



Report to the Ranking Member,
Committee on Homeland Security and
Governmental Affairs, U.S. Senate

August 2014

CROP INSURANCE

Considerations in Reducing Federal Premium Subsidies

GAO Highlights

Highlights of [GAO-14-700](#), a report to the Ranking Member, Committee on Homeland Security and Governmental Affairs, U.S. Senate

Why GAO Did This Study

Federally subsidized crop insurance, which farmers can buy to help manage the risk inherent in farming, has become one of the most important programs in the farm safety net. Revenue policies, which protect farmers against crop revenue loss from declines in production or price, are the most popular policy type and account for nearly 80 percent of all premium subsidies. The crop insurance program's cost has come under scrutiny while the nation's budgetary pressures have been increasing.

GAO was asked to look at the cost of the crop insurance program. This report examines (1) trends in federal crop insurance costs and farm sector income and wealth from 2003 through 2012 and (2) the potential savings to the government and impacts on farmers, if any, of reducing federal premium subsidies for revenue policies. GAO analyzed USDA crop insurance program data and farm sector income and wealth data from 2003 through 2012 (most recent year with complete crop insurance data); reviewed economic literature and documents from stakeholders including farm industry groups and researchers; and interviewed USDA officials.

What GAO Recommends

To reduce the cost of the crop insurance program, Congress should consider reducing the level of federal premium subsidies for revenue crop insurance policies, including a phased reduction, if appropriate, and directing USDA to monitor and report on the impact, if any, of this reduction on crop insurance program participation. In written comments, USDA said it had no comments on the report's findings.

View [GAO-14-700](#). For more information, contact Anne-Marie Fennell at (202) 512-3841 or fennella@gao.gov.

August 2014

CROP INSURANCE

Considerations in Reducing Federal Premium Subsidies

What GAO Found

The cost of the federal crop insurance program and farm sector income and wealth grew significantly from 2003 through 2012. The cost of crop insurance averaged \$3.4 billion a year from fiscal years 2003 through 2007, but it increased to \$8.4 billion a year for fiscal years 2008 through 2012. According to the U.S. Department of Agriculture's (USDA) Risk Management Agency (RMA), the agency that administers the crop insurance program, subsidies for crop insurance premiums accounted for \$42.1 billion—or about 72 percent—of the \$58.7 billion total program costs from 2003 through 2012. Revenue policies, the most frequently purchased crop insurance option, accounted for \$30.9 billion of the total premium subsidy costs for 2003 through 2012. Crop insurance premium subsidy rates—the percentage of premiums paid by the government—are set by Congress and would require congressional action to be changed. For most policies, the rates range from 38 to 80 percent, depending on the policy type, coverage level chosen, and geographic diversity of crops insured. As premium subsidy costs increased, farm sector income and wealth indicators also increased. For example, for each year from 2003 through 2012, median farm household income exceeded median U.S. household income. Specifically, on average, median farm household income was \$7,205, or 13.8 percent, greater each year than U.S. household income, in constant 2012 dollars. Farm sector income also grew from \$73.8 billion in 2003 to \$113.8 billion in 2012, in constant 2012 dollars. Farm real estate values, another measure of farm prosperity, increased by 72 percent from 2003 through 2012, in constant 2012 dollars, and farmers relied less on borrowed funds to finance their holdings.

Reducing premium subsidies for revenue policies could potentially result in hundreds of millions of dollars in annual budgetary savings with limited costs to individual farmers. For example, the federal government would have potentially saved more than \$400 million in 2012 by reducing premium subsidies by 5 percentage points, and the savings would have been nearly \$2 billion by reducing these subsidies by 20 percentage points. Although such reductions would have required farmers to pay more of their premiums, the impact on their average production costs per acre would have been limited, usually less than 2 percent, and often less than 1 percent. For example, for corn, premium subsidy reductions of 5 and 20 percentage points in 2012 would have raised average production costs per acre by about \$2.80 and \$11.20, respectively. These increases would have been about 0.4 percent and 1.7 percent, respectively, of the total average production cost per acre of \$656 that year for corn. The ultimate impact of such limited production cost increases on farmers' income would depend on their individual profit margins. However, for the industry as a whole, the impact appears to be minimal. In 2000, when Congress enacted new premium subsidy rates, the new rates immediately became effective. In contrast, when RMA increases the premiums charged for policies, it generally phases in the increases over several years to lessen the impact on farmers. Documents from farm industry groups and some researchers note that reductions in premium subsidies could result in lower farmer participation in the program and lower insurance coverage levels. However, available economic literature indicates that farmers' response to such reductions may be small due to factors such as the attractiveness of revenue policies and increasing importance of crop insurance as other farm programs are reduced or eliminated. In addition, other stakeholders identified incentives that would help keep farmers in the program, including pressure from lenders to maintain crop insurance coverage and the importance of crop insurance to many farmers as their primary risk management tool. In the event that subsidy rates were reduced, actual information on the impact on farmer participation would be available if participation were monitored.

Contents

| | | |
|----------------------|--|----|
| Letter | | 1 |
| | Background | 4 |
| | Federal Crop Insurance Costs and Farm Sector Income and Wealth Grew Significantly from 2003 through 2012 | 7 |
| | Reducing Federal Premium Subsidies for Revenue Policies Would Potentially Save Millions of Dollars with Limited Costs to Individual Farmers | 20 |
| | Conclusions | 29 |
| | Matter for Congressional Consideration | 29 |
| | Agency Comments and Our Evaluation | 30 |
| Appendix I | Objectives, Scope, and Methodology | 31 |
| Appendix II | Comments from the U.S. Department of Agriculture | 34 |
| Appendix III | GAO Contact and Staff Acknowledgments | 35 |
| Related GAO Products | | 36 |
| Tables | | |
| | Table 1: Crops Eligible to Receive Revenue Crop Insurance Premium Subsidies, Crop Years 2003 through 2012 | 14 |
| | Table 2: Potential Savings from Reducing Federal Premium Subsidies for Revenue Policies, by Crop, for 2012 | 22 |
| | Table 3: Estimated Increases in Farmer Production Costs Resulting from Federal Premium Subsidy Reductions of 5 and 10 Percentage Points, on Average per Acre and by Crop, 2012 | 24 |
| | Table 4: Estimated Increases in Farmer Production Costs Resulting from Federal Premium Subsidy Reductions of 15 and 20 Percentage Points, on Average per Acre and by Crop, 2012 | 25 |

Figures

| | |
|--|----|
| Figure 1: Federal Crop Insurance Costs, Fiscal Years 2003 through 2012 | 8 |
| Figure 2: Breakdown of Federal Crop Insurance Costs, Overall, for Fiscal Years 2003 through 2012 | 9 |
| Figure 3: Federal Premium Subsidies for Revenue and Other Crop Insurance Policies, Crop Years 2003 through 2012 | 10 |
| Figure 4: Acres Covered with Revenue and Other Crop Insurance Policies, Crop Years 2003 through 2012 | 11 |
| Figure 5: Percentage of Acres Insured with Revenue Crop Insurance Policies by Coverage Level, Crop Years 2003 through 2012 | 12 |
| Figure 6: Top 10 States Receiving Revenue Crop Insurance Premium Subsidies in Crop Year 2012 | 13 |
| Figure 7: Median Farm and U.S. Household Income, 2003 through 2012 | 16 |
| Figure 8: Net Farm and Cash Income for U.S. Farms, 2003 through 2012 | 17 |
| Figure 9: National Farm Real Estate Values, Average per Acre, 2003 through 2012 | 18 |
| Figure 10: Farm Sector Debt Ratios, 2003 through 2012 | 20 |

Abbreviations

| | |
|------|--------------------------------|
| CBO | Congressional Budget Office |
| ERS | Economic Research Service |
| RMA | Risk Management Agency |
| USDA | U.S. Department of Agriculture |

This is a work of the U.S. government and is not subject to copyright protection in the United States. The published product may be reproduced and distributed in its entirety without further permission from GAO. However, because this work may contain copyrighted images or other material, permission from the copyright holder may be necessary if you wish to reproduce this material separately.



August 8, 2014

The Honorable Tom Coburn, M.D.
Ranking Member
Committee on Homeland Security and Governmental Affairs
United States Senate

Dear Dr. Coburn:

Federally subsidized crop insurance, which farmers can purchase to help manage the risk inherent in farming, has become one of the most important programs in the farm safety net, according to USDA officials and some farm industry stakeholders. Under the federal crop insurance program, farmers can choose various levels and types of insurance protection. For example, they can insure against losses caused by poor crop yields or declines in revenues for each insurable crop they produce. In 2012, the crop insurance program provided more than \$117 billion in insurance coverage for about 283 million acres of farmland with almost 1.2 million policies. The federal government's crop insurance costs include subsidies to pay for (1) part of a farmer's crop insurance premiums, which averaged about 62 percent of total premiums in 2012, and (2) administrative and operating expenses (administrative costs)—provided on behalf of farmers—to insurance companies to cover their expenses for selling and servicing crop insurance policies.

In recent years, policies that protect against crop revenue loss resulting from declines in production, price, or both—known as revenue policies—have become the most popular policy type. For example, as of 2012, the majority of crop insurance policies—almost 70 percent—was revenue policies, and they accounted for nearly 80 percent of all premium subsidies. In general, these policies include a harvest price provision, allowing farmers with this coverage whose insured crops experience a decline in revenue below the level guaranteed in their policy to file a loss claim based on the higher of either the preplanting price or the harvest price of the covered crop.

The cost of the federal crop insurance program has come under scrutiny at the same time that the nation's budgetary pressures have been increasing. As of March 2014, the national debt was estimated at \$17.6

trillion.¹ Furthermore, in the last 15 years, debt held by the public has nearly doubled. As we discuss on our key issues website,² the large national debt reduces the federal government's flexibility to respond to new and unexpected challenges and, if interest rates rise, the payments on the debt will use up a growing part of the federal budget. Furthermore, increased attention to future fiscal exposures—responsibilities, programs, and activities that legally commit or create the expectation of future funding—that could affect the federal government's fiscal condition is made more important because of the nation's longer term fiscal challenges. In the past, we have identified numerous opportunities for the federal government to save tax dollars and enhance revenue, including in the federal crop insurance program.³

In this context, you asked us to look at the cost of the federal crop insurance program, specifically concerning the costs associated with revenue insurance policies. This report examines (1) trends in federal crop insurance costs and farm sector income and wealth from 2003 through 2012 and (2) the potential savings to the government and impacts on farmers, if any, of reducing federal premium subsidies for revenue policies.

To address these objectives, we interviewed officials of the U.S. Department of Agriculture (USDA), including officials from the Economic Research Service (ERS) and Risk Management Agency (RMA), and reviewed documents they provided, including, for example, documents on crop insurance program costs and outlays. We also interviewed officials at the Congressional Budget Office (CBO). For the first objective, we reviewed and analyzed RMA crop insurance program data for 2003

¹According to the Department of the Treasury's Bureau of the Fiscal Service, as of March 2014, the total national debt was estimated at \$17.6 trillion, including \$12.6 trillion in debt held by the public. These mid-fiscal year amounts have not been audited.

²See http://www.gao.gov/fiscal_outlook/overview.

³GAO, *2013 Annual Report: Actions Needed to Reduce Fragmentation, Overlap, and Duplication and Achieve Other Financial Benefits*, [GAO-13-279SP](#) (Washington, D.C.: Apr. 9, 2013); *Crop Insurance: Savings Would Result from Program Changes and Greater Use of Data Mining*, [GAO-12-256](#) (Washington, D.C.: Mar. 13, 2012).

through 2012,⁴ including data on the types of crops insured, the number of acres insured, and total program costs. In particular, we focused on these data as they relate to revenue policies. For these analyses we only included information on “buy-up” policies—that is, the portion of crop insurance for which a farmer pays a premium; “buy-up” policies account for any coverage that is purchased above the “catastrophic” level.⁵ We also reviewed and analyzed ERS data for 2003 through 2012 on the overall financial condition of the farm sector, including data on farm income and farmland values. For the purposes of this report, crop insurance costs and premium subsidies, which are budget-related data, are reported in nominal dollars, while data on median farm household and U.S. household income, net farm and net cash income, and farmland values are reported in inflation adjusted dollars, using 2012 as the reference year. In addition, as appropriate, we report these data in calendar, fiscal, or crop years,⁶ depending on how the data were reported in the source documents. Unless otherwise indicated, these data are in calendar years. To address the second objective, we analyzed the potential impacts of reducing premium subsidies for revenue policies in 2012, the most recent year for which we had complete data at the time of our analysis. Using RMA data, we estimated what the savings to the federal government would have been if premium subsidies had been reduced by 5, 10, 15, or 20 percentage points in 2012. We also estimated what a reduction in premium subsidies by each amount would have added to the production costs of farmers. Specifically, using ERS Agricultural Resource Management Survey data, we estimated what the additional production cost per acre, on average, would have been in 2012 for a variety of crops, including the major field crops of corn, cotton, soybeans, and wheat that receive the majority of the revenue crop

⁴We used USDA data for the period 2003 through 2012 to get a representation of the trend in program costs, usage of revenue policies, and financial condition of the farm sector. At the time of our review, 2012 was the most recent year with complete and stable crop insurance data, according to RMA officials

⁵The most basic level of coverage is “catastrophic” coverage; premiums for these policies are completely subsidized by the federal government. Under “catastrophic” policies, the farmer receives a payment for losses greater than 50 percent of “normal” yield indemnified at 55 percent of the estimated market price of the crop. Farmers can select to “buy-up” higher levels of insurance coverage for protection against wider yield or revenue losses; they pay a premium for these “buy-up” policies.

⁶According to ERS, a crop year (also known as a marketing year) is the 12-month period starting with the month when the harvest of a specific crop typically begins. For example, the 2008 wheat crop year was June 1, 2008 through May 30, 2009.

insurance premium subsidies. We reviewed related documentation, interviewed knowledgeable agency officials, and reviewed related internal controls information to evaluate the reliability of the data discussed above. In each case, we concluded that the data were sufficiently reliable for the purposes of this report. In addition, we reviewed the agricultural economic literature for the period 1993 through 2013,⁷ to get information on what impact, if any, premium subsidy reductions would have on farmers' participation in the crop insurance program. A more detailed discussion of our objectives, scope, and methodology is presented in appendix I.

We conducted this performance audit from May 2013 to August 2014 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our objectives.

Background

Farmers are exposed to financial losses because of production risks—droughts, floods, and other natural disasters—as well as variations in the market price of their crops. The federal government has played an active role in helping to mitigate the effects of these risks on farm income by promoting the use of crop insurance. RMA has overall responsibility for administering the federal crop insurance program, including controlling costs and protecting against fraud, waste, and abuse. As of May 2014, RMA partnered with 19 private insurance companies that sell and service the program's insurance policies and share a percentage of the risk of loss and opportunity for gain associated with the policies (known as “underwriting”). RMA administers the crop insurance program through a Standard Reinsurance Agreement that establishes the terms and conditions under which participating insurance companies sell and service federal crop insurance policies.

Through the federal crop insurance program, farmers insure against losses on more than 100 crops. These crops include major crops—such

⁷We reviewed the agricultural economic literature for the period 1993 through 2013 because the studies within this time frame have more relevance to the current crop insurance program.

as corn, cotton, soybeans, and wheat, which accounted for more than three-quarters of the acres enrolled in the program in 2012—as well as nursery crops and certain fruits and vegetables. More specifically, according to RMA, federal crop insurance penetration based on planted acres is high for the principal crops of corn, soybeans, wheat, and cotton.⁸ For example, in 2012, about 84 percent of the planted principal crops were insured under the federal crop insurance program. More specifically, corn acreage was 84 percent insured, soybean acreage was 84 percent insured, wheat acreage was 83 percent insured, and cotton acreage was 94 percent insured.

Most crop insurance policies are either production-based or revenue policies. For production-based policies, a farmer can receive a payment if there is a production loss relative to the farmer's historical production per acre. Revenue policies protect against crop revenue loss resulting from declines in production, price, or both. The federal government encourages farmers' participation in the federal crop insurance program by subsidizing the insurance premiums and acting as the primary reinsurer for the private insurance companies that take on the risk of covering, or underwriting, losses of participating farmers.

The federal government's premium subsidies for crop insurance policies are not payments to farmers, but they can be considered a financial benefit to farmers. Without a premium subsidy, a participating farmer would have to pay the full amount of the policy premium. Congress sets premium subsidy rates, meaning the percentage of the premium paid by the government. Premium subsidy rates vary by the level of insurance coverage that the farmer chooses and the geographic diversity of crops insured. For most policies, the statutory premium subsidy rates range from 38 percent to 80 percent. Premium subsidy rates increased, as a percentage of total premiums, from an average of 37 percent in 2000 to an average of 63 percent in 2012. In addition, premium subsidies rose as crop prices increased because higher prices meant the insured value of the crop increased, and premiums are based on the value of what is insured.

⁸RMA defines crop insurance penetration as a comparison of insured acres to planted acres.

In addition, the federal government pays administrative and operating expense subsidies to insurance companies as an allowance that is intended to cover their expenses for selling and servicing crop insurance policies. In turn, insurance companies use these subsidies to cover their overhead expenses, such as payroll and rent, and to pay commissions to insurance agencies and their agents. Insurance companies also incur expenses associated with verifying—also called adjusting—the amount of loss claimed. These expenses include, for example, loss adjusters' compensation and travel expenses of adjusters to farmers' fields. The administrative expense subsidies also can be considered a subsidy to farmers; with these subsidies, crop insurance premiums are lower than they would otherwise be if the program followed commercial insurance practices. In private insurance, such as automobile insurance, these administrative expenses typically are captured through the premiums paid by all policyholders.

The federal government provides crop insurance premium subsidies in part to achieve high crop insurance participation and coverage levels.⁹ Higher participation and coverage levels may reduce or eliminate the need for disaster assistance payments from congressionally authorized ad hoc disaster programs to help farmers recover from natural disasters, which can be costly. For example, under three separate congressionally authorized ad hoc disaster programs, USDA provided \$7 billion in payments to farmers whose crops were damaged or destroyed by natural disasters from 2001 to 2007. Farmers' participation in the federal crop insurance program and spending on ad hoc disaster assistance have been policy issues for more than 30 years. A 2005 USDA publication¹⁰ asserts that Congress passed the Federal Crop Insurance Act of 1980 and subsequent related legislation to strengthen participation in the crop insurance program with the goal of replacing costly disaster assistance programs. According to this publication, the government has historically attempted to increase participation in the federal crop insurance program by subsidizing premiums, including increasing the level of these subsidies over time.

⁹Farmers select a coverage level—that is, the percentage of their normal yield or revenue they want to insure. In 2012, more than half of the enrolled corn and soybean acres were at coverage levels above 70 percent.

¹⁰R. Dismukes and J. Glauber, "Why Hasn't Crop Insurance Eliminated Disaster Assistance?", *Amber Waves*, USDA Economic Research Service (June 2005).

The 2014 farm bill introduced several changes to the crop insurance program. Regarding revenue policies specifically, the legislation added peanuts to the list of crops eligible for this policy type. The legislation also made “enterprise units” a permanent option for revenue and other policy types. An enterprise unit consists of all insurable acreage of the same insured crop in the county in which the farmer has a share on the date coverage begins for the crop year. In addition, separate insurable enterprise units for both irrigated and nonirrigated crops will be available. Separating the acreage can increase risk protection for farmers because losses on dryland crops would no longer be offset by higher yields on irrigated acreage when the two are combined.

The 2014 farm bill also added two new policy options to the crop insurance program—the Supplemental Coverage Option and the Stacked Income Protection Plan for upland cotton. The Supplemental Coverage Option is based on expected county yields or revenue, to cover part of the deductible under the farmer’s underlying policy (referred to as a farmer’s out-of-pocket loss or “shallow loss”). The federal subsidy as a share of the policy premium is set at 65 percent. The Stacked Income Protection Plan insures against losses in county revenue of 10 to 30 percent of expected county revenue based on the deductible level selected by the farmer for the underlying individual policy. The federal subsidy as a share of the policy premium is set at 80 percent. As of June 2014, USDA was developing implementing guidance for these new policies that it expects to issue before the start of the 2015 crop year. For now, it is uncertain how farmers will utilize these new policies and how their use will impact federal crop insurance premium costs, including for revenue policy premium subsidies.

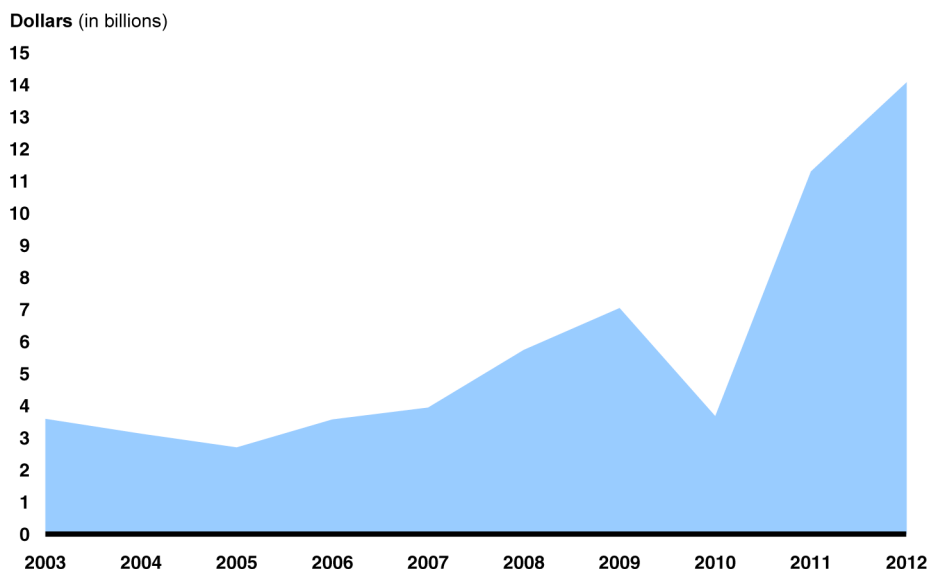
Federal Crop Insurance Costs and Farm Sector Income and Wealth Grew Significantly from 2003 through 2012

Federal crop insurance program costs and farm sector income and wealth grew significantly during the period 2003 through 2012. Costs of federal crop insurance are growing due to an increase in premium subsidies, particularly for revenue policies. Farmers are increasingly purchasing revenue policies and are choosing higher coverage levels for these policies. Meanwhile, indicators of farm business economic well-being—such as farm income and real estate and asset values—all increased from 2003 through 2012.

Costs of Federal Crop Insurance Are Growing, Primarily Due to an Increase in Premium Subsidies for Revenue Policies

The cost of the federal crop insurance program grew significantly from 2003 through 2012, according to our analysis of RMA data. For fiscal years 2003 through 2007, federal crop insurance costs averaged \$3.4 billion a year, but for fiscal years 2008 through 2012, the crop insurance program cost an average of \$8.4 billion a year. There were significant drought and crop losses in crop year 2012 that contributed to the spike in government costs to \$14.1 billion. These trends are shown in figure 1. According to an April 2014 CBO estimate, for fiscal years 2014 through 2023, program costs are expected to average \$8.9 billion annually.

Figure 1: Federal Crop Insurance Costs, Fiscal Years 2003 through 2012



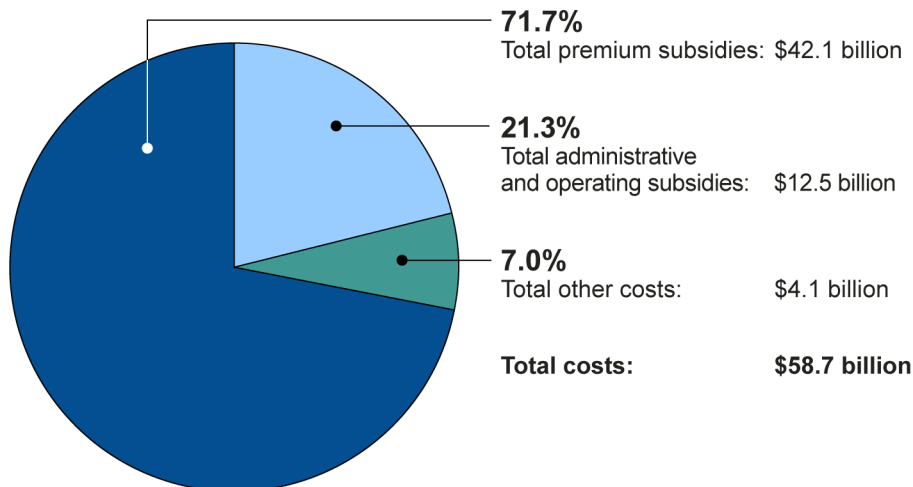
Sources: GAO analysis of USDA's Risk Management Agency crop insurance cost data and Federal Crop Insurance Corporation audited financial statements. | GAO-14-700

Note: In general, the decline in costs in 2010 was related to strong yields due to favorable weather conditions and lower crop prices, and the increase in 2011 and 2012 reflects crop losses due to drought and higher crop prices.

In fiscal years 2003 through 2012, according to our analysis of RMA data, premium subsidies comprised approximately \$42.1 billion of \$58.7 billion in total government costs for federal crop insurance, or almost 72 percent of total program costs. Revenue policy premium subsidies specifically accounted for \$30.9 billion of the premium subsidy costs over that period. RMA offered 17 different crop insurance policies in crop year 2012, but revenue policies were the most frequently purchased and accounted for the majority of all premium subsidies. For example, for crop year 2012, revenue policy premium subsidies cost \$5.5 billion that year, which

accounted for 82 percent of the \$6.7 billion in total premium subsidy costs to the government. Figure 2 shows the breakdown of costs for the overall crop insurance program into premium subsidies; administrative and operating expense subsidies; and other costs, such as the salaries of RMA staff, research and development initiatives for new crop insurance products, and the net underwriting loss for the period, for fiscal years 2003 through 2012.

Figure 2: Breakdown of Federal Crop Insurance Costs, Overall, for Fiscal Years 2003 through 2012

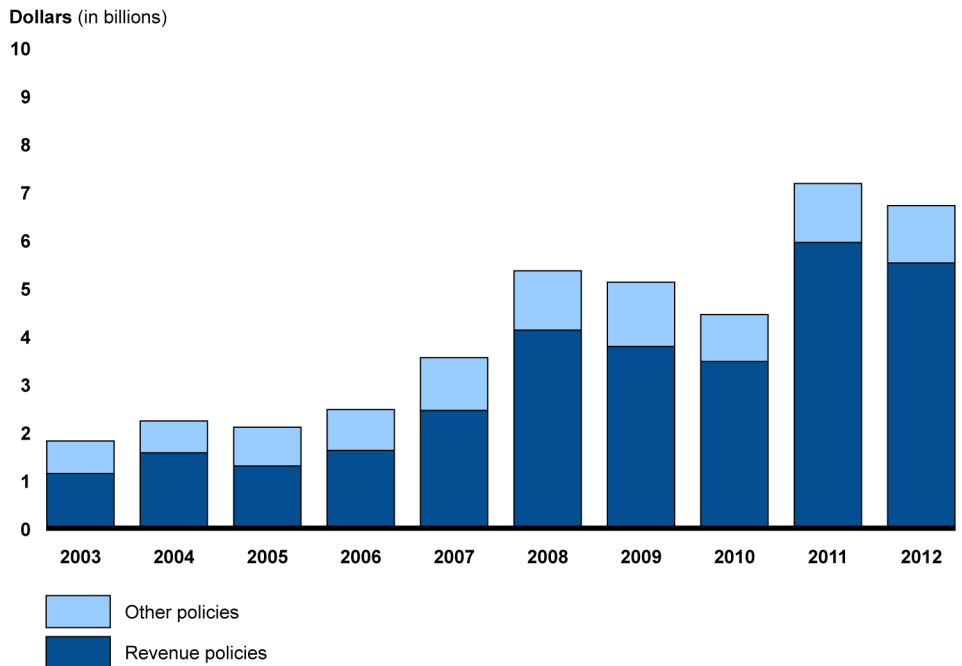


Sources: GAO analysis of USDA's Risk Management Agency crop insurance cost data and Federal Crop Insurance Corporation audited financial statements. | GAO-14-700

Farmers Are Increasingly Purchasing Revenue Policies and Choosing Higher Insurance Coverage Levels

As shown in figure 3, overall crop insurance premium subsidies more than tripled from \$1.8 billion to \$6.7 billion from crop years 2003 through 2012. The revenue policy premium subsidies increased from \$1.1 billion in crop year 2003 to \$5.5 billion in crop year 2012, a nearly 5-fold increase.

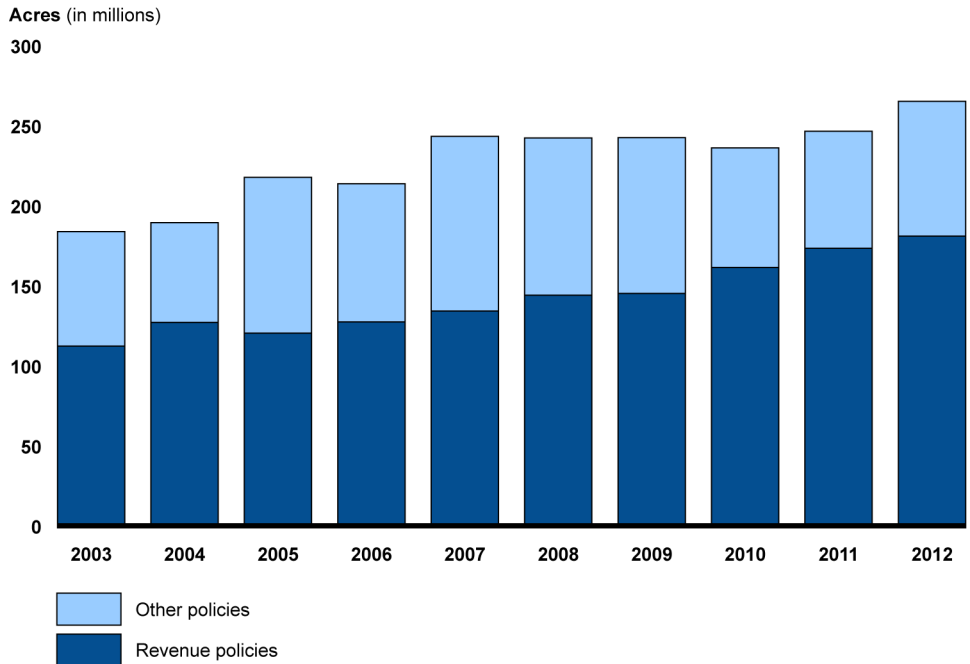
Figure 3: Federal Premium Subsidies for Revenue and Other Crop Insurance Policies, Crop Years 2003 through 2012



Source: GAO analysis of USDA's Risk Management Agency crop insurance data. | GAO-14-700

The total acreage covered by federal crop insurance also continued to increase from crop year 2003 through crop year 2012, from around 183.7 million acres in 2003 to 265.2 million acres in 2012. As shown in figure 4, the amount of that acreage covered by revenue policies also increased, from about 112.2 million acres in 2003 to 180.9 million acres in 2012. In 2012, revenue policies were purchased for about 68 percent of the acres covered by federal crop insurance.

Figure 4: Acres Covered with Revenue and Other Crop Insurance Policies, Crop Years 2003 through 2012

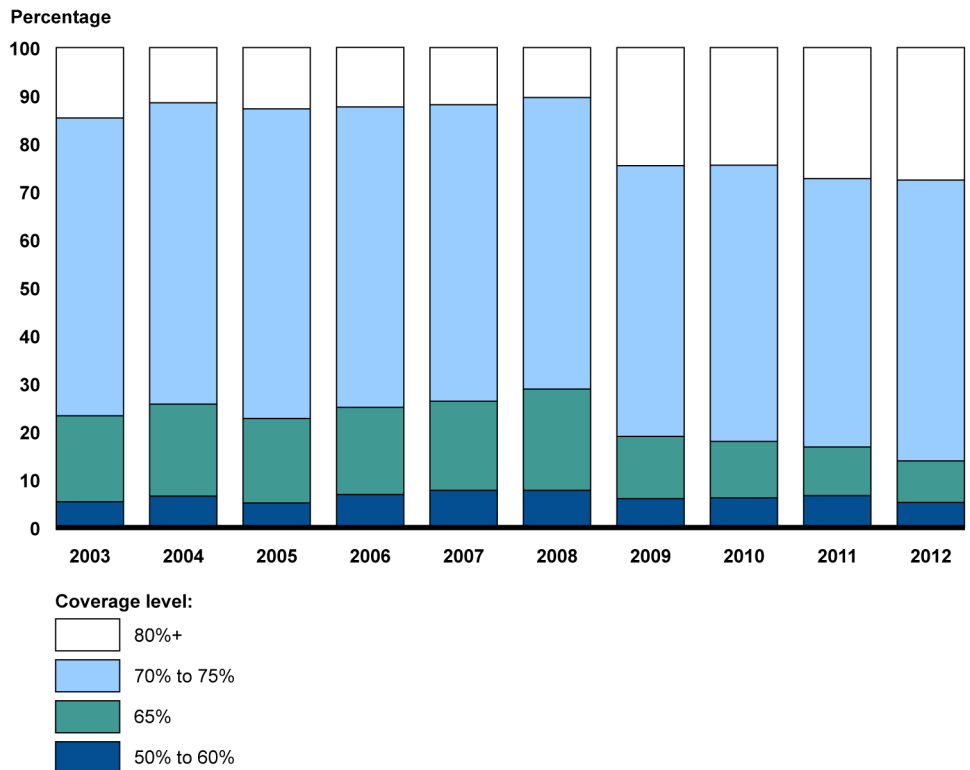


Source: GAO analysis of USDA's Risk Management Agency crop insurance data. | GAO-14-700

Farmers have also increased their purchases of higher coverage levels of crop insurance—that is, the percentage of their normal annual revenue that they want to insure—for their revenue policies. These higher coverage levels equate to greater potential liability for the government and insurers in the case of loss and higher premium levels for the policies, both of which contribute to higher program costs. According to our analysis of RMA data, the percentage of acres insured at higher coverage levels has increased in recent years, as shown in figure 5. For example, in crop year 2003, 14.7 percent of all acres were insured under revenue policies at a coverage level of 80 percent or greater. By crop year 2012, that figure had nearly doubled, to 27.6 percent.¹¹

¹¹Generally, individual crop insurance coverage is available at levels ranging from 50 to 85 percent, at 5 percent increments, e.g., 50 percent, 55 percent, 60 percent, etc.

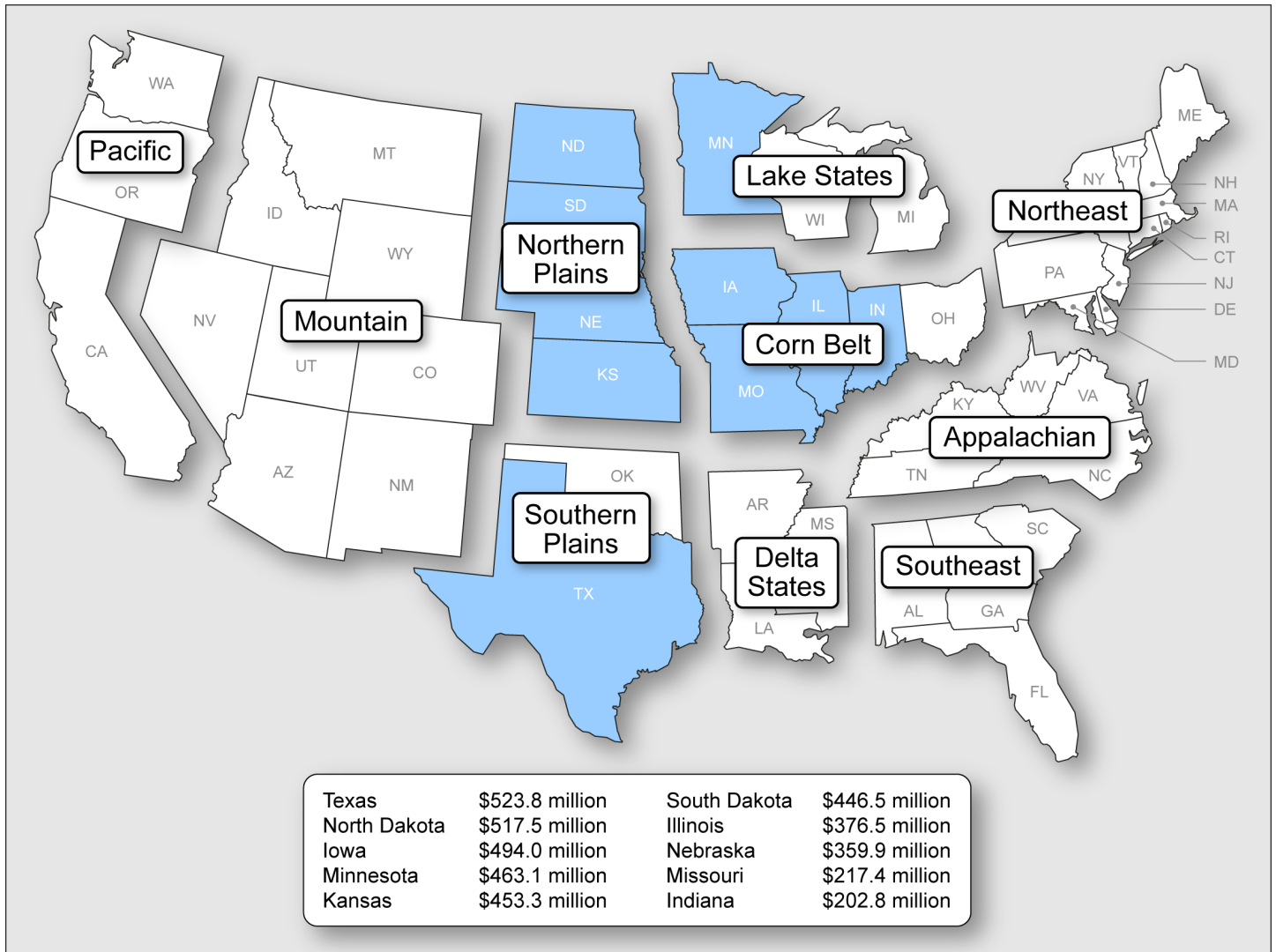
Figure 5: Percentage of Acres Insured with Revenue Crop Insurance Policies by Coverage Level, Crop Years 2003 through 2012



Source: GAO analysis of USDA's Risk Management Agency crop insurance data. | GAO-14-700

Our analysis of RMA data showed that farmers in 10 states accounted for the majority of revenue policies purchased and, as a result, a majority of the premium subsidies in crop year 2012. As shown in figure 6, these 10 states in descending order of subsidy amounts received were Texas, North Dakota, Iowa, Minnesota, Kansas, South Dakota, Illinois, Nebraska, Missouri, and Indiana. Combined, they received almost \$4.1 billion in revenue premium subsidies in crop year 2012, which was approximately 73.5 percent of the total amount of federal premium subsidies for revenue policies for that year. In crop year 2012, Texas led all states in premium subsidies, with farmers receiving more than \$523.8 million in revenue premium subsidies for the approximately 11 million acres covered by revenue policies; over 60 percent of these premium subsidies and almost half of the acres covered were for cotton.

Figure 6: Top 10 States Receiving Revenue Crop Insurance Premium Subsidies in Crop Year 2012



Sources: GAO analysis of USDA's Risk Management Agency crop insurance data and National Agricultural Statistics Service economic region data; Map Resources (map). | GAO-14-700

Note: The map also shows how the 48 continental states fall into 10 major economic regions determined by USDA.

The list of crops eligible for revenue policy insurance coverage has continued to grow.¹² Table 1 shows which crops were eligible to receive revenue policy premium subsidies from crop year 2003 through crop year 2012. In crop year 2013, dry beans and dry peas also became eligible for revenue policy insurance.¹³ According to RMA documents, the estimated cost of these two additional crops was \$28.3 million in revenue premium subsidies for crop year 2013. Further, as discussed, peanuts will be eligible for revenue policy coverage starting in crop year 2015.

Table 1: Crops Eligible to Receive Revenue Crop Insurance Premium Subsidies, Crop Years 2003 through 2012

Dollars (in millions)

| Crop | Total revenue premium subsidies, 2003 through 2012 |
|---------------|--|
| Corn | \$13,671.6 |
| Soybeans | \$7,702.9 |
| Wheat | \$5,860.9 |
| Cotton | \$2,373.2 |
| Grain sorghum | \$632.7 |
| Sunflowers | \$248.3 |
| Canola | \$173.8 |
| Rice | \$124.9 |
| Barley | \$117.2 |
| Popcorn | \$2.5 |

Source: GAO analysis of USDA's Risk Management Agency crop insurance data. | GAO-14-700

¹²According to RMA officials, the Federal Crop Insurance Act provides guidelines on the types of crops that are eligible for federal crop insurance.

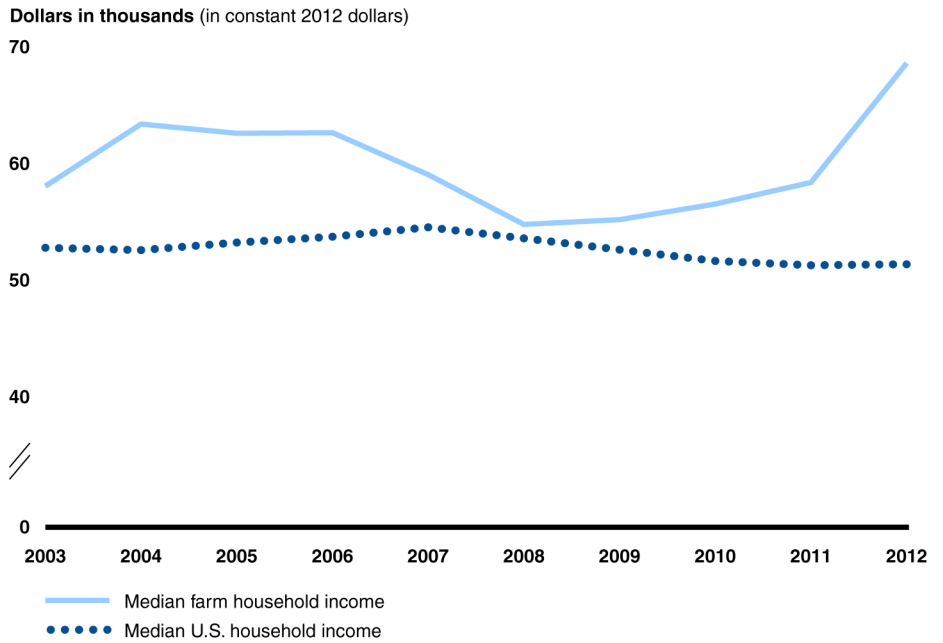
¹³USDA's Federal Crop Insurance Corporation Board of Directors approved the Pulse Crop Revenue Endorsements on March 1, 2012, providing revenue policy coverage for dry beans and dry peas starting in crop year 2013.

Farm Income, Real Estate, and Asset Values Increased from 2003 through 2012

The farm economy improved from 2003 through 2012, and 2012 was a record year for farm income, due in part to high crop prices. For example, median farm household income rose from 2003 to 2012 and was higher than the median income for all U.S. households every year during this period, according to ERS data.¹⁴ More specifically, on average, median farm household income was \$7,205, or 13.8 percent, more than median U.S. household income annually during this time period (in constant 2012 dollars that reflect adjustments for inflation). Median farm household income was 33.9 percent higher than median income for all U.S. households in 2012—\$68,298 compared with \$51,017. Households associated with farms specializing in cash grains such as corn or soybeans had a median household income of about \$82,300 in 2012, and median household income was even higher for those farms specializing in rice, tobacco, cotton, or peanuts, at about \$101,400 in 2012. Figure 7 shows the median income for farm households and for U.S. households from 2003 through 2012, in constant 2012 dollars that reflect adjustments for inflation.

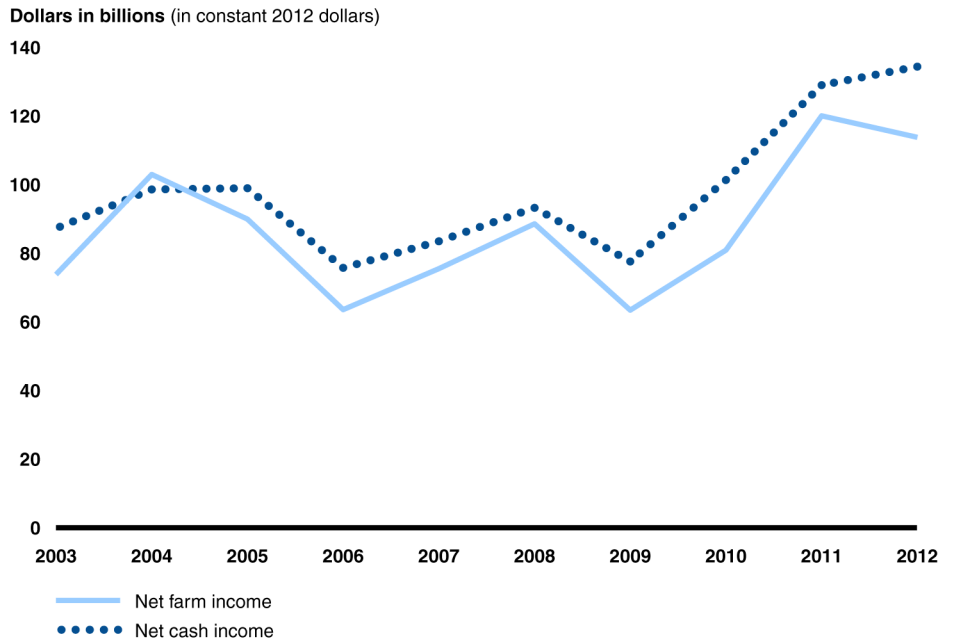
¹⁴A median amount means half the households had incomes that were higher, and half had incomes that were lower than that figure.

Figure 7: Median Farm and U.S. Household Income, 2003 through 2012



Farm sector income also grew from \$73.8 billion in 2003 to \$113.8 billion in 2012. Net farm and net cash income for U.S. farms from 2003 through 2012 (in constant 2012 dollars that reflect adjustments for inflation) are shown in figure 8. Net farm income is the value of the agricultural goods produced by farm operators less the costs of inputs and services. Net cash income is the cash earned from the sale of these agricultural goods and the conversion of farm assets into cash.

Figure 8: Net Farm and Cash Income for U.S. Farms, 2003 through 2012



Source: USDA's Economic Research Service. | GAO-14-700

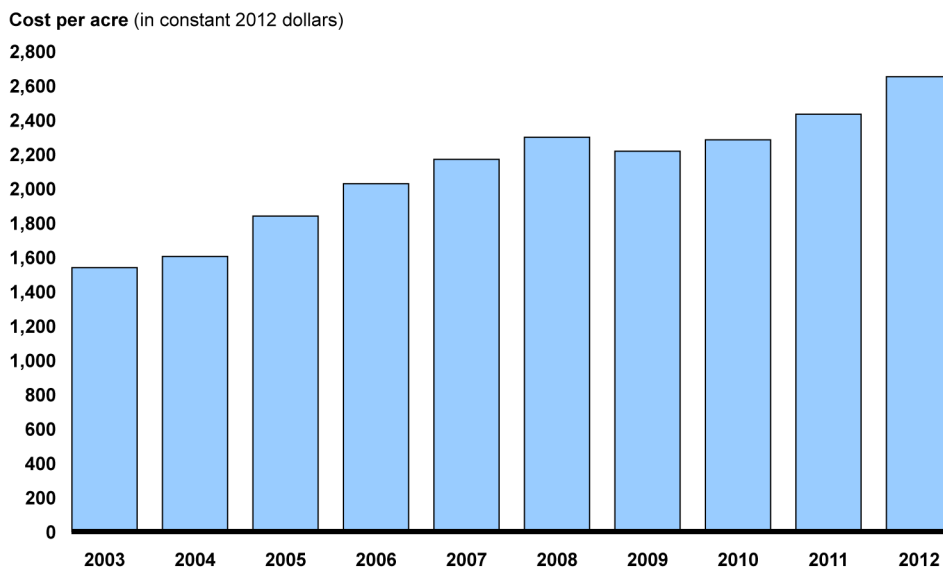
Note: Net farm income is the value of the agricultural goods produced by farm operators less the costs of inputs and services. Net cash income is the cash earned from the sale of these agricultural goods and the conversion of farm assets into cash.

According to ERS data, however, net farm and net cash income are forecast to decrease in 2014, due principally to falling crop prices as compared with prior years. Net farm income is forecast to go up to \$130.5 billion in 2013, and then decline to \$95.8 billion, or by about 26.6 percent in 2014. The 2014 forecast would be the lowest since 2010, but it would still be \$8 billion above the average of years 2004 to 2013. After adjusting for inflation, 2013's net farm income would be the highest since 1973, and the 2014 net farm income forecast would be the seventh highest. Net cash income is forecast at \$101.9 billion for 2014, down almost 22 percent from the 2013 forecast of \$130.1.¹⁵

¹⁵Net cash income is forecast to decline less than net farm income primarily because net cash income reflects the sale of more than \$6 billion in carryover stocks from 2013. Net farm income reflects only the earnings from production that occurred in the current year.

Farm real estate—a measurement of the value of all land and buildings on farms—accounted for 82 percent of the total value of U.S. farm assets in 2012. Because farm real estate comprises such a significant portion of the farm’s balance sheet, a change in the value of farm real estate is a strong indicator of the farm sector’s financial performance. U.S. farm real estate values increased by 72 percent from 2003 through 2012 due to high farm income and low interest rates, according to USDA data. Farm real estate value averaged \$2,650 per acre for 2012, and the highest farm real estate values were in the Corn Belt region at \$5,560 per acre.¹⁶ According to USDA data, this increase in national farm real estate values is forecast to continue, with an estimated average value of \$2,900 per acre in 2013, up 9.4 percent from 2012 values. National farm real estate values for 2003 through 2012 (in constant 2012 dollars that reflect adjustments for inflation) are shown in figure 9.

Figure 9: National Farm Real Estate Values, Average per Acre, 2003 through 2012



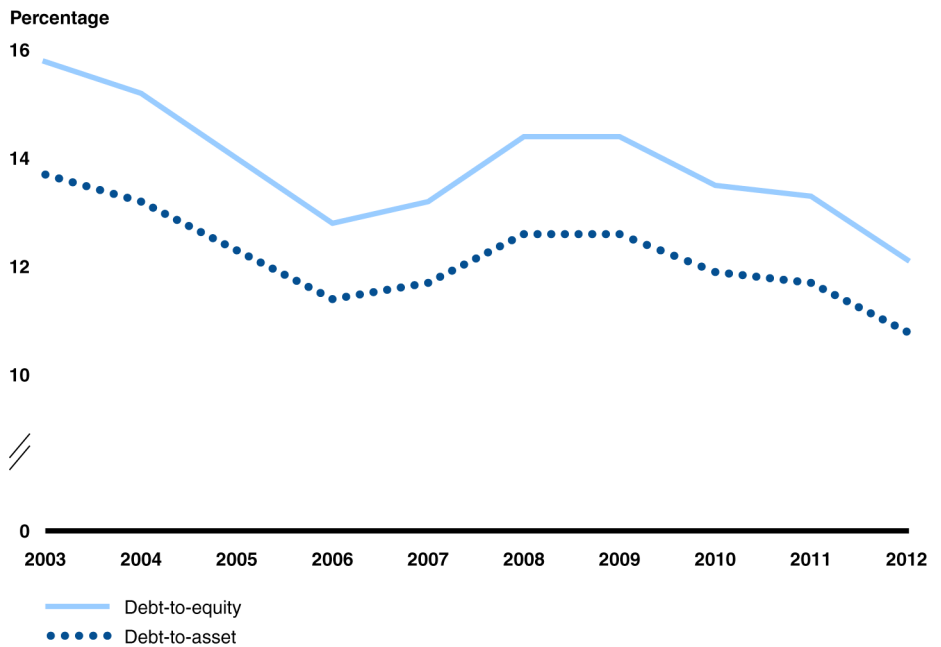
Source: USDA's National Agricultural Statistics Service. | GAO-14-700

According to ERS documents, a farm’s debt-to-equity ratio and the debt-to-asset ratio are also major indicators of the financial well-being of the

¹⁶For a description of the Corn Belt region, see map in figure 6.

farm sector. The debt-to-equity ratio measures the relative proportion of funds invested by creditors (debt) and owners (equity). The debt-to-asset ratio measures the proportion of farm business assets that are financed through debt. Lower ratios signify that farmers are relying less on borrowed funds to finance their asset holdings. Farmers' debt-to-equity ratio fell from 15.7 percent in 2003 to 12.0 percent in 2012, and their debt-to-asset ratio fell from 13.6 percent in 2003 to 10.7 percent in 2012. The farm sector's debt-to-equity and debt-to-asset ratios are forecast to continue a pattern of decline, falling to an estimated 11.8 and 10.5 percent in 2014, respectively. According to ERS documents, these decreases would result in the lowest ratios for both measurements since 1954. The historically low levels of farm debt, relative to equity and assets, attest to the sector's strong financial position. ERS documents state that this also means the sector is better insulated from risks such as adverse weather, changing macroeconomic conditions in the United States and abroad, or fluctuations in farm asset values that may occur due to changing demand for agricultural assets. The steady decline in both ratios since the mid-1980s is due to relatively large growth in the value of farm assets, driven principally, according to ERS documents, by the increases in farm real estate values. Figure 10 shows these farm sector debt ratios from 2003 through 2012.

Figure 10: Farm Sector Debt Ratios, 2003 through 2012



Source: USDA's Economic Research Service. | GAO-14-700

Reducing Federal Premium Subsidies for Revenue Policies Would Potentially Save Millions of Dollars with Limited Costs to Individual Farmers

According to our analysis of RMA data, the federal government would have potentially saved more than \$400 million in 2012 by reducing premium subsidies on federal crop insurance revenue policies by 5 percentage points, and the savings would have been nearly \$2 billion with a 20 percentage point premium subsidy reduction. Premium subsidy reductions of 5 to 20 percentage points would have in turn raised farmers' average production costs per acre from about \$1.90 to about \$16.90 for crops such as corn, soybeans, and cotton.¹⁷ As a percentage of the total production cost per acre, these increases would usually have been less than 2 percent and often less than 1 percent. Because farmers would be required to pay more for their crop insurance, reduced federal premium subsidies for revenue policies could affect the participation rate in the crop insurance program. However, the magnitude of the impact on

¹⁷Production costs include, among other things, the cost of fertilizer, pesticides, fuel, labor, seed, and insurance.

farmers' participation as a result of lower federal premium subsidies for revenue policies may be minimal.

A 5 Percentage Point Reduction in Federal Premium Subsidies for Revenue Policies Would Potentially Save Millions, and Larger Reductions Would Save More

Reducing premium subsidies for revenue policies would potentially result in significant savings to the federal government, according to our analysis of RMA data. For example, if the premium subsidies paid in 2012 had been reduced by 5, 10, 15, or 20 percentage points that year, the potential savings for corn would have been about \$197 million, \$394 million, \$592 million, or \$789 million, respectively. Moreover, for the 10 crops—barley, canola, corn, cotton, grain sorghum, popcorn, rice, soybeans, sunflowers, and wheat—that accounted for virtually 100 percent of the premium subsidies paid for revenue policies in 2012, the potential savings with those levels of premium subsidy reductions would have been about \$439 million, \$878 million, \$1.3 billion, and \$1.8 billion, respectively. In 2000, when Congress enacted legislation to increase crop insurance premium subsidy rates, the new rates immediately became effective (i.e., upon enactment of the legislation).¹⁸ In contrast, according to RMA officials, when the agency increases the premiums charged for crop insurance policies based on new actuarial data, as it did in 2012, it generally phases in the increases over several years so the impact on farmers is less dramatic.¹⁹ Table 2 provides more information on the amount of potential savings that corresponds to the various levels of reduction in revenue policy premium subsidies, by crop.

¹⁸On a policy-by-policy basis, the new rates took effect as individual farmer policies came up for renewal, according to RMA officials.

¹⁹According to RMA documents, as a result of a premium rate study that was completed in 2011, RMA made adjustments to the premium rates of several crops including corn, soybeans, and wheat. RMA was concerned about the effect on the program if the changes were too dramatic and decided to phase in the rate adjustments.

Table 2: Potential Savings from Reducing Federal Premium Subsidies for Revenue Policies, by Crop, for 2012

Dollars (in millions)

| Crop | Percentage of total revenue policy premium subsidies received in 2012 | Savings from 5 point subsidy reduction | Savings from 10 point subsidy reduction | Savings from 15 point subsidy reduction | Savings from 20 point subsidy reduction |
|---------------|---|--|---|---|---|
| Barley | 0.6% | \$2.5 | \$5.0 | \$7.5 | \$10.0 |
| Canola | 0.7% | \$3.2 | \$6.3 | \$9.5 | \$12.6 |
| Corn | 44.7% | \$197.2 | \$394.4 | \$591.6 | \$788.8 |
| Cotton | 8.6% | \$36.0 | \$72.0 | \$108.0 | \$143.9 |
| Grain sorghum | 1.9% | \$8.3 | \$16.5 | \$24.8 | \$33.0 |
| Popcorn | 0.0% | \$0.2 | \$0.5 | \$0.7 | \$1.0 |
| Rice | 0.4% | \$1.4 | \$2.8 | \$4.2 | \$5.6 |
| Soybeans | 24.3% | \$106.6 | \$213.3 | \$319.9 | \$426.5 |
| Sunflowers | 0.8% | \$3.4 | \$6.7 | \$10.1 | \$13.5 |
| Wheat | 18.0% | \$80.2 | \$160.5 | \$240.7 | \$320.9 |
| Total | 100.0% | \$438.9 | \$877.9 | \$1,316.8 | \$1,755.8 |

Source: GAO analysis of USDA's Risk Management Agency crop insurance data. | GAO-14-700

Note: The higher savings amounts for some crops correspond to the greater share of total revenue policy premium subsidies received by these crops. These savings amounts also represent the increase in total farm costs as a result of the subsidy rate reductions.

These levels of potential savings are based on the assumption that farmers would not make any changes to their policies. For example, according to this assumption, farmers would not change from a revenue policy to a less expensive yield policy or leave the crop insurance program altogether. In addition, they are based on the assumption that farmers would keep their existing coverage levels. To the extent that farmers purchased less expensive policies, left the program, or purchased lower coverage levels, the potential savings would be greater because the total amount of federal premium subsidies required would decrease. In addition, the potential savings would decline if crop prices declined. This would occur because premiums are affected by crop prices—as crop prices decrease so does the value of the crops being insured, which results in lower crop insurance premiums. Since premium subsidies are a set percentage of the premiums, these subsidy amounts would decrease as premium amounts decreased.

We and other federal agencies have previously analyzed the potential savings to the federal government from reductions in premium subsidies to all or selected crop insurance policies. In our March 2012 report, based

on an analysis of RMA data, we found that if the premium subsidy rates of all participating farmers in 2010 and 2011 had been reduced by 10 percentage points—from 62 percent to 52 percent—the annual cost savings for those years would have been about \$759 million and \$1.2 billion, respectively.²⁰

The president's 2013 budget, which included a proposal to reduce premium subsidies, asserts that deep premium subsidies are no longer needed with the current high farmer participation rates in the crop insurance program. Further, in his 2014 budget, the president included two legislative proposals to reduce the premium subsidies to farmers. One proposal was to reduce the premium subsidies by 3 percentage points for all yield and revenue policies that had premium subsidy rates above 50 percent. According to the RMA's analysis for this proposal, the premium subsidy reduction would save the federal government about \$4.2 billion over 10 years. The second proposal was to reduce premium subsidies for revenue policies by 2 percentage points.²¹ RMA estimated that this reduction in premium subsidies would save the government about \$3.2 billion over a 10-year time frame. The president made a similar proposal in his 2015 budget but increased the subsidy rate reduction for revenue policies to 4 percent. RMA estimated the total expected savings over 10 years from that proposal would be \$6.3 billion. However, any change in the premium subsidies would require action by Congress.

In a 2013 report containing options for reducing the deficit, CBO also discussed a reduction in the federal government's premium subsidy for crop insurance policies.²² According to the CBO report, of the total crop insurance premiums, the federal government pays about 60 percent, on average, and the farmers pay about 40 percent. CBO's option proposed that those payment shares be reversed, with the government paying 40 percent, and the farmers being responsible for 60 percent. If this option

²⁰[GAO-12-256](#).

²¹Specifically, the second proposal applied to revenue policies that include the harvest price provision. Such policies accounted for about 98 percent of the premium subsidies for all revenue policies in 2012.

²²CBO, *Options for Reducing the Deficit: 2014 to 2023* (Washington, D.C.: November 2013).

were implemented, CBO estimated the federal government would save \$22.1 billion over a 10-year period from 2014 through 2023.

Reducing Federal Premium Subsidies Would Increase Individual Farmers' Average Costs per Acre, but the Increase Would Be Limited

Reductions to revenue policy premium subsidies of 5, 10, 15, and 20 percentage points would result in increases in farmers' production costs as the share of the premium that they pay would increase. However, our analysis of 2012 RMA crop insurance data indicates that changes in average production costs would be limited. For example, individual corn farmers would have experienced average premium cost increases per acre for their crop insurance policies of \$2.81, \$5.62, \$8.43, or \$11.24 with premium subsidy reductions of 5, 10, 15, or 20 percentage points, respectively, in 2012. Those premium cost increases represent a limited increase in the average production costs per acre for corn farmers, usually less than 2 percent and often less than 1 percent. For example, the average production costs for corn farmers were about \$656 per acre that year; with the premium cost increases, their production costs would have increased an average of 0.4 percent, 0.9 percent, 1.3 percent, and 1.7 percent with premium subsidy reductions of 5, 10, 15, or 20 percentage points, respectively. Table 3 provides information on the additional average per-acre premium costs per farmer and as a percentage of the average per-acre costs of production with premium subsidy reductions of 5 and 10 percentage points, and table 4 reflects those calculations with premium subsidy reductions of 15 and 20 percentage points. Both tables are for 2012.

Table 3: Estimated Increases in Farmer Production Costs Resulting from Federal Premium Subsidy Reductions of 5 and 10 Percentage Points, on Average per Acre and by Crop, 2012

| Crop | Percentage of total revenue policy premium subsidies received in 2012 | Average cost of production per acre | Average farmer premium increase per acre with 5 point subsidy reduction | Average increase in farmer premium as a percentage of cost of production for 5 point reduction | Average farmer premium increase per acre with 10 point subsidy reduction | Average increase in farmer premium as a percentage of cost of production for 10 point reduction |
|---------------|---|-------------------------------------|---|--|--|---|
| Barley | 0.6% | \$421.44 | \$1.92 | 0.5% | \$3.84 | 0.9% |
| Canola | 0.7% | ^a | \$2.07 | ^b | \$4.15 | ^b |
| Corn | 44.7% | \$655.79 | \$2.81 | 0.4% | \$5.62 | 0.9% |
| Cotton | 8.6% | \$808.38 | \$4.23 | 0.5% | \$8.47 | 1.0% |
| Grain sorghum | 1.9% | \$308.57 | \$2.51 | 0.8% | \$5.02 | 1.6% |
| Popcorn | 0.0% | ^a | \$3.23 | ^b | \$6.45 | ^b |
| Rice | 0.4% | \$985.85 | \$2.16 | 0.2% | \$4.33 | 0.4% |

| Crop | Percentage of total revenue policy premium subsidies received in 2012 | Average cost of production per acre | Average farmer premium increase per acre with 5 point subsidy reduction | Average increase in farmer premium as a percentage of cost of production for 5 point reduction | Average farmer premium increase per acre with 10 point subsidy reduction | Average increase in farmer premium as a percentage of cost of production for 10 point reduction |
|------------|---|-------------------------------------|---|--|--|---|
| Soybeans | 24.3% | \$417.38 | \$1.92 | 0.5% | \$3.84 | 0.9% |
| Sunflowers | 0.8% | ^a | \$2.33 | ^b | \$4.65 | ^b |
| Wheat | 18.0% | \$303.78 | \$2.09 | 0.7% | \$4.18 | 1.4% |

Sources: GAO analysis of USDA's Risk Management Agency crop insurance data and Economic Research Service (ERS) cost of production data. | GAO-14-700

^aThese data are not available because, according to ERS officials, USDA is not required to collect such data for these crops.

^bWe could not calculate the cost increases as a percentage of the production costs for these crops because of the missing data.

Table 4: Estimated Increases in Farmer Production Costs Resulting from Federal Premium Subsidy Reductions of 15 and 20 Percentage Points, on Average per Acre and by Crop, 2012

| Crop | Percentage of total revenue policy subsidies received in 2012 | Average cost of production per acre | Average farmer premium increase per acre with 15 point subsidy reduction | Average increase in farmer premium as a percentage of cost of production for 15 point reduction | Average farmer premium increase per acre with 20 point subsidy reduction | Average increase in farmer premium as a percentage of cost of production for 20 point reduction |
|---------------|---|-------------------------------------|--|---|--|---|
| Barley | 0.6% | \$421.44 | \$5.76 | 1.4% | \$7.69 | 1.8% |
| Canola | 0.7% | ^a | \$6.22 | ^b | \$8.29 | ^b |
| Corn | 44.7% | \$655.79 | \$8.43 | 1.3% | \$11.24 | 1.7% |
| Cotton | 8.6% | \$808.38 | \$12.70 | 1.6% | \$16.94 | 2.1% |
| Grain sorghum | 1.9% | \$308.57 | \$7.53 | 2.4% | \$10.03 | 3.3% |
| Popcorn | 0.0% | ^a | \$9.68 | ^b | \$12.91 | ^b |
| Rice | 0.4% | \$985.85 | \$6.49 | 0.7% | \$8.66 | 0.9% |
| Soybeans | 24.3% | \$417.38 | \$5.76 | 1.4% | \$7.68 | 1.8% |
| Sunflowers | 0.8% | ^a | \$6.98 | ^b | \$9.31 | ^b |
| Wheat | 18.0% | \$303.78 | \$6.26 | 2.1% | \$8.35 | 2.7% |

Sources: GAO analysis of USDA's Risk Management Agency crop insurance data and Economic Research Service (ERS) cost of production data. | GAO-14-700

^aThese data are not available because, according to ERS officials, USDA is not required to collect such data for these crops.

^bWe could not calculate the cost increases as a percentage of the production costs for these crops because of the missing data.

We note that the ultimate impact of such limited production cost increases on farmers' income would depend on their individual profit margins. However, for the industry as a whole, the impact on farmers' income appears to be minimal. For example, as noted in table 2, for a 5 to 20 percentage point reduction in subsidies, total farm costs in 2012 would have increased from about \$0.4 billion to \$1.8 billion.²³ Further, as discussed, farm sector income in 2012 was about \$114 billion. Thus, these increased costs, as a percentage of farm sector income, would have been about 0.4 to 1.6 percent.

Impact to Farmers' Participation in the Crop Insurance Program Resulting from Premium Subsidy Reductions May Be Minimal

Information on the impact to farmer participation from reductions in federal crop insurance premium subsidies is limited, but the economic literature and government information that is available suggest the impact may be minimal. Farm industry groups and some researchers have stated that changes to crop insurance premium subsidies could result in reductions in farmer participation and insurance coverage levels. However, available economic literature on the impact on farmer participation due to premium subsidy reductions indicates that farmers' response to changes in premium subsidies may be small due to factors such as their heavy reliance on crop insurance, the attractiveness of revenue policies, and the increasing importance of crop insurance as other farm programs are reduced or eliminated.

Government studies of this issue have reached similar conclusions. A limited RMA analysis in support of the president's 2014 budget proposal determined that a 5 percentage point premium subsidy reduction for yield and revenue policies would result in a limited number of farmers leaving the crop insurance program; that analysis determined that it was more likely that some farmers would purchase lower levels of policy coverage. According to RMA's Chief Actuary, it is difficult to determine the effect of a premium subsidy change in part because of the lack of data. The task of determining the effect of a change is easier if there has been a major change in premium subsidy rates, and the impact can be assessed, this official said. A major change in premium subsidy rates creates a "natural experiment" in which to better analyze the impact to farmer participation from a change in subsidy rates. According to the Chief Actuary, this

²³Table 2 amounts that show the potential savings to the government from premium subsidy rate reductions also represent the increase in total farm costs as a result of those reductions.

“natural experiment” last occurred with the passage of the Agricultural Risk Protection Act in 2000 that significantly raised premium subsidy rates. This in turn led to an increase in farmer participation in the crop insurance program. However, there has been no “natural experiment” to analyze how reduced premium subsidy rates impact farmer participation because, since 2000, premium subsidy rates generally have not been reduced.²⁴ In the event that premium subsidy rates were reduced, actual information on the impact on farmer participation would be available. According to an RMA official, it would be a good idea to monitor the impact on farmer participation if Congress reduced premium subsidy rates.

CBO, in its 2013 report on options for reducing the federal deficit, also determined that cutting premium subsidies for crop insurance policies would not have a substantial effect on farmer participation in the program.²⁵ Furthermore, a 2013 independent study by an ERS economist of the impact on farmer participation of reductions in premium subsidies noted that the overall demand for crop insurance appeared to be relatively unaffected by moderately small changes in premium subsidies.²⁶ In addition, this study estimated that if there was a 5 percent reduction in crop insurance premium subsidies, corn farmers would drop insurance coverage for about 3 percent of their acres (i.e., leave the crop insurance program), soybean farmers would drop coverage for about 2 percent of their acres, and wheat farmers would drop coverage for about

²⁴According to RMA officials, the subsidy rate for the risk income group policy was reduced in 2008 and then again in 2009. For example, in 2008, the rate was reduced by 5 percentage points for the 75 percent coverage level. This type of policy makes up a relatively small component of the crop insurance program; in 2008, acres insured with this group policy accounted for 2.4 percent of the total insured acres. The reduction of the subsidy rate corresponded with a decrease in the number of acres insured with this type of policy, according to RMA officials. This may have been especially true after 2008 when the subsidy rate was increased for enterprise unit individual coverage, such as an 80 percent subsidy rate for a 70 percent coverage level.

²⁵CBO, *Options for Reducing the Deficit: 2014 to 2023* (Washington, D.C.: November 2013).

²⁶Erik J. O'Donoghue, *The Demand for Crop Insurance: How Important are the Subsidies?* Selected paper prepared for presentation at the Agricultural & Applied Economics Association's 2013 Crop Insurance and the Farm Bill Symposium (Louisville, KY: Oct. 8-9, 2013).

4 percent of their acres.²⁷ However, the study further noted that, because farmers rely heavily on crop insurance, these results could overestimate the potential impact to farmer participation and the overall number of farmers leaving the crop insurance program could be smaller.

Stakeholder and government officials we interviewed, as well as documents and data we reviewed, have identified several different incentives that could lessen the likelihood of significant changes in farmer participation in the crop insurance program even if premium subsidies are reduced. First, even with the premium subsidy reduction, farmers would receive substantial premium subsidies for revenue policies. For example, with a premium subsidy reduction of 20 percentage points for revenue policies, farmers would receive an average premium subsidy rate of about 40 percent for their premium cost, based on our analysis of 2012 RMA data. Second, crop insurance is important to lenders that provide loans to farmers to help finance their operations. According to lending associations that represent agriculture credit providers, crop insurance provides lenders with greater certainty that loans made to farmers will be repaid. In addition, according to an economic paper published by two ERS economists and a professor from the University of Illinois,²⁸ participation in crop insurance lowers revenue risk and might allow lenders to accept loan applications with lower collateral or applications for farm operations that are more leveraged. Third, farmers may not be inclined to exit the crop insurance program since it has emerged as the main safety net for farmers. According to some farm industry stakeholders, many farmers have made crop insurance their primary risk management tool. Finally, another incentive for farmer participation may be growing concerns among farmers about the frequency and severity of adverse weather events, such as floods, droughts, heat waves, and strong storms. According to the Secretary of Agriculture, other USDA officials, and some state extension officials and academic researchers, farmers are increasingly concerned about such weather events and their impact on agricultural production, including crop losses.

²⁷ERS published a study in July 2014 that reached similar conclusions. This study generally showed a lower effect on farmer participation in the crop insurance program as a result of a 5 percent reduction in premium subsidies than shown in the 2013 independent study. See ERS, *The Effects of Premium Subsidies on Demand for Crop Insurance*, Economic Research Report 169 (Washington, D.C.: July 2014).

²⁸Jennifer Ifft, Todd Kuethe, and Mitch Morehart, *Farm Debt Use by Farms with Crop Insurance*. Choices, Agricultural & Applied Economics Association (3rd Quarter 2013).

Conclusions

Federal crop insurance plays an important role in protecting farmers from losses caused by natural disasters and price declines, and it has become one of the most important programs in the farm safety net for farmers, according to USDA officials and some farm industry stakeholders. However, with increasing budgetary pressures, it is critical that federal resources are targeted as effectively as possible. With record farm income in recent years, the subsidies, including premium subsidies, provided for federal crop insurance have come under increasing scrutiny. Reductions in premium subsidies for farmers who purchase revenue policies, the most common and expensive crop insurance policy type, present an opportunity to potentially save hundreds of millions of dollars per year for taxpayers with limited increases in individual farmer's production costs. The president has included proposals for premium subsidy reductions in his fiscal year 2013, 2014, and 2015 budgets. Such a change would require congressional action and could either be implemented immediately, as in 2000, when Congress enacted legislation to increase premium subsidy rates, or phased in, as when RMA increases the premiums charged for crop insurance policies based on new actuarial data.

One point of discussion in the debate over premium subsidy reductions is the possible impact on farmer participation in the program. The crop insurance industry and some researchers suggest that even a modest premium subsidy reduction would result in some farmers lowering their coverage levels or dropping coverage altogether. However, the administration, CBO, and other researchers say that a modest reduction in premium subsidies would have little impact on program participation, and that incentives, such as the continued high level of premium subsidies, would likely keep farmers in the program. Although the impact of such a reduction is unknown, in the event that Congress reduced the crop insurance premium subsidy rates, actual information on the impact on farmer participation would be available if participation were monitored.

Matter for Congressional Consideration

To reduce the cost of the crop insurance program and achieve budgetary savings for deficit reduction or other purposes, Congress should consider reducing the level of federal premium subsidies for revenue crop insurance policies. In doing so, Congress should consider whether to make the full amount of this reduction in an initial year, or to phase in the full amount of this reduction over several years. In addition, Congress should consider directing the Secretary of Agriculture to monitor and report on the impact, if any, of the reduction on farmer participation in the crop insurance program.

Agency Comments and Our Evaluation

We provided the Secretary of Agriculture with a draft of this report for review and comment. In its written comments, which are reproduced in appendix II, USDA said it had no comment with the report's findings. In addition, USDA provided technical comments, which we incorporated as appropriate.

As agreed with your office, unless you publicly announce the contents of this report earlier, we plan no further distribution until 30 days from the report date. At that time, we will send copies of this report to the appropriate congressional committees; the Secretary of Agriculture; the Director, Office of Management and Budget; and other interested parties. In addition, this report will be available at no charge on the GAO website at <http://www.gao.gov>.

If you or your staff members have any questions about this report, please contact me at (202) 512-3841 or fennella@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Key contributors to this report are listed in appendix III.

Sincerely yours,

A handwritten signature in black ink that reads "Anne-Marie Fennell". The signature is written in a cursive style with a large initial "A" and a long horizontal line extending from the end of the name.

Anne-Marie Fennell
Director, Natural Resources and Environment

Appendix I: Objectives, Scope, and Methodology

Our objectives were to examine (1) trends in federal crop insurance costs and farm sector income and wealth from 2003 through 2012 and (2) the potential savings to the government and impacts to farmers, if any, of reducing federal premium subsidies for revenue insurance policies.

To address these objectives, we interviewed officials of the U.S. Department of Agriculture (USDA), including officials from the Economic Research Service (ERS) and Risk Management Agency (RMA), and reviewed documents they provided such as, for example, crop insurance program costs and outlays documents. We also spoke with officials at the Congressional Budget Office (CBO).

To address our first objective, we reviewed and analyzed RMA data on the government's cost for the federal crop insurance program for the period 2003 through 2012. We are reporting federal crop insurance program costs, not outlays, because the cost numbers more accurately reflect the true costs for a given year. For example, much of the actual costs for 2012 were not determined until the following year after the claims adjustments were completed and the underwriting gains and losses determined. In contrast, outlays for 2012 do not include many of the costs actually incurred that year, but they do include many costs incurred the prior year (i.e., 2011) because of the lag time in completing the claims adjustments for that year. Finally, in reporting costs, not outlays, we are being consistent with how the program reports its costs, including in the audited financial statements of the Federal Crop Insurance Corporation. We analyzed RMA crop insurance program data including data on the level of premium subsidies for revenue policies, the top 10 states that received revenue policy premium subsidies, the insurance coverage levels chosen by farmers with revenue policies, and the crops that received the most revenue policy premium subsidies. For overall program costs, we analyzed fiscal year data presented in RMA's cost and outlay tables. RMA data contain more detailed crop insurance information by crop year, which is what we used for our revenue policy analyses. For these analyses, we only included information on "buy-up" policies—that is, the portion of crop insurance for which a farmer pays a premium. Any coverage that is purchased above the "catastrophic" level is considered "buy-up" coverage; this type of coverage represented 99.9 percent of the revenue policy premium subsidies for the 2003 through 2012 period. In addition, we only included information for individual revenue policies and excluded group revenue policies because these latter policies made up only a small portion (less than 2 percent) of the total premium subsidies associated with revenue policies. We selected the time period of 2003 through 2012 to get a representation of the trend

in program costs, usage of revenue policies, and financial condition of the farm sector. At the time of our analysis, USDA officials said that 2012 would be the most recent year with complete and stable crop insurance program data. To get an understanding of trends in farm sector income and wealth, we reviewed and analyzed ERS data and reports on the overall financial condition of the farm sector, including information on net farm and cash income, production costs, and farm debt ratios from 2003 through 2012, as well as information from USDA's National Agricultural Statistics Service on farmland values for these years. We also reviewed and analyzed ERS information on forecasts for these elements of the farm economy, including net cash income and net farm income for 2013 and 2014. For the purposes of this report, crop insurance costs and premium subsidies, which are budget-related data, are reported in nominal dollars, while data on median farm household and U.S. household income, net farm and net cash income, and farmland values are reported in inflation adjusted dollars, using 2012 as the reference year. In addition, as appropriate, we report these data in calendar, fiscal, or crop years,¹ depending on how the data were reported in the source documents. Unless otherwise indicated, these data are in calendar years.

To address our second objective, we analyzed RMA revenue policy crop insurance program data for 2012 to estimate the savings to the federal government from reductions in premium subsidies of 5, 10, 15, and 20 percentage points. We selected these percentages because they were in line with previous reductions proposed by the president's 2014 budget proposal, a 2013 CBO report,² and a 2012 GAO report.³ We also estimated the additional production cost per acre, on average, and by crop type, to individual farmers as a result of these premium subsidy reductions. Furthermore, we compared these additional production costs with the total cost of production, on average, and by crop, to determine the percentage increase represented by these additional production costs. We used ERS Agricultural Resource Management Survey data for

¹According to ERS, a crop year (also known as a marketing year) is the 12-month period starting with the month when the harvest of a specific crop typically begins. For example, the 2008 wheat crop year was June 1, 2008 through May 30, 2009.

²CBO, *Options for Reducing the Deficit: 2014 to 2023* (Washington, D.C.: November 2013).

³GAO, *Crop Insurance: Savings Would Result from Program Changes and Greater Use of Data Mining*, [GAO-12-256](#) (Washington, D.C.: Mar. 13, 2012).

2012, where available, to determine the average production costs, per acre, for barley, canola, corn, cotton, grain sorghum, popcorn, rice, soybeans, sunflowers, and wheat. These were the crops eligible to receive revenue policy premium subsidies during the period covered by our review. We also reviewed the available agricultural economic literature,⁴ and studies by CBO, ERS, and RMA, and we spoke with officials from those agencies to determine any potential savings from reductions in crop insurance premium subsidies and the impact, if any, on farmers' participation in the crop insurance program as a result of premium subsidy reductions. Finally, we reviewed documents from farm industry stakeholders on the crop insurance program.

For the various data used in our analyses, as discussed, we generally reviewed related documentation, interviewed knowledgeable officials, and reviewed related internal controls information to evaluate the reliability of these data. In each case, we concluded that the data were sufficiently reliable for the purposes of this report.

We conducted this performance audit from May 2013 to August 2014 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our objectives.

⁴As the focus of our work was on the sensitivity of farmer participation in the crop insurance program to changes in premium subsidies, we selected studies relevant to that question. The studies we reviewed were published between 1993 and 2013—approximately the past 20 years. The literature goes back further, but the more recent studies have more relevance to the current crop insurance program. In order to ensure the studies were reliable and reputable, we considered mainly studies that were published in peer-reviewed publications or by federal agencies. In addition, the studies were reviewed by GAO's Chief Economist, who is an expert in the area of agricultural economics, and another GAO senior economist.

Appendix II: Comments from the U.S. Department of Agriculture

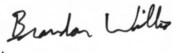


United States Department of Agriculture

Farm and Foreign Agricultural Services
Risk Management Agency

JUL 08 2014

TO: Anne-Marie Fennell
Director, Natural Resources and Environment
U.S. Government Accountability Office

FROM: Brandon Willis
Administrator 
Risk Management Agency

SUBJECT: U.S. Department of Agriculture Comments- U.S. Government Accountability Office Draft Report, Crop Insurance: Considerations in Reducing Federal Premium Subsidies, GAO-14-700 (361487)

The U.S. Department of Agriculture (USDA) appreciates the opportunity to review the subject Government Accountability Office (GAO) draft report. The Risk Management Agency has no comment with the report's findings and recommendations.



Deputy Administrator for Compliance
1400 Independence Ave., SW • STOP 0806 • Washington, DC 20250-0806

The Risk Management Agency Administers and Oversees
All Programs Authorized Under the Federal Crop Insurance Corporation

USDA is an Equal Opportunity Provider and Employer

Appendix III: GAO Contact and Staff Acknowledgments

GAO Contact

Anne-Marie Fennell, (202) 512-3841 or fennella@gao.gov

Staff Acknowledgments

In addition to the individual named above, James R. Jones, Jr., Assistant Director; Kevin S. Bray; Michael Kendix; David Moreno; Sophia Payind; Kelly Rubin; and Jerry Sandau made key contributions to this report. In addition, Cheryl Arvidson, Gary T. Brown, and Thomas M. Cook made important contributions to this report.

Related GAO Products

Extreme Weather Events: Limiting Federal Fiscal Exposure and Increasing the Nation's Resilience. [GAO-14-364T](#). Washington, D.C.: February 12, 2014.

Fiscal Exposures: Improving Cost Recognition in the Federal Budget. [GAO-14-28](#). Washington, D.C.: October 29, 2013.

2013 Annual Report: Actions Needed to Reduce Fragmentation, Overlap, and Duplication and Achieve Other Financial Benefits. [GAO-13-279SP](#). Washington, D.C.: April 9, 2013.

High-Risk Series: An Update. [GAO-13-283](#). Washington, D.C.: February 14, 2013.

Crop Insurance: Savings Would Result from Program Changes and Greater Use of Data Mining. [GAO-12-256](#). Washington, D.C.: March 13, 2012.

Crop Insurance: Opportunities Exist to Reduce the Costs of Administering the Program. [GAO-09-445](#). Washington, D.C.: April 29, 2009.

Crop Insurance: Continuing Efforts Are Needed to Improve Program Integrity and Ensure Program Costs Are Reasonable. [GAO-07-944T](#). Washington, D.C.: June 7, 2007.

Crop Insurance: Continuing Efforts Are Needed to Improve Program Integrity and Ensure Program Costs Are Reasonable. [GAO-07-819T](#). Washington, D.C.: May 3, 2007.

Climate Change: Financial Risks to Federal and Private Insurers in Coming Decades Are Potentially Significant. [GAO-07-760T](#). Washington, D.C.: April 19, 2007.

Climate Change: Financial Risks to Federal and Private Insurers in Coming Decades Are Potentially Significant. [GAO-07-285](#). Washington, D.C.: March 16, 2007.

Suggested Areas for Oversight for the 110th Congress. [GAO-07-235R](#). Washington, D.C.: November 17, 2006.

GAO's Mission

The Government Accountability Office, the audit, evaluation, and investigative arm of Congress, exists to support Congress in meeting its constitutional responsibilities and to help improve the performance and accountability of the federal government for the American people. GAO examines the use of public funds; evaluates federal programs and policies; and provides analyses, recommendations, and other assistance to help Congress make informed oversight, policy, and funding decisions. GAO's commitment to good government is reflected in its core values of accountability, integrity, and reliability.

Obtaining Copies of GAO Reports and Testimony

The fastest and easiest way to obtain copies of GAO documents at no cost is through GAO's website (<http://www.gao.gov>). Each weekday afternoon, GAO posts on its website newly released reports, testimony, and correspondence. To have GAO e-mail you a list of newly posted products, go to <http://www.gao.gov> and select "E-mail Updates."

Order by Phone

The price of each GAO publication reflects GAO's actual cost of production and distribution and depends on the number of pages in the publication and whether the publication is printed in color or black and white. Pricing and ordering information is posted on GAO's website, <http://www.gao.gov/ordering.htm>.

Place orders by calling (202) 512-6000, toll free (866) 801-7077, or TDD (202) 512-2537.

Orders may be paid for using American Express, Discover Card, MasterCard, Visa, check, or money order. Call for additional information.

Connect with GAO

Connect with GAO on [Facebook](#), [Flickr](#), [Twitter](#), and [YouTube](#).
Subscribe to our [RSS Feeds](#) or [E-mail Updates](#). Listen to our [Podcasts](#).
Visit GAO on the web at www.gao.gov.

To Report Fraud, Waste, and Abuse in Federal Programs

Contact:

Website: <http://www.gao.gov/fraudnet/fraudnet.htm>

E-mail: fraudnet@gao.gov

Automated answering system: (800) 424-5454 or (202) 512-7470

Congressional Relations

Katherine Siggerud, Managing Director, siggerudk@gao.gov, (202) 512-4400, U.S. Government Accountability Office, 441 G Street NW, Room 7125, Washington, DC 20548

Public Affairs

Chuck Young, Managing Director, youngc1@gao.gov, (202) 512-4800
U.S. Government Accountability Office, 441 G Street NW, Room 7149
Washington, DC 20548

