next 10 years and then keep increasing.¹⁶³

Appendix B: History of Commodity Policy

Direct government intervention in farm commodity markets began in response to the collapse in prices from 1919-1920 and the ensuing “agricultural crisis” and economic depression.¹⁶⁴ Farm programs were a key part of President Franklin Delano Roosevelt’s New Deal. In May 1933, the Agricultural Adjustment Act, which emphasized supply management, provided payments to farmers in an attempt to increase crop and livestock prices which were averaging half of 1929 levels. The goal was to reverse deflation by increasing farm income and the circulation of money in the economy.¹⁶⁵ Farmers idled acreage and delivered young and breeding livestock for slaughter to decrease future supply. Roosevelt also created the Commodity Credit Corporation (CCC) in 1933 which “stock-piled” commodities in order to support and stabilize prices. The CCC made non-recourse loans to farmers for their harvested and pledged crop. These loans in effect instituted a price floor, as farmers had the option of using the pledged crop as full repayment for the loan or of using the market to find a higher price.¹⁶⁶

The Agricultural and Consumer Protection Act of 1973 set up the deficiency payment system, which the 1996 FAIR Act dismantled. Deficiency payments represented the difference between the market and “target” price, which Congress legislated for the major field crops excepting soybeans (barley, corn, cotton, rice, grain sorghum, wheat, and later oats). From 1975-1995, target prices were usually “well above market prices.”¹⁶⁷

It is clear that the origins of commodity policy were based on the economic interests of farmers. Despite these original intentions, it is agribusiness which has oft been the beneficiary of U.S. farm policy. Public Law (PL) 480 (the Agricultural Trade Development and Assistance Act), known as Food for Peace and passed in July 1954, effectively secured a market for U.S. grain surpluses. During the reconstruction of Europe following the second world war, U.S. wheat and flour exports soared from 48 million bushels in 1944 to 503 million bushels in 1948.¹⁶⁸ By the early 1950s, U.S. grain aid had become an obstacle to domestic production and self-sufficiency in Europe and was thus no longer welcome. PL 480 effectively created an alternate outlet for U.S. agricultural surplus in the form of food aid. From 1956-1964, a quarter of U.S. exports were shipped under the Food for Peace program.¹⁶⁹ This meant increasing revenues for firms like Cargill. From 1955 to 1965, Cargill’s sales rose from \$800 million to \$2 billion (nominal dollars) as their U.S. grain exports quadrupled. As for Continental, by 1963, it had also amassed \$1 billion in sales. These figures account for storing and transportation but do not include revenue earned from processing and manufacturing. PL 480 also served the interests of grain trading companies and agribusiness like Cargill in the sense that Food for Peace exports “whetted the appetites of many new potential customers for subsequent commercial sales;” Kneen points out how “the promise of eventual commercial purchases was often a specific precondition for the food aid in the first place.”¹⁷⁰

The Export Enhancement Program (EEP) of the Food Security Act, which passed in 1985, provided further corporate assistance. Under the EEP, the Secretary of Agriculture designates eligible countries. A foreign buyer from the eligible country and a trading company would then negotiate a deal, with the buyer receiving a discounted price. The exporter (trading company) would then apply to the USDA for a payment to cover the difference of the market and discounted prices.¹⁷¹ While the EEP represented only twelve percent of U.S. wheat exports in its first year, by 1987-88 it comprised 70 percent of exported wheat.¹⁷²

Who really benefits? In 1987 it was reported that wheat sales to China under the new EEP netted Cargill bonuses worth \$2 million, while Dreyfus and Continental each benefited by half that amount, and during these years of pro-business free enterprise Reagan regime, grain traders Cargill, Dreyfus, Continental and Artfer Inc. (owned by Ferruzzi group) collected \$1.38 billion from the US government, more than 60 percent of the subsidies through the EEP in its first four years. In other words, while condemning the ‘trade-distorting practices’ of, for example, the Canadian Wheat Board (CWB) or the Common Agricultural Policy of the European Union, the U.S. became a heavily subsidized *de facto* state trading corporation.¹⁷³

It becomes clear how publicly-funded programs, “in the name of US market share and global competitiveness,” are benefiting traders and grain processors.¹⁷⁴ Kneen also discusses how funding for other programs like the Targeted Export Assistance Program and the Market Promotion Program have been and continue to be channeled to serve agribusiness interest.¹⁷⁵

Sadly, despite providing discounted commodity prices, programs like EEP failed to ensure lower prices for the consumers of eligible countries. According to Gardner, foreign buyers were “often well-connected operators . . . who would then sell at higher going prices to the final consumers in the buying country.”¹⁷⁶

References

- ¹ Ashok K. Mishra et al., *Income, Wealth, and the Economic Well-being of Farm Households*, Agricultural Economic Report, No. 812, Washington, D.C.: U.S. Department of Agriculture, Economic Research Service, July 2002. Online at <http://www.ers.usda.gov/publications/aer812/aer812.pdf>
- ² Anuradha Mittal "The Last Plantation," *Food First Backgrounder* 6, no. 1 Winter 2000.
- ³ Anuradha Mittal "The Last Plantation," *Food First Backgrounder* 6, no. 1 Winter 2000: 4-5.
- ⁴ Marion Nestle, *Food Politics: How the Food Industry Influences Nutrition and Health* Berkeley: University of California Press, 2002, 21.
- ⁵ Christian Bourge, "American Enterprise study seeks link between obesity among poor and government food programs, critics charge no 'sound connection,'" in A.V. Krebs (ed.) *Agribusiness Examiner*, no. 221, 3 February 2003. Online at <http://www.electricarrow.com/CARP/agbiz/examiner1.html>
- ⁶ Nat Ives, "Obesity among children doubles since 1980, triples among teenagers as high profile food companies coming under increasing fire," in A.V. Krebs (ed.) *Agribusiness Examiner*, no. 206, 6 December 2002. Online at <http://www.electricarrow.com/CARP/agbiz/examiner1.html>
- ⁷ Philip McMichael, "The impact of globalisation, free trade and technology on food and nutrition in the new millenium" paper presented to the Nutrition Society, June 2000
- ⁸ Sophia Murphy, *Managing the Invisible Hand: Markets, Farmers, and International Trade* (Institute for Agriculture and Trade Policy, April 2002): 22. Online at http://www.tradeobservatory.org/library/uploadedfiles/Managing_the_Invisible_Hand_2.pdf
- ⁹ "Remarks by the President and Secretary of Agriculture Anne Veneman During Swearing-In," White House News Release (2 March 2001). Online at <http://www.whitehouse.gov/news/releases/2001/03/print/20010302-6.html>.
- ¹⁰ "President Bush speaks to Agriculture Leaders," White House News Release (18 June 2001). Online at <http://www.whitehouse.gov/news/releases/2001/06/print/20010618-6.html>
- ¹¹ Michael Kurtzig and Daniel Pick, "U.S.- Israel Free Trade Area Agreement, appendix 5," in *Regional Trade Agreements and U.S. Agriculture*, Agriculture Economic Report, no. 771, eds. Mary E. Burfisher and Elizabeth A. Jones, (Washington, D.C.: U.S. Department of Agriculture, Economic Research Service, Market and Trade Division, November 1998), 97-98.
- ¹² Michael Kurtzig and Daniel Pick, "U.S.- Israel Free Trade Area Agreement, appendix 5," in *Regional Trade Agreements and U.S. Agriculture*, Agriculture Economic Report, no. 771, eds. Mary E. Burfisher and Elizabeth A. Jones, (Washington, D.C.: U.S. Department of Agriculture, Economic Research Service, Market and Trade Division, November 1998), 97-98.
- ¹³ Middle Eastern Global Advocates and Legal Consultants, "Jordan-US Free Trade Agreement." Online at <http://www.midglobe.com.jo/jordan.htm#1>
- ¹⁴ "Quick Facts: U.S.-Singapore Free Trade Agreement" (Office of the U.S. Trade Representative, 6 May 2003). Online at <http://www.ustr.gov/new/fta/Singapore/final/factsheet.pdf>
- ¹⁵ "The World Trade Organization and Agriculture Fact Sheet" (U.S. Department of Agriculture, Foreign Agricultural Service, July 2002). Online at <http://www.fas.usda.gov/info/factsheets/wto.html>
- ¹⁶ Mary Anne Normile and Mark Simone, *Agriculture in the Uruguay Round*, URAA Issues Series, (Washington, D.C.: U.S. Department of Agriculture, Economic Research Service). Online at <http://www.ers.usda.gov/briefing/wto/uraa.htm>
- ¹⁷ This is, in itself, a source of contention. Many developing countries note that this was a period of unusually high subsidy for both the U.S. and EU, and effectively limits the extent to which EU and U.S. subsidies have to be reduced. Figure 9 below shows the relative anomaly of this base period in U.S. agricultural subsidy.
- ¹⁸ Mary Anne Normile and Mark Simone, *Agriculture in the Uruguay Round*, URAA Issues Series, (Washington, D.C.: U.S. Department of Agriculture, Economic Research Service). Online at <http://www.ers.usda.gov/briefing/wto/uraa.htm>
- ¹⁹ "WTO: Glossaries," Economic Research Service, U.S. Department of Agriculture. Online at <http://www.ers.usda.gov/briefing/wto/Glossaries.htm#11>
- ²⁰ Chad Hart and Bruce Babcock, "U.S. Farm Policy and the WTO," *Iowa Ag Review Online* 7, no. 2 (Spring 2001). Online at http://www.card.iastate.edu/iowa_ag_review/spring_01/wto.html

-
- ²¹ Chad Hart and Bruce Babcock, "U.S. Farm Policy and the WTO," *Iowa Ag Review Online* 7, no. 2 (Spring 2001). Online at http://www.card.iastate.edu/iowa_ag_review/spring_01/wto.html
- ²² Steven Zahniser and John Link (eds.), *Effects of North American Free Trade Agreement on Agriculture and the Rural Economy*, Agriculture and Trade Report, no. WRS0201 (Washington, D.C.: U.S. Department of Agriculture, Economic Research Service, July 2002). Online at <http://www.ers.usda.gov/publications/wrs0201/>
- ²³ Steven Zahniser and John Link (eds.), *Effects of North American Free Trade Agreement on Agriculture and the Rural Economy*, Agriculture and Trade Report, no. WRS0201 (Washington, D.C.: U.S. Department of Agriculture, Economic Research Service, July 2002). Online at <http://www.ers.usda.gov/publications/wrs0201/>
- ²⁴ See Food First's Agricultural Restructuring in Mexico: Who Wins? Who Loses? for more on this.
- ²⁵ Mary E. Burfisher and Elizabeth A. Jones, "Introduction and Overview," In *Regional Trade Agreements and U.S. Agriculture*, Agriculture Economic Report, no. 771, eds. Mary E. Burfisher and Elizabeth A. Jones, (Washington, D.C.: U.S. Department of Agriculture, Economic Research Service, Market and Trade Division, November 1998), 1-18.
- ²⁶ J.F. Hornbeck, *The U.S. Chile Free Trade Agreement: Economic and Trade Policy Issues* (Library of Congress, Congressional Research Service, 3 February 2003). Online at http://www.chileusafta.com/save_images/res_pdf3e402a8510849be1_4228.pdf
- ²⁷ *Food and Agricultural Policy: Taking Stock for the New Century* (Washington, D.C.: U.S. Department of Agriculture, Economic Research Service, September 2001). Online at <http://www.usda.gov/news/pubs/farmpolicy01/fullreport.pdf>
- ²⁸ J.F. Hornbeck, *The U.S. Chile Free Trade Agreement: Economic and Trade Policy Issues* (Library of Congress, Congressional Research Service, 3 February 2003). Online at http://www.chileusafta.com/save_images/res_pdf3e402a8510849be1_4228.pdf
- ²⁹ J.F. Hornbeck, *The U.S. Chile Free Trade Agreement: Economic and Trade Policy Issues* (Library of Congress, Congressional Research Service, 3 February 2003). Online at http://www.chileusafta.com/save_images/res_pdf3e402a8510849be1_4228.pdf
- ³⁰ Farah Fosse, "Fact Sheet #2: What you need to know about the U.S. – Central America Free Trade Agreement(CAFTA)," (Center of Concern/U.S. Gender and Trade Network, May 2003). Online at http://www.cispes.org/english/Campaign_Against_CAFTA_FTAA/CAFTA_Facts.pdf
- ³¹ A. Desmond O'Rourke, "Agricultural Trade Liberalization Impacts on Producers" (paper presented at the National Public Policy Education Conference, Portland, Oregon, 22 September 1998). Online at http://impact.wsu.edu/research/pdf_reports/portland.pdf
- ³² "U.S. Trade Tips" (U.S. Department of Agriculture, Foreign Agricultural Service). Online at <http://www.fas.usda.gov/ustrade/USTTips.asp?QI=#competitive>
- ³³ A. Desmond O'Rourke, "Agricultural Trade Liberalization Impacts on Producers" (paper presented at the National Public Policy Education Conference, Portland, Oregon, 22 September 1998). Online at http://impact.wsu.edu/research/pdf_reports/portland.pdf
- ³⁴ "Side-by-side comparison of the new farm bill with 1996-2001 legislation," (U.S. Department of Agriculture, Economic Research Service). Online at *USDA's Farm Bill Gateway*, <http://www.ers.usda.gov/Features/farmbill/>
- ³⁵ Chad Hart and Bruce Babcock, "U.S. Farm Policy and the WTO," *Iowa Ag Review Online* 7, no. 2 (Spring 2001). Online at http://www.card.iastate.edu/iowa_ag_review/spring_01/wto.html
- ³⁶ Bruce L. Gardner. *American Agriculture in the Twentieth Century*. (Cambridge: Harvard University Press: 2002).
- ³⁷ Bruce L. Gardner. *American Agriculture in the Twentieth Century*. (Cambridge: Harvard University Press: 2002).
- ³⁸ "1996 FAIR Act Frames Farm Policy for 7 Years," *Agricultural Outlook Supplement* (Washington, D.C.: U.S. Department of Agriculture, Economic Research Service, April 1996). Online at <http://www.ers.usda.gov/publications/agoutlook/aosupp.pdf>
- ³⁹ Damien Cave, "Old MacDonald had a subsidy" (Salon.com, 1 May 2002). Online at <http://www.salon.com/tech/feature/2002/05/01/farmers/>.
- ⁴⁰ Akhtar Mahmood, "WTO Agreement on Agriculture in Post-Doha Scenario" (SAARC Business Information Network, 24 March 2002). Online at <http://www.saarcnet.org/newsarncnet/WTO.PDF>

-
- ⁴¹ Babcock, Bruce. "Local and Global Perspectives on the New U.S. Farm Policy." *Iowa Ag Review Online* 8, no. 3 (Summer 2002). Online at http://www.card.iastate.edu/iowa_ag_review/summer_02/article1.html
- ⁴² "Side-by-side comparison of the new farm bill with 1996-2001 legislation," (U.S. Department of Agriculture, Economic Research Service). Online at *USDA's Farm Bill Gateway*, <http://www.ers.usda.gov/Features/farmbill/>
- ⁴³ "Why Has EWG Created the Farm Subsidy Database?" Environmental Working Group. Online at <http://www.ewg.org/farm/data/why.html>
- ⁴⁴ Anuradha Mittal "Giving Away the Farm: the 2002 Farm Bill," *Food First Backgrounder* 8, no.3 (Summer 2002): 1.
- ⁴⁵ "Remarks by the President Upon Signing the Farm Bill," White House Press Release (13 May 2002). Online at <http://www.usda.gov/news/releases/2002/05/farmbill2002.htm>
- ⁴⁶ Ashok K. Mishra et al., *Income, Wealth, and the Economic Well-being of Farm Households*, Agricultural Economic Report No. 812 (Washington, D.C.: U.S. Department of Agriculture, Economic Research Service, July 2002). Online at <http://www.ers.usda.gov/publications/aer812/aer812.pdf>
- ⁴⁷ "Trends in U.S. agriculture:" (U.S. Department of Agriculture, Economic Research Service). Online at <http://www.usda.gov/nass/pubs/trends/farmnumbers.htm>
- ⁴⁸ Robert Hoppe and Keith Wiebe, "Land Ownership and Farm Structure," Chapter 1.3 in *Agricultural Resources and Environmental Indicators*, Ag Handbook, no. 722 (U.S. Department of Agriculture, Economic Research Service, February 2003): 24. Online at <http://www.ers.usda.gov/publications/arei/arei2001/>
- ⁴⁹ *Agricultural Outlook: Statistical Indicators* (U.S. Department of Agriculture, Economic Research Service, January 2003). Online at <http://www.ers.usda.gov/catalog/OneProductAtATime.asp?PDT=1&PID=291>
- ⁵⁰ Anuradha Mittal "The Last Plantation," *Food First Backgrounder* 6, no. 1 (Winter 2000).
- ⁵¹ Anuradha Mittal "The Last Plantation," *Food First Backgrounder* 6, no. 1 (Winter 2000): 4-5.
- ⁵² Anuradha Mittal "The Last Plantation," *Food First Backgrounder* 6, no. 1 (Winter 2000): 5.
- ⁵³ Anuradha Mittal "The Last Plantation," *Food First Backgrounder* 6, no. 1 (Winter 2000): 5.
- ⁵⁴ Anuradha Mittal "The Last Plantation," *Food First Backgrounder* 6, no. 1 (Winter 2000): 5.
- ⁵⁵ Brian Riedl, "How Farm Subsidies Became America's Largest Corporate Welfare Program," *Heritage Foundation Backgrounder*, no. 1520 (25 February 2002). Online at <http://www.heritage.org/Research/Budget/BG1520.cfm>
- ⁵⁶ *Farm Subsidies Database*, Environmental Working Group. Online at <http://www.ewg.org/farm/>
- ⁵⁷ "Side-by-side comparison of the new farm bill with 1996-2001 legislation," (U.S. Department of Agriculture, Economic Research Service). Online at *USDA's Farm Bill Gateway*, <http://www.ers.usda.gov/Features/farmbill/>
- ⁵⁸ Anuradha Mittal "Giving Away the Farm: the 2002 Farm Bill," *Food First Backgrounder* 8, no. 3 (Summer 2002): 2.
- ⁵⁹ *Food and Agricultural Policy: Taking Stock for the New Century* (Washington, D.C.: U.S. Department of Agriculture, Economic Research Service, September 2001): 49. Online at <http://www.usda.gov/news/pubs/farmpolicy01/fullreport.pdf>
- ⁶⁰ *Food and Agricultural Policy: Taking Stock for the New Century* (Washington, D.C.: U.S. Department of Agriculture, Economic Research Service, September 2001): 49. Online at <http://www.usda.gov/news/pubs/farmpolicy01/fullreport.pdf>
- ⁶¹ Mary Burfisher and Jeffrey Hopkins, "Farm Payments: Decoupled Payments Increase Households' Well-Being, Not Production," *Amber Waves* (February 2003): 44. Online at <http://www.ers.usda.gov/AmberWaves/Feb03/pdf/feature-decoupled%20farm%20payments.pdf>
- ⁶² Mary Burfisher and Jeffrey Hopkins, "Farm Payments: Decoupled Payments Increase Households' Well-Being, Not Production," *Amber Waves* (February 2003): 44. Online at <http://www.ers.usda.gov/AmberWaves/Feb03/pdf/feature-decoupled%20farm%20payments.pdf>
- ⁶³ Mary Burfisher and Jeffrey Hopkins, "Farm Payments: Decoupled Payments Increase Households' Well-Being, Not Production," *Amber Waves* (February 2003): 44. Online at <http://www.ers.usda.gov/AmberWaves/Feb03/pdf/feature-decoupled%20farm%20payments.pdf>
- ⁶⁴ "City Slickers: Location of Farm Subsidy Recipient in Major U.S. Cities," Environmental Working Group. Online at <http://www.ewg.org/farm/cityslickers/>

-
- ⁶⁵ Mary Burfisher and Jeffrey Hopkins, "Farm Payments: Decoupled Payments Increase Households' Well-Being, Not Production," *Amber Waves* (February 2003): 44. Online at <http://www.ers.usda.gov/AmberWaves/Feb03/pdf/feature-decoupled%20farm%20payments.pdf>
- ⁶⁶ Mary Burfisher and Jeffrey Hopkins, "Farm Payments: Decoupled Payments Increase Households' Well-Being, Not Production," *Amber Waves* (February 2003): 44. Online at <http://www.ers.usda.gov/AmberWaves/Feb03/pdf/feature-decoupled%20farm%20payments.pdf>
- ⁶⁷ Mary Burfisher and Jeffrey Hopkins, "Farm Payments: Decoupled Payments Increase Households' Well-Being, Not Production," *Amber Waves* (February 2003): 44. Online at <http://www.ers.usda.gov/AmberWaves/Feb03/pdf/feature-decoupled%20farm%20payments.pdf>
- ⁶⁸ Agricultural Income and Finance Annual Lender Issue, Jerome Stam, Daniel Milkove, Steven Koenig, James Ryan, Ted Covey, Robert Hoppe, and Paul Sundell, AIS-80, March 13, 2003 <http://jan.mannlib.cornell.edu/reports/erssor/economics/ais-bb/2003/ais80.pdf>
- ⁶⁹ Darryl E. Ray, "Impacts of the 1996 Farm Bill Including Ad Hoc Additions" (University of Tennessee, Agricultural Policy Analysis Center, February 2001). Online at <http://apacweb.ag.utk.edu/ppap/doc/aghoc.doc>
- ⁷⁰ *Agricultural Outlook: Statistical Indicators* (U.S. Department of Agriculture, Economic Research Service, January 2003). Online at <http://www.ers.usda.gov/catalog/OneProductAtATime.asp?PDT=1&PID=291>
- ⁷¹ George Naylor, untitled speech (presented at the Asociación Nacional de Empresas Comercializadoras de Productores del Campo Conference, Mexico City, Mexico, 5 December 2000). Online at <http://www.nffc.net/comm3.htm>
- ⁷² Ashok K. Mishra et al., *Income, Wealth, and the Economic Well-being of Farm Households*, Agricultural Economic Report, no. 812 (Washington, D.C.: U.S. Department of Agriculture, Economic Research Service, July 2002). Online at <http://www.ers.usda.gov/publications/aer812/aer812.pdf>
- ⁷³ Ashok K. Mishra et al., *Income, Wealth, and the Economic Well-being of Farm Households*, Agricultural Economic Report, no. 812 (Washington, D.C.: U.S. Department of Agriculture, Economic Research Service, July 2002). Online at <http://www.ers.usda.gov/publications/aer812/aer812.pdf>
- ⁷⁴ Ashok K. Mishra et al., *Income, Wealth, and the Economic Well-being of Farm Households*, Agricultural Economic Report, no. 812 (Washington, D.C.: U.S. Department of Agriculture, Economic Research Service, July 2002). Online at <http://www.ers.usda.gov/publications/aer812/aer812.pdf>
- ⁷⁵ Robert Hoppe and Keith Wiebe, "Land Ownership and Farm Structure," Chapter 1.3 in *Agricultural Resources and Environmental Indicators*, Ag Handbook, no. 722 (U.S. Department of Agriculture, Economic Research Service, February 2003). Online at <http://www.ers.usda.gov/publications/arei/arei2001/>
- ⁷⁶ Ashok K. Mishra et al., *Income, Wealth, and the Economic Well-being of Farm Households*, Agricultural Economic Report, no. 812 (Washington, D.C.: U.S. Department of Agriculture, Economic Research Service, July 2002). Online at <http://www.ers.usda.gov/publications/aer812/aer812.pdf>
- ⁷⁷ Ashok K. Mishra et al., *Income, Wealth, and the Economic Well-being of Farm Households*, Agricultural Economic Report, no. 812 (Washington, D.C.: U.S. Department of Agriculture, Economic Research Service, July 2002). Online at <http://www.ers.usda.gov/publications/aer812/aer812.pdf>
- ⁷⁸ *Findings from the National Agricultural Workers Survey (NAWS) 1989: A Demographic and Employment Profile of Perishable Crop Farm Workers*, Research Report, no.2 (U.S. Department of Labor, Office of Program Economics, November 1991).
- ⁷⁹ *Findings from the National Agricultural Workers Survey (NAWS) 1989: A Demographic and Employment Profile of Perishable Crop Farm Workers*, Research Report, no.2 (U.S. Department of Labor, Office of Program Economics, November 1991).
- ⁸⁰ *Findings from the National Agricultural Workers Survey (NAWS) 1997-1998: A Demographic and Employment Profile of United States Crop Farm Workers*, Research Report, no.8 (U.S. Department of Labor, Office of Program Economics, March 2000). Online at http://www.dol.gov/asp/programs/agworker/report_8.pdf; *Findings from the National Agricultural Workers Survey (NAWS) 1990: A Demographic and Employment Profile of Perishable Crop Farm Workers*, Research Report, no. 1 (U.S. Department of Labor, Office of Program Economics, July 1991).
- ⁸¹ Philip Martin and Bert Mason, "Hired Workers on California Farms," *California Agriculture*, forthcoming 2003.
- ⁸² *Findings from the National Agricultural Workers Survey (NAWS) 1997-1998: A Demographic and Employment Profile of United States Crop Farm Workers*, Research Report, no.8 (U.S. Department of

Labor, Office of Program Economics, March 2000). Online at http://www.dol.gov/asp/programs/agworker/report_8.pdf

⁸³ *Findings from the National Agricultural Workers Survey (NAWS) 1997-1998: A Demographic and Employment Profile of United States Crop Farm Workers*, Research Report, no.8 (U.S. Department of Labor, Office of Program Economics, March 2000). Online at http://www.dol.gov/asp/programs/agworker/report_8.pdf

⁸⁴ *Findings from the National Agricultural Workers Survey (NAWS) 1997-1998: A Demographic and Employment Profile of United States Crop Farm Workers*, Research Report, no.8 (U.S. Department of Labor, Office of Program Economics, March 2000). Online at http://www.dol.gov/asp/programs/agworker/report_8.pdf

⁸⁵ *Findings from the National Agricultural Workers Survey (NAWS) 1997-1998: A Demographic and Employment Profile of United States Crop Farm Workers*, Research Report, no.8 (U.S. Department of Labor, Office of Program Economics, March 2000). Online at http://www.dol.gov/asp/programs/agworker/report_8.pdf

⁸⁶ *Findings from the National Agricultural Workers Survey (NAWS) 1997-1998: A Demographic and Employment Profile of United States Crop Farm Workers*, Research Report, no.8 (U.S. Department of Labor, Office of Program Economics, March 2000). Online at http://www.dol.gov/asp/programs/agworker/report_8.pdf; *Findings from the National Agricultural Workers Survey (NAWS) 1989: A Demographic and Employment Profile of Perishable Crop Farm Workers*, Research Report, no. 2 (U.S. Department of Labor, Office of Program Economics, November 1991).

⁸⁷ *Findings from the National Agricultural Workers Survey (NAWS) 1997-1998: A Demographic and Employment Profile of United States Crop Farm Workers*, Research Report, no.8 (U.S. Department of Labor, Office of Program Economics, March 2000). Online at http://www.dol.gov/asp/programs/agworker/report_8.pdf; *Findings from the National Agricultural Workers Survey (NAWS) 1989: A Demographic and Employment Profile of Perishable Crop Farm Workers*, Research Report, no. 2 (U.S. Department of Labor, Office of Program Economics, November 1991).

⁸⁸ "The Latest Data on Rural Poverty," Center for Rural Affairs (July 2001). Online at http://www.cfra.org/newsletter/2001_07.htm#Feature

⁸⁹ 2003, Center for Rural Affairs, "Swept Away: Chronic Hardship and Fresh Promise on the Rural Great Plains, July 2003.

⁹⁰ Timothy Egan, "Pastoral Poverty: The Seeds of Decline," *New York Times*, 8 December 2002. Online at Environmental Working Group website, <http://www.ewg.org/farm/news/story.php?id=1276>

⁹¹ Howard Elitzak, *Food Cost Review, 1950-97*, Agricultural Economic Report No. 780 (Washington, D.C.: U.S. Department of Agriculture, Economic Research Service, June 1999).

⁹² U.S. Department of Agriculture National Agricultural Statistical Service, *Agricultural Statistics 2002* (Washington, D.C.: Government Printing Office, 2002). Online at <http://www.usda.gov/nass/pubs/agr02/acro02.htm>

⁹³ U.S. Department of Agriculture National Agricultural Statistical Service, *Agricultural Statistics 2002* (Washington, D.C.: Government Printing Office, 2002). Online at <http://www.usda.gov/nass/pubs/agr02/acro02.htm>; Howard Elitzak, *Food Cost Review, 1950-97*, Agricultural Economic Report No. 780 (Washington, D.C.: U.S. Department of Agriculture, Economic Research Service, June 1999).

⁹⁴ Sophia Murphy, *Managing the Invisible Hand: Markets, Farmers, and International Trade* (Institute for Agriculture and Trade Policy, April 2002): 14. Online at http://www.tradeobservatory.org/library/uploadedfiles/Managing_the_Invisible_Hand_2.pdf

⁹⁵ Elizabeth Becker, "2 Farm Acres Lost per Minute, Study Says," *New York Times*, 4 October 2002. Online at Environmental Working Group website, <http://www.ewg.org/farm/news/story.php?id=1216>

⁹⁶ Elizabeth Becker, "2 Farm Acres Lost per Minute, Study Says," *New York Times*, 4 October 2002. Online at Environmental Working Group website, <http://www.ewg.org/farm/news/story.php?id=1216>

⁹⁷ Marion Nestle, *Food Politics: How the Food Industry Influences Nutrition and Health* (Berkeley: University of California Press, 2002), 13.

⁹⁸ Marion Nestle, *Food Politics: How the Food Industry Influences Nutrition and Health* (Berkeley: University of California Press, 2002), 13.

⁹⁹ Marion Nestle, *Food Politics: How the Food Industry Influences Nutrition and Health* (Berkeley: University of California Press, 2002), 22.

-
- ¹⁰⁰ Marion Nestle, *Food Politics: How the Food Industry Influences Nutrition and Health* (Berkeley: University of California Press, 2002), 25.
- ¹⁰¹ Marion Nestle, *Food Politics: How the Food Industry Influences Nutrition and Health* (Berkeley: University of California Press, 2002).
- ¹⁰² Marion Nestle, *Food Politics: How the Food Industry Influences Nutrition and Health* (Berkeley: University of California Press, 2002), 21.
- ¹⁰³ Christian Bourge, "American Enterprise study seeks link between obesity among poor and government food programs, critics charge no 'sound connection,'" in A.V. Krebs (ed.) *Agribusiness Examiner*, no. 221 (3 February 2003). Online at <http://www.electricarrow.com/CARP/agbiz/examiner1.html>
- ¹⁰⁴ Nat Ives, "Obesity among children doubles since 1980, triples among teenagers as high profile food companies coming under increasing fire," in A.V. Krebs (ed.) *Agribusiness Examiner*, no. 206 (6 December 2002). Online at <http://www.electricarrow.com/CARP/agbiz/examiner1.html>
- ¹⁰⁵ Philip McMichael, "The impact of globalisation, free trade and technology on food and nutrition in the new millenium" (paper presented to the Nutrition Society, June 2000): 4.
- ¹⁰⁶ Dana L. Hoag, *Agricultural Crisis in America* (Santa Barbara: ABC-CLIO, Inc., 1999), 27.
- ¹⁰⁷ Ronald C. Wimberley et al., *Food from Our Changing World: The Globalization of Food and How Americans Feel About It* (2003). Online at <http://sasw.chass.ncsu.edu/global-food/>
- ¹⁰⁸ Craig Osteen, "Pest Management Practices," Ch. 4.3 in *Agricultural Resources and Environmental Indicators*, Ag Handbook, no. 722 (U.S. Department of Agriculture, Economic Research Service, February 2003). Online at <http://www.ers.usda.gov/publications/arei/arei2001/>
- ¹⁰⁹ Stephen R. Gliessman, *Agroecology: Ecological Processes in Sustainable Agriculture* (New York: Lewis Publishers, 2000).
- ¹¹⁰ Craig Osteen, "Pest Management Practices," Ch. 4.3 in *Agricultural Resources and Environmental Indicators*, Ag Handbook, no. 722 (U.S. Department of Agriculture, Economic Research Service, February 2003). Online at <http://www.ers.usda.gov/publications/arei/arei2001/>
- ¹¹¹ Craig Osteen, "Pest Management Practices," Ch. 4.3 in *Agricultural Resources and Environmental Indicators*, Ag Handbook, no. 722 (U.S. Department of Agriculture, Economic Research Service, February 2003). Online at <http://www.ers.usda.gov/publications/arei/arei2001/>
- ¹¹² Bernard J. Nebel and Richard T. Wright, *Environmental Science*, 7th ed. (Upper Saddle River: Prentice Hall, 2000), 411-412.
- ¹¹³ Margaret Reeves et al., *Fields of Poison: California Farmworkers and Pesticides* (Pesticide Action Network North America, United Farm Workers, California Rural Legal Assistance Foundation, and Californians for Pesticide Reform, 2002). Online at <http://www.panna.org/resources/documents/fieldsOfPoison2002.dv.html>
- ¹¹⁴ Margaret Reeves et al., *Fields of Poison: California Farmworkers and Pesticides* (Pesticide Action Network North America, United Farm Workers, California Rural Legal Assistance Foundation, and Californians for Pesticide Reform, 2002). Online at <http://www.panna.org/resources/documents/fieldsOfPoison2002.dv.html>
- ¹¹⁵ Bernard J. Nebel and Richard T. Wright, *Environmental Science*, 7th ed. (Upper Saddle River: Prentice Hall, 2000), 412.
- ¹¹⁶ Stephen R. Gliessman, *Agroecology: Ecological Processes in Sustainable Agriculture* (New York: Lewis Publishers, 2000).
- ¹¹⁷ "About the 2002 Farm Bill: A Missed Opportunity," Environmental Working Group. Online at <http://www.ewg.org/farm/farmbill/stake.php>
- ¹¹⁸ "About the 2002 Farm Bill: A Missed Opportunity," Environmental Working Group. Online at <http://www.ewg.org/farm/farmbill/stake.php>
- ¹¹⁹ "Why Has EWG Created the Farm Subsidy Database?" Environmental Working Group. Online at <http://www.ewg.org/farm/data/why.html>
- ¹²⁰ Brian Halweil, "Where Have All the Farmers Gone?" *WORLD WATCH* (September/October 2000): 19.
- ¹²¹ See Mary Hendrickson and William Heffernan, Concentration Of Agricultural Markets, February, 2002 Online at http://www.agribusinesscenter.org/docs/Ag_Processing_Inc_1.pdf
- ¹²² Mary Hendrickson and William Heffernan, Update to *Consolidation in the Food and Agriculture System*, Report to the National Farmers Union (February 2002). Online at http://nfu.org/documents/01_02_Concentration_report.pdf

-
- ¹²³ “Cargill Again Top U.S. Private Corporation,” in A.V. Krebs (ed.) *Agribusiness Examiner*, no. 203 (19 November 2002). Online at <http://www.electricarrow.com/CARP/agbiz/examiner1.html>
- ¹²⁴ Brewster Kneen, *Invisible Giant: Cargill and its Transnational Strategies*, 2nd ed. (London: Pluto Press, 2002), 16.
- ¹²⁵ Robert Sherrill, “Book Review: Rats in the Grain, by James B. Lieber,” in A.V. Krebs (ed.) *Agribusiness Examiner*, no. 207 (10 December 2002). Online at <http://www.electricarrow.com/CARP/agbiz/examiner1.html>
- ¹²⁶ Philip McMichael, “The impact of globalisation, free trade and technology on food and nutrition in the new millenium” (paper presented to the Nutrition Society, June 2000): 6.
- ¹²⁷ Philip McMichael, “The impact of globalisation, free trade and technology on food and nutrition in the new millenium” (paper presented to the Nutrition Society, June 2000): 5.
- ¹²⁸ Philip McMichael, “The impact of globalisation, free trade and technology on food and nutrition in the new millenium” (paper presented to the Nutrition Society, June 2000): 6.
- ¹²⁹ Philip McMichael, “The impact of globalisation, free trade and technology on food and nutrition in the new millenium” (paper presented to the Nutrition Society, June 2000): 6.
- ¹³⁰ William Heffernan with Mary Hendrickson and Robert Gronski, *Consolidation in the Food and Agriculture System*, Report to the National Farmers Union (5 February 1999): 3. Online at http://nfu.org/images/heffernan_1999.pdf
- ¹³¹ William Heffernan with Mary Hendrickson and Robert Gronski, *Consolidation in the Food and Agriculture System*, Report to the National Farmers Union (5 February 1999). Online at http://nfu.org/images/heffernan_1999.pdf
- ¹³² *Down on the Farm: NAFTA’s Seven-Years War on Farmers and Ranchers in the U.S., Canada and Mexico*, (Washington, D.C.: Public Citizen’s Global Trade Watch, June 2001). Online at <http://www.citizen.org/documents/ACFF2.PDF>
- ¹³³ Brewster Kneen, *Invisible Giant: Cargill and its Transnational Strategies*, 2nd ed. (London: Pluto Press, 2002), 18.
- ¹³⁴ “ACGA President: ConAgra CEO compensation equal to the combined net farm income of 3300 U.S. farmers,” in A.V. Krebs (ed.) *Agribusiness Examiner*, no. 197 (11 October 2002). Online at <http://www.electricarrow.com/CARP/agbiz/examiner1.html>
- ¹³⁵ Sophia Murphy, *Managing the Invisible Hand: Markets, Farmers, and International Trade* (Institute for Agriculture and Trade Policy, April 2002): 9. Online at http://www.tradeobservatory.org/library/uploadedfiles/Managing_the_Invisible_Hand_2.pdf
- ¹³⁶ Sophia Murphy, *Managing the Invisible Hand: Markets, Farmers, and International Trade* (Institute for Agriculture and Trade Policy, April 2002). Online at http://www.tradeobservatory.org/library/uploadedfiles/Managing_the_Invisible_Hand_2.pdf
- ¹³⁷ Brewster Kneen, *Invisible Giant: Cargill and its Transnational Strategies*, 2nd ed. (London: Pluto Press, 2002), 100.
- ¹³⁸ William Heffernan with Mary Hendrickson and Robert Gronski, *Consolidation in the Food and Agriculture System*, Report to the National Farmers Union (5 February 1999): 7. Online at http://nfu.org/images/heffernan_1999.pdf
- ¹³⁹ Sophia Murphy, *Managing the Invisible Hand: Markets, Farmers, and International Trade* (Institute for Agriculture and Trade Policy, April 2002): 23. Online at http://www.tradeobservatory.org/library/uploadedfiles/Managing_the_Invisible_Hand_2.pdf
- ¹⁴⁰ Brewster Kneen, *Invisible Giant: Cargill and its Transnational Strategies*, 2nd ed. (London: Pluto Press, 2002), viii.
- ¹⁴¹ Laurie Asseo, “U.S. Supreme Court rules ADM, Cargill, A.E. Staley Mfg. must stand trial in \$4 billion corn sweetener suit,” in A.V. Krebs (ed.) *Agribusiness Examiner*, no. 225 (27 February 2003). Online at <http://www.electricarrow.com/CARP/agbiz/examiner1.html>
- ¹⁴² Brewster Kneen, *Invisible Giant: Cargill and its Transnational Strategies*, 2nd ed. (London: Pluto Press, 2002), 7.
- ¹⁴³ Sophia Murphy, *Managing the Invisible Hand: Markets, Farmers, and International Trade* (Institute for Agriculture and Trade Policy, April 2002): 4. Online at http://www.tradeobservatory.org/library/uploadedfiles/Managing_the_Invisible_Hand_2.pdf

-
- ¹⁴⁴ Sophia Murphy *Managing the Invisible Hand: Markets, Farmers, and International Trade* (Institute for Agriculture and Trade Policy, April 2002): 19. Online at http://www.tradeobservatory.org/library/uploadedfiles/Managing_the_Invisible_Hand_2.pdf
- ¹⁴⁵ Anuradha Mittal, "Freedom to Trade? Trading Away American Family Farms." *Food First Backgrounder* 7, no. 4 (Fall 2001): 3.
- ¹⁴⁶ Brewster Kneen, *Invisible Giant: Cargill and its Transnational Strategies*, 2nd ed. (London: Pluto Press, 2002), 32.
- ¹⁴⁷ Brewster Kneen, *Invisible Giant: Cargill and its Transnational Strategies*, 2nd ed. (London: Pluto Press, 2002), 30-31.
- ¹⁴⁸ Brewster Kneen, *Invisible Giant: Cargill and its Transnational Strategies*, 2nd ed. (London: Pluto Press, 2002), 11-12.
- ¹⁴⁹ "Cargill Chief Executive Named to President's National Advisory Committee on International Trade," in A.V. Krebs (ed.) *Agribusiness Examiner*, no. 227 (7 March 2003). Online at <http://www.electrarrow.com/CARP/agbiz/examiner1.html>
- ¹⁵⁰ "Cargill Chief Executive Named to President's National Advisory Committee on International Trade," in A.V. Krebs (ed.) *Agribusiness Examiner*, no. 227 (7 March 2003). Online at <http://www.electrarrow.com/CARP/agbiz/examiner1.html>
- ¹⁵¹ "Bush names Cargill executive to 'represent' farmers on U.S. International Trade Commission," in A.V. Krebs (ed.) *Agribusiness Examiner*, no. 202 (15 November 2002). Online at <http://www.electrarrow.com/CARP/agbiz/examiner1.html>
- ¹⁵² Brewster Kneen, *Invisible Giant: Cargill and its Transnational Strategies*, 2nd ed. (London: Pluto Press, 2002), 33-34.
- ¹⁵³ *Down on the Farm: NAFTA's Seven-Years War on Farmers and Ranchers in the U.S., Canada and Mexico*, (Washington, D.C.: Public Citizen's Global Trade Watch, June 2001). Online at <http://www.citizen.org/documents/ACFF2.PDF>
- ¹⁵⁴ John Nichols, "No friend of the farmer," *The Nation* 4, no. 13 (29 Jan 2001): 4.
- ¹⁵⁵ Robert Sherrill, "Book Review: Rats in the Grain, by James B. Lieber," in A.V. Krebs (ed.) *Agribusiness Examiner*, no. 207 (10 December 2002). Online at <http://www.electrarrow.com/CARP/agbiz/examiner1.html>
- ¹⁵⁶ James Goodwin, "Dairy farmer: for most of us, globalization is vicious exploitation," in A.V. Krebs (ed.) *Agribusiness Examiner*, no. 226 (4 March 2003). Online at <http://www.electrarrow.com/CARP/agbiz/examiner1.html>
- ¹⁵⁷ Robert Schupert, "U.S. Trade Representative exhorts world's food producers to scrap protection for farmers," in A.V. Krebs (ed.) *Agribusiness Examiner*, no. 225 (27 February 2003). Online at <http://www.electrarrow.com/CARP/agbiz/examiner1.html>
- ¹⁵⁸ "Free Trade in the Americas," *International Agriculture and Trade*, Report WRS-98-1 (U.S. Department of Agriculture, Economic Research Service, November 1998). Online at <http://www.ers.usda.gov/publications/so/view.asp?f=international/wrs-bb/1998/trade/>
- ¹⁵⁹ "Free Trade Area of the Americas Fact Sheet," Office of the U.S. Trade Representative, <http://www.ustr.gov/regions/whemisphere/ftaa2002/2003-02-11-tradefacts-english.PDF>
- ¹⁶⁰ "Free Trade in the Americas," *International Agriculture and Trade*, Report WRS-98-1 (U.S. Department of Agriculture, Economic Research Service, November 1998). Online at <http://www.ers.usda.gov/publications/so/view.asp?f=international/wrs-bb/1998/trade/>
- ¹⁶¹ *Down on the Farm: NAFTA's Seven-Years War on Farmers and Ranchers in the U.S., Canada and Mexico*, (Washington, D.C.: Public Citizen's Global Trade Watch, June 2001). Online at <http://www.citizen.org/documents/ACFF2.PDF>
- ¹⁶² *Down on the Farm: NAFTA's Seven-Years War on Farmers and Ranchers in the U.S., Canada and Mexico*, (Washington, D.C.: Public Citizen's Global Trade Watch, June 2001): 40. Online at <http://www.citizen.org/documents/ACFF2.PDF>
- ¹⁶³ *Down on the Farm: NAFTA's Seven-Years War on Farmers and Ranchers in the U.S., Canada and Mexico*, (Washington, D.C.: Public Citizen's Global Trade Watch, June 2001): 40. Online at <http://www.citizen.org/documents/ACFF2.PDF>
- ¹⁶⁴ Bruce L. Gardner. *American Agriculture in the Twentieth Century*. (Cambridge: Harvard University Press: 2002), 213.

-
- ¹⁶⁵ Bruce L. Gardner. *American Agriculture in the Twentieth Century*. (Cambridge: Harvard University Press: 2002), 216.
- ¹⁶⁶ Bruce L. Gardner. *American Agriculture in the Twentieth Century*. (Cambridge: Harvard University Press: 2002), 218.
- ¹⁶⁷ Bruce L. Gardner. *American Agriculture in the Twentieth Century*. (Cambridge: Harvard University Press: 2002), 220.
- ¹⁶⁸ Brewster Kneen, *Invisible Giant: Cargill and its Transnational Strategies*, 2nd ed. (London: Pluto Press, 2002), 35.
- ¹⁶⁹ Bruce L. Gardner. *American Agriculture in the Twentieth Century*. (Cambridge: Harvard University Press: 2002), 222.
- ¹⁷⁰ Brewster Kneen, *Invisible Giant: Cargill and its Transnational Strategies*, 2nd ed. (London: Pluto Press, 2002), 35.
- ¹⁷¹ Bruce L. Gardner. *American Agriculture in the Twentieth Century*. (Cambridge: Harvard University Press: 2002), 222.
- ¹⁷² Brewster Kneen, *Invisible Giant: Cargill and its Transnational Strategies*, 2nd ed. (London: Pluto Press, 2002), 37.
- ¹⁷³ Brewster Kneen, *Invisible Giant: Cargill and its Transnational Strategies*, 2nd ed. (London: Pluto Press, 2002), 37.
- ¹⁷⁴ Brewster Kneen, *Invisible Giant: Cargill and its Transnational Strategies*, 2nd ed. (London: Pluto Press, 2002), 38.
- ¹⁷⁵ Brewster Kneen, *Invisible Giant: Cargill and its Transnational Strategies*, 2nd ed. (London: Pluto Press, 2002), 38.
- ¹⁷⁶ Bruce L. Gardner. *American Agriculture in the Twentieth Century*. (Cambridge: Harvard University Press: 2002), 223.