

United States Department of Agriculture Office of Inspector General





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AUDIT

- NUMBER: 03601-0051-Te
- TO: Juan Garcia Acting Administrator Farm Service Agency
- ATTN: Philip Sharp Director Operations Review and Analysis Staff
- FROM: Gil H. Harden Assistant Inspector General for Audit
- SUBJECT: Conservation Reserve Program Soil Rental Rates

This report presents the results of our audit of the Conservation Reserve Program Soil Rental Rates. The agency's June 13, 2012, written response to the official draft report is included in its entirety with excerpts and the Office of Inspector General's (OIG) position incorporated into the relevant sections of the report. Based on your response, we accept management decision on Recommendations 2 and 3 in the report. Management decision has not been achieved for Recommendations 1 and 4. To reach management decision on these recommendations, please see the relevant OIG Position sections in the audit report.

In accordance with Departmental Regulation 1720-1, please furnish a reply within 60 days describing the corrective actions taken or planned, and timeframes for implementing the recommendation for which management decision has not been reached. Please note that the regulation requires management decision to be reached on all recommendations within 6 months from report issuance, and final action to be taken within 1 year of each management decision to prevent being listed in the Department's annual Performance and Accountability Report. Please follow your internal agency procedures in forwarding final action correspondence to the Office of the Chief Financial Officer.

We appreciate the courtesies and cooperation extended to us by members of your staff during our audit fieldwork and subsequent discussions.

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Farm Service Agency's Conservation Reserve Program - Soil Rental Rates

Executive Summary

Administered by the Farm Service Agency (FSA), the Conservation Reserve Program (CRP) provides annual payments to producers who agree to maintain conservation practices such as establishing grass cover on farms to prevent soil erosion and reduce chemical runoff. In order to determine the CRP payment producers will receive for enrolling their land in the program, FSA calculates a soil rental rate. The soil rental rate for the contract is determined by multiplying the county average rental rate¹ by the grouped soil productivity factor.² For the 39th signup for this program, in 2010, FSA signed about 46,000 contracts involving about 4.3 million acres and annual payments totaling about \$200 million.³ Over the 10-year life of the contracts, FSA will pay producers about \$2 billion.⁴ The Office of Inspector General (OIG) conducted this audit to determine whether FSA had effective controls to ensure the reasonableness of the soil rental rates used for payments on CRP contracts.

In general, we found that FSA did not adequately ensure the reasonableness of its soil rental rates for the 39th signup. The agency did not use the most recent Natural Resources Conservation Service (NRCS) soil productivity factors and did not adhere to FSA policies and regulations that were established to ensure the reasonableness of county average rental rates when computing the soil rental rates. Based on our analysis of 3,114 county average rental rates and 332,393 soil rental rates FSA established for the 39th signup, we found significant problems with how the agency determined both the productivity of soil and the county average rental rate—the 2 factors used to determine soil rental rates.

Determining the productivity of soil

Although FSA should use NRCS' most up-to-date measure of soil productivity, which uses scientific data relating directly to the ability of soils, landscapes, and climates to foster crop productivity on non-irrigated soil, FSA instead relied on productivity factors that were established more than 15 years ago and have been adjusted, with input from local producers and other agricultural professionals, since 1996. FSA did not use NRCS' new productivity factors that are based on scientific data on a nationwide basis, believing its older, existing factors were more accurate for established soils. Due to this decision, FSA entered into CRP contracts where rental rates did not properly reflect NRCS' soil

¹ The county average rental rate is the average county cash rental rate for dry land cropland.

² Soil productivity factors reflect the soil's ability to produce plant growth. Soils with similar productivity factors are grouped together and assigned grouped soil rates derived from NRCS' soil survey, which shows the individual maximum soil rental rate for groups of soils. Therefore, one soil rental rate may be used for multiple soils; however, each soil grouping will have only one soil rental rate.

³ Participation as reported by FSA as of August 31, 2010.

⁴ OIG calculated all payments in this report using a 10-year minimum life of the CRP contracts. CRP contracts are established for periods of 10 to 15 years.

productivity data. OIG concluded that the process for determining the value of contracts could be improved and questioned the accuracy of about \$140 million paid to producers.⁵

Determining the county average rental rate

FSA procedures for determining the county average rental rates for the 39th CRP signup required use of the National Agricultural Statistics Service's (NASS) statistically valid survey of county average rental rates for cropland and pastureland.^{6, 7, 8} Although the agency had access to NASS' survey results, it also allowed States and counties to propose alternate rates and did not always follow its policies and procedures for reviewing and approving those alternate rates.

Of the 687 proposed alternate rates it received, FSA's national office approved 686, even though it determined the majority (669 of 687) of the proposals containing evidence to support the alternate rates to be less than strong.⁹ FSA national officials did not follow prescribed agency procedures for evidentiary support and accepted county average rental rates based on insufficient or inadequate evidence.¹⁰ They did this because they were facing time constraints for initiating the signup and a former senior agency official believed that the NASS rates might not accurately reflect the actual market value in some counties. In 331 counties, OIG recalculated program payments for the 39th signup using NASS' statistically supportable county-level response rates instead of FSA-approved, but unsupported, alternate rates, and found that the difference was about \$12.7 million annually, or about \$127 million over the 10-year life of the contracts¹¹ (see exhibit A).

⁷ FSA Notice CRP-663, "Revised Soil Rental Rates (SRR's) for 2010," dated June 14, 2010.

⁵ OIG conducted a Pearson correlation analysis to model the relationship between the NRCS productivity data and FSA's soil rental rates. The \$140 million figure we are reporting represents the sum of all annual contract payments made in the 2,129 counties where there was a Pearson correlation coefficient of less than 0.75. OIG did not include this figure in exhibit A, Summary of Monetary Results, because we did not recalculate payments for each contract based on a new soil rental rate using a different productivity factor. To do this would have required us to make assumptions as to a new rate which FSA would calculate using the most recent NRCS productivity data.

⁶ The "Food, Conservation, and Energy Act of 2008," Public Law 110-246, title II, section 2110, paragraph (b), dated June 18, 2008, required NASS to conduct an annual survey of county average rental rates for cropland and pastureland in all counties or equivalent subdivisions, in each State that had 20,000 acres or more of cropland and pastureland.

⁸ For those counties where not enough survey responses were received or too few acres were rented for cash, NASS did not publish statistically valid county average rental rates. Instead, for those counties, NASS combined the obtained rental rate with those of neighboring counties (where there may have been statistically valid rates) and published these rates under "combined counties within a district."

 $^{^{9}}$ Of the 18 proposals with strong evidence (687 – 669), 17 participated in the 39th signup and 1 did not participate. The FSA national office initiated a process to review the alternate county average rental rates and determine if they were supported by evidence that met standards similar to NASS' survey. The review teams were tasked with ranking the strength of this evidence as weak, fair, or strong. However, the teams were not provided with written instructions for ranking the strength of the evidence or asked to make a recommendation on whether to approve the alternate rates.

¹⁰ FSA Notice CRP-663, "Revised Soil Rental Rates (SRR's) for 2010," dated June 14, 2010.

¹¹ Of the 686 approved alternate rates submitted by county offices, 263 counties did not have any participation in the 39th signup, 17 counties provided strong evidence to support their alternate rate, and 75 counties did not have a statistically valid NASS county average rental rate. This leaves 331 counties (686-17-263-75) with CRP participation that used less than strong evidence to change the soil rental rate from the statistically valid NASS rental rate.

OIG concluded that given the magnitude of the issues identified with how FSA determines soil rental rates for CRP, the agency needs to take actions to ensure that its soil rental rates are reasonable and supported.

Recommendation Summary

We recommend that FSA:

- Develop a method for calculating soil rental rates that incorporates the most recent NRCS productivity data with the county average rental rates for all soils used in CRP.
- Require that the counties submit strong evidence to support any alternate county average rental rates for future CRP signups.
- Review all 331 county average rental rates that were approved without strong evidence during the 39th signup to determine if the evidence was sufficient to justify the approved alternate rates, and consult with the Office of the General Counsel to ascertain whether contracts can be adjusted. If permissible, recover about \$12.7 million in unsupported payments.
- Modify written program procedures for approving any future alternate county average rental rates to include instructions and rating criteria for review of evidence; listing of submissions, approvals, and denials; and documentation of approval and denial justification.

Agency Response

In FSA's June 13, 2012, response to the official draft, the agency generally concurred with the findings and recommendations in the report. Excerpts from the response and OIG's position have been incorporated into the relevant sections of the report. FSA's response to the official draft report is included at the end of this audit report.

OIG Position

We accept management decision for Recommendations 2 and 3. However, FSA did not provide sufficient detail regarding its planned corrective actions for Recommendations 1 and 4. We have provided our comments and what actions are needed to reach management decision for these recommendations in the OIG Position section of the report.

Background

Administered by the United States Department of Agriculture's (USDA) Farm Service Agency (FSA), the Conservation Reserve Program (CRP) provides annual rental payments to producers in exchange for their conserving highly erodible and other environmentally sensitive cropland and pasture. The amount of annual rental payments is based upon the number of acres enrolled by the producer and the soil rental rate for the county, and payments are made annually for contracts with a life of 10 to 15 years. With technical assistance provided by the Natural Resources Conservation Service (NRCS), producers are required to maintain conservation practices such as establishing grass cover on farms to prevent soil erosion and improve water quality.

When a signup period is announced by the Secretary of Agriculture, producers may submit offers bidding their land on a per-acre basis. County offices calculate the maximum rental rate per-acre for the acreage being offered.¹² The FSA national office determines the rank of each offer.

Soil rental rates provide the basis for the maximum payment rate used to determine the annual rental payments for each individual CRP applicant. The rates are comprised of two components specific to each county: (1) the average county cash rental rate for non-irrigated cropland and (2) grouped soil productivity factors.¹³

The Food, Conservation, and Energy Act of 2008 extended CRP enrollment authority through September 30, 2012, and required the Secretary of Agriculture (acting through the National Agricultural Statistics Service (NASS)) to conduct an annual survey estimating the county average rental rate per acre for non-irrigated cropland.¹⁴ FSA officials generally understood that they were to use these estimates to set county average rental rates for CRP. Prior to 2008, these county average rental rates were determined by FSA's land value surveys.

A memorandum of agreement provided for the implementation, cooperation, expectations, and responsibilities of FSA and NASS with respect to the administration of CRP. NASS would be reimbursed for all costs, excluding administrative overhead, associated with the collection of rental rate data in fiscal years 2009 through 2012. The annual reimbursement for the fiscal year 2009 collection of rental rate data totaled about \$5 million.

FSA's National Notice CRP-663, dated June 14, 2010, notified State and county offices of the national office's intent to use NASS data, as adjusted for inflation, to determine county average

¹² The maximum payment rate is the weighted average of the soil rental rates for the three most predominant soils in the offered acreage.

¹³ The soil rental rate tables will show the individual maximum soil rental rate for groups of soils by using the NRCS soil map unit symbols based upon the soil survey. These groupings' rates are established based on similar productivity levels. Therefore, one soil rental rate may be used for more than one soil. However, each soil grouping will have only one soil rental rate.

¹⁴ Food, Conservation, and Energy Act of 2008, Public Law 110-246, title II, section 2110, paragraph (b), dated June 18, 2008.

cash rental rates. The notice informed the State and county offices that NASS data were based on statistically sound sampling protocols and rigorous data review and analysis. In instances where NASS was not able to calculate a statistically reliable county cash rental rate, the county cash rental rate was based on the NASS estimate for the agricultural statistical district. Additionally, this notice stated that, although NASS county average cash rental rates were considered statistically valid, in some areas of the country, State and county committees may disagree with the NASS rates. Therefore, State and county committees were instructed to review the average county cash rental rates and were authorized to propose alternative estimates, as deemed necessary.

According to regulations, the soil productivity factors are to be generated using NRCS' data.¹⁵ In 2008, NRCS developed its new productivity factors—the National Commodity Crop Productivity Index (NCCPI). This index uses scientific criteria that relate directly to the ability of soils, landscapes, and climates to foster crop productivity on non-irrigated soil. According to NRCS literature, the index was developed with CRP in mind.

Objective

The objective of the audit was to determine whether FSA had effective controls to ensure that soil rental rates were reasonable.

¹⁵ Title 7, *Code of Federal Regulations* (CFR), section 1410.42(f), dated May 8, 2003.

Finding 1: FSA Did Not Use NRCS' Scientific Data on Soil Productivity When Calculating Soil Productivity Factors for CRP

FSA's soil rental rates should reflect the productivity of the soil, as determined by NRCS, relative to the county average rental rate. Instead of using the most recent NRCS scientific productivity factors, FSA relied on productivity factors that were established more than 15 years ago and have been adjusted, with input from local producers and other agricultural professionals, since 1996. According to NRCS, NRCS provided FSA with its newer and more accurate scientific productivity factors, but FSA did not always use them, believing its older, existing factors were more accurate.¹⁶ Additionally, for the 39th signup, FSA officials stated that they had already changed how they determined county average rental rates using NASS data, and did not want to change how they determined soil productivity factors in case there were problems. Due to this decision, FSA entered into CRP contracts in 2,129 counties that did not reflect the most recent NRCS soil productivity data. Since FSA used locally determined factors rather than NRCS' new productivity factors, OIG concluded that the process for determining the value of contracts in these counties could be improved and questioned the accuracy of about \$140 million¹⁷ paid to producers in these counties.

In order to determine CRP payments, FSA must prepare a schedule showing the maximum soil rental rate for each soil in a county. This schedule will be calculated based on FSA's county average rental rate and the productivity of the soil using NRCS data, according to Federal regulations.¹⁸

We found, however, that FSA did not use NRCS' new productivity data as the primary means of determining the productivity of existing soils. Instead, FSA's procedures established soil productivity factors in one of two ways. If the soils are new—soils not in the FSA database then their productivity would be based on NRCS' latest data.¹⁹ If the soils are not new and have been in the database-the vast majority of soils-then FSA would determine soil productivity as it had done for more than a decade.²⁰

In 1996, FSA began calculating soil rental rates based on NRCS' soil productivity data from that era, but sent its rates to the States for comment and adjustment. Counties would convene teams, comprised of FSA and NRCS staff, as well as local agricultural officials, to review the rental rates. They would recommend that the rates be increased or decreased, and then they would consult with neighboring counties to ensure consistency of soil rates across county lines. In

¹⁷ In order to determine this figure, OIG conducted a Pearson correlation analysis to model the relationship between the NRCS productivity data and FSA's soil rental rates. OIG questioned the accuracy of the payments in counties whose soil rental rates did not exhibit a strong correlation with NRCS' productivity data.

¹⁶ While FSA used these NRCS data for soils that were not previously in its soils database, it did not properly use NRCS data for the soils already in the soils database. The majority of soils were already in the soils database.

¹⁸ 7 CFR 1410.42(f), dated May 8, 2003.

¹⁹ According to FSA, NRCS is constantly collecting new soil surveys and adding new soils to the soils database as this information becomes available.

²⁰ FSA Notice CRP-665, "Grouped Soil Productivity Factors for 2010 SRR's," dated June 23, 2010.

making their recommendations, these teams considered many factors, but their adjustments were often not consistent with NRCS data.

OIG recognizes that local agricultural officials may have knowledge of the value of certain soils based on observation and experience. However, if the historical process of determining soil productivity factors based on local teams' knowledge resulted in accurate factors, then we would expect the factors to correlate closely with NRCS' scientifically developed 2008 data.

Based on our national level comparison of the soil productivity factors of about 207,000 soils in 2,916 counties, we found that, while the 2 data sets were positively correlated, the relationships between the 2 sets were not strong.²¹ Essentially, FSA's historically and subjectively determined soil productivity factors are not based on NRCS' scientifically determined factors.

Based on our county-by-county analysis of the 2,916 counties, we found that 771, or 26 percent, had a strong positive correlation between the NRCS and FSA productivity factors.²² Another 2,129 counties were not well correlated with NRCS' data. Moreover, 49 of the 2,129 counties analyzed were negatively correlated: they tended to decrease as NRCS' productivity factor increased. Of the \$200 million in annual contract payments, we determined that FSA paid a total of about \$140 million²³ issued under the 39th signup in counties based on factors that were not objectively supportable. This amounts to about \$1.4 billion out of the \$2 billion in total payments anticipated over the 10-year life of these contracts.

For example, soil rental rates in Hartley County, Texas, did not share a strong correlation with NRCS' productivity factors. An example of a soil that weakened the county's correlation is a soil called Ness Clay. Of the 49 soils OIG was able to compare for Hartley County, NRCS data indicated that Ness Clay had the third lowest productivity factor in the county. NRCS publications dating back to 1977 have consistently rated this soil poorly—the soil is too wet for cultivation and is inundated for several weeks annually. Yet FSA used its subjectively determined historical productivity factors and assigned this soil a \$52-per-acre rental rate, which is about 24 percent higher than the county average of \$42.

When OIG spoke to FSA officials concerning why it had elected not to use the most recent NRCS productivity factors, they expressed a number of concerns. One official stated that while NRCS had done peer reviews of its factors, FSA officials were not confident that the "ground proofing" was sufficient.²⁴ Another official stated that FSA interpreted the regulation's use of the word "based" to mean that it could adjust the rates as it saw fit as long as some form of NRCS data was the starting point. Another official stated that NRCS soil scientists and

 $^{^{21}}$ In order to arrive at this conclusion, OIG statisticians calculated the Pearson Correlation Coefficient (r) and r² on a nationwide basis. While the analysis showed a positive correlation, the change in the NRCS productivity factor explains only 28 percent of the variation in the soil rental rate nationwide based on the FSA historical productivity factor. If FSA had used the NRCS data as required, we would expect the change in the NRCS productivity factor to explain at least 56 percent of the change in the soil rental rate based on the FSA historical productivity factor. (See further explanation in the Scope and Methodology section.)

²² The calculations in this report use 0.75 as the definition for a strong Pearson correlation.

²³ This figure represents the sum of all annual contract payments made in the 2,129 counties where there was a Pearson correlation of less than 0.75.

²⁴ Soil-by-soil analysis on a county-by-county basis.

rangeland specialists were present in the meetings when these rates were assigned. This person believed this fact satisfied any requirement that rental rates be based on NRCS data. As documented by the Pearson correlation we performed, the correlation between the soil productivity factors and the most recent NRCS soil productivity data was not strong. This illustrates that the current rental rates are not calculated using NRCS' most recent productivity data. FSA needs to ensure that, for future signups, its soil productivity factors are based on NRCS' best available productivity data and that any deviations from that standard are objectively supportable.

Recommendation 1

Develop a method for calculating soil rental rates that utilizes the most recent NRCS productivity data with the county average rental rates for all soils included in CRP.

Agency Response

In its June 13, 2012, response, FSA stated that it will continue to utilize the best available NRCS productivity data when establishing and maintaining soil rental rates. FSA is working with NRCS to vet a nationwide dataset for the NCCPI, which may be applied in those States where NRCS State soil scientists and FSA agree that NCCPI is the best available productivity data. For some States, continued use of State-developed productivity data will likely continue to be used; in others, State-level refinements and adjustment to NCCPI may provide for optimal productivity indicators. NRCS' user guide for NCCPI recognizes the value of State-based productivity data as it includes the statement: *"The National Commodity Crop Productivity Index (NCCPI) model is a national soil interpretation that is not intended to replace other crop production models developed by individual States."*

OIG Position

We are unable to accept management decision at this time. FSA's response does not address that FSA did not comply with its current regulations that require the use of NRCS' productivity data. In our opinion, once FSA has vetted the nationwide dataset for NCCPI, it should be applied in all States as its current procedures require. If FSA proposes to allow exceptions for use of this data, procedures should be developed to describe this process.

To achieve management decision, FSA needs to design procedures calculating soil rental rates that utilize the vetted NCCPI data and issue procedures methodology that describe the FSA process to calculate soil rental rates. In addition, FSA needs to provide an estimated completion date for any proposed action.

Finding 2: FSA Did Not Ensure Alternate County Average Rental Rates Were Supported

Although FSA had access to statistically valid county average rental rates developed by NASS, it allowed States and counties to propose alternate rates for the 39th CRP general signup and did not ensure that these rates were supported. Of the 687 proposed alternate rates it received, FSA's national office approved 686, even though it determined the majority of the evidence provided to support the alternate rates to be less than strong. FSA national officials disregarded prescribed procedures for evidentiary support and accepted county average rental rates based on insufficient or inadequate evidence. FSA did this because it was facing time constraints for initiating the signup, and a former senior agency official believed that the NASS county average rental rates might not accurately reflect the actual market value in some counties. Unless FSA follows its process for allowing exceptions to soil rental rates, the agency cannot be confident that its rates are reasonably accurate. OIG recalculated program payments for the 39th signup using NASS' statistically supportable county-level rental rates instead of FSA-approved, but unsupported, alternate rates, and found that the difference was about \$12.7 million in payments annually, or about \$127 million over the 10-year life of the contracts, in 331 counties.

The 2008 Farm Bill required the Secretary of Agriculture (acting through NASS) to conduct an annual survey of county average rental rates for cropland and pastureland in all counties or equivalent subdivisions, with each State that had 20,000 acres or more of cropland and pastureland.²⁷ Although the 2008 Farm Bill did not state how FSA would use NASS' county average rental rates, FSA's Conservation and Environmental Programs Division Director explained that FSA generally understood that it would use the NASS data as it calculated soil rental rates. Further, FSA entered into an agreement with NASS in which FSA paid NASS \$5 million to conduct this survey.

In preparation for a planned general signup in 2010, FSA's national office reviewed the county average rental rates as determined by the NASS survey and adjusted them by 10 percent to reflect inflation over the 10-year life of the CRP contract. These adjusted rates were disseminated to the State and county offices for review, and procedures were established to use them as county average rental rates. The procedure also allowed States and counties to propose alternate rates if they disagreed with NASS' rates.²⁸ If States and counties chose to propose alternate rates, they were required to submit independent data, data source collection documentation, and the methodology used to develop the alternate estimate. This information

²⁵ Of the 686 approved alternate rates submitted by county offices, 263 counties did not have any participation in the 39th signup, 17 counties provided strong evidence to support their alternate rate, and 75 counties did not have a statistically valid NASS county average rental rate. This leaves 331 counties (686-17-263-75) with CRP participation that used less-than-strong evidence to change the soil rental rate from the statistically valid NASS rental rate.

²⁶ CRP contract duration is between 10 and 15 years. OIG calculated all payments in this report using the 10-year minimum life of the CRP contracts.

²⁷ Food, Conservation, and Energy Act of 2008, Public Law 110-246, title II, section 2110, paragraph (b), dated June 18, 2008.

²⁸ FSA Notice CRP-663, "Revised Soil Rental Rates (SRR's) for 2010," dated June 14, 2010.

could include university studies, existing data on leases, and other credible data sources, but it must meet standards similar to those used by NASS.

State and county offices proposed alternate county average rental rates for 687 counties in 35 States. Along with their proposed alternate county average rental rates, they submitted a variety of evidence, including written cash leases, university-developed economic models, various publications based on input from agricultural economists, and personal opinions. The majority of the proposals for alternate county rental rates contended that the predominant form of lease agreement in their counties was a share lease. Therefore, they argued, NASS' county average rental rates based on cash leases were not accurate because cash leases do not provide the true value of the land in counties where share-lease agreements are predominant. Even though we were unable to substantiate the position of these State and county offices, the evidence that they provided to the FSA national office was rated by FSA officials as less than strong to support the alternate rates for most of the submissions.

FSA National Office Reviewed Proposed Alternate Rates

The national office initiated a process to review these 687 proposed alternate county average rental rates and determine if they were supported by evidence that met standards similar to NASS' survey. FSA staffed review teams with employees from its Conservation and Environmental Programs Division and its Economic Policy and Analysis Division, as well as personnel from the Economic Research Service, and tasked them with ranking the strength of this evidence as weak, fair, or strong. The teams were not provided written instructions or rating criteria for their reviews, nor were they asked to make recommendations concerning whether specific rates were reasonable or if specific rates should be approved. They also had very little time to complete their work: States and counties had until July 13, 2010, to submit proposals for alternate rates, and the 39th general signup began on August 2, 2010, so the national office allowed only 13 working days to review and rank the evidence for the 687 proposals. On average, the teams had to address 53 proposals a day.

Of the 687 proposed alternate county average rental rates, the review teams concluded that the evidence supporting 447 was weak (65 percent), 120 fair (17 percent), and only 18 strong (3 percent). For 46 counties, the teams did not record the strength of the evidence and, for 56 counties, the national office was unable to provide any documentation relating to the teams' decisions. Ultimately, a former senior agency official was responsible for evaluating each request and approving or disproving the submitted proposal. Even though the FSA review teams rated just 3 percent of the proposals as strong, 686 of the 687 proposals for an alternate rate were approved.

Since the teams determined that 567 of the counties submitted evidence that was less than strong, and there was no evidence of a rating for an additional 102 counties, OIG concluded that the teams' determinations of the strength of the evidence seemed to have little, if any, effect on the decision to approve the alternate rate. When we asked the FSA national office to provide evidence of how it approved the alternate county average rates, it could not provide OIG a listing of counties involved in proposals for alternative rates, a list of those approved, or a list of any

denials. The national office was unable to provide OIG with documentation notifying the applicable States or counties of the actual approval of the new rates.²⁹

A former senior agency official responsible for approving these rates acknowledged that the evidence for some of the proposals was weak; however, he did not feel that the NASS rates truly reflected the actual market values in some counties. For example, where it could not determine a statistically valid rate, NASS determined a combined-county rate. He also stated that, due to the time constraints with initiating the 39th signup, he utilized the information available to him, which included maps for each State with previous rental rates and NASS data plus evidence submitted with the alternate rates that the review teams rated. The information was reviewed and compared with rates in contiguous counties. Based upon the information reviewed and discussions with staff, he approved the rates which were then recorded by another individual. FSA could not provide us with documents indicating which rates were approved.

OIG compared the final rates to the NASS rates as well as the previous land value survey rates used prior to the 39th signup. We determined that the majority of the approved alternate county average rental rates exceeded the NASS rates; they generally trended towards the previous land value survey rates that were in effect before the 39th signup. Of the 686 approved alternate rates, 619 increased the NASS rate by an average of 60 percent.³⁰ These 619 approved alternate county average rental rates differed by only 14 percent from the prior county average rental rates.³¹ OIG concluded that alternate county average rental rates that FSA approved tended to revert to the rates in place before NASS collected its survey data.

State Submission of Alternative County Average Rental Rates

We determined that the States varied significantly in terms of how they developed and submitted evidence supporting alternative rates. For example, Texas State FSA officials noted that, while NASS rates were based on cash leases, most lease arrangements in Texas are based on shares. In order to determine a rate based on a share-lease arrangement, the Texas State FSA Office used a model developed by Texas A&M University's Farm Policy group. To provide a second alternative rate, the Texas State FSA Office prepared a comparison calculation by substituting the NASS yield data in the model with FSA-approved Average Crop Revenue Election program³² yields for the same crop year period. These two rates, along with the 2009 NASS-established county average rental rate were then averaged to provide the county committees with four choices from which to select the rate they felt most represented the actual cash rental rate. The Texas State Committee then adjusted the rates selected by the county committees and sent them to the national office for approval.

Even though the Texas State FSA Office applied the model with varying factors to derive alternative rates, 138 of the 189 alternative rate increases were set by the State committee and

²⁹ Final county average rental rates were posted on an internal SharePoint site.

 $^{^{30}}$ For the remaining 67 (that is, 686 – 619), the alternate county average rental rates were lower than the NASS rates.

³¹ Of the 619 approved alternate rates, 2 were excluded because, according to the data provided, they did not have an average rate under the old system.

³² An FSA program that uses crop yields to compute revenue based payments.

did not agree with the rates generated by the model. Our analysis of the 189 alternative rates determined that the rates were increased an average of 72 percent higher than NASS' rates. Texas' approved alternate rates were 15 percent greater than the previous rate. Again, OIG concluded that the rates tended to revert to the land value survey which had been used prior to 2009.

In contrast, the Kansas State FSA Office did not use a model to propose alternate county average rental rates. As with Texas, Kansas determined that share leases were the predominant form of leasing arrangement in Kansas. Only 24 of the 105 Kansas counties disagreed with the NASS-based county average rental rates and proposed alternative county average rental rates to the Kansas State FSA Office. The Kansas State Committee reviewed the proposed alternate rental rates and supporting evidence and provided these 24 proposals to the FSA national office for approval. For 20 Kansas counties, the national office review team rated the strength of the evidence submitted with the proposed alternate rates as weak; for the other 4 counties, it rated the evidence as fair.

In addition, the Kansas State Committee recommended alternative county average rental rates for 11 counties that did not submit a request for an alternate rate because the committee believed the rate needed to resemble those of surrounding counties. Although we could not locate evidence rating review sheets for these 11 counties, the national office approved these alternate county average rental rates. On average, the 35 approved alternate county average rental rates increased an average of 23 percent from NASS' rates and were within 5 percent of the 2008 land value survey.

OIG compared the difference in cost of program participation nationally using soil rental rates calculated with the NASS-based county average rental rates in those 331 counties³³ where program participants were approved for an alternate rental rate, even though these counties had a statistically valid NASS rate available. If FSA had used the NASS rates, the agency would have spent approximately \$12.7 million less annually in the 331 counties. Over the 10-year life of the contracts, the unsupported costs total approximately \$127 million.³⁴

Ongoing Approval of Alternate Rates: 41st Signup

Although a review of FSA's process for the 41st signup was outside the scope of this audit, OIG worked with FSA to gain insight into how FSA would proceed with CRP after the 39th signup. FSA officials stated that they had put a number of improvements into place. They stressed the validity of the NASS survey results, and when States and counties proposed alternate county rental rates, FSA held them to more stringent evidentiary standards. Only one group reviewed all proposed alternate rates, and this review group was tasked with rating the strength of the

³³ Of the 686 approved alternate rates submitted by county offices, 263 counties did not have any participation in the 39th signup, 17 counties provided strong evidence to support their alternate rate, and 75 counties did not have a statistically valid NASS county average rental rate. This leaves 331 counties (686-17-263-75) with CRP participation that used less-than-strong evidence to change the soil rental rate from the statistically valid NASS rental rate.

³⁴ OIG calculated all payments in this report using the 10-year minimum life of the CRP contracts. CRP contracts are established for periods of 10 to 15 years.

evidence and making recommendations to approve, disapprove, or adjust the rate. Each proposed rate was discussed with a former senior agency official before that official made a final decision. OIG concurs with FSA that these changes constitute an improvement to the process, which should result in greater transparency and more accurate alternate county average rental rates.

For the 41st signup, States and counties submitted 271 proposals for alternate county average rental rates. A former senior agency official approved 150 rates—105 for a rate exceeding the NASS rate and 45 for a rate lower than the NASS rate.

While FSA used a more reasonable process for approving or disapproving proposals for alternate rates during the 41st signup, it also carried forward most of the alternate rates approved during the 39th signup. FSA explained that States were given the option of using the 2010 NASS rate, the alternative rate approved for the 39th signup, or a new alternative rate that could be proposed and reviewed for the 41st signup. OIG maintains that, unless FSA reevaluates county average rental rates set in the 39th signup and uses NRCS' most recent scientific productivity data (see Finding 1), it cannot be confident that rental rates for future contracts will be supported and accurate.

OIG concludes that FSA needs to take steps to ensure that the county average rental rates it uses to calculate soil rental rates for CRP are supportable and accurate. On balance, OIG believes that this interest will best be served by using NASS survey rates. For those cases where States and counties believe that the NASS rates are not accurate, FSA needs to ensure that the evidence supporting any alternate rate meets standards as rigorous as those NASS uses to establish its rates. Since the alternate rates established during the 39th signup do not meet this standard, FSA should review them and reestablish them on a firmer evidentiary footing.

Recommendation 2

Require that the States and counties submit strong evidence to support their alternate county average rental rates for future CRP signups.

Agency Response

FSA stated it will require that the States and counties submit strong evidence to support their alternate county average rental rates for future CRP signups. Criteria for areas with a strong cash-rent market may be different from those for areas with mainly share-rent market.

OIG Position

We accept management decision for this recommendation.

Recommendation 3

Review all 331 county average rental rates that were approved without strong evidence during the 39th signup to determine if the evidence was sufficient to justify the approved alternate rates,

and consult with the Office of the General Counsel to ascertain whether contracts can be adjusted. If permissible, recover about \$12.7 million in unsupported payments.

Agency Response

FSA stated that it will review all county average rental rates prior to the next general signup, which is contingent on the 2012 Farm Bill. FSA stated that it consulted with the Office of the General Counsel and determined that the Commodity Credit Corporation and FSA do not have the authority to adjust the average rental rate of the contractual offer and acceptance terms agreed to by the CRP participant and the Commodity Credit Corporation. Therefore, contract modifications will not be pursued.

OIG Position

We accept management decision for this recommendation.

Recommendation 4

Establish written program procedures for approving any future alternate county average rental rates to include:

- instructions and rating criteria for review of evidence;
- listing of submissions, approvals, and denials; and
- documentation of approval and denial justification.

Agency Response

FSA stated that it will review current program procedures for approving any future alternate county average rental rates to include instructions and rating criteria for review of the evidence; listing of submission, approvals, and denials; and documentation of approval and denial justification.

OIG Position

We are unable to accept management decision at this time. To reach management decision, FSA needs to develop written program procedures that address the items bulleted in Recommendation 4 for the 39th signup and provide any written procedures developed for reviewing future alternative county average rental rates that describe the specific action to be taken to address the recommendation and an estimated competition date.

Scope and Methodology

Our audit covered the soil rental rates FSA used for the 39th CRP signup that started on August 2, 2010, and continued through August 27, 2010. In this signup, program participation included 45,862 contracts in 40 States, involving 4,343,452 acres, with annual program payments totaling about \$200 million.

For the 39th signup, FSA established 3,114 county average rental rates and 332,393 soil rental rates.³⁵ Our efforts focused on the 687 counties for which FSA documented a proposal for an adjustment to their 2009 NASS survey-based county average rental rates. We conducted our fieldwork from March 2010 through January 2012.

We judgmentally selected Texas and Kansas to determine the reasonableness of soil rental rates based on FSA-approved alternate county average rental rates instead of NASS-based county average rental rates. Based on preliminary analysis of the participation data from the 39th signup and input from FSA, we selected Texas because it had the highest dollar amount of contract payments and the most proposed alternate rates. We selected Kansas because it had the third largest amount of contract payments and the most contracts. Program participation in Texas included 5,238 accepted contracts involving 858,437 acres, with annual payments totaling approximately \$31.7 million. In addition, Texas had 199 proposals for alternate county average rental rates. Program participation in Kansas included 7,526 contracts involving about 618,905 acres, with annual payments totaling around \$24.1 million. Kansas had 35 proposals for alternate county average rates.

In Texas and Kansas, we judgmentally selected four counties for review. In Texas, we conducted fieldwork in four counties with participation in the 39th general signup totaling \$2,596,290 and in four Kansas counties with participation in the 39th general signup totaling \$169,658, as detailed in the table below.

JUDGMENTALLY SELECTED SAMPLE COUNTIES					
STATE	COUNTY	CONTRACTS	ACRES	AMOUNT	
Texas	Dickens	144	18,774	\$803,264	
	Floyd	167	24,666	\$1,037,084	
	Hartley	63	12,019	\$534,215	
	Moore	25	6,050	\$221,727	
	Subtotal	399	61,509	\$2,596,290	
Kansas	Atchison	7	438	\$38,860	
	Doniphan	4	122	\$15,515	
	Jefferson	24	968	\$65,384	
	Leavenworth	20	737	\$49,899	
	Subtotal	55	2,265	\$169,658	
TOTALS		454	63,774	\$2,765,948	

 $^{^{35}}$ Soil productivity factors were established for each soil that is cropped or likely to be cropped. Each of the 3,114 counties has multiple soil types. A soil rental rate is established for each soil type in the county.

We selected the four Texas counties because they all had participation in the 39th signup, and they all requested an increase from their 2009 NASS-based average rental rate. With each county having over \$800,000 in participation, Floyd and Dickens Counties also had a significant increase in the final average rental rate as compared to the 2009 NASS-based average rental rate. Both Moore and Hartley Counties had more than \$200,000 in participation and requested final average rental rates that not only exceeded the 2009 NASS-based average rental rates, but also significantly increased their 2008 land value survey rental rates used in previous CRP signups.

In Kansas, the counties selected all had participation in the 39th signup, their final average rental rates were among the top 11 in the State, and they all had final rental rates higher than the NASS-based rates. Additionally, Doniphan County had the highest county average rental rate in the State. Further, Leavenworth, Jefferson, and Atchison Counties all had a greater than 30-percent increase from their NASS-based rate to their final rates.

To accomplish our objective of determining whether FSA had effective controls to ensure that soil rental rates were reasonable, we interviewed officials at the FSA national office in Washington, D.C.; the Texas State FSA Office in College Station, Texas; and the Kansas State FSA Office in Manhattan, Kansas. We also reviewed alternate county average rental rates submitted by State and county offices. To assess the evidence used to justify these alternate rates, we reviewed the rating sheets completed by the FSA national office review teams documenting the strength of these submissions. We recorded the strength of each submission for each county rated. At the Texas and Kansas State offices, we reviewed the evidence used to support the submissions for the alternative rates submitted.

To evaluate the reasonableness of the established rental rates, we visited the eight county offices in our sample. We interviewed county office personnel, local bankers and lending officers, county extension agents, and farm loan managers. We reviewed other documents (such as cash leases and county committee minutes) in the counties that provided evidence of prevailing rental rates for non-irrigated farmland.

Because FSA intended to use data from the NASS 2009 survey of land values, we visited NASS personnel at the national office to obtain a general understanding of the methodology used to develop county average rental rates.

Additionally, we interviewed NRCS officials at the national office and the county offices in our sample. Our purpose was to determine what technical assistance NRCS provided for CRP, and establish whether productivity factors used in the program were reasonable.

In conducting our review, we relied on data generated by FSA's Conservation and Environmental Programs Division. These data included 2009 soil rental rates, 2010 soil rental rates, map units, county average rental rates, acres enrolled, annual contract payments, number of contracts, and other factors relevant to the recording of soil rental rates and payment of CRP contracts. We relied on additional data generated by FSA's Economic and Policy Analysis Division to determine which counties requested and received adjustments to their initial NASS-based rental rates. We also relied on data from NRCS' National Commodity Crop Production Index. We used audit command language to ensure that all fields contained the correct data type. We related common fields, such as State and county codes, to identify and compare common fields between program years and different data sets provided by FSA. These related data sets were then used to identify areas of high participation and other anomalies in the selection of counties for review. For sampled counties, we compared data in the database to actual supporting documentation to ascertain whether or not established rates were reasonable.

As part of our objective to determine the reasonableness of soil rental rates, OIG statisticians used soils data from NRCS' National Commodity Crop Production Index and FSA's Soils Data Management System to calculate the Pearson Correlation Coefficient³⁶ r and the coefficient of determination³⁷ r^2 on a nationwide basis. The overall, nationwide analysis showed a positive Pearson correlation of r = 0.53. The corresponding coefficient of determination, $r^2 = 0.28$, means that variations in the NRCS productivity factor could explain only 28 percent of the variation in the soil rental rate based on the FSA historical productivity factor. Statistical sources suggest that a strong positive Pearson correlation literature. Therefore, for the conclusions in this report, we used 0.75 as the definition for a strong Pearson correlation. This threshold means that we expect the change in the NRCS productivity factor to explain at least 56 percent of the change in the soil rental rates based on the FSA historical productivity factor. Soil rental rates were also analyzed on a county-by-county basis. Using the Pearson Correlation method, OIG statisticians calculated the correlation coefficient for 2,916 counties in which soil rental rates were established.

We reviewed the certification and accreditation, system security plan, and controls in place for entering and maintaining data in the Soils Data Management System. Since we determined that the computations of the soil rental rates are performed outside of the information system, we did not perform any further review or testing of the system.

We conducted this performance audit 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 audit objectives.

 $^{^{36}}$ A Pearson correlation measures the strength and direction of a linear relationship between two variables. The Pearson coefficient *r* can take a range of values from 1 to -1. A value of 0 indicates that there is no association between the two variables. A value of greater than 0 indicates a positive association (i.e., as one variable increases so does the other). A Pearson coefficient less than 0 indicates a negative association (i.e., as one variable increases the other decreases). The stronger the association between the two variables the closer the Pearson correlation coefficient *r* will be to either +1 or -1.

³⁷ The coefficient of determination, r^2 , is the square of the Pearson correlation coefficient r. The coefficient of determination, with respect to correlation, is the proportion of the variance that is shared by both variables. It gives a measure of the amount of variation that can be explained by the Pearson correlation coefficient and is sometimes expressed as a percentage.

Abbreviations

CFR	. Code of Federal Regulations
CRP	Conservation Reserve Program
FSA	Farm Service Agency
NASS	National Agricultural Statistics Service
NCCPI	National Commodity Crop Productivity Index
NRCS	Natural Resources Conservation Service
OIG	Office of Inspector General
SRR	. Soil Rental Rates
USDA	United States Department of Agriculture
	1 0

Finding	Recommendation	Description	Amount	Category
Number	Number			
2	3	FSA Did Not Ensure	\$114,565,851 ³⁸	Funds To Be Put To
		Alternate County		Better Use,
		Average Rental Rates		Management Or
		Were Supported		Operating
				Improvements/Savings
2	3	FSA Did Not Ensure	\$12,729,539	Unsupported Costs,
		Alternate County		Recovery
		Average Rental Rates		Recommended
		Were Supported		
	TOTAL		\$127,295,390	

The table below summarizes the monetary results for our audit report by finding number.

³⁸ This amount represents the remaining 9 years of the 10-year contracts (\$12,729,539 annually times 9 years).

USDA'S FARM SERVICE AGENCY RESPONSE TO AUDIT REPORT



United States Department of Agriculture	DATE:	June 13, 2012	
Farm and Foreign Agricultural Services	TO:	Director, Farm and Foreign Agriculture Division Office of Inspector General	
Farm Service Agency	FROM:	Philip Sharp, Director 443 Operations Review and Analysis Staff	
Operations Review and Analysis Staff 1400 Independence	SUBJECT:	Response to Official Draft Report, Conservation Reserve Program - Soil Rental Rates, Audit 03601-0051-TE	
Ave., SW Stop 0540 Washington, DC 20250-0541	The Deputy A which respon	e Deputy Administrator for Farm Programs has provided the information below nich responds to the subject's audit recommendations.	

Recommendation 1

Develop a method for calculating soil rental rates that utilizes the most recent Natural Resource Conservation Service (NRCS) productivity data with the county average rental rates for all soils used in Conservation Reserve Program (CRP).

Agency Response:

The Farm Service Agency (FSA) will continue to utilize the best available NRCS productivity data when establishing and maintaining soil rental rates. FSA is working with NRCS to vet a nationwide dataset for the National Commodity Crop Productivity Index (NCCPI), which may be applied in those states where NRCS's State Soil Scientists and FSA agree that NCCPI is the best available productivity data. For some states, continued use of State-developed productivity data will likely continue to be used; in others, State-level refinements and adjustment to NCCPI may provide for optimal productivity indicators. NRCS's user guide for NCCPI recognizes the value of State-based productivity data as it includes the policy statement: *"The National Commodity Crop Productivity Index (NCCPI) model is a national soil interpretation that is not intended to replace other crop production models developed by individual states."*

Recommendation 2:

Require that the States and counties submit strong evidence to support their alternate county average rental rates for future CRP signups.

Agency Response:

FSA will require that the States and counties submit strong evidence to support their alternate county average rental rates for future CRP signups. Criteria for areas with a strong cash-rent market may be different than those for areas with mainly share-rent.

Director, Farm and Foreign Agriculture Division Page 2

Recommendation 3

Review all 331 county average rental rates that were approved without strong evidence during the 39th signup to determine if the evidence was sufficient to justify the approved alternate rates and, consult with the Office of the General Counsel to ascertain whether contracts can be adjusted. If permissible, recover about \$12.7 million in unsupported payments.

Agency Response:

FSA believes the rates used during the 39th signup accurately represent local rental rates. FSA will review all county average rental rates prior to the next general signup. The Office of General Council determined that the Commodity Credit Corporation (CCC) and FSA do not have the authority to adjust the average rental rate of the contractual offer and acceptance terms agreed to by the CRP participant and CCC. CRP contract modifications to an alternate rental rate will not be pursued.

Recommendation 4

Establish written program procedures for approving any future alternate county average rental rates to include:

- instructions and rating criteria for review of evidence;
- listing of submissions, approvals, and denials; and
- documentation of approval and denial justification.

Agency Response:

FSA will review current program procedures for approving any future alternate county average rental rates to include instructions and rating criteria for review of evidence; listing of submissions, approvals, and denials; and documentation of approval and denial justification.

Informational copies of this report have been distributed to:

Administrator, Farm Service Agency (2) Attn: Director, Operations Review and Analysis Staff

Government Accountability Office

Office of Management and Budget

Office of the Chief Financial Officer Director, Planning and Accountability Division

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