The Condition of Farmland in the United States: 
Government Conservation and Preservation Efforts and Statistics 

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Introduction

The discussion concerning the source and quality of American food has become increasingly popular in recent years. Whether a type of food is organic, genetically modified, or grown with pesticides is information that is increasingly sought-after. At the heart of this trend lies a much older and more serious issue: the condition of American farmland. In an article entitled “The Decline of the Small American Family Farm in One Chart,” Roberto A. Ferdman briefly examines the issue of the decreasing number of farms in the United States. In order to explore the demonstrable evidence of this trend, I surveyed as many government resources available on the topic as possible. On the one hand, I wished to find hard evidence surrounding the state of American farms provided by vetted and unbiased organizations. On the other, I hoped to closely examine the specific role that the United States Government and its various agencies are playing in the conservation of usable farmland. This paper will use government sources and statistics to evaluate the current condition of American farmland, the efforts of the United States government to preserve and use this land, and the role of specific government agencies in assisting these efforts.

Methodology

To begin the investigation of the state of American farmland, I searched for material that was similar in nature to the article where I first discovered this issue: online newspaper articles, blog posts, forums, and other less formal sources of information that I could find by conducting a simple internet search. I did not intend to find any substantive data; my goal was merely to understand the broad strokes of the issue at hand, and at the very least become familiar with what

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others were saying about it. After searching for some time, I was only able to retrieve a handful of relevant material; most of the sources that I came across were unreliable or dubious at best. The sources that did prove useful were the websites for **MSNBC** and the **Washington Post**. While not containing nearly enough statistics, the articles I retrieved from these sources helped me to refine my research need.

I began to search for more substantive information and statistics on American farms by exploring standard government websites. I decided to use the largest and most general government websites I could think of, which were **FDsys** and **USA.gov**. After retrieving several crucial results and resources from these websites, I found that there were more specific government sites on the topic I was searching for. Namely, the **EPA** (Environmental Protection Agency) and the **USDA** (United States Department of Agriculture) appeared in my results often, and their content proved to be invaluable to the rest of my search. To expand the threshold of my search, I also utilized sites that were less obvious. For example, the **CBO** (Congressional Budget Office) provided information about how much funding is given to agricultural aid and programs each year, as well as the projected spending in the years to come. I also utilized **Congress.gov** to explore agricultural legislation throughout the years, including the seminal **Agricultural Act of 2014**.

During the final stage of my search, I explored the websites of the relevant government departments and agencies. These websites proved to be nearly limitless sources of information. The most crucial of these sources were the websites for **NASS** (National Agricultural Statistics Service), the **Agricultural Census**, and the **ACEP** (Agricultural Conservation Easement Program), which were all elements of the **USDA**. Searching the broader government sites mentioned above also allowed me to discover individual state government publications on
agriculture, which contained specific and detailed information on each state’s agricultural industry.

**Statistical Overview of American Farmland**

In order to understand federal agricultural conservation efforts, it is crucial to become familiar with American farmland in a wider context. Fortunately, the nearly limitless government statistics made available online by relevant agencies make this task easier than ever before. The Census of Agriculture conducted by the **USDA National Agricultural Statistical Service (NASS)** is arguably the most complete, making it invaluable to the study of American farmland. By using the **2012 Census of Agriculture** and other sources provided by the **USDA** and **NASS**, I was able to find an immense amount of information in the following categories:

**Land Usage**

In 2012, it was reported that two fifths of all land in the United States was being used for farming. At nearly 40% of all land, these 2.1 million farms accounted for nearly 915 million acres.\(^2\) Interestingly, since the 2007 survey it was reported that the overall number of farms had in fact shrunk by 4% while the amount of land used for farms remained nearly the same (decreasing from 922 million acres in 2007 to 915 million acres in 2012); during those five years, the average farm size also increased by 4%, meaning that fewer farms produced increasingly more crops.\(^3\) In fact, in 2012 it was reported that the 4% of farms that were made up for 2,000 acres or more (i.e. very large farms) accounted for 55% of all usable American

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\(^3\) Ibid
In 2014, Mark Koba of CNBC wrote an article reporting on this very trend: “three quarters of all U.S. farms gross only $50,000 a year and currently account for only 4% of product sales.”\(^5\) It is also crucial to note that the decrease in the number of farms and of usable farmland was not uniform; in sixteen states, the number of farms increased while the amount of farmland increased in nineteen states.\(^6\) So, while it might be true to say that the number of farms is decreasing in the United States, the amount of usable farmland and subsequent crop production has remained relatively the same.

### Conservation

The 2012 Census of Agriculture was the first to ask farmers specific questions about the use of special tillage and drainage practices that would conserve and improve their land. “Such practices protect land from water and wind erosion, improve water quality, provide wildlife habitat, and reduce producers’ operating costs by reducing the number of trips over fields.”\(^7\) The first of the two principle practices asked about was “no-till” farming, or a practice of planting seeds directly into the residue or vegetative cover of previous crops (i.e. leaving everything as is). The second practice is “conservation tillage,” which uses limited tillage to leave about 30% of the previous crop’s residue.\(^8\) In 2012, it was reported that 96.5 million acres of farmland utilized “no-till” farming, while 76.6 million acres were tilled by “conservation-tillage” (leaving

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\(^4\) Ibid


\(^8\) Ibid.
conventional tillage to be used on 105.7 million acres of land for a total of 278.8 million acres). The 2012 Census also asked farmers about conservational drainage techniques that were meant to drain excess water from fields, making cropland more productive. In 2012, it was reported that 217,931 farms (48.6 million acres) in the United States were using some type of drainage system, “sometimes in conjunction with other conservation practices such as terracing. The 216,314 farms with field ditches provided surface drainage for 42.2 million acres.”9 Cover crops, or plants used to protect and improve soil quality, were also recorded by the 2012 survey: 133,124 farms used this technique, totaling 10.3 million acres. Other conservation measures used in 2012 include Conservation Easement (measures taken to ensure land stays in agriculture and out of development), Agroforestry (using forest to protect farmland while creating wildlife habitats), and Rotational Grazing (the practice of portioning larger plots of land into smaller units of specialized crop production). Regardless of the exact methods or the number of farms adopting them, this Census clearly indicates that steps are currently being taken to preserve and improve farmland.

Small Farms

The increase in the number of small farms is a prevalent trend in American agriculture. Due to the smaller number of large farms that produce the majority of the country’s crops, small farms have become important for the production of specialized and organic produce. In 2012, it was reported that small farms comprise “88 percent of U.S. farms, 48 percent of farmland, [and] 20 percent of sales.”10 Further, 97% of all farms in the U.S. were recorded to be family owned

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9 Ibid.
and operated. These family operated smaller farms were responsible for 58% of direct-to-customer sales through venues such as roadside stands and farmers markets. Additionally, small farms accounted for 17% of organic food sales in 2012.11

Organic Farming

Organic produce has become a mainstay of American popular culture in recent years, and the 2014 Organic Farming Survey (conducted by the NASS) verifies this significant trend. This 2014 Survey recorded 14,093 organic farms in the United States that produced a total of $5.5 billion of organic products.12 The sale of organic material is more concentrated geographically than the number of active organic farms: ten states alone accounted for 78% of all organic sales, with only one state (California) comprising 41% of the total number.13 Additionally, a number of specific markets comprise the majority of organic sales. For example, livestock poultry products, milk, and eggs were the top selling organic products of 2014, with vegetables grown in the open following close behind. The 2014 survey also broke down what entities are buy from organic farms and distributing their products: Wholesale markets comprised 78%, direct to retail markets and institutions accounted for 14%, and direct consumer sales covered 8% of total organic sales in 2014.14 Finally, an estimated 80% of organic farms sold their products to consumers within a 100-mile radius of the farm.

Statistical Overview at the State Level

11 Ibid.
13 Ibid.
14 Ibid.
Government publications and statistics on American agriculture are also available at a much more specific level, namely that of state and local governments. As before, the NASS provides a great deal of state-level information through its Census of Agriculture, but individual state websites (found by searching USA.gov) also offer helpful and specific information, such as total farmland acreage, the amount of government spending received, the most popular or successful crop, etc. These publications allow one to examine the impact of government programs and spending at a more granular level. They also help to shed light on national agricultural trends by displaying them in miniature (i.e. at the state-level). While there is data available for almost every state, for the purposes of this paper I surveyed the agricultural publications for New Jersey.

In 2012, the number of farms in New Jersey numbered 9,071. This was a decrease from the recorded number in 2007, which was 10,327.\(^{15}\) A similar decrease occurred in the five years between the 1997 and 2002 Census: in 2002, 9,924 farms were recorded as a decrease from 10,045 recorded in 1997. Over this fifteen year period, a consistent decrease in the number of acres as active farmland was recorded in New Jersey: 856,909 in 1997, 805,682 in 2002, 733,450 in 2007, and 715,057 in 2012. Additionally, between 1997 and 2007 the average farm size decreased from 85 to 71 acres, with a sharp increase to 79 acres in 2012.\(^{16}\) However, a 2016 estimate conducted by the NASS recorded a slight increase across each of these categories: 9,100 farms were estimated to be in operation (averaging about 79 acres per farm) accounting for


\(^{16}\) Ibid.
720,000 total acres of land that is in use.\textsuperscript{17} This last piece of data suggests that New Jersey farms are beginning to mirror the national trend of smaller numbers of larger farms producing the majority of food. This is further reflected by the number of farms in the state recorded as having 2,000 acres or more: 20 farms were recorded in 2012, which as an increase from 17 in 2007.\textsuperscript{18} The amount of farm production expenses recorded that year also illustrate the formation of this trend: in 2012, the number of farms with production expenses ranging from $1 - $2.4 million dollars increased by 14 over five years, while the number of farms with production expenses over $2.3 million stayed the same since 2007.\textsuperscript{19} In short, the Census data gives reason to believe that New Jersey will begin to follow the national trend of an increasing number of large farms.

The amount and distribution of federal agriculture funding can also be made plain by use of Census data. The number of New Jersey farms that received government payments in 2012 was recorded as 1,036, with the average amount received being $7,332,000.\textsuperscript{20} This is a significant increase in the number of farms, but a slight decrease in the average amount of funding recorded in 2007: 857 farms received and average of $8,154,000 from the federal government. Of the total number of farms, 157 were recorded as receiving funds for “Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve


Enhancement Programs,” with an average of $1,251,000 per farm.\textsuperscript{21} In 2007, 143 farms received an average of $2,206,000 per farm for conservation programs. In terms of conservation efforts, it is comforting to see the number of farms receiving funding increase. and the sharp decrease in funding received for these programs since 2007 is in line with current efforts to use less funding more effectively as outlined in the Agricultural Act of 2014 (discussed below).

**Major Agricultural Legislation**

The United States government has a long history of creating agricultural legislation and providing aid for farms and farmers. Approximately every five years, the US passes what are commonly known as “Farm Bills.” These are meant to create and expand federal programs in several different areas apart from just conservation: research, health and nutrition, infrastructure, jobs, and innovation can all be part of “Farm Bills.”\textsuperscript{22} The most recent of these to be passed was the **Agricultural Act of 2014**, and it will remain in force until 2018.\textsuperscript{23} This piece of legislation was signed into law by President Barrack Obama on February 7, 2014.\textsuperscript{24} The 2014 Farm Bill was introduced as a follow-up to a similar Bill proposed in the summer of 2012 which failed to pass

\begin{footnotesize}
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in Congress. Disagreements about the Bill are made plain enough by the relatively slim margin it eventually passed by on July 11, 2013: 216 – 208 in favor.

This 2014 Farm Bill makes major changes to existing agricultural policies in several areas, including “commodity programs . . . crop insurance options . . . specialty crops, organic farming, bioenergy, rural development, and beginning ranchers and farmers.” Concerning conservation specifically (Title II and Title XI), this Act has several implications for existing programs and policies. On a broad level, it aids farmers and landowners who are attempting to adopt “conservation activities” (activities intended to improve and/or preserve land, air, and water quality) while engaging in food production. Specific highlights of the Act include the merging or consolidation of conservation programs (23 reduced to 13) in an attempt to streamline conservation efforts, and the re-linking of crop insurance premium subsidies with Conservation Compliance.

There are several intentional economic implications of the Agricultural Act of 2014 regarding conservation. To begin with, the Act is intended to decrease mandatory federal spending on conservation through USDA programs by $200. This decrease will mean that funding originally meant for land retirement will decrease, but funds for conservation of land that is in use will rise. According to a USDA summary of the Act, this is because the conservation of portions of usable land is more economically viable and environmentally

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28 Ibid.
29 Ibid.
friendly than the conservation of land that is retired outright. In other words, “on a per-acre basis, these practices are believed to provide greater environmental benefits than whole-field enrollments [in retirement programs] while taking less land out of crop production.”30 While this portion of the Act seems reasonable enough, the massive decrease in spending has its eventual downside. The amount of funding given to wetland agricultural conservation is likely to drastically decrease.

Estimates published by the CBO indicate how much funding the 2014 Farm Bill sets aside for conservation. The spread of funding is very uneven, with nutritional programs receiving 80% of what the Bill provides. Following this, the categories are Crop Insurance at 8% (partially linked to conservation), Commodities at 5%, Other at 1%, and Conservation at 6%.31 Out of a total of $489 billion to be set aside over the course of five years, this means that the federal government is willing to spend $29,340,000,000 on farmland conservation.

**Current Conservation Efforts**

After surveying the extensive government material available on agricultural statistics and legislation, it is essential to review the material available on current conservation programs, spending, and other efforts. The USDA’s Economic Research Service (ERS) provides an excellent overview of government conservation programs that are currently in effect. The USDA mainly relies on voluntary incentive programs, which are intended to increase the likelihood that farmers will engage in conservation practices. As the agency’s website explains, “incentive programs can avoid the inherent difficulties in regulating geographically diffuse and difficult to monitor sources of pollution, and can minimize economic harm to farmers by offering a range of

30 Ibid.
incentives and assistance programs.” There are six programs in particular that account 95% of the total USDA conservation budget. They are:

1. **Conservation Reserve Program** - The CRP ensures that retired farmland or land that is removed from production is not bought by developers. Rather, trees or grass are planted in the retired farm’s place.
2. **Environmental Quality Incentives Program** - The EQIP provides assistance to farmers who wish to or have already adapted conservation practices on their land.
3. **Conservation Stewardship Program** - If farmers and ranchers can demonstrate an acceptable level of stewardship over their land, the CSP will provide financial assistance for the adoption of additional conservation practices.
4. **Regional Conservation Partnership Program** - The RCPP was created to coordinate conservation efforts between partners in the same region of water table.
5. **Conservation Technical Assistance** - A type of program that provides technical assistance who are looking to improve and preserve their land through conservational techniques.
6. **Agricultural Conservation Easement Program** - The ACEP assists landowners by providing long term and/or permanent land easement, which ensures that developers do not buy retired farmland.

Compliance with the regulations of these programs can benefits farmers and farms in the form of monetary assistance and technological support. However, failure to voluntarily comply with regulations can result in assistance ineligibility. For example, certain types of crops produce high levels of soil erosion. Farms that produce these crops are eligible for program benefits only if they use approved soil conversion techniques; failure to do so could result in ineligibility.

Another popular type of benefit is the reduction of crop insurance premiums if compliance standards are met.

The website for the previously mentioned ACEP is a particularly rich source of information on programs, incentives, and other government efforts made to promote conservation practices. This program was created by the Agricultural Act of 2014 as a

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33 Ibid.
consolidation of other conservation programs (an example of the attempt to streamline benefits and assistance). As the website explains, the **ACEP** is designed to “provide financial and technical assistance to help conserve agricultural lands and wetlands and their related benefits.”

This program is a section of the **National Resource Conservation Service** (or **NRCS**, which is itself a section of the **USDA**), and it “provides financial assistance to eligible partners for purchasing Agricultural Land Easements that protect the agricultural use and conservation values of eligible land.” The **ACEP** website also contains detailed information about its incentives and spending. For example, the obligation (amount of financial assistance agreed upon by contract for the purpose of land easement) provided to the state of New Jersey in 2014 was $5,569.4, and $5,413 in 2015. The site also offers users information on easement assistance eligibility, and even offers instructions on how to apply. Under the Agricultural Act of 2014, **ACEF** receives about half of what it previously did before it was consolidated into its present form.

**Projected Spending on Agriculture**

According to estimates from the **CBO**, spending on agriculture will level off in the coming years. Following the Agricultural Act of 2014, the **CBO** estimates that government spending on conservation programs will cease rising after nearly a decade of continual growth.

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36 Ibid.


holding steady at approximately $6 billion. While the Act stipulates that less funding will be supplied for grants and programs, it still emphasizes conservation by emphasizing more even spending. For example, between 1996 and 2002 over 75% of funding was spent on conservation reserve programs, with other areas constituting hardly more than 20%. In contrast, projected spending between 2014 and 2018 is set to be much more even with programs for conservation reserve, environmental quality incentives, conservation stewardship receiving roughly equal portions (easement and conservation programs are projected to receive about as much as they have in past budgets). Further, the distribution and amount of funds between commodity credit, conservation, and crop insurance is projected to remain virtually untouched from 2018 until 2026; each received a roughly equal share with crop insurance received slightly more. The total amount of spending for these areas is set to cap at approximately $20 billion.

**Current Conservation Efforts at the State Level**

State and local governments are also involved in current efforts to conserve farmland. For example, the New Jersey Department of Agriculture has published information on programs and grants that it offers on its State Agriculture Development Committee (SADC) website. According to the site, there are four methods to preserve farmland through the state of New Jersey:

1. **The Sale of Development Easements**- Farm owners are given the option to sell the development rights to their land; they may keep and use the land as normal, but must then use it for agricultural purposes only.
2. **Donation of Development Easement**- Has the same effect as the above, except there is no monetary gain for the landowner.

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39 Ibid.
3. **Sale of Farm**- If this were to occur, the SADC sells the land at market value with the agricultural deed intact, meaning that whomever bought the property would have to use the land strictly for farming purposes.

4. **Eight-Year Preservation**- “Landowners can choose to voluntarily restrict development on their land for a period of eight years. Although landowners receive no payment for this, they are eligible to apply for cost-sharing grants for soil and water conservation projects, as well as for the Farmland Preservation Program’s other benefits and protections” (SADC, 2006).

The SADC also offers what are known as Soil and Water Conservation Grants.\(^{41}\) If approved for one of these grants, a farmer could have up to 50% of the cost of developing new soil and water conservation techniques covered by the state. Landowners must apply to Soil Conservation Districts, which exist to help manage conservation projects throughout the state. The Soil Conservation Committee must approve all applications on the condition that each project is necessary and attainable. The types of programs offered by these grants can relate to soil erosion prevention, pollution control, land and soil management, and more. Specific projects include “terrace systems; diversions; stream protection; water impoundment reservoirs; irrigation systems; sediment retention, erosion or water control systems; drainage systems; animal waste control facilities; agri-chemical handling facilities; and land shaping or grading.”\(^{42}\)

**Conclusion**

As this paper has demonstrated, the overall acreage of farmland in the United States has decreased almost negligibly in recent years. The advent of larger, fewer farms creating more produce accounts for the consistent and even slightly increased level of crop production in spite of the decreasing number of farms in total. Further, government sources and statistics make it abundantly clear that a great effort is being made to conserve farmland and improve crop

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\(^{42}\) Ibid.
production in limited space. In the coming years, government conservation efforts will face challenges from shifting and decreasing funding. It will therefore be more crucial than ever for owners of both large and small farms to use the above sources to plan in advance and prepare to continue food production in a fluctuating future.

Bibliography


