

Overview of Agricultural Subsidy

The federal government supports the agricultural sector through a variety of direct and indirect subsidies. The direct subsidies are the ones that get the most attention in the press and in Congress, as they tend to involve some type of direct payment to farmers. The government also indirectly subsidizes agriculture through its funding of activities such as agricultural research and development, extension programs, and maintaining agricultural databases.

Farming is an inherently risky business. Some risk relates to decisions exclusively under the farmers' control. For example, selecting the best seeds for local conditions, deciding how much of which crops to plant, and correctly timing the need for pesticide application are all part of the calculus. The wrong decisions can dramatically affect profitability.

However, considerable risks fall outside the farmers' control:

- Catastrophic weather events like floods and droughts can be financially devastating to those in crop *and* animal production. But even a more local event such as an inopportune two-night freeze can wipe out an entire year's production (as happened two years ago when Michigan lost most of its fruit production during an untimely spring freeze).
- The availability of farm labor to harvest crops for which mechanization is not used. Produce can only be sold if it is harvested, and timely harvest is critical.
- Farmers do not control the price they are paid for those commodities traded on exchanges like the Chicago Mercantile Exchange/Chicago Board of Trade. Farmers producing sugar, milk, frozen orange juice, live cattle, feeder cattle, hogs, cotton, wheat, oats, canola, corn, & soy must be vigilant about market prices for futures and options contracts in deciding when to sell.
- The price of energy, which affects the costs of operating equipment during planting and harvesting, inputs such as fertilizer, and product transport to market.¹

Given the uncertainty governing production as well as post-production factors, a variety of agricultural subsidies have been adopted by Congress.

Direct Subsidies

Direct agricultural subsidies are government payments to producers of agricultural products for the purpose of stabilizing food prices, ensuring plentiful food production, guaranteeing farmers' basic incomes and ability to continue farming, and generally strengthening the agricultural segment of the national economy.² When one speaks of U.S. agricultural "subsidies" one is

usually referring to a narrow set of Federal programs that falls under the “Commodity Programs” section of the Farm Bill. These subsidy payments are often linked to other Commodity Programs, such as federally subsidized crop insurance, and to conservation measures, including various incentives for farmers to control supply, so prices do not go into a free-fall that increases Government’s costs for price supports or, conversely, so prices do not rise rapidly such that products are unaffordable to the general consumer.

The 1938 Agricultural Adjustment Act (AAA) was passed by Congress using its authority to regulate interstate commerce. The 1938 AAA combined (1) conservation provisions aimed at protecting soil through better production practices (including land set asides expected to reduce crop surpluses), (2) price supports for selected commodities paid to farmers who reduced acreage but could not obtain a “fair” market price, and (3) a voluntary crop insurance program.

There have been numerous attempts to reform or eliminate price supports and production controls since the 1950s. These attempts reflect a belief that U.S. agriculture has evolved since 1938 and that the relatively unchanged structure of the subsidy program is no longer serving the initial objectives. In the 1930s there were 6,000,000 family farms occupying about 25% of the nation’s citizens. By the late 1990s about 8% of the farming population (roughly 157,000 large farms) accounted for 72% of all farm sales (with average sales per farm for this group at \$900,000).³

In addition to changes in the structure of U.S. agriculture, population growth and economic development across the globe have contributed to a major transformation in the global trade of agricultural commodities. Demand has increased, and key commodity markets, many of which are dominated by U.S. conglomerates, are increasingly concentrated. Furthermore, the World Trade Organization has rules that govern these markets (many of which restrict price and supply controls historically used by the U.S.).⁴

What Are the Current Farm Subsidies?

Between 1995 and 2012, the USDA farm programs paid out \$292 billion in subsidies, of which \$17.6 billion were direct payments, \$53.6 billion were crop insurance subsidies, \$38.9 billion were conservation subsidies and \$22.5 billion were disaster subsidies. According to one source, ten percent of the farms collected 75% of all subsidies, and 62% of the farms did not receive any subsidies.⁵

The primary subsidy programs in recent years include:

- *Direct payments*, which are paid at a set rate every year

The direct payment program established in 1996 was designed to pay out smaller amounts each year over a period of seven years at which point it would be terminated. Payments were calculated based upon a farmer’s past harvests; in the future the farmer could grow the same crops or different ones or none. In 1998 farm income fell because of drought and Congress added \$2.9 billion in extra payments and eliminated the declining

payment provision. In 2002 Congress eliminated the end date. In 2008 the payments were renewed, and again in January 2013 the payments were renewed through 2013. The payment is the same each year and is not adjusted for commodity price levels.⁶

Direct payments are cash subsidies for producers of 10 crops: wheat, corn, sorghum, barley, oats, cotton, rice, soybeans, minor oilseeds, and peanuts. The last three were added in the 2002 Farm Bill. Direct payments are based on a historical measure of a farm's acres used for production and are not related to current production or prices.⁷

Recent analysis found that the program subsidizes farm owners who are not really farmers. Over 2000 farms receiving payments have not grown crops during the past five years according to a GAO study. Payments have also been paid to owners living hundreds of miles from the land. Under the rules this is permitted only if the owner shares in the farm's financial risks and remains actively engaged, but these rules do not seem to be strictly enforced.⁸ A comprehensive data base on payments made under this provision as well as other subsidy payment information is online at <http://farm.ewg.org/region.php?fips=00000>.^{9,10,11}

- *Counter-cyclical payments*, which are triggered when market prices fall below certain thresholds
- *Average Crop Revenue Election (ACRE)*, a revenue assurance program that provides for overall profitability for a given crop if a farmer meets strict guidelines (pays several years after the completion of a crop year)
- *Marketing loans* that offer favorable terms through loan deficiency payments (LDPs) and commodity certificates
- *Disaster assistance programs* can help a farmer recoup large losses due to natural phenomena if the farmer meets the program requirements. These disaster assistance programs, specifically the Supplemental Revenue Assistance Payments Program (SURE), were implemented to eliminate costly and difficult to monitor and administer ad hoc disaster programs.
- *Crop insurance* subsidies are a reduction of calculated premium owed by a farmer for an insurance policy he or she voluntarily purchased.¹² Crop insurance is described in further detail in a separate paper of the Agriculture Update.

Detailed explanations of these programs are available in the Environmental Working Group Farm Subsidy primer referenced below, as well as at the primary source websites of the USDA agencies that administer these farm programs: the Risk Management Agency for the crop insurance program, and the Farm Service Agency (FSA) for all other farm subsidy programs.

In Congress, in late 2013, the nature and structure of subsidies are being debated as part of the Farm Bill. General issues include:

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- Whether or not to phase out direct payments and if so, how quickly
- At what target price should price protection for crops kick in and for which crops
- How to stabilize the dairy program¹³

A Food and Water Watch Fact Sheet describes the concerns with the current structure of the subsidies:

The 2002 and 2008 farm bills largely maintained the commodity programs created by Freedom to Farm. This effectively replaced the supply and price management policies in place since the 1930s with payments designed to keep farmers from going bankrupt due to low prices generated by overproduction. Since then, taxpayer money has been used to make up some of the income lost by farmers who grow commodities that get sold cheap. Instead of programs that could put a brake on collapsing prices, government payments make up the difference between the low price agribusiness pays for commodities and the farmers' cost of sowing, growing, harvesting and transporting crops. Farm programs that allow prices to fall below production costs and then pay farmers some of the difference with taxpayer dollars are really subsidizing meat- packers, factory farms and food processors.¹⁴

Some organizations, including Food and Water Watch, want reform rather than removal of subsidies. These critics argue that agriculture continues to be a high risk activity, and a blanket removal of the farm subsidy program would hurt the small-scale, family farm sector and producers of non-commodity crops that many want to see expand and evolve into more local and regional (rather than global) food systems.¹⁵

Indirect Agricultural Subsidies for Research & Development

Research is a cornerstone of economic growth and development. The Federal Government has played a major role in supporting agricultural research for over a century, transforming U.S. agriculture from a resource-based industry to a science- based industry.¹⁶

Benefit/cost analyses have shown that although it may take 20 years to realize the benefits of some agricultural R&D, such research generates social benefit-cost ratios in the range of 20:1 or higher, with about half of the total benefits accruing to farmers and the other half being shared between landlords and consumers.¹⁷

Basic and applied research and development (R&D) affecting the agricultural sector is conducted and/or funded through a number of avenues:

- Conducted and funded in-house by government agencies, such as

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- **USDA:** Agricultural Research Service, which has more than 100 laboratories in the U.S. and overseas,¹⁸
- **FDA:** National Center for Toxicological Research,¹⁹
- Funded through government grants awarded by USDA's National Institute of Food and Agriculture (NIFA) to
 - more than 100 land-grant universities through the 50 State Agricultural Experiment Stations (SAESs); in 2009 the states provided ~38% of the agriculture R&D funding to the SAESs.
 - other federal agencies (both within and outside the USDA); non-profit associations; professional societies; commodity groups and grower associations; multistate research committees;²⁰ private industry; citizen groups; foundations; regional centers; the military; task forces; and other groups.²¹
- Conducted and funded by a small number of large corporations, whose R&D capability tends to dominate certain research areas; in 2010
 - eight seed-biotechnology companies accounted for 76 percent of all R&D spending;
 - five agricultural chemical companies were responsible for over 74 percent of that sector's R&D; and
 - eight companies accounted for over 66% of animal health R&D.²²
- Funded by commodity groups and grower associations through check off programs²³

Funding for public agricultural R&D has steadily decreased and by 2009, real spending was 7% below the 2004 level. Based on 2009 data, \$11.1 billion was spent on agriculture R&D, just 2.8% of all U.S. spending on R&D and 1.7% of USDA's expenditures. The federal share of that agriculture spending was 11.3%; SAESs & other college & university spending totaled 31.5% ; and corporate spending was 57.2%.

A recent (April 2013) paper by Philip Pardey and others on agriculture Research and Development (R&D) summarizes recent discussion about federal support to R&D:

- Agricultural R&D "...spending is a critical policy instrument that governments can apply to influence the path of agricultural productivity and the food and agricultural economies.
- "Agricultural R&D has consequences for food processing, nutrition, health, the agricultural workforce, consumer and producer household well-being, rural and community development, and food safety. It can also help sustain and enhance the value of ecosystem services used in, produced by, and otherwise affected by agriculture, and can reduce negative externalities from agricultural production and other sectors of the economy.

- “Even though rates of return for productivity-enhancing research are ... high, we have seen a slowdown in both public and private spending on agricultural R&D in the United States and a diversion of public research funds away from farm productivity enhancement. Together these trends spell a further slowdown in U.S. farm productivity growth at a time when the market has begun to signal the beginning of the end of a half-century and more of global agricultural abundance.
- “It is a crucial time to rethink national food and agricultural R&D and innovation policies and reposition the U.S. food and agricultural research and innovation system to address the changing scientific and market realities in the century ahead.
- “To make informed public policy choices regarding federal roles in food and agricultural R&D requires a strategic understanding of the present patterns of investment in food and agricultural R&D in the United States and elsewhere in the world. The long lags between investing in food and agricultural R&D and realizing a social return on that investment dictate taking a very long-run perspective on these R&D spending trends, one spanning many decades, not just several years.”²⁴

Philip Pardey and Jason Beddow in a different paper comment that public and private research play different, though often complementary, roles:

The different roles played by public and private research are revealed to some extent by the substantial differences in the composition of the research performed by both sectors...around 44 percent of the food and agricultural research performed by the US public sector is considered “basic” research, where the notional objective is the pursuit of new knowledge or ideas without specific applications in mind. The insights gained through basic research feed into the development of future innovations and technologies that increase productivity and economic growth over the longer run. Another 47 percent of public research is classified as “applied,” or research done to meet a specific need. Only 9 percent is deemed “developmental” and directed towards the production of specific products and processes with nearer-term commercial potential. By contrast, the National Science Foundation reports that US private research is overwhelmingly “developmental” in nature, intended to develop prototypes, new processes, or products for commercialization. Overall, 63 percent of private US R&D was of this type in 2009, with only 18 percent of private research considered applied and 19 percent considered basic.²⁵

Recommended Readings

Edwards, Chris. June 2009, “Agricultural Subsidies,” Cato Institute, “Downsizing the Federal Government” series, <http://www.downsizinggovernment.org/agriculture/subsidies>, accessed 11/18/13, describes 8 types of agricultural subsidy payments and gives six reasons why they should be eliminated, from the Cato Institute’s libertarian perspective.

Environmental Working Group, no date, “Farm Subsidy Primer,” <http://farm.ewg.org/subsidyprimer.php>, accessed 11/18/13, provides some definitions and terminology frequently encountered in discussions of farm subsidies and a link to a discussion of crop insurance. It is important to note that the EWG does work to change farm programs and therefore some of their resources have a bias.

Environmental Working Group, no date, “Farm Subsidy Payments,” <http://farm.ewg.org/region.php?fips=00000>, accessed 11/18/13, provides an interactive guide to USDA subsidy payments by state, by commodity, and by program from 1995 through 2012. Excellent resource for local and state Leagues wanting to see how their states benefit from farm subsidies. However, without context for what the program payments are for and what a farmer’s costs and requirements are to be eligible for such subsidies, it is possible to misunderstand the dollar figures presented.

Food & Water Watch, 2011, “Farm Subsidies 101Fact Sheet,” <http://www.foodandwaterwatch.org/factsheet/farm-subsidies-101/>, accessed 11/18/13. F&WW takes a strong position against past farm policies that it believes have contributed to an unhealthy degree of consolidation in the food and fiber sectors; F&WW is also not a supporter of WTO membership and policies, believing that they are detrimental to the U.S.

Sumner, Daniel A. (writing for Liberty Fund, Inc.), 2008, “Agricultural Subsidy Programs, for a review of U.S. farm subsidies from an international perspective,” <http://www.econlib.org/library/Enc/AgriculturalSubsidyPrograms.html>, accessed 11/18/13. This 5-page brief reflects Liberty Fund’s perspective, which may be somewhat more opposed to Government intervention in agriculture than others; but the article is generally factual and well documented.

Watson, Nathan R.R., 2005, “FEDERAL FARM SUBSIDIES: A HISTORY OF GOVERNMENTAL CONTROL, RECENT ATTEMPTS AT A FREE MARKET APPROACH, THE CURRENT BACKLASH, AND SUGGESTIONS FOR FUTURE ACTION,” Drake Journal of Agricultural Law, Volume 9, pages 281-297, <http://students.law.drake.edu/aglawjournal/docs/agVol09No2-Watson.pdf>, accessed 11/18/13. This article provides an excellent review of the legislative history of farm subsidies and production controls up to the beginning of the 21st century and the 2002 Farm Bill.

Farm Service Agency, <http://www.fsa.usda.gov>, accessed 11/18/13, for farm subsidy program descriptions, maps, and payment rates:

1. Direct and Counter-Cyclical/ACRE programs are found at <http://www.fsa.usda.gov/FSA/webapp?area=home&subject=dccp&topic=landing>.
2. Disaster Assistance programs single page summary is available at http://www.fsa.usda.gov/Internet/FSA_File/disasterfsaprograms.pdf.
3. The Ten Farm Loan programs are described at <http://www.fsa.usda.gov/FSA/webapp?area=home&subject=fmlp&topic=landing>.

4. Price Support programs are found at <http://www.fsa.usda.gov/FSA/webapp?area=home&subject=prsu&topic=landing>.

Pardey, Philip G., Julian M. Alston, and Connie Chan-Kang, "Public Food and Agricultural Research in the United States: The Rise and Decline of Public Investments, and Policies for Renewal," *AGree, Transforming Food and Agriculture Policy*, April 2013, <http://www.foodandagpolicy.org/sites/default/files/AGree-Public%20Food%20and%20Ag%20Research%20in%20US-Apr%202013.pdf>, accessed 12/14/13.

¹ Miller, Alan Craig Dobbins, James Pritchett, Michael Boehlje and Cole Ehmke, "Risk Management for Farmers," Purdue University, Department of Agricultural Economics, September 2004, Staff Paper 04-11, <http://ageconsearch.umn.edu/bitstream/28640/1/sp040011.pdf>, accessed 11/18/13.

² "Agriculture Subsidies", The Free Dictionary, <http://legal-dictionary.thefreedictionary.com/Agriculture+Subsidies>, accessed 11/18/13.

³ Watson, Nathan R.R., 2005, "FEDERAL FARM SUBSIDIES: A HISTORY OF GOVERNMENTAL CONTROL, RECENT ATTEMPTS AT A FREE MARKET APPROACH, THE CURRENT BACKLASH, AND SUGGESTIONS FOR FUTURE ACTION," *Drake Journal of Agricultural Law*, Volume 9, pages 281-297, <http://students.law.drake.edu/aglawjournal/docs/agVol09No2-Watson.pdf>, accessed 12/14/13.

⁴ Daniel A. Sumner, Daniel A., "Agricultural Subsidy Programs," 2008, *The Concise Encyclopedia of Economics*, Library of Economics and Liberty, <http://www.econlib.org/library/Enc/AgriculturalSubsidyPrograms.html>, accessed 11/18/13.

⁵ Environmental Working Group, "WG Farm Subsidy Data Base, Farm Subsidies," <http://farm.ewg.org/region.php?fips=00000&progcode=total&yr=2009>, accessed 11/18/13.

⁶ Fahrenthold, David A., "Temporary farm subsidy program may finally meet the reaper," *The Washington Post*, June 2, 2013, http://www.washingtonpost.com/politics/temporary-farm-subsidy-program-may-finally-meet-the-reaper/2013/06/02/3e20d25e-c25b-11e2-97fa-0f57decebbbf_print.html, accessed 11/18/13.

⁷ Edwards, Chris, "Agriculture Subsidies," Cato Institute, *Downsizing the Federal Government*, <http://www.downsizinggovernment.org/agriculture/subsidies>, accessed 11/18/13.

⁸ GAO, "Direct Payments Should be Reconsidered", July 3, 2012, *GAO Farm Programs*, <http://www.gao.gov/products/GAO-12-640>, accessed 11/18/13.

⁹ Environmental Working Group, "2012 Farm Subsidy Primer," <http://farm.ewg.org/subsidyprimer.php>, accessed 11/18/13.

¹⁰ Farm Service Agency, <http://www.fsa.usda.gov>, accessed 11/18/13.

¹¹ Risk Management Agency, <http://www.rma.usda.gov>, accessed 11/18/13.

¹² Environmental Working Group, "2012 Farm Subsidy Primer," op. cit.

¹³ Associated Press, "Major issues in farm bill negotiations," October 28, 2013, *Yahoo News*, <http://news.yahoo.com/major-issues-farm-bill-negotiations-073044416.html>, accessed 12/14/13.

¹⁴ Food and Water Watch, "Farm Subsidizes 101," *Fact Sheet*, February 2011, <http://documents.foodandwaterwatch.org/doc/FB-subsidies101.pdf>, accessed 11/18/13.

¹⁵ Ibid.

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¹⁶ Fuglie, Keith, Nicole Ballenger, Kelly Day-Rubenstein, Cassandra Klotz, Michael Ollinger, John Reilly, Utpal Vasavada, and Jet Yee, "Agriculture Research and Development: Public and Private Investments Under Alternative Markets and Institutions," Economic Research Service, Agriculture Research and Development Report Number (AER-735) 88 pp, May 1996, <http://www.ers.usda.gov/publications/aer-agricultural-economic-report/aer735.aspx> , accessed 11/18/13.

¹⁷ Pardey, Philip G., Julian M. Alston, and Connie Chan-Kang, *Public Food and Agricultural Research in the United States: The Rise and Decline of Public Investments, and Policies for Renewal*, AGree, Transforming Food and Agriculture Policy, April 2013, <http://www.foodandagpolicy.org/content/public-food-and-agricultural-research-united-statesthe-rise-and-decline-public-investments-a>, accessed 12/14/13.

¹⁸ USDA, Agriculture Research Service, "National Programs," <http://www.ars.usda.gov/research/programs.htm>, accessed 11/18/13. For examples see <http://www.ars.usda.gov/Main/docs.htm?docid=23949> for research being conducted on Colony Collapse Disorder in honeybees; http://www.ars.usda.gov/research/projects/projects.htm?ACCN_NO=420638 for research on odor, emissions, and antibiotic resistance in stored livestock manure; <http://www.ars.usda.gov/recovery/peoria.htm>, the National Agricultural Utilization Research Center which invents new uses for agricultural crops as both food and industrial products and develops new technology to improve environmental quality and food safety.

¹⁹ FDA, National Center for Toxicological Research, "About the National Center for Toxicological Research," <http://www.fda.gov/AboutFDA/CentersOffices/OC/OfficeofScientificandMedicalPrograms/NCTR/default.htm>, accessed 11/18/13.

²⁰ USDA, National Institute of Food and Agriculture, "Multistate Research Activities," http://www.csrees.usda.gov/qlinks/research_multistate.html, accessed 11/18/13.

²¹ USDA, National Institute of Food and Agriculture, "About NIFA," <http://www.csrees.usda.gov/about/about.html>, accessed 11/18/13.

²² Fuglie, Keith, John King, Paul Heisey, and David Schimmelpfennig, "Rising Concentration in Agricultural Input Industries Influences New Farm Technologies," *Amber Waves*, December 2012, Vol. 10 Issue 4, <http://www.ers.usda.gov/amber-waves/2012-december/rising-concentration-in-agricultural-input-industries-influences-new-technologies.aspx#UoBXJvkWLis>, accessed 12/14/13.

²³ As an example, see the research funded by the Illinois Soybean Association at http://www.soybeancheckoffresearch.org/ListbyCheckoff.php?check_off=Illinois%20Soybean%20Association, accessed 11/18/13.

²⁴ Pardey, Philip G., Julian M. Alston, and Connie Chan-Kang, "Public Food and Agricultural Research in the United States: The Rise and Decline of Public Investments, and Policies for Renewal," AGree, Transforming Food and Agriculture Policy, April 2013, p. iv, <http://www.foodandagpolicy.org/content/public-food-and-agricultural-research-united-statesthe-rise-and-decline-public-investments-a>, accessed 12/14/13.

²⁵ Pardey, Phillip G. and Jason M. Beddow, "Agricultural Innovation: The United States in a Changing Global Reality," Chicago Council on Global Affairs, April 2013, http://www.thechicagocouncil.org/UserFiles/File/GlobalAgDevelopment/Report/Agricultural_Innovation_Final.pdf, accessed 11/18/13.