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TAX POLICY

How Tax Incentives Encourage Soil and Water Conservation Investments





General Government Division

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The Honorable Bob Packwood
Chairman, Joint Committee
on Taxation

The Honorable Dan Rostenkowski
Vice Chairman, Joint Committee
on Taxation
Congress of the United States

This fact sheet responds to your Committee's request for information on tax provisions affecting agriculture. In particular, your Committee asked that we review soil and water conservation tax incentives because of congressional concerns that existing erosion rates are excessive and that current tax incentives for farmers to make soil and water conservation investments are inadequate.

Our document, which is composed of six appendices, contains information about the tax deduction provision--section 175 of the Internal Revenue Code--and other current and proposed government incentives for encouraging soil and water conservation. Appendix 1 briefly describes the principal governmental soil and water conservation programs, including the tax deduction. In addition to reducing soil erosion, these programs have other objectives, such as dealing with water conservation, environmental concerns, and other national resource concerns.

The study was designed to provide information on the extent of the impact of section 175 on the promotion of soil and water conservation. For the purpose of our study, we included all conservation investments reported to us by farm landowners irrespective of where the expenses were shown on their income tax returns. We did this for two reasons. First, our analysis of survey data showed that some taxpayers reported their section 175 conservation expenses on lines other than the line for conservation expenses. Second, there are also certain conservation expenses that can be reported as either a soil and water conservation expenditure or an ordinary and necessary cost of operating a farm.

The information contained in this document is based primarily on our analyses of two questionnaire surveys we conducted between September 1984 and April 1985. One was sent to a nationwide sample of 1,000 farm landowners requesting information on their conservation decisions from 1980 through 1984. The other was sent to a nationwide sample of 402 U.S. Department of Agriculture county executive directors requesting their opinions on the influence of governmental incentives on the conservation decisions of farmers in their counties. There is the

possibility of bias in the responses; that is, if the respondents to our questionnaires perceived that the surveys evaluated the government's tax and cost-share programs, they could have formulated their answers in support of these incentives. Appendix II contains more detailed information on the sampling methodology and how we projected our survey data. Copies of each questionnaire are included in appendixes V and VI.

Appendix III presents the results of our analyses of 585 farm landowners' responses and their views on what factors most influenced their conservation decisions, their opinions on the value of the conservation tax deduction and direct governmental assistance programs, and the impact certain incentives would have on their future conservation decisions. Our survey work concentrated on soil conservation because of concern expressed about soil erosion's harmful effects on both soil and water. Based on our analysis of responses, 68 percent of the landowners who owned 63 percent of the acres did not invest in conservation measures from 1980 through 1984. Almost 58 percent of the landowners not investing in conservation measures did not do so because they felt that erosion was not a problem on their land. An agricultural expert suggested that farmers may not have invested in conservation during this period if they had previously installed permanent conservation measures, instituted crop management practices that reduced erosion, or owned land that was nonerosive and did not require conservation measures. In addition, according to the U.S. Department of Agriculture's 1982 inventory of the U. S. cropland base, 40 percent of the acreage is nonerosive and 39 percent of the acreage is moderately erosive and is managed at a level needed to maintain long-term productivity.

For some landowners who believed that their land was eroding, governmental financial assistance was an important factor in their decisions to make conservation investments. Those landowners who did invest in soil conservation measures, as compared to those who did not invest, were likely to own more farmland and have greater farm income. In their opinion, about 52 percent of the soil conservation expenditures and 44 percent of the conservation measures would not have been made from 1980 through 1984 if the present tax deduction and governmental cost-sharing programs had not been available. In contrast, 37 percent of the soil conservation expenditures and 42 percent of the conservation measures would have been implemented regardless of the availability of government financial incentives. Also, the combination of the tax deduction with cost-sharing payments encouraged the largest total expenditure (governmental and landowner) in conservation measures. It was the opinion of almost 50 percent of the surveyed landowners that additional government financial incentives would encourage them to invest in more conservation measures. Among the alternatives described, they expressed a slightly higher preference for changing section 175 to allow a choice between a current deduction or a proposed credit over increases in direct governmental assistance.

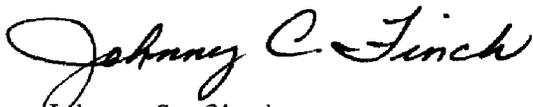
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Appendix IV presents the results of our analyses of 392 county executive directors' responses and discusses their views on the role the current tax deduction plays in farmers' conservation decisions. In the opinion of about one-half of the directors, the impact of section 175 in promoting soil or water conservation investments was limited. They were also of the opinion that certain alternatives would be more effective in increasing conservation investments in the future. The alternative they most favored involved increasing direct cash assistance to farmers through current governmental cost-sharing conservation programs. About two-thirds of the county executive directors estimated that, in 1982, up to 25 percent of the farmers in their respective counties practiced soil or water conservation without direct government cost-sharing assistance. The CEDs could not be expected to know, however, how many farmers who practiced conservation may have been receiving government assistance in the form of a tax subsidy by expensing their conservation costs.

A U.S. Department of Agriculture official reviewed a draft of this document, and we considered his comments in preparing our final product.

As arranged with your office, we are sending copies of this fact sheet to other congressional committees; the Secretary of Agriculture; the Secretary of the Treasury; the Director, Office of Management and Budget; and other interested parties.

If you have questions on our study or this fact sheet, please contact me on 275-6407.



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ABBREVIATIONS

ACP	Agricultural Conservation Program
ASCS	Agricultural Stabilization and Conservation Service
CED	County Executive Director
IRS	Internal Revenue Service
USDA	U.S. Department of Agriculture

OVERVIEW OF GOVERNMENT SOIL AND
WATER CONSERVATION INCENTIVES

Tax incentives for certain soil and water conservation expenditures are only one economic incentive that the federal government provides to farmers to encourage such investments. Other government programs include educational programs, technical assistance, direct cash assistance through cost-sharing with the farmer, and a newly enacted conservation reserve program. Even with the tax incentive and other direct assistance programs, there is a general consensus among agricultural experts that existing rates of soil erosion are excessive. Soil erosion continues to be a problem despite 50 years of federal technical and financial assistance designed to influence farmers' decisions to voluntarily undertake conservation practices and adopt conservation technologies.

Congress enacted section 175 of the Internal Revenue Code in 1954 to (1) resolve conflicts over the deductibility of certain soil and water conservation-related land improvements as ordinary farm operating expenses and (2) provide an economic incentive to promote soil and water conservation. Prior to 1954, farmers were generally required to capitalize, rather than deduct as current expenses, such expenditures made to improve the land. The capitalized expenditures would increase the farmer's investment in the land and, since land is not a depreciable asset, were recoverable for tax purposes only upon the sale of the land. Prior to enactment of section 175, it was difficult and burdensome for the farmer, as well as the Internal Revenue Service (IRS), to separate deductible operating expenditures associated with farmland, such as ordinary tilling of the soil, from properly capitalized expenditures, such as conservation grading.

For land used in farming, section 175 of the Internal Revenue Code permits some taxpayers with farm income to deduct certain soil and water conservation costs. The deductible amount is limited to 25 percent of the gross income from farming during the taxable year, but the balance of expenses may be carried over to future years. A taxpayer is considered to be in the business of farming if he or she operates the land as a farm for profit or gain, either as owner or tenant; receives rental, either cash or in kind, which is based on farm production; or leases the land for a fixed amount of cash and actively participates in the management of the farm.

In addition to the tax incentive program, three major federal programs to promote soil conservation are administered by the U.S. Department of Agriculture (USDA) in conjunction with committees of local farmers. They are (1) free technical assistance for implementing erosion control practices and

conservation plans; (2) a cost-sharing program called the Agricultural Conservation Program (ACP) that provides financial assistance to defray part of the farmers' costs to install conservation measures; and (3) a newly enacted conservation reserve program, the objective of which is to coordinate conservation and other farm programs.

Through cost-sharing assistance, ACP encourages farmers to practice soil and water conservation. Under ACP, the rate of federal cost-sharing is generally between 50 percent and 75 percent of total conservation project costs up to a maximum of \$3,500 per farmer per year. The program is administered by USDA's Agricultural Stabilization and Conservation Service (ASCS) staff at the county level, who are known as county executive directors (CEDs).

One of the provisions of the recently enacted conservation reserve program contained in the Food Security Act of 1985 (Public Law 99-198) will pay annual land rent for a 10 to 15 year period and one-half the cost of establishing a cover when highly erodible land used in farming is converted to grass or trees. Because the conservation reserve program was enacted after we performed our work, we did not include it in our study.

OBJECTIVE, SCOPE, AND METHODOLOGY

The Congress and agricultural community have expressed concern that existing erosion rates are excessive and that current tax incentives for farmers to make soil and water conservation investments are inadequate. As requested by the Joint Committee on Taxation, the objective of our study was to provide a basis for analyzing the effects of income tax laws and other governmental programs on the willingness of farm landowners to invest in soil and water conservation measures. We conducted two questionnaire surveys to gain insight on the impact of government efforts to promote conservation practices. In addition to the landowner survey, we obtained limited tax information from IRS on the farm landowners to aid in our analysis of questionnaire responses. Our farm landowner survey work concentrated on soil conservation because of concern expressed about soil erosion's harmful effects on both soil and water resources. The other questionnaire, which was sent to ASCS county executive directors, addressed both soil and water conservation.

If the respondents to our questionnaires perceived that the surveys evaluated the government's tax and cost-share programs, they could have formulated their answers in support of these incentives. Analysts have generally found this possibility of bias as an important limitation of survey research.

FARM LANDOWNER QUESTIONNAIRE

To determine what influenced the decisions of farm landowners to invest or not to invest in soil conservation measures, we sent a questionnaire to a randomly selected nationwide sample of 1,000 farm landowners. We developed our questionnaire from discussions held with USDA officials during the initial phase of this study. We then pretested the questionnaire by administering it during personal visits with selected landowners. We asked each landowner to complete a questionnaire and offer comments and opinions. We also discussed their answers with them to see if they understood the questions and what their answers meant. As a result of the information gathered during the pretest, we modified the questionnaire.

In determining which farm landowners to include in our review, we considered the following factors. We wanted to have a sample that would represent farm landowners nationwide, include different size landowners in terms of the number of acres owned, and include landowners who owned and operated the land as well as landowners who owned but did not operate the land.

Universe identification

To identify our universe we obtained information about the number, size, and location of landowners in the United States from the Agricultural Stabilization and Conservation Service's (ASCS) agriculture program payment file (July 1983 Deficiency Farm and Producer Master File ASCS-566-1) and producer name and address file. These files contain names of landowners, addresses, and direct payments made to 2,352,241 producers for certain agriculture programs. We used computer assisted edit techniques to eliminate from this file (1) multiple landowners, (2) duplicate landowners, (3) unknown landowners, (4) government landowners, and (5) crossover landowners. Their elimination gave us a universe of 1,627,824 unique landowners, or 69 percent of the original universe. An explanation of each of these groups and our reasons for eliminating all or part of them follow:

- Multiple landowners are those who co-own land with other landowners. For example, one unit of land could have two or more co-owners. We counted these co-owners as one unique ownership unit and eliminated all but one of the co-owners for each ownership unit. This insured that this type of unique ownership had only one chance of being selected in our sample. We eliminated 310,690 multiple landowners from our universe.
- Duplicate landowners are producers who own more than one farm. We eliminated all but one of the farm records in the file for each of the duplicate landowners to insure that the duplicate landowners had only one chance of being selected in our sample. We eliminated 164,149 duplicate landowner records.
- Unknown landowners are those for whom the data base did not contain a producer identification number because the owner had not participated in USDA programs. We eliminated the 155,187 unknown landowners from our universe because it would have been too labor-intensive to manually trace them to USDA's name and address file, and the percentage of unknown landowners did not represent a significant portion of our universe.
- Government landowners are nonprofit organizations which own land in this country. Since they are not generally subject to federal income tax, we eliminated 1,396 such records from our universe.
- Crossover landowners are those who (1) own more than one farm and are classified on one as an owner/operator and as an owner/nonoperator on another, or (2) co-own land with one owner being an owner/operator and the other

being an owner/nonoperator. Because we wanted to make comparisons between responses from owner/operators and owner/nonoperators, we eliminated 92,995 landowners who could respond to a single questionnaire in both capacities.

In total, we eliminated 724,417 multiple, duplicate, unknown, government, and crossover landowners.

Sample selection

As discussed in appendix I, the section 175 tax deduction is only available to individuals who are in the business of farming. Landowners who lease their land for a fixed amount and are not actively participating in the management of the land are not allowed a tax deduction for their soil and water conservation expenditures. Since this restriction could affect their soil conservation decisions, we wanted to make statistically valid comparisons between the two groups. Therefore, we stratified the universe of unique landowners into two groups with each having five substrata. The first stratification of the universe was a division between landowners who own and operate the land and those who own the land but rent it to someone else for cash or a share of the crop.

We then further stratified the two groups according to the number of acres owned in order to insure that we covered a sufficient mix of different size landowners. In particular, we wanted to insure that a sufficient number of large landowners were included in our sample because approximately 51 percent of the land in this country is owned by 10 percent of the landowners. Table II.1 shows the characteristics of the universe and our sample.

Table II.1: Acreege Stratification by Type of Landowner

<u>Type owner</u>	<u>Number of acres</u>	<u>Universe</u>	<u>Sample</u>
Owner/Nonoperator	1-199	565,594	75
	200-399	126,291	100
	400-999	67,756	125
	1,000-19,999	19,130	166
	20,000 and Over	34	34
Subtotals		778,805	500
Owner/Operator	1-99	463,542	75
	100-399	310,320	100
	400-999	60,042	125
	1,000-19,999	15,086	171
	20,000 and Over	29	29
Subtotals		849,019	500
Totals		<u>1,627,824</u>	<u>1,000</u>

Response rate

From table II.1 it can be seen that the target population is approximately 1,628,000 (rounded to the nearest thousand) landowners. However, when people are requested to complete questionnaires, rarely do 100 percent of them respond. Of the 1,000 landowners who were sent questionnaires, 585 responded for response rates by type owner and amount of land owned ranging from 41 to 76 percent among the various strata, and for an overall weighted response rate of slightly more than 66 percent. In analyzing owners' responses about important influences on their soil conservation decisions, we used the 585 responses to project the results to only that portion, 1,076,000 (66 percent) of the universe represented by those responses. On an overall basis, we are 95-percent confident that the subpopulation of landowners to which we can project our results is about 66 percent (± 5 percent) of the original target population.

The 34 percent included in the nonresponse group were owners who (1) could not be located, (2) chose not to return the questionnaire, (3) were too aged or ill to respond, and (4) were estates or trusts. Without responses from the 34 percent, we do not know to what extent their experiences were similar to those who did respond. As a result, in analyzing owners' responses about important influences on their soil conservation decisions, we used 585 responses and projected the results to that portion, 66 percent, of the universe represented by these responses. A similar procedure was followed in each stratum of the landowner questionnaire.

Projection of sample results

We weighted the data base in order to project sample results to landowners in the United States who

- owned and operated their land,
- owned but did not operate their land,
- installed conservation measures, and
- did not install conservation measures.

The following example illustrates our weighting methodology. One group of owners we reviewed was landowners who operated the land and owned between 400 and 999 acres. This group consisted of 37,466 owners; we sampled 78. We calculated the weighting factor by dividing the stratum universe size by the stratum sample size ($37,466/78 = 480.34$). Therefore, any observed condition about one sampled owner in this group can be projected to 480.34 owners in that group.

For reporting purposes, we used the weighted mean and weighted proportion to project questionnaire responses to the universe as the best estimates because projections are based on a statistical sample rather than a complete enumeration. The figures presented in appendix III are therefore subject to variation. Appendix III contains the weighted means and proportions and related sampling errors.

We analyzed the data to determine the impact of certain factors on given variables. We used the chi-square test of independence and the comparison of means test (t-test).

Using the chi-square test of independence we (1) established the association between the variables tested and (2) determined the significance of the identified association. To illustrate, data collected on one variable produced the following answers.

<u>Type owner</u>	<u>Size</u>	<u>Yes answers</u>	<u>No answers</u>	<u>Total</u>
Owner/operator	1-199	6	51	57
	200-399	11	52	63
	400-999	26	43	69
	1,000-19,999	17	63	80
	20,000 and over	4	10	14
Owner/nonoperator	1-99	4	45	49
	100-399	12	43	55
	400-999	26	52	78
	1,000-19,999	26	74	100
	20,000 and over	2	18	20

The proportion of yes answers varied from a high of 38 percent in owner/operator strata 3 to a low of 10 percent in owner/nonoperator strata 5. But is this difference in proportions significant or merely the result of chance? We used the chi-square test of independence to evaluate these possibilities.

We determined the significance of the associations between the variables tested by using confidence levels which represent the probabilities that the associations were not products of chance. In interpreting the results, we used a confidence level of 95 percent or greater as being significant.

The comparison of means test is a statistical technique used to test differences in means between two or more independent groups. In our analysis, we used it to test for differences in means between owner/operators and owner/nonoperators. We also used it to test for differences in means between those who installed conservation practices and those who did not install such practices.

We determined the significance of the differences in means between groups by using confidence levels which represent the probabilities that the differences were not products of chance. In interpreting the results of our analysis, we used a confidence level of 95 percent or greater as being significant. Based on our response rate of 66 percent, our subpopulation is 1,076,000 (66 percent of the 1,628,000 unique landowners).

COUNTY EXECUTIVE DIRECTOR QUESTIONNAIRE

As part of our review, we sent a questionnaire to a nationwide statistical sample of 402 of the 2,754 USDA county executive directors (CEDs) who administer the federal Agricultural Conservation Program (ACP), which is directed at helping farmers to reduce soil erosion. ACP cost-sharing generally encourages soil and water conservation practices that are enduring or of a semipermanent nature. The program is administered by USDA's ASCS staff at the county level by the CEDs. These employees interact with farmers and, thus, can provide insight on what influences a farmer's decision to invest in soil or water conservation.

We developed our questionnaire from discussions held with USDA officials during the initial phase of this study. We then pretested the questionnaire by administering it during site visits with selected CEDs. We asked each CED to complete a questionnaire and offer comments and opinions. We also discussed their answers with them to see if they understood the questions and what their answers meant. As a result of information gathered during the pretest, we modified the questionnaire.

Universe identification

USDA provided us with a list of the universe of 2,754 counties and their CEDs throughout the country as of March 1984.

Sample selection

We selected a simple random sample of 409 counties from the list. The names of seven CEDs were listed twice because they covered two counties instead of one. We eliminated the duplicate names, thereby reducing the sample size to 402.

Response rate

Of the 402 CEDs to whom we sent questionnaires, 392 responded--a 97.5 percent response rate. We summarized the responses to all questions by the 392 CEDs as percentages on each of the tables in appendix IV.

Projection of sample results

Statistical sampling and the high response rate enabled us to project our sample results to 97.5 percent of the CED universe. However, the results from a statistical sample are subject to some uncertainty because of several possible sources of error. In interpreting the results of our analysis, we used a confidence level of 95 percent or greater. Based on our response rate of 97.5 percent, our subpopulation for the purpose of projecting our sample results is 2,685 (97.5 percent of the 2,754 CEDs in the entire universe).

Copies of the farm landowner and CED questionnaires are shown in appendixes V and VI, respectively.

FACTORS THAT INFLUENCED FARM
LANDOWNERS' CONSERVATION INVESTMENT DECISIONS

On the basis of landowners' responses to the questionnaire, we estimate that the most influential factor in the conservation investment decision is their perception of the level of erosion on their land. Most farm landowners did not invest in soil conservation measures during the period 1980 through 1984 because they did not perceive that their land had an erosion problem. For those landowners who perceived their land was eroding, government financial assistance was an important factor in their conservation investment decisions, and additional assistance would encourage more investments. The landowners who invested in soil conservation measures perceive a higher level of erosion on the majority of their land in comparison to those landowners who did not invest.

The landowners' responses indicate that, without the availability of the present tax deduction, federal and state cost-sharing programs, or both, about 52 percent (± 21 percent) of the soil conservation expenditures and 44 percent (± 13 percent) of the conservation measures would not have been made from 1980 through 1984. In contrast, 37 percent (± 24 percent) of the soil conservation expenditures and 42 percent (± 13 percent) of the conservation measures would have been implemented regardless of the availability of government financial incentives. The combination of the tax deduction with cost-sharing payments influenced, to a greater degree, the decisions of landowners to invest in comparison with the separate influences of either the tax deduction or availability of cost-share payments.

In addition, some landowners who believed they had an erosion problem indicated that an increase in direct subsidies through cost-sharing programs and a choice between a tax deduction or an investment tax credit would encourage additional conservation investments.

ESTIMATED NUMBER OF LANDOWNERS WHO
WERE INVESTORS AND NONINVESTORS AND
THEIR ACREAGE

On the basis of our 66 percent (± 5 percent) response rate, we were able to project our results to a subpopulation of 1,076,000 landowners who own an estimated 233 million (± 21 million) acres. This is about 52 percent (± 5 percent) of the total 445.5 million acres for the 2.0 million cropland farms reported by the U.S. Department of Commerce in the 1982 Census of Agriculture. Based on the subpopulation of 1,076,000 landowners, table III.1 shows that about 68 percent of the landowners, who owned an estimated 63 percent of the acres, did not invest in soil conservation measures during the period 1980 through 1984. Conversely, we estimate that 24 percent of the

landowners who own 35 percent of the acres did invest in soil conservation measures during this time frame. Eight percent of the landowners that participated in our survey did not indicate whether they invested in conservation measures.

Table III.1: Landowners' Responses on Conservation Investments and Acreage Owned During the Period 1980 through 1984

<u>Category of landowner</u>	<u>Estimated number of landowners (thousands)</u>	<u>Percentage</u>	<u>Cropland owned</u>	
			<u>Acres (millions)</u>	<u>Percentage</u>
Investors	257 (+ 14)	24 (+ 5%)	81 (+ 6)	35 (+ 7%)
Noninvestors	731 (+ 44)	68 (+ 6%)	147 (+ 10)	63 (+ 7%)
Unknowns	88 (+ 3)	8 (+ 4%)	6 (a)	2 (+ 5%)
Totals	<u>1,076</u>	<u>100 (+ 5%)</u>	<u>233^b(+ 21)</u>	<u>100 (+ 9%)</u>

^aLess than 1 million acres.

^bTotal does not add due to rounding.

FACTORS THAT INFLUENCED NONINVESTORS

Table III.2 shows the reasons given by landowners who did not invest in soil conservation measures because they were to a great or very great extent influenced by one or more of these reasons. We estimate that about 58 percent of those landowners who did not invest in soil conservation were greatly influenced by their belief that soil erosion was not a problem on their land. About 18 percent of those who did not invest were greatly influenced by either insufficient funds or insufficient governmental financial assistance or both.

Table III.2: Reasons Which Greatly Influenced Landowners Not to Invest in Soil Conservation During the Period 1980 through 1984^a

<u>Reasons for not investing</u>	<u>Estimated number of landowners (thousands)</u>	<u>Percent of respondents</u>
Erosion not a problem	423 (+ 62)	58 (+ 9%)
Insufficient funds and/or governmental financial assistance	122 (+ 44)	18 (+ 6%)
Conservation investments made prior to 1980	38 (+ 25)	5 (+ 4%)
Conservation would decrease production	35 (+ 29)	5 (+ 4%)
Conservation measures implemented by tenants	21 (+ 21)	3 (+ 3%)
Conservation would take too much time	20 (+ 21)	3 (+ 3%)

^aBecause the landowners could, and did, give more than one reason, totals are not appropriate.

In addition, these reasons were cited by some landowners as influencing their decisions, but to a lesser extent. Accordingly, we estimate that an additional 12 percent (+ 5 percent) of these landowners who did not invest in soil conservation were influenced, in part, by their belief that soil erosion was not a problem on their land.

We also estimate that an additional 10 percent (+ 5 percent) of the landowners who did not invest were influenced at least to some extent by either insufficient funds or by insufficient governmental financial assistance or both. Of these landowners, about three-fourths believed there was at least some level of erosion on their land.

Landowners must invest all or a part of the funds for the implementation of conservation measures. We estimate that of those landowners who did not invest in soil conservation because

of either insufficient funds or governmental financial assistance, or both, 52 percent (+ 15 percent) would be encouraged to do so if the state and/or federal government paid more than 40 percent of the total cost to install conservation measures.

FACTORS THAT INFLUENCED INVESTORS

As shown in table III.3, conserving soil was the primary reason that landowners invested in soil conservation measures during the 5-year period. We estimate that about 57 percent of the investing landowners were influenced to a great or very great extent by their interest in conserving soil. Also, of those landowners who invested in soil conservation measures, we estimate that 54 percent did so to maintain their land's value.

Table III.3: Reasons Which Greatly Influenced Landowners to Invest in Soil Conservation During the Period 1980 through 1984^a

<u>Reasons for investing</u>	<u>Estimated number of landowners (thousands)</u>	<u>Percent of respondents</u>
Conserve soil	147 (+ 33)	57 (+ 13%)
Maintain the value of land	138 (+ 33)	54 (+ 13%)
Maintain production	101 (+ 32)	39 (+ 13%)
Increase the value of land	90 (+ 31)	35 (+ 12%)
Increase production	63 (+ 23)	24 (+ 9%)
Decrease operating costs	51 (+ 24)	20 (+ 9%)

^aBecause the landowners could, and did, give more than one reason, totals are not appropriate.

In addition, these reasons were cited by some landowners as influencing their decisions, but to a lesser extent. For example, an additional 27 percent (+ 11 percent) of the investing landowners were influenced to at least some extent by their interest in conserving soil while less than 1 percent (+ 1 percent) said they were influenced to little or no extent. Of those landowners who invested in soil conservation measures, more did so to maintain, as opposed to increase, their land's value. Also, the belief that conservation measures would

decrease operating costs influenced, at least in part, the conservation decisions of some of the investing landowners.

DIFFERENCES BETWEEN INVESTORS AND NONINVESTORS

The landowners who invested in soil conservation measures, as opposed to those landowners who did not invest, perceived a higher level of erosion on the majority of their land, owned more farmland, and had greater gross and net farm income. Likewise, the landowners who invested were more likely to operate their own land and report farming operations as their primary source of income than the noninvesting landowners.

Perceptions of soil erosion

We estimate that about 50 percent (\pm 13 percent) of the landowners who invested in soil conservation measures, as compared to about 20 percent (\pm 7 percent) of those landowners who did not invest in measures, believed there was at least some level of erosion on the majority of their farmland. As stated earlier, the landowners' perception of the extent of soil erosion was the most important factor influencing their conservation decisions. Irrespective of other factors, the perception of the need to reduce or stop erosion caused landowners to invest in soil conservation measures if they had the necessary investment capital.

Primary source of income

Landowners whose primary source of income was from farming operations were more likely to invest in soil conservation measures than those landowners whose primary source of income was from sources other than from farming. Of those landowners who invested in soil conservation measures, tax return information for 1981 through 1983 showed that 61 percent (\pm 12 percent) reported farming as their primary source of income. Conversely, of the landowners who did not invest in conservation, 64 percent (\pm 7 percent) reported a primary source of income other than from farming during the 1981 through 1983 tax years.

Operate versus rent

Landowners who operated their farmland, as opposed to landowners who rented their land, were more likely to invest in conservation measures. On the basis of responses, we estimate that 34 percent (\pm 9 percent) of the landowners who operated their land, as opposed to 16 percent (\pm 6 percent) of those landowners who rented their land, invested in conservation measures from 1980 through 1984. The landowner's perception of soil erosion could be one explanation for this difference. Another explanation might be that the tenant is investing in

conservation or that rented farmland is less erodible because farm operators who rent want good farmland. Of those landowners who were influenced to a great or very great extent not to invest in conservation because they perceived that erosion was not a problem, we estimate that 61 percent (\pm 9 percent) rented their land as opposed to 39 percent (\pm 9 percent) who operated their own land.

Acres owned

The landowners who invested in soil conservation owned more farmland than those landowners who did not invest in conservation during the period 1980 through 1984. On the basis of responses, we estimate that landowners who invested in conservation owned an average of 316 acres (\pm 42 acres) as compared to an average of 201 acres (\pm 23 acres) owned by those landowners who did not invest in soil conservation. The size of the farm operation may be different from the acres owned because landowners may operate both land they own as well as additional land they rent from others.

Gross and net farm income

More landowners who invested in soil conservation measures had greater gross farm income and net farm income than those landowners who did not invest. For example, we estimate that about 21 percent (\pm 9 percent) of the landowners who invested, as opposed to about 9 percent (\pm 5 percent) of those landowners who did not invest in soil conservation, had gross farm receipts of at least \$60,000 and net farm income of \$10,000 or more for each of the years 1981 through 1983. In general, production, and thus farm income, increased with the size of the farmland acres owned.

IMPACT OF GOVERNMENT FINANCIAL INCENTIVES ON CONSERVATION DECISIONS

To ascertain whether the incentives affected the landowners' conservation investment decisions, we asked the landowners if they had implemented certain conservation measures from 1980 through 1984 including their cost. In addition, we asked those landowners who reported implementing at least one measure, (1) would they have established the measure without the availability of the federal tax deduction and governmental cost-shares and (2) to what extent was their decision to practice soil conservation influenced by these incentives.

According to their responses, past levels of soil conservation would not have occurred without the tax deduction and/or government cost-shares. Absent these incentives, we estimate that landowners would not have implemented 44 percent

of the soil conservation measures. Also, we estimate that about 52 percent of the conservation dollars would not have been invested during the 5-year period. More landowners were influenced to some extent by both the tax deduction and cost-share incentives in comparison to the tax deduction alone or cost-share alone.

Almost 50 percent of the landowners responded that the federal government should provide financial assistance to farmers for practicing soil conservation. We estimate from responses that about three-fifths of the landowners thought that from 20 to 60 percent were the lowest levels of total state and federal tax and cost-sharing subsidies needed to encourage their investment in soil conservation practices. Some landowners who said they would not have invested without the incentives might have actually made a somewhat different investment. For example, the landowner would have the alternative to possibly scale down the size of the conservation practice based on the combination of funds available rather than not go ahead with the practice.

Sources and amount of conservation investments

On the basis of responses, we estimate that slightly over 159,000 (+ 32,000)¹ farm landowners established about 202,000 (+ 48,000) specific soil conservation measures during the 5-year period. Also, we estimate that these landowners owned about 24 percent (+ 4 percent) of the cropland acreage in our universe. Table III.4 shows the estimated cost of measures and the source of the investment capital.

¹Of the 257,000 (+ 57,000) landowners in our survey who installed soil conservation measures, only 62 percent (159,000) provided complete cost information on at least one of their measures.

Table III.4: Sources and Amount of Investments by Landowners From 1980 through 1984

<u>Source of investment</u>	<u>Amount of investment (millions)</u>	<u>Percentage of total investment</u>
Landowners	\$480 ^a (+ \$179)	75
Federal cost-shares	143 (+ \$63)	22
State cost-shares	<u>15</u> (+ \$15)	<u>2</u>
Totals	<u>\$638</u> (+ \$194)	<u>100^b</u>

^aThe landowners' \$480 million investment does not take into account the cost of the conservation tax expenditure.

^bTotal does not add due to rounding.

Source: GAO survey of landowners. See app. V, question 8, for the list of conservation measures.

Investments that would not have been made without financial incentives

Table III.5 shows the estimated cost of conservation measures that landowners would not have implemented without the financial incentives. Without these incentives, 52 percent of the conservation dollars would not have been invested during the period 1980 through 1984. Of this 52 percent, the combination of the tax deduction and cost-share payments accounted for more total investments (governmental and landowner), about 28 percent, in comparison with separate influences of either the amounts generated individually by the tax deduction (17 percent) or availability of cost-share incentives (7 percent).

As shown in table III.5, with the landowners as the only source of conservation investment, the availability of the tax deduction accounted for a larger amount (\$104 million) in comparison with the influence of the combined availability of the tax deduction and cost-share incentives (\$85 million). The cost-share influence would have been \$27 million.

Table III.5: Investments That Would Not Have Been Made
From 1980 through 1984
(\$ in millions)

<u>Source of investment</u>	<u>No tax deduction</u>	<u>No cost-shares</u>	<u>Combination of no deduction and cost-shares</u>	<u>Total</u>
Landowners	\$104 (+ \$84)	\$27 (+ \$31)	\$ 85 (+ \$45)	\$216
Federal cost-shares	1 (+ \$2)	9 (+ \$9)	92 (+ \$61)	102
State cost-shares	<u>1</u> (+ \$2)	<u>9</u> (+ \$13)	<u>a</u>	<u>11</u>
Totals	<u>\$107^b</u> (+ \$85)	<u>\$45</u> (+ \$49)	<u>\$177</u> (+ \$99)	<u>\$330^b</u>
Percent of total investment of \$638 million from table III.4	17%	7%	28%	52%

^aLess than \$1 million.

^bTotals do not add due to rounding.

On the basis of responses from landowners who provided cost information, we estimate that landowners would not have implemented 44 percent (+ 13 percent) of the 202,000 conservation measures without governmental financial incentives. Also, we estimate that slightly over 37 percent (+ 24 percent) or \$239 million (+ \$155 million) of the conservation dollars and 42 percent (+ 13 percent) of the conservation measures would have been implemented regardless of the availability of government financial incentives. The landowners who reported they would have implemented measures without any financial assistance provided 91 percent of their up-front conservation costs. The landowners did not tell us whether the remaining 14 percent (+ 8 percent) would have been installed with or without financial incentives.

Influence of both the tax deduction and/or cost-share payments

As shown on table III.5, the combination of the tax deduction with state and federal cost-sharing programs encouraged the largest total dollar expenditure (\$177 million) in conservation measures. The influence of these incentives on the

individual decisions of landowners to invest to some extent in conservation is shown on table III.6. We estimate that 41 percent of all the landowners who installed measures were influenced to invest to some extent by both the tax deduction and cost-share incentives. An additional 7 percent were influenced by the tax deduction alone, and 16 percent were influenced only by the cost-shares. Accordingly, on an overall basis, we estimate that of the landowners who installed conservation measures, 48 percent were influenced to some extent by the tax deduction, and 57 percent were influenced to some extent by the cost-shares.²

Table III.6: Landowners' Conservation Decisions Influenced to Some Extent By the Tax Deduction and Cost-share

<u>Factors that influenced investors</u>	<u>Estimated number of landowners (thousands)</u>	<u>Percentage</u>
Tax deduction	123 (+ 33)	48 (+ 13%)
Cost-share	146 (+ 33)	57 (+ 13%)
Both tax deduction and cost-share	105 (+ 31)	41 (+ 12%)

Source: GAO survey of landowners. See app. V, questions 11 and 12.

IMPACT OF ADDITIONAL FINANCIAL INCENTIVES ON CONSERVATION DECISIONS

To ascertain whether changes in financial assistance would result in more soil conservation, we asked the landowners the extent to which three specific changes to the current incentives

²Table III.6 respondents who indicated they performed conservation measures fall into four mutually exclusive categories, as follows: (1) 7 percent (+ 6 percent) of the landowners who invested were influenced by the tax deduction alone, (2) 16 percent (+ 10 percent) by the cost-share alone, (3) 41 percent (+ 12 percent) of the landowners who invested were influenced by both categories (1) and (2), and (4) 22 percent (+ 10 percent) of the landowners indicated they were influenced to a little or no extent by being able to participate in either the tax or cost-share programs or both.

would encourage them to invest in additional conservation measures. These changes were (1) a choice between a tax credit or tax deduction for soil conservation investments, (2) an increase in the percentage of conservation costs the state and/or federal government would pay through their cost-share programs, and (3) an increase in the \$3,500 annual ceiling for the federal cost-share program.

On the basis of responses to our questionnaire, we estimate that almost 47 percent (+ 6 percent) of the landowners would be encouraged to make additional soil conservation investments if one or more of these changes were made to the financial incentives.

Choice between a tax credit or deduction

Of the three alternatives, landowners expressed a slight preference for changing the tax law to allow a choice between a tax deduction or a tax credit. We estimate that given this choice, about 40 percent (+ 6 percent) of the landowners would be influenced to at least some extent to invest in soil conservation measures for the first time or to a greater extent by this additional incentive. In addition, we estimate that about 69 percent (+ 7 percent) of the landowners for whom we obtained tax information had some level of tax liability for 1983. This means that landowners could have benefited from a tax credit if they installed an eligible conservation measure that year. However, the use of a credit instead of a deduction might be influenced by other factors, such as the landowner's marginal tax rate.

Percentage increase in federal/state cost-share

The landowners' second choice among the incentives was an increase in the percentage of conservation costs the federal and state governments would pay in their cost-share programs. We estimate that 38 percent (+ 6 percent) of the landowners would be encouraged at least to some extent to invest in more conservation if the percentage of cost-shares paid for conservation measures was increased.

Increase Agricultural Conservation Program (ACP)

In the federal ACP cost-share program, a landowner may not receive more than \$3,500 per year on all farmland owned. Raising the \$3,500 annual ceiling was the least popular of the three choices. This may be because the ceiling would affect only those landowners who obtain federal cost-shares and make a substantial conservation investment in a given year. We estimate that 28 percent (+ 6 percent) of the landowners would be influenced to at least some extent to invest in conservation if the annual ceiling of \$3,500 was raised.

VIEWS OF USDA COUNTY EXECUTIVE DIRECTORS ON
CONSERVATION INCENTIVES AND FARMERS'
CONSERVATION DECISIONS

We asked the CEDs for their views on the role the current tax deduction plays in farmers' conservation decisions and the potential roles of alternatives to the deduction. Most CEDs were at least marginally familiar with section 175. Over 97 percent of the 402 CEDs in our sample responded to our questionnaire. In the opinion of about one-half of the CEDs the impact of section 175 in promoting soil or water conservation was limited. The CEDs also believed that the three alternatives, on which we asked their opinions, would be more effective, leading to increased conservation in the future. Two alternatives involved increasing direct cash assistance to farmers through current federal and state cost-sharing programs. A third alternative involved providing farmers a choice between a tax credit or tax deduction for investments in soil or water conservation.

DEDUCTION'S INFLUENCE ON CONSERVATION DECISIONS

According to the CEDs, the section 175 tax deduction does not significantly influence farmers' conservation decisions. On the basis of our sample of CED responses, we estimate that about 50 percent of the CEDs indicated that the federal tax deduction had a small or very small impact on farmers' decisions to invest in conservation measures; and about 6 percent (+ 2 percent) indicated that it had a large or very large impact. Table IV.1 shows our projections based on CED responses to question 17 of the questionnaire in appendix VI.

Table IV.1: Impact of Section 175 of the Internal Revenue Code on Farmers' Decisions to Invest in Conservation

<u>Impact</u>	<u>Estimated number of CEDs</u>	<u>Percentage of CEDs</u>
Very large	21 (<u>± 21</u>)	1 (<u>± 1%</u>)
Large	130 (<u>± 53</u>)	5 (<u>± 2%</u>)
Moderate	664 (<u>± 106</u>)	25 (<u>± 4%</u>)
Small	836 (<u>± 114</u>)	31 (<u>± 4%</u>)
Very small	514 (<u>± 97</u>)	19 (<u>± 4%</u>)
No basis to judge	<u>521</u> (<u>± 97</u>)	<u>19</u> (<u>± 4%</u>)
Totals	<u>2,685^a</u>	<u>100</u>

^aTotal does not add due to rounding.

IMPACT OF ADDITIONAL FINANCIAL INCENTIVES ON CONSERVATION DECISIONS

We asked the CEDs to estimate the extent to which three alternatives involving financial assistance would encourage farmers to make additional soil or water conservation investments. CEDs generally believed that the following three alternatives to section 175 would be more effective in promoting conservation than the existing programs.

Percentage increase in federal/state cost-share

Most CEDs expressed a preference for increasing the percentage of project costs the federal and state governments would pay farmers through ACP cost-sharing programs. About 61 percent (± 5 percent) of the CEDs responded that increasing the cost-sharing percentage would encourage farmers, to a great or very great extent, to invest in more soil or water conservation measures. About 23 percent of the CEDs indicated that it would encourage farmers to a moderate extent. Table IV.2 shows the distribution of CED responses to question 28 of the questionnaire in appendix VI.

Table IV.2: Extent to Which Increasing the Cost-sharing Percentage Would Encourage Farmers to Invest in Conservation Measures

<u>Extent</u>	<u>Estimated number of CEDs</u>	<u>Percentage of CEDs</u>
Very great	665 (+ 106)	25 (+ 4%)
Great	973 (+ 118)	36 (+ 4%)
Moderate	610 (+ 103)	23 (+ 4%)
Some	329 (+ 81)	12 (+ 3%)
Little or no	<u>103 (+ 47)</u>	<u>4 (+ 2%)</u>
Totals	<u>2,680^a</u>	<u>100</u>

^aThere were only 391 responses to this question, yielding an adjusted universe size of 2,679. The total does not add to 2,679 due to rounding.

Although our CED sample results show that increasing cost-sharing assistance to farmers may lead to greater future conservation, they also show that some farmers apparently practice conservation without cash assistance from either the federal or state government. On the basis of our sample, about 66 percent (+ 4 percent) of the CEDs estimated that in 1982, up to 25 percent of the farmers in their respective counties practiced soil or water conservation without federal or state cost-sharing assistance. On the basis of our analysis of data from the farm landownership survey (see app. III, pp. 21 to 23), we estimate that 42 percent (+ 13 percent) of the conservation measures that cost about \$239 million (+ \$155 million), slightly over 37 percent of investments, would have been implemented regardless of the availability of any government financial incentives. This is in contrast to our CED sample results which showed that relatively few farmers participated in conservation cost-sharing programs in 1982. On the basis of our analysis, we estimate that about 62 percent (+ 5 percent) of the CEDs indicated that less than 10 percent of all farmers in their respective counties participated in cost-sharing programs in 1982; whereas about 26 percent (+ 4 percent) indicated that 10 to 20 percent of all farmers participated.

Increase Agricultural
Conservation Program ceiling

The second most popular alternative was increasing the \$3,500 annual ceiling for the ACP payments. On the basis of our sample projections, we estimate that about 43 percent (+ 5 percent) of the CEDs indicated that increasing the ACP ceiling would encourage farmers, to a great or very great extent, to invest in more soil or water conservation measures. About 27 (+ 4 percent) percent of the CEDs indicated that it would encourage farmers to a moderate extent. Table IV.3 shows our projections based on CED responses to question 28 of the questionnaire in appendix VI.

Table IV.3: Extent to Which Increasing the Agricultural
Conservation Program Ceiling Would Encourage
Farmers to Invest in More Conservation Measures

<u>Extent</u>	<u>Estimated number of CEDs</u>	<u>Percentage of CEDs</u>
Very great	418 (+ 89)	16 (+ 3%)
Great	733 (+ 109)	27 (+ 4%)
Moderate	733 (+ 109)	27 (+ 4%)
Some	521 (+ 97)	20 (+ 4%)
Little or no	<u>267 (+ 74)</u>	<u>10 (+ 3%)</u>
Totals	<u>2,672^a</u>	<u>100</u>

^aAdjusted universe size due to receiving only 390 responses to this question.

Additional County Executive Director comments on ACP

About 17 percent of the CEDs wrote comments on their questionnaires advocating an increase in total ACP funds. Of these CEDs, about 3 percent of our CED respondents did not believe that increasing the ACP cost-sharing percentage or increasing the ACP annual ceiling could successfully lead to greater conservation unless total ACP funds were also increased.

Choice between a tax credit or deduction

The third alternative to section 175 in order of CED preference was providing farmers a choice between a tax credit or tax deduction for investments in soil and water conservation. On the basis of our sample, we estimate that about 33 percent (+ 5 percent) of the CEDs reported that a choice between a tax credit or deduction would encourage farmers, to a great or very great extent, to invest in more soil or water conservation measures. An additional 33 percent (+ 5 percent) said the choice would encourage farmers to a moderate extent. Table IV.4 shows our projections based on CED responses to question 28 of the questionnaire in appendix VI.

Table IV.4: Extent to Which a Choice Between a Tax Credit or Deduction Would Encourage Farmers to Invest in More Conservation Measures

<u>Extent</u>	<u>Estimated number of CEDs</u>	<u>Percentage of CEDs</u>
Very great	206 (+ 65)	8 (+ 2%)
Great	671 (+ 106)	25 (+ 4%)
Moderate	891 (+ 116)	33 (+ 4%)
Some	699 (+ 108)	26 (+ 4%)
Little or no	<u>212 (+ 66)</u>	<u>8 (+ 3%)</u>
Totals	<u>2,679^a</u>	<u>100</u>

^aAdjusted universe size due to receiving only 391 responses to this question.

KNOWLEDGE OF SECTION 175 OF THE INTERNAL REVENUE CODE

We estimated that about 65 percent (+ 5 percent) of the CEDs were marginally to very familiar with section 175 of the Internal Revenue Code. Most of the CEDs believed the tax

deduction had little or no impact on the farmers' decisions to undertake soil or water conservation. Our projections based on CED responses to question 16 of the questionnaire in appendix VI are shown in table IV.5.

Table IV.5: County Executive Directors' Familiarity With Section 175 of the Internal Revenue Code

<u>Degree of familiarity</u>	<u>Estimated number of CEDs</u>	<u>Percentage of CEDs</u>
Very familiar	75 (+ 41)	3 (+ 2%)
Familiar	610 (+ 105)	23 (+ 2%)
Marginally familiar	1,048 (+ 122)	39 (+ 5%)
Unfamiliar	685 (+ 107)	25 (+ 4%)
Very unfamiliar	<u>267 (+ 75)</u>	<u>10 (+ 3%)</u>
Totals	<u>2,685</u>	<u>100</u>



U S GENERAL ACCOUNTING OFFICE

SURVEY OF EFFECTIVENESS OF GOVERNMENT EFFORTS TO PROMOTE SOIL AND WATER CONSERVATION PRACTICES BY FARMLAND OWNERS
FARMLAND OWNER QUESTIONNAIRE

INSTRUCTIONS

The U.S. General Accounting Office (GAO), an agency of the Congress, is reviewing the effectiveness of the government's tax incentive and cost sharing programs in promoting soil and water conservation practices by farmers.

The purpose of this questionnaire is to find out if you have soil erosion problems on your farm, if you have used soil or water conservation practices, what effect these practices have had, and the extent to which the government has subsidized these practices. Your answers will be treated confidentially and we will not release them outside of GAO in a form which you can be identified, either directly or indirectly. In our report, the answers to our questionnaire will be presented in summary form. The 4 digit code number entered on this page is solely for questionnaire identification and will not be used to identify you with your responses.

Please complete the questionnaire and return it in the pre-addressed envelope within 10 days. Complete your answers by either checking the appropriate box or filling in the indicated blank. The questionnaire should take no more than 30 minutes to complete. If you have any questions, please call Royce Baker at (913) 236-3817, or Norman Miller at (202) 376-0023 collect.

In the event the envelope provided is misplaced, mail to:
 Ms. Royce Baker
 U.S. General Accounting Office
 Room 717 Gateway II Building
 4th and State
 Kansas City, KS 66101

1. Approximately how many acres of farmland do you own? (If none enter 0.)

_____ (Number of farmland acres owned)

2. Approximately how many acres of the farmland you own do you also operate? (If none enter 0.)

_____ (Number of acres you own and operate)

3. Approximately how many acres of the farmland you own do you rent out for a share of the crops? (If none enter 0.)

_____ (Number of acres of your farmland you rent out for a share of the crops)

4. Approximately how many acres of the farmland you own do you cash rent out? (If none enter 0.)

_____ (Number of acres you cash rent out)

5. Approximately what percent of the total farmland you own could be classified as having the following degrees of soil erosion? (The total of the percents entered should add to 100 percent. If none enter 0.)

		Percent
1	Very slight or no soil erosion	____ %
2	Some soil erosion	____ %
3	Moderate degree of soil erosion	____ %
4	High degree of soil erosion	____ %
5	Very high degree of soil erosion	____ %
	Total	100%

6. How did you determine that you have a soil erosion problem on the farmland you own? (Check all that apply.)

- 1 Advice from a federal or state agency such as the Soil Conservation Service, Extension Service, Agricultural Stabilization and Conservation Service, or State Soil Conservation Department
- 2 Advice from another individual not included in choice 1
- 3 Yields decreased or remained consistent
- 4 Gullies formed in fields
- 5 Sediment trapped in fences, trees, or hedgerows
- 6 Seed or crops washed away
- 7 Texture or color of exposed soil
- 8 Other (Specify) _____
- 9 Do not have a soil erosion problem

7. Without using soil conservation practices on the farmland you own, when do you feel soil erosion would begin to cause a decline in the yield? (Check one.)

- 1 Less than 5 years
- 2 6 to 10 years
- 3 11 to 20 years
- 4 Over 20 years
- 5 Probably never _____
- 6 Do not have a soil erosion problem

8. For any of the following conservation practices that you have installed in the last 5 years (1980 through 1984) on any of the farmland you own, please enter (A) the year it was installed, (B) the cost of the practice, (C) whether you would have installed it if you (1) could not receive government cost sharing payments or (2) could not deduct the cost on your federal tax return, and (D) how many years it will take to regain your investment. (If you have installed any of these, please complete requested information for each practice used and ship to Question 10. If you have not installed any of these practices, go directly to Question 9.)

Conservation practice	(A) Year first used (1980-1984)	(B) Cost of the practice over normal operating costs (If none, enter "0")			(C) If there is a cost involved, would you have used the practice if:				(D) If there is a cost involved, how many years will it take to regain your investment (Check one)					
		Your cost	Federal cost share	State cost share	(C 1) you had not received government cost sharing payments? (Check one)		(C 2) you could not deduct it on your federal tax return? (Check one)		1-5 years	6-10 years	11-20 years	Over 20 years		
					Yes	No	Yes	No						
		(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(3)	(4)			
1. Conservation tillage: ("Minimum tillage" reduced tillage" or "no till") reducing operations to the minimum needed for seed bed preparation and weed control which leaves varying amounts of crop residue on the soil surface following planting	19__	\$ ____	\$ ____	\$ ____										
2. Contour farming with or without strips: Preparing the land, planting and cultivating on the contours, with or without strips of grass or close growing crops alternating with row crops in strips of similar widths	19__	\$ ____	\$ ____	\$ ____										
3. Diversions channels: Building a channel, embankment, or other man-made structure which diverts flowing water so as to reduce its erosive impact	19__	\$ ____	\$ ____	\$ ____										
4. Establishment or improvement of permanent pasture or other vegetative cover: Protecting erosive land by keeping it unplowed for many years so that pasture plants or other perennials and self-seeding annuals are undisturbed	19__	\$ ____	\$ ____	\$ ____										
5. Grassed waterway: Developing a shallow waterway covered with erosion-resistant grasses to conduct surface water from or through cropland	19__	\$ ____	\$ ____	\$ ____										
6. Terraces: Building an embankment or an embankment with channels across a slope to control erosion by diverting and temporarily storing surface runoff	19__	\$ ____	\$ ____	\$ ____										
7. Water impoundment reservoirs: Building a dam or other structure to store water so as to prevent formation or enlargement of gullies	19__	\$ ____	\$ ____	\$ ____										

9 To what extent, if at all, do the following statements explain why you have not used the conservation practices specified in Question 8 on the farmland you own in the past 5 years?

(Check one column for each reason.)

Reasons for not practicing soil conservation	To a very great extent	To a great extent	To a moderate extent	To some extent	To little or no extent
	(1)	(2)	(3)	(4)	(5)
1 Soil erosion is not a problem					
2 Insufficient funds to invest in soil conservation					
3 Soil conservation practices will decrease production					
4 Soil conservation practices would take too much of my time					
5 Insufficient federal and/or state assistance are available to me					
6 Other (Specify) _____					

Skip to Question 13

10 To what extent, if at all, do the following statements explain why you use soil conservation practices on the farmland you own?

(Check one column for each reason.)

Reasons for practicing soil conservation	To a very great extent	To a great extent	To a moderate extent	To some extent	To little or no extent
	(1)	(2)	(3)	(4)	(5)
1 To control erosion					
2 The practices will lower my operating costs					
3 The practices will increase production					
4 The practices will maintain production at its current level					
5 The practices will maintain the value of my land					
6 The practices will increase the value of my land					

11 To what extent, if at all, was your decision to practice soil conservation influenced by federal and/or state financial assistance? (Check one.)

- 1 To a very great extent
- 2 To a great extent
- 3 To a moderate extent
- 4 To some extent
- 5 To little or no extent

12 To what extent, if at all, was your decision to practice soil conservation influenced by the federal tax benefit received from deducting the soil and water conservation expenses on your federal income tax return? (Check one.)

- 1 To a very great extent
- 2 To a great extent
- 3 To a moderate extent
- 4 To some extent
- 5 To little or no extent

13 To what extent, if at all, would the following government incentives encourage you to invest in soil conservation practices either for the first time or to a greater extent than you do now?

(Check one column for each incentive.)

Incentives to invest in soil conservation practices	To a very great extent	To a great extent	To a moderate extent	To some extent	To little or no extent
	(1)	(2)	(3)	(4)	(5)
1 Increase the percentages the federal and state governments would pay through cost share programs					
2 Increase the current \$3,500 annual ceiling for the federal cost sharing program (ACPI)					
3 Provide a choice between a tax credit or tax deduction for investments in soil conservation					
4 Other (Specify) _____					
5 Other (Specify) _____					

- 14 Do you think that the federal government should provide financial assistance to farmers for practicing soil conservation? (Check one)
- 1 Yes (Continue with Question 15) (4b)
- 2 No (Skip to Question 16)
- 15 Of the following levels of total state and federal tax and cost share subsidies for soil conservation, which is the lowest level of the total cost that would encourage you to invest in soil conservation practices? (Check one) (4c)
- 1 Up to 20%
- 2 21% to 40%
- 3 41% to 60%
- 4 61% to 80%
- 5 81% to 100%

The following questions were developed to review the use and complexity of tax laws concerning soil and water conservation expenses. They are not intended as a review of your federal tax return.

- 16 For which of the following tax years if any did you pay for soil and/or water conservation measures? (Check all that apply)
- 1 1983 (4d)
- 2 1982 (Continue with Question 17) (4e)
- 3 1981 (4f)
- 4 None of the above years (Skip to Question 22) (4g)
- 17 For those tax years that you paid for soil and/or water conservation measures, did you deduct your conservation expenses on your federal tax return?

(Check one column for each tax year)

Tax year	Yes	No	No conservation expenses that year
	(1)	(2)	(3)
1 1983			
2 1982			
3 1981			

- 18 For those tax years that you deducted conservation expenses on your federal tax return (any year where you checked the Yes column in Question 17) please enter the amount of your deduction below

Tax year	Amount of deduction
1 1983	\$ _____ (5a)
2 1982	\$ _____ (5b)
3 1981	\$ _____ (5c)

- 19 For those tax years that you deducted soil and/or water conservation expenses on your federal tax return, approximately what percentage of this deduction was for soil conservation measures as opposed to water conservation measures? (If none enter 0)

Tax year	Percent of deduction for soil conservation measures
1 1983	_____ % (6a)
2 1982	_____ % (6b)
3 1981	_____ % (6c)

- 20 For those tax years that you deducted soil and/or water conservation expenses on your federal tax return (any year where you checked yes in Question 17) approximately what percentage was deducted under each of the following categories on the tax form? (If none enter 0)

Approximate percent of deduction applied to

Tax year	Labor expenses	Machine hire expenses	Depreciation expenses	Conservation expenses	Other (Specify)
1 1983					
2 1982					
3 1981					

- 21 For those years that you deducted conservation expenses on your federal tax return (any year with a Yes response in Question 17) which of the following federal income tax returns shows your deduction?

(Check all that apply for each tax year)

Tax year	(1)	(2)	(3)	(4)	(5)
1 1983					
2 1982					
3 1981					

--	--	--

22 For the following tax years in which ways did you own your farm?

(Check all that apply for each tax year.)

Tax years	<table border="1" style="width: 100%; text-align: center;"> <tr> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">Sole proprietor (individual ownership) or joint ownership with spouse</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">Partnership with other family members or with non family members</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">Family corporation with 25 or fewer stock holders</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">Any other corporation</td> </tr> </table>				Sole proprietor (individual ownership) or joint ownership with spouse	Partnership with other family members or with non family members	Family corporation with 25 or fewer stock holders	Any other corporation
	Sole proprietor (individual ownership) or joint ownership with spouse	Partnership with other family members or with non family members	Family corporation with 25 or fewer stock holders	Any other corporation				
(1)	(2)	(3)	(4)					
1 1983								
2 1982								
3 1981								

24 Please indicate below your approximate net farm income (gross farm receipts less farm expenses) in 1981, 1982, and 1983?

(Check one box for each column.)

Net farm income	Tax Year		
	1981	1982	1983
1 0 or loss			
2 \$1-\$4,999			
3 \$5,000-\$9,999			
4 \$10,000-\$19,999			
5 \$20,000-\$39,999			
6 \$40,000-\$59,999			
7 \$60,000-\$99,999			
8 \$100,000-\$199,999			
9 \$200,000-\$499,999			
10 \$500,000 or more			

23 Please indicate below the approximate amount of your total gross farm receipts in 1981, 1982, and 1983?

(Check one box for each column.)

Gross farm receipts	Tax Year		
	1981	1982	1983
1 0			
2 \$1-\$4,999			
3 \$5,000-\$9,999			
4 \$10,000-\$19,999			
5 \$20,000-\$39,999			
6 \$40,000-\$59,999			
7 \$60,000-\$99,999			
8 \$100,000-\$199,999			
9 \$200,000-\$499,999			
10 \$500,000 or more			

25 For those tax years that you paid for soil conservation measures but did not deduct these expenses on your federal tax return (any year where column 2 "No" was marked in Question 17) which of the following statements explains why you did not deduct these expenses? (If column 2 was not marked in Question 17 go directly to Question 26) (Check all that apply.)

- 1 You were not required to file a federal income tax return because of insufficient income. (16)
- 2 You did not know you could deduct certain conservation expenses on your federal tax return. (17)
- 3 You preferred to add the conservation expenses to the value of your land rather than deducting them on your return. (18)
- 4 You could not deduct all or part of your conservation expenses because your gross farm income was too low. (19)
- 5 Other (Specify) _____ (14)

26 Did you prepare your own federal income tax return for the tax years 1983, 1982, and 1981? (Check one box for each year.)

	Yes	No
	(1)	(2)
1 1983		
2 1982		
3 1981		

27 How familiar are you with the federal tax provision for soil and water conservation expenses? (Check one.)

- 1 Very familiar
- 2 Familiar
- 3 Marginally familiar
- 4 Unfamiliar
- 5 Very unfamiliar

28 If you have any comments about the questions in this survey or about soil or water conservation measures, please write them below.

THIS COMPLETES OUR SURVEY

THANK YOU VERY MUCH FOR YOUR TIME AND EFFORT

As stated earlier, your answers will be treated confidentially and we will not release them outside of GAO in a form which you can be identified, either directly or indirectly. In our report, the answers to our questionnaire will be presented in summary form.

PERSON COMPLETING QUESTIONNAIRE

NAME _____

COUNTY AND STATE _____

PHONE NUMBER _____



U S GENERAL ACCOUNTING OFFICE
**SURVEY OF GOVERNMENTAL EFFORTS
 TO PROMOTE SOIL AND WATER CONSERVATION
 PRACTICES BY FARMERS
 COUNTY EXECUTIVE DIRECTOR QUESTIONNAIRE**

INSTRUCTIONS:

The U S General Accounting Office (GAO), an agency of the Congress, is reviewing the effectiveness of the government's tax incentive and cost sharing programs in promoting soil and water conservation practices by farmers

The purpose of this questionnaire is to find out whether you think soil erosion is a problem that affects cropland and water quality in your county We also want to find out your opinion about what soil and water conservation practices farmers undertake, if any, in your county because government tax incentives and cost sharing are available to reduce the cost of soil and water conservation projects

Please complete the questionnaire and return it in the pre addressed envelope within 10 days Complete your answers by either checking the appropriate box or filling in the indicated blank The questionnaire should take no more than 30 minutes to complete If you have any questions please call Ann Lee at (415) 556 6200 or Norman Miller at (202) 376 0023, collect

In the event the envelope provided is misplaced, mail to

Ms Ann Lee
 U S General Accounting Office
 Suite 900, State Fund Building
 1275 Market Street
 San Francisco, CA 94103

□ □ □ □ □

1 In your opinion, in 1982 about what percentage of the total cropland in your county(s) had erosion problems, that is, where without some conservation measure yields would be interfered with (Check one) (10)

- 1 0% to 25%
- 2 26% to 50%
- 3 51% to 75%
- 4 Over 75%

2 In the opinion of **most farmers** in your county(s) about what percentage of the total cropland had erosion problems in 1982? (Check one) (11)

- 1 0% to 25%
- 2 26% to 50%
- 3 51% to 75%
- 4 Over 75%

3 To what extent, if at all, were the following soil or water conservation practices used by farmers in your county(s) in 1982?

(Check one column for each practice)

Conservation Practices	<div style="display: flex; justify-content: space-around; text-align: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">To a very great extent</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">To a great extent</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">To a moderate extent</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">To some extent</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">To little or no extent</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Do not know</div> </div>					
	(1)	(2)	(3)	(4)	(5)	(6)
1 Conservation tillage ("minimum tillage" or "reduced tillage") (10)						
2 Contour farming with or without strips (10)						
3 Crop rotation (10)						
4 Diversion channels (11)						
5 Drip irrigation or other system to conserve water (11)						
6 Establishment or improvement of permanent pasture or other vegetative cover (11)						
7 Irrigation drainage ditches (11)						
8 Grassed waterways (11)						
9 No-till (or chemical tillage) (11)						
10 Terraces (11)						
11 Water impoundment reservoirs (11)						
12 Other (Please specify) (11)						

4 To what extent if at all, were the following soil or water conservation practices used in your county(s) cost-shared under the Agricultural Conservation Program (ACP) in 1982?

(Check one column for each practice)

Conservation Practices	Extent of Use						
	To a very great extent	To a great extent	To a moderate extent	To some extent	To little or no extent	Practice not used	Do not know
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1 Conservation tillage (minimum tillage or reduced tillage)							
2 Contour farming with or without strips							
3 Diversion channels							
4 Drip irrigation or other system to conserve water							
5 Establishment or improvement of permanent pasture or other vegetative cover							
6 Irrigation drainage ditches							
7 Grassed waterways							
8 No till (or chemical tillage)							
9 Terraces							
10 Water impoundment reservoirs							
11 Other (Please specify)							

5 In 1982 about how many farm owners and/or operators were in your county(s)?

_____ (Number of owners and/or operators)

6 In 1982 about how many farm owners and/or operators in your county(s) participated in federal or state soil and water conservation cost sharing programs?

_____ (Number participating in cost sharing)

7 In 1982 approximately what percent of farmers in your county(s) performed conservation practices without federal or state cost sharing assistance? (Check one)

- 1 0% to 25%
- 2 26% to 50%
- 3 51% to 75%
- 4 Over 75%
- 5 Don't know

8 In 1982 approximately how many total acres of cropland were in your county(s)?

_____ (Number of acres)

9 In 1982 about how many farm units were in your county(s)? (Check one)

- 1 Fewer than 100
- 2 100 to 500
- 3 501 to 1 500
- 4 1 501 to 3 000
- 5 3 001 to 5 000
- 6 Over 5 000

10 In 1982, approximately what percent of farm units in your county(s) fell into the following size categories? (The total of the percents entered should add to 100%. If none, enter zero "0" Please check records if necessary.)

	Percent	
1 Under 100 acres	_____ %	()
2 100 to 500 acres	_____ %	()
3 501 to 1 000 acres	_____ %	()
4 1 001 to 2 000 acres	_____ %	()
5 Over 2 000 acres	_____ %	()
Total	100%	

11 How would you have described the soil erosion problems in your county(s) for **owner-operated** farmland in 1982? (Check one) ⁽⁶⁶⁾

- 1 Very minor or none
- 2 Minor
- 3 Moderate
- 4 Serious
- 5 Very serious

12 How would you have described the soil erosion problems in your county(s) for **non-owner-operated** farmland in 1982? (Check one) ⁽⁶⁹⁾

- 1 Very minor or none
- 2 Minor
- 3 Moderate
- 4 Serious
- 5 Very serious

13 In your opinion in 1982 how would **most farmers** have described the water quality in your county(s)? (Check one) ⁽⁷⁰⁾

- 1 Very low quality
- 2 Low quality
- 3 Marginal quality
- 4 High quality
- 5 Very high quality

14 How would you have described the water quality in your county(s) for **owner-operated** farmland in 1982? (Check one) ⁽⁷¹⁾

- 1 Very low quality
- 2 Low quality
- 3 Marginal quality
- 4 High quality
- 5 Very high quality

15 How would you have described the water quality in your county(s) for **non-owner-operated** farmland in 1982? (Check one) ⁽⁷²⁾

- 1 Very low quality
- 2 Low quality
- 3 Marginal quality
- 4 High quality
- 5 Very high quality

16 Overall, how familiar are you with the federal income tax deduction for soil and water conservation expenses (Internal Revenue Code Section 175)? (Check one) ⁽⁷³⁾

- 1 Very familiar
- 2 Familiar
- 3 Marginally familiar
- 4 Unfamiliar
- 5 Very unfamiliar

17 Overall, in your opinion what impact, if any, does the federal tax deduction for soil and water conservation expenses (Internal Revenue Code Section 175) have on the ability of farmers in your county(s) to undertake soil and water conservation practices? (Check one) ⁽⁷⁴⁾

- 1 Very large impact
- 2 Large impact
- 3 Moderate impact
- 4 Small impact
- 5 Very small impact
- 6 No basis to judge

18 In your opinion, to what extent, if any do farmers in your county(s) feel they must plant crops on highly erosive cropland in order to make a profit from farming? (Check one) ⁽⁷⁵⁾

- 1 To a very great extent
- 2 To a great extent
- 3 To a moderate extent
- 4 To some extent
- 5 To little or no extent
- 6 No basis to judge

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19 In your opinion in general in 1982 did farmers in your county(s) practice more, less, or about the same level of soil conservation practices than they did in the previous 4 years? (Check one)

In 1982 farmers in my county(s) practiced

- 1 Much more soil conservation than in the previous 4 years
- 2 More soil conservation than in the previous 4 years
- 3 About the same amount of soil conservation as in the previous 4 years
- 4 Less soil conservation than in the previous 4 years
- 5 Much less soil conservation than in the previous 4 years
- 6 Do not know

20 In your opinion in general in 1982 did farmers in your county(s) practice more, less, or about the same amount of water conservation practices (e.g., irrigation, drainage, ditches, drip irrigation, or other system to conserve water) than they did in the previous 4 years? (Check one)

In 1982 farmers in my county(s) practiced

- 1 Much more water conservation than in the previous 4 years
- 2 More water conservation than in the previous 4 years
- 3 About the same amount of water conservation as in the previous 4 years
- 4 Less water conservation than in the previous 4 years
- 5 Much less water conservation than in the previous 4 years
- 6 No water conservation practices used in this (these) county(s)
- 7 Do not know

21 In 1982 about how many total acres of cropland in your county(s) were under soil conservation practices? (If none enter zero "0")

_____ (Number of acres)

22 In your opinion about how many additional acres of cropland would farmers in your county(s) bring under soil conservation practices if the total level of federal and state tax and cost share program subsidies were set at 80 percent of their cost of installation? (If none enter zero "0". If necessary consult with the Soil Conservation Service district conservationist.)

_____ (Number of additional acres)

23 How would you have described the water supply, water distribution, and water drainage in your county(s) for owner-operated farmland in 1982?

(Check one column for each row.)

	Very adequate (1)	Adequate (2)	Marginally adequate (3)	Inadequate (4)	Very inadequate (5)
1 Water supply					
2 Water distribution					
3 Water drainage					

24 How would you have described the water supply, water distribution, and water drainage in your county(s) for non-owner operated farmland in 1982?

(Check one column for each row.)

	Very adequate (1)	Adequate (2)	Marginally adequate (3)	Inadequate (4)	Very inadequate (5)
1 Water supply					
2 Water distribution					
3 Water drainage					

25 In 1982 approximately how many total acres of cropland in your county(s) were irrigated? (If none enter zero 0)

_____ (Number of irrigated acres) (49)

26 In 1982 about how many acres of irrigated cropland in your county(s) were under water conservation practices? (If none enter zero 0)

_____ (Number of acres under water conservation) (50)

27 In your opinion about how many additional acres of irrigated cropland would farmers in your county(s) bring under water conservation practices if the total level of federal and state tax and cost share program subsidies were set at 80 percent of their cost of installation? (If none enter zero 0 If necessary consult with the Soil Conservation Service district conservationist)

_____ (Number of additional acres) (51)

28 In your opinion, to what extent, if at all, would the following government incentives encourage farmers in your county(s) to invest in soil and water conservation practices either for the first time or to a greater extent than they do now?

(Check one column for each incentive)

Incentives to invest in conservation practices	To a very great extent	To a great extent	To a moderate extent	To some extent	To little or no extent
	(1)	(2)	(3)	(4)	(5)
1 Increase the percentage the federal and state governments would pay through cost-share programs					
					(49)
2 Increase the current \$3,500 annual ceiling for the federal cost-sharing program (ACP)					
					(50)
3 Provide a choice between a tax credit or tax deduction for investments in soil and water conservation					
					(51)
4 Other (specify) _____					
					(52)
5 Other (specify) _____					
					(53)

29 If you have any comments about soil and water conservation measures please write them below (54)

THIS COMPLETES OUR SURVEY

THANK YOU VERY MUCH FOR YOUR TIME AND EFFORT

PERSON COMPLETING QUESTIONNAIRE

NAME _____

TITLE _____

COUNTY AND STATE _____

PHONE NUMBER () _____

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