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STATEMENT FOR THE RECORD BY
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BEFORE THE

SUBCOMMITTEE ON GOVERNMENT INFORMATION,
JUSTICE, AND AGRICULTURE
HOUSE COMMITTEE ON GOVERNMENT OPERATIONS

ON

THE DEPARTMENT OF AGRICULTURE'S
FEDERAL CROP INSURANCE CORPORATION

MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE:

As requested, this statement is being provided to assist the subcommittee in its review of the operations of the Federal Crop Insurance Corporation (FCIC). It provides information on our past and present reviews of FCIC and its implementation of the Federal Crop Insurance Act of 1980 (Public Law 96-365). Over the past couple of years, we have issued several reports on various aspects of the crop insurance program, the U.S. Department of Agriculture's (USDA) primary disaster assistance program offered our Nation's farmers.

This statement briefly discusses the information contained in our reports. It also discusses in more detail the preliminary results of our ongoing review of FCIC's expanded crop insurance program. We are analyzing these results and formulating proposed recommendations for improvement. We have not yet obtained FCIC's comments on our tentative findings or suggestions for improvement but plan to do so shortly.

FCIC faced a demanding task, and has achieved a degree of success, in carrying out the changes required by the 1980 act, which called for improving the existing crop insurance program and expanding it nationwide to phase out the Commodity Credit Corporation's free disaster payment program.

One change has been transferring the sales function to private insurance companies through both a sales and service arrangement and a reinsurance program. Another change has been the expansion of and revisions to the insurance offerings. For crop year 1982, Federal crop insurance was made available in nearly twice as many counties with insurance coverage on over three times as many county crop programs. In addition, insurance protection can now be obtained at a higher level (75 percent of guaranteed yield) and at a higher value (90 percent of projected market price). Also, FCIC implemented the legislative requirement for individual yield coverages and incorporated the legislated premium subsidies into its rate structure.

FCIC expanded the insurance program very quickly, however, and did not make all the evaluations needed to assure that it was taking the appropriate action. It did not resolve, for example, longstanding questions regarding its actuarial procedures. We believe some of the changes FCIC instituted will have a significant impact on the program's future costs. Because of the complexity of the problems facing FCIC, it will be several years before a cost-effective insurance program can be provided to the Nation's farmers.

PREVIOUS GAO REPORTS

Since July 1981 we have issued three reports on FCIC in response to congressional requests and one report to FCIC's Manager.

Our July 30, 1981, report to Senator Roger W. Jepsen (CED-81-148) provided an analysis of certain FCIC operations. We reported that the premiums and number of acres insured increased substantially from crop year 1980 to crop year 1981, crop year 1980 losses were not yet reflected in the premium rates, and a nationwide campaign had been conducted to inform producers about the new crop insurance program. Some insurance companies had been reluctant to participate in the reinsurance program for crop year 1981 because of the short time available to implement the program and an uncertainty about being considered Federal contractors and thus subject to an Executive Order providing for equal opportunities in Federal employment. In August 1981 the Department of Labor concluded that reinsured companies were not subject to the Executive Order.

We also issued a report to you on March 8, 1983 (GAO/RCED-83-117) and a report to Congressman Bill Alexander on March 9, 1983 (GAO/RCED-83-114) which responded to specific questions about the Federal crop insurance program. These questions dealt with FCIC's administration of farm yield coverages, policy cancellations, indemnity payments, State-provided subsidies, and the 1983 Standard Reinsurance Agreement.

Our August 10, 1982, letter to the Manager informed him of our concerns about FCIC's efforts to improve the program's actuarial soundness. The Manager responded that FCIC was securing outside actuarial assistance, contracting for a review of its actuarial methodologies and data base requirements, and developing improvements to its management information and planning system. Appendix I provides additional details on these reports.

BACKGROUND

Before 1980 two Federal programs--the insurance program and the disaster payment program--offered farmers some protection against loss of income when their crops were damaged or destroyed by natural causes. The insurance program gave farmers the opportunity to mitigate the risks they faced from weather, insects, and disease by spreading the risks among many persons and over many areas and growing seasons. At that time, the program was operated on a limited basis, relative to the current program, and was characterized as an experimental program.

On the other hand, the disaster payment program provided a form of free insurance on six major commodities--wheat, grain sorghum, cotton, rice, barley, and corn. Growers of these commodities received Federal disaster payments if adverse weather or other natural disasters prevented their planting or harvesting the commodities.

The 1980 act radically changed these two programs. Essentially, the act called for improving the insurance program and expanding it nationwide to provide producers adequate protection at a reasonable price through an insurance program and to no longer support producers through the disaster payment program after crop year 1981. FCIC gave priority attention to expanding crop insurance into new counties for the six commodities covered by the disaster payment program.

EFFECTS OF THE EXPANSION PROGRAM

In implementing the 1980 act, FCIC made substantial progress in involving the private sector in program delivery, in expanding insurance coverage, and in establishing an individual yield coverage program. This has resulted in increased sales and program costs.

Switch to the private sector

Prior to the 1980 legislation, FCIC sold and serviced crop insurance policies using its own employees (primarily part-time employees), some employees of USDA's Agricultural Stabilization and Conservation Service (ASCS), and a small number of independent agents operating under a Sales and Service Agreement. Loss adjustment work was done by FCIC employees, although a few contract loss adjusters were used on an experimental basis.

FCIC believed that to implement the expanded insurance program and for it to be successful in replacing the disaster payment program, a high farmer participation rate would have to be achieved rapidly. FCIC also believed that because of its personnel ceilings, reaching the high level of participation desired would require heavy reliance on the private sector. FCIC interpreted this shift to the private sector as being in accordance with congressional intent as stated in the 1980 act that FCIC's Board of Directors shall

> "to the maximum extent possible * * * contract with private insurance companies * * * and encourage the sale of Federal crop insurance through licensed private insurance agents and brokers * * *."

As part of the shift to the private sector, FCIC developed an Agency Sales and Service Agreement and a Standard Reinsurance Agreement. Under an Agency Sales and Service Agreement, an insurance company or agency (commonly referred to as a master marketer) agrees to sell and service insurance for FCIC.

Under a Standard Reinsurance Agreement, an established insurance company enters into a financial arrangement with FCIC to sell, service, and adjust the losses on the policies the company sells. The company, acting as a "direct" insurer for policies issued in its name, is able to obtain reinsurance coverage from FCIC as protection against most of the risk that could result from losses incurred in selling crop insurance.

Under these delivery systems, exclusive territories are not assigned. This means that agents compete with each other in any areas, counties, or States. In areas where an adequate private sales and service force is not available, ASCS sells and services the Federal crop insurance through its county offices.

Because the selling period for fall-planted crops had already passed when the 1980 act became law, FCIC relied on the Federal delivery system and independent agents for crop year 1981 sales. The phaseout of the FCIC delivery system began in early 1982 and the carryover business (policies in force the preceding crop year and automatically renewed) was transferred to the private sector.

Expansion of insurance coverage

Before the 1980 act was passed, FCIC provided coverage on 4,629 crop programs in 1,676 counties. FCIC had established an initial goal of expanding insurance coverage for the six disaster program commodities to 250 additional counties each year through 1984. However, so that the disaster payment program could be phased out quickly, the goal was revised to provide coverage for these commodities in all counties nationwide by crop year 1982.

FCIC expanded the insurance coverage for crop year 1981 to an additional 252 counties and 1,340 county crop programs. For crop year 1982 insurance coverage was made available in an additional 1,071 counties. This expansion resulted in increasing the total county crop programs by 8,529. The following table shows the extent of expansion by crop year for the disaster and nondisaster program commodities.

Type of commodities	County crop programs 1981	County crop programs 1982	Total
Disaster program commodities	841	7,938	8,779
Nondisaster program commodities	499	591	1,090
Total	1,340	8,529	9,869

Beginning in crop year 1982, the expansion resulted in insurance coverage in virtually every county where the six disaster commodities were grown. Furthermore, for all commodities, insurance coverage was available in a total of 2,999 counties and for a total of 14,498 county crop programs.

The 1980 act also required that FCIC provide different coverage levels up to 75 percent of guaranteed yield and to offer various levels of price elections with one being not less than 90 percent of the projected market price for the commodity involved. The 75-percent level of protection was available for nearly all commodities for crop year 1981. According to the Chief of FCIC's Statistical Services Branch, the 90-percent price election may have been reflected in some crop year 1981 offers, but for the most part it was first worked into the actuarial tables for crop year 1982 offers.

Establishment of an individual yield coverage program

FCIC established an individual yield coverage (IYC) program for crop year 1982. This program is intended to provide an alternative to farmers who can prove their crop production is higher than the coverage offered by FCIC regular crop insurance. The crop year 1982 program was made available in all counties for spring-planted disaster program commodities and soybeans. The program was expanded in crop year 1983 to include the fall-planted disaster program commodities, oats, and selected other commodities.

As of October 29, 1982, only 663 IYC policies had been sold nationwide for crop year 1982. This is less than 1 percent of the regular crop insurance policies sold during crop year 1982 for those crops eligible for IYC coverage. However, as discussed later, FCIC is making various changes in the IYC program for the 1983 crop year to increase participation.

Increase in sales

The total dollar sales for the various delivery systems has increased significantly in the last 3 years. For example, in 1980 sales premiums totaled only about $157 million but increased to an estimated $397 million in 1982. The amount of insurance in force has more than doubled during this period, increasing from about $3 billion in 1980 to over $6 billion in 1982. Sales for 1983 and 1984 are estimated to be about $680 and $850 million, respectively. (Apps. II, III, and IV provide detailed information on the changes and growth in the sales volume by each delivery system.) The indemnities paid have also increased from about $356 million in 1980 to an estimated $488 million for 1982, as of February 1983. (App. V provides further details on these figures.)

Increase in program costs

The cost of operating the Federal crop insurance program has increased significantly since passage of the 1980 legislation. FCIC receives funds from the U.S. Treasury, premium income from producers, and appropriations for Federal premium subsidies and administrative and operating expenses.

The current legislation authorizes funds to be appropriated to cover FCIC's operating and administrative costs, including items such as agents and brokers commissions; premium subsidies paid by FCIC; and the direct cost of adjusting losses. The legislation also provides that these items may be paid from premium income and other FCIC funds and that any such payments be restored by appropriations in subsequent years. As shown in the following table, FCIC's administrative and operating expenses have increased significantly from about $38 million in 1980 to an estimated $279 million in 1984.

	Fiscal year				
	1980 (actual)	1981 (actual)	1982 (actual)	1983 (estimate)	1984 (estimate)
	(millions)				
Administrative and operating expense	$38	$92	$116	$236	$279
Premium subsidy	-	-	57	116	170
Restoration of prior year obligations	-	-	-	28	25
Total	$38	$92	$173	$380	$474

ACTUARIAL SOUNDNESS OF THE PROGRAM

The actuarial soundness of the Federal crop insurance program cannot be readily ascertained at this time. In its haste to expand insurance coverage and participation, FCIC (1) deferred normal review and evaluation activities, (2) delayed development of various actuarial reports needed to analyze past experience, and (3) did not do research necessary to resolve longstanding concerns about its actuarial procedures. In addition, FCIC took many shortcuts in developing the actuarial tables and rates for the newly added county crop programs without benefit of a full analysis.

FCIC has hired outside actuarial assistance to help resolve many of the problems with the actuarial methodologies, the data base, and the management information system.

Deferral of review and evaluation

During crop years 1981 and 1982, FCIC concentrated its actuarial resources on expanding the crop insurance program. As stated earlier, the number of counties with insurance coverage nearly doubled and the number of county crop programs offered more than tripled from crop year 1980 to crop year 1982. During this same time, FCIC's Actuarial Division's permanent, full-time staff was increased from 105 to 142, an increase of about 35 percent.

The insurance programs may not be actuarially sound because county crop premium rates and coverages have not been updated to reflect the latest crop yields and losses and county area classifications have not been reevaluated.

The following are examples of crop year 1981 and 1982 insurance offers that were not as current as they should have been:

--Insurance offers for the grain, peanut, and tobacco crops were generally based on losses and yields experienced through crop year 1978 or earlier.

--Insurance offers for the cotton program were based on experience through 1975.

--Insurance offers for some fruit and vegetable crops were based on experience through 1963 or earlier.

To update insurance offers for crop year 1983, FCIC developed a special procedure to adjust most of its premium rates and incorporated yields experienced through 1980 into its wheat, corn, soybean, and cotton programs. This procedure set forth percentage adjustments to county crop premium rates based on a combination of the cumulative loss ratios for each county and its respective State. The rate adjustments were limited to an increase of 20 percent and a decrease of 16 percent. FCIC estimates that premium rates overall will increase by about 12- to 14-percent. The Acting Director of the Actuarial Division said that this procedure was based on limited research and may be less statistically valid than the regular approach and could result in some inequitable premium rate changes. However, he said that FCIC needed to incorporate the unfavorable loss experience for crop years 1980 and 1981 into the premium rates and that he believed this was the best approach under the circumstances.

FCIC also took shortcuts in developing the insurance offers for new county crop programs. Because of the staff limitations and the pressures to provide insurance coverage in more counties, the normal procedures to assure quality and consistency of insurance offers were not always followed. For example, rather than making detailed studies of yields and losses, FCIC based some new county crop programs on either data from adjoining counties or data on other types of crops.

Delays in actuarial reports

Because of the changes required by the 1980 act, new and/or modified actuarial reports had to be developed. However, changes to some of these reports have yet to be completed, and some reports are not expected to become available before October 1983.

The consulting firm of Ernst and Whinney, in its review of FCIC actuarial operations in June 1982, concluded that FCIC's management information system did not provide all the information necessary to analyze underwriting results. Ernst and Whinney recommended that FCIC review its management information reports in detail to ascertain additions and modifications needed to facilitate management decisions.

The Director of FCIC's Kansas City Operations told us that a wealth of statistics is collected in the data base, yet it is being underused. He said that FCIC is not able to retrieve and present the data in a timely manner that provides keen analytical insights into the problems with FCIC's operations. He also said that much of the data that is retrieved can only be analyzed through manual-type procedures. In his opinion, many analyses need to be made to verify whether FCIC's assumptions and theories are correct regarding the mix of producers; the effect of changes in loss adjustment guidelines; the nature of the relationships among crop programs, county areas, counties, and States; and the effect these relationships should have on FCIC's premium rates and yield guarantees.

Because some actuarial reports will not be available until October 1983, the resumption of normal review activities could be delayed even further. If there are no further delays, crop year 1984 insurance offers will be the earliest ones in which the loss experience for crop years 1980 and 1981 can be assimilated into a statistical updating of county premium rates. Even in this case, the data will not be fully incorporated into all crop programs before crop year 1987 since FCIC operates on a 3-year cycle.

Research necessary to resolve longstanding concerns

Concerns about FCIC's procedures to accumulate reserves and to establish county insurance offers have been raised over the past 12 years in various studies. (See app. VI.) FCIC has not done the research necessary to resolve all of these concerns.

Procedures to accumulate reserves require definition and refinement

In setting premiums to cover claims for losses and establish a reserve, FCIC includes a variable factor to accumulate reserves against catastrophic losses and a uniform multiplier to accumulate an administrative reserve equal to 10 percent of the premium rates. Various studies have criticized FCIC because its actuarial procedures do not define what constitutes a reasonable reserve or the period of time over which this reserve should be accumulated. These studies have concluded that FCIC's actuarial procedures may result in excessive reserve accumulation for some crop programs and too little for others while also accumulating insufficient reserves on an overall basis.

We asked FCIC's Manager about the concerns with the reserve procedures in our earlier letter report. In response, he acknowledged these concerns and indicated that both internal and external resources would be directed toward evaluating these procedures.

Insurance offers could be improved through use of actual yield data

FCIC's actuarial procedures for grouping producers within each county according to their estimated yields have also been criticized. The criticism is that the procedures establish groups that are too large rather than discrete groups that best represent the range of expected yields and the risks associated with the frequency and magnitude of producers' losses compared with their average yields. Currently, such deviations are recognized only for previously insured producers through either discounts or surcharges to their basic rates based on their historical loss experience.

A 1979 report on an internal working group's evaluation of FCIC's field underwriting activities stated that a model using the coefficients of variation for actual producer yields could be developed. According to the working group, the advantage of this approach is that it can be easily explained, calculated, and programed into a computer. Also, it would establish direct, objective relationships between productivity and risk for individual producers and groupings of producers. However, a major drawback to this approach is the requirement for actual production data for each producer.

Programs for such crops as cotton, rice, peanuts, tobacco, apples, grapes, sugar beets, sugar cane, sweet corn, and peas already have actual yield data which may be suitable for applying this underwriting tool. In these programs, FCIC is using actual yield data to update the average yields for each producer grouping; however, the variability in each producer's yield history is not analyzed to determine the validity of a producer's assignment to a risk group or to evaluate the relative differences in risk among the groups.

For large programs, such as the primary grain crop programs, FCIC relies on its underwriters to estimate the yields for producer groupings. These estimates are based in part on similar soils, weather characteristics, and management practices. The underwriters must also estimate the effect that differences in these factors should have on the relative production risk of each grouping. The approach to establishing these yield/risk relationships generally presupposes that certain relationships always exist until subsequent insurance experience proves otherwise. These general assumptions are that all producers with similar average yields have the same risk and that groups with higher average yields have proportionately lower risks. FCIC has established a system to track the loss experience of each producer to provide individual discounts or surcharges to the basic premium rates for producers who are exceptions to the general underwriting assumptions.

FCIC has taken a first step in building a data base of actual yields through the individual yield coverage program. However, participation in the IYC program has been very limited.

The Chief, Operations Office Sales Promotion Branch, and various field actuarial office staff members cited the following reasons for low IYC participation for crop year 1982:

--Many farmers either did not have adequate records or recent year actual yields were so low that farmers could not prove higher yields.

--Implementation of the 1982 IYC program was delayed because FCIC made numerous changes. This prevented timely and adequate training of both the people who administered the program and the sales agents.

--Farmers generally do not want others to know their business and are therefore reluctant to prove yields.

The methods for calculating proven yields for the crop year 1983 IYC program were changed to encourage farmer participation. This change allows the farmer with an actual yield above the county average to receive an even higher yield than in 1982.

COMPENSATION RATES ESTABLISHED FOR PRIVATE SECTOR DELIVERY SYSTEMS

FCIC established specific compensation rates for each of the three private sector delivery systems. For crop year 1982, the commission rates for the independent agents averaged 14 percent and 7 percent of premium for new business and carryover business, respectively. The master marketers received 18 percent for new business and 13 percent for carryover business. The reinsured companies received 27 percent of premium for new business and 22 percent for carryover business for the selling functions and 4 percent of premium plus 3 percent of indemnities paid on their policies for loss adjustment work.

In establishing the commission rates for the master marketers and the reinsured companies, FCIC used its crop year 1979 costs and premiums to calculate the percentage figures for these delivery systems. However, because the 1980 act required higher levels of protection, the average premium rate per acre nearly doubled between 1979 and 1982, increasing from $4.73 per acre to $9.06 per acre. (See app. VII.) This in turn caused a proportionately higher sales commission. In addition, because the payment for loss adjustment work is also computed, in part, as a percentage of premiums, the reinsured companies would receive higher payments for this work.

For example, the 1979 and 1982 costs to deliver the insurance on 45 million acres (the approximate amount insured for crop year 1982) through either master marketers or reinsured companies are shown on the following page.

	Crop year costs 1979	1982	Increase from 1979
Insured acres	45,000,000	45,000,000	-
Premium dollar per acre	$4.73	$9.06	$4.33
Total premiums	$212,850,000	$407,700,000	$194,850,000
Compensation costs:			
Master marketers	$ 32,992,000	$ 63,194,000	$ 30,202,000
Reinsured companies:			
Marketing (note a)	52,148,000	99,887,000	47,739,000
Loss adjustment (note b)	8,514,000	16,308,000	7,794,000

a/Computed using the midpoint in the respective rate structure for crop year 1982.

b/Computed based on 4 percent of premiums.

Most of the increase in the average premium dollar per acre since 1979 is due to the higher level of coverages and price elections offered and the fact that most producers have elected higher options. Even though the percentage-of-premium method of compensation is generally consistent with the practice in private industry, the percentage rates established to compensate the private sector for the services provided need to be evaluated, considering the private sector's costs for sales and adjusting losses.

Compensation rates for reinsured companies

The 1980 act states:

"* * * The Corporation shall also pay operating and administrative costs to insurers of policies on which the Corporation provides reinsurance to the same extent that such costs are covered by the Corporation on the Corporation's policies of insurance * * *."

Consequently, FCIC calculated the compensation rates based on its own 1979 costs to perform the same functions in relation to its premium income.

In establishing the rates, FCIC did not make a detailed cost study to determine what the rates should be to be equitable and cost effective. Although we did not analyze cost data in detail to determine what the actual compensation rates should be, our review of FCIC's computations showed that FCIC had included certain actuarial and loss adjustment costs that we believe should not have been included. Our review showed that FCIC's rate for reinsured companies was about 3.7 percentage points, or about 14 percent, higher than justified.

For example, of the $3.6 million National Service Office costs that FCIC included in the base, we identified about $790,000, or about 0.9 percent of premiums, that should have been excluded. About $504,000 of this amount was identified as underwriting costs but actually pertained to the actuarial function which is still being done by FCIC. The other $286,000 related to loss adjustment activities for which reinsured companies are compensated separately.

If the compensation rate used by FCIC for reinsured companies had been 3.7 percentage points lower, commissions paid on premiums would have been about $470,000 lower for crop year 1981; about $2.8 million lower for crop year 1982; and an estimated $12.6 million lower for crop year 1983.

In addition, to compensate reinsured companies for loss adjustment work, FCIC developed a rate based on premiums, indemnities, and FCIC's direct loss adjustment costs for a 4-year period (1976-79). It was determined that payments would be made on the basis of 4 percent on premiums written by reinsured companies to cover fixed loss adjustment expenses, which are expenses unrelated to volume, and 3 percent on actual indemnities paid by reinsured companies, which are related to volume.

In developing this method of compensation, FCIC did not consider the effect that projected increases in business would have on loss adjustment costs in relation to premiums and indemnities. Reimbursing companies for fixed costs on a percent of premiums, when premiums are projected to increase significantly each year, results in the fixed costs being reimbursed as though they are variable and related to volume. We believe this method of reimbursing reinsured companies bears no relationship to the actual expenses for loss adjustment activities and could result in substantial excessive costs.

Because of the significant amounts involved, we believe the rates both for sales and service and for loss adjustment need to be evaluated to see if they are both fair to the companies and cost-effective to the Federal Government.

RISK AND PROFIT SHARING UNDER THE REINSURANCE PROGRAM

FCIC established a limited reinsurance program for 1981. Since then, annual revisions have been made to the standard reinsurance agreement which allow greater potential for gain while limiting the amount of loss that a reinsured company could incur. While this was done to encourage more companies to participate and for those companies to write insurance on all crops nationwide, such revisions were made each year without adequate management information to evaluate the effectiveness of the previous year's agreement.

Under the reinsurance program, private insurance companies enter into an agreement with FCIC to market crop insurance, collect premiums, and adjust the losses on those policies they sell. The companies also share in both the gains and losses resulting from the insurance they sell. Reinsurance is a means of shifting part of the liability from the company initially writing the policy to another party, the reinsurer. Under this agreement, FCIC is the reinsurer and is liable for the major share of losses if the experience is unfavorable and receives a share of the gains if the experience is favorable.

The Standard Reinsurance Agreement stipulates the percentage share in gains and losses. For crop year 1981, the maximum amounts of a company's gain and loss were set at 5 percent and 8-1/2 percent, respectively, of premium. For crop year 1982, these percentages were each set at 8 percent. For both years, the reinsured companies shared in no gain or loss when the loss ratio was 1.00 (premiums and indemnities were equal). For crop year 1983, the gain and loss percentages were set at a maximum of 11-1/3 percent. In addition, a company does not share in underwriting losses until its loss ratio exceeds 1.28-1/3. (See app. VIII.)

Because a company's share of loss is computed as a percent of premiums, rather than as a percent of total loss, its percent of loss is smaller as the loss becomes greater. For example, if the loss ratio reaches 540 percent (that is, $5.40 is paid out in indemnities for every $1.00 premium), the company's share of loss is limited to 11-1/3 percent of the $1.00 premium which is 2.1 percent of the $5.40 loss.

The reinsurance agreement also contains a provision for the distribution of any cumulative net gains that each company experiences over a 5-year period. If a positive balance exists after 5 years, the company receives an additional 20 percent of the balance, up to 5 percent of premiums. If a negative balance exists, the company does not share in any additional loss. In either case, a new 5-year period begins.

To demonstrate the impact the revisions would have on the extent of profit-sharing by the companies, we applied the 1983 formula to actual results of the companies' business in crop year 1981. We found that the companies' share in the actual gains would have increased from $491,000 to $1,113,000 while the companies' share in the actual losses would have decreased from $159,000 to $11,000. In other words, on a net basis the reinsured companies would have received an additional $770,000 if the 1983 profit-sharing formula had been in effect in 1981.

To obtain an indication of the cost of the reinsurance program, we computed, as a percent of premiums, the total compensation that reinsured companies would receive at different loss ratios. As shown below, our analysis disclosed that the annual reimbursement could vary from 26.5 percent to 44.8 percent of premium dollar, depending on the loss ratio.

Compensation item	Percent of premium dollar at a loss ratio of: 0.75	0.90	1.00	1.25	2.00	5.333
Administrative and operating expenses	24.50	24.50	24.50	24.50	24.50	24.50
Loss adjustment expenses	6.25	6.70	7.00	7.75	10.00	20.00
Gain/loss distribution:						
Annual gain	11.33	6.67	4.25	.50	-	-
Annual loss	-	-	-	-	(8.00)	(11.33)
Total	42.08	37.87	35.75	32.75	26.50	33.17
5-year gain	2.73	.67	-	-	-	-
Total	44.81	38.54	35.75	32.75	26.50	33.17

Another area of concern is the use of a nationwide loss ratio in developing the gain and loss formula, when many companies' operations are not nationwide. Participating companies can select the crops and areas of the country in which they sell insurance; thus they can limit their risk by county and by State. The establishment of one standard gain and loss formula without considering each company's geographical area of operations provides some companies a greater potential for gain.

FCIC used the nationwide loss ratio of 1.10 that it had experienced on its total insurance operations for crop years 1948-80 to develop the 1983 reinsurance agreement. To determine the impact of specific geographic areas, we recomputed the loss ratios for three participating companies based on their planned areas of coverage. Our analysis disclosed that the loss ratios for just those specific States where these companies were selling insurance were 0.88, 0.96, and 0.98. Thus, these companies would have a lower risk of having to share in potential losses.

ADEQUACY OF QUALITY CONTROL

An efficient insurance operation needs trained sales agents, qualified loss adjustors, and a quality control program to assure properly administered sales, services, and claim activities. As stated earlier, in 1981 FCIC shifted the major portion of its delivery system to the private sector--individual agents, master marketers, and reinsured companies. With the increase in private sector involvement, FCIC experienced a substantial increase in the number of errors on insurance documents.

FCIC has initiated a number of actions that should improve the insurance paperwork submitted by independent agents and master marketers. However, it has not yet developed a comprehensive quality control program for the reinsured companies. Such a program would provide assurance that insurance written and claims paid meet the crop insurance program requirements and that the insurance experience is correctly reported for actuarial purposes.

Quality control efforts for independent agents and master marketers

In 1981 up to 65 percent of the insurance documents submitted to FCIC by independent agents and master marketers were found to have errors. The high error rate created numerous timeliness problems in premium billing, computing agent compensation, and processing claims. To reduce the error rates in subsequent years and improve the overall quality of document processing, FCIC took the following actions, among others, in the latter part of 1982.

--Required that agents and adjustors be certified by FCIC upon completion of required training and tests showing an acceptable level of proficiency for every crop they are to sell or adjust.

--Changed the method of compensating loss adjustors from a unit basis to a per diem basis to remove the incentive to rush through claims causing the quality of adjustments to suffer.

Collectively, these actions should improve the insurance paperwork submitted by the independent agents and master marketers.

Quality control for reinsured companies

As of February 1983, FCIC had not fully implemented a formal quality control program for the insurance written and claims settled by the reinsured companies. The reinsured companies' sales increased from $12.8 million in crop year 1981 to $79 million in crop year 1982.

The Acting Chief of FCIC's Program Administration Branch told us that staff diversions to meet other priorities precluded FCIC from fully implementing its planned quality control program for these activities. According to the Acting Chief, FCIC instead relies principally on (1) the reinsured companies' quality control and internal audit programs and (2) reviews made by State regulatory agencies. Also, FCIC must depend on the effectiveness of the Crop Hail Insurance Actuarial Association's (CHIAA) various controls and error checks in processing the companies' insurance paperwork. CHIAA is a service bureau that handles processing and reporting for reinsured companies.

The documents CHIAA processes for the reinsured companies contain the needed insurance records for the FCIC data files. FCIC experienced a 74-percent rejection rate on its initial attempt to match, by computer, CHIAA's data for crop year 1981 business with the data in the FCIC master files. The errors were due to several factors such as CHIAA's not following the specifications FCIC provided for computer processing, FCIC's not providing complete instructions, and the reinsured companies' submitting invalid data to the service bureau. As of November 1982, errors on about 2,800 crop year 1981 policies, or 14 percent of the nearly 20,000 policies initially processed, remained unresolved.

FCIC does not plan to merge the policy insurance history into the county crop history file used for county rate redetermination until the error rate is reduced to an acceptable level. Also, delays in resolving the errors add to the slippage in updating the county crop actuarial tables.

The Chief of FCIC's Reinsurance Branch told us that computer edit problems would not occur for crop year 1982 because

--FCIC's Data Automation Division was providing continuing technical assistance to CHIAA to promote error-free data and

--comprehensive computer edit programs recently completed by CHIAA showed a 6-percent policy error rate when first run for crop year 1982 business in November 1982.

In an audit report on the reinsurance program dated January 3, 1983, USDA's Office of Inspector General (OIG) noted that the reinsured companies were not required to determine the propriety of source documents. This allowed policyholders to select more than one price election or coverage level for each crop or opt for two or more reinsured company policies on the same crop. The OIG's audit disclosed that FCIC had not stressed the importance of a thorough review of monthly accounting reports as a tool to identify and correct errors and the need for timely reporting of activity to FCIC. In addition, OIG found that the reinsured companies incorrectly determined acreage, production, and/or share data causing under- and overpayments. FCIC agreed with the OIG's recommendations to work with the reinsured companies to establish internal controls to assure (1) the reliability of computerized source data used to determine administrative expense reimbursement and (2) the timely correction of suspended source data.

Audit of reinsured companies

On April 30, 1982, FCIC made its first annual settlement with the reinsured companies for crop year 1981 business. These settlements were made without an FCIC audit. The reinsured companies reported premiums of $12.8 million and losses of $8.7 million. Their share of the net gain was $332,000. This was in addition to their compensation for sales, service, and loss adjustment activities.

FCIC's Comptroller is responsible for developing an appropriate plan for an independent audit of the reinsured companies and CHIAA's operations. The Comptroller acknowledged that FCIC needs better controls to account for business the reinsured companies report and the service bureau accumulates and submits to FCIC for financial settlement.

Although an overall audit plan had not been developed as of February 1983, FCIC had taken or is taking the following actions:

--The vulnerability assessment of FCIC's internal control systems required by Office of Management and Budget Circular A-123 was completed in December 1982.

--Financial standards for master marketers were issued in December 1982; those for reinsured companies were being developed and should be issued in 1983.

--An internal auditing function, independent of the Comptroller's Office to make both internal and external financial and operational audits, is being studied.

GAO's OVERVIEW OF THE PROGRAM

FCIC made substantial progress in implementing the 1980 act but still has many obstacles to overcome. It expanded the insurance program very quickly without making the evaluations needed to assure that appropriate actions were being taken.

FCIC's progress has included involving the private sector in program delivery, expanding the program to provide nationwide coverage for the six disaster payment program commodities, and establishing an individual yield coverage program. However, until actuarial problems are resolved, sales and insured acreage participation rates may not increase enough to permit crop insurance to be the predominant income protection mechanism. Producers must be offered a policy that combines yield guarantees representative of their production histories with reasonable unit price elections at a premium rate commensurate with the underwriting risks.

In the short term, other factors, such as depressed agribusiness conditions and the Federal Government's increased emphasis on reducing planted acreage, will continue to affect producers' decisions to buy crop insurance or to self-insure themselves. Such factors will undoubtedly require FCIC to reassess its goals. While FCIC needs to adjust sales and insured acreage goals due to changing conditions, it must maintain steady progress to improve the insurance system elements it can control if it expects to insure, over time, a major share of planted acres.

A successful crop insurance program depends not only on actuarially sound insurance coverage, but also on three other interdependent insurance functions:

--An aggressive marketing force capable of delivering high quality sales and service to producers at a cost to FCIC that is equitable to both the Federal Government and the private sector.

--A competent and reliable cadre of loss adjustors to equitably settle claims.

--A comprehensive quality control program to insure error-free insurance paperwork and completeness of the insurance experience data bases.

Our statement addresses aspects of three of the four functions. We did not review the loss adjustment function because the OIG has devoted coverage to this area in the last several years.

FCIC is trying to resolve its actuarial problems, but we believe that given the magnitude of the effort required, it will take several years to make a major impact on the operations. In this time of budget constraints, cost pressures can be expected to continue because FCIC's operating and administrative expenses and the 30-percent premium subsidy are financed by the Federal Government through annual appropriations.

Consequently, FCIC needs to capitalize on opportunities to hold down expenses (such as evaluating commission rates) without jeopardizing operations so it can fund the improvements needed in areas that support or encompass the actuarial function, such as automated insurance management information systems, development of rate-making models, and research to promote better actuarial methodology.

SUGGESTED ACTIONS FOR IMPROVEMENT

My statement up to this point summarized the preliminary results of our ongoing review. We are presently analyzing the results and formulating recommendations for improving the program. We have in mind suggesting that the FCIC Manager take a number of actions, as follows.

To improve actuarial soundness

--Moderate any further expansion so it will not detract from the Actuarial Division's ability to update its crop insurance offers.

--Correct any errors that may have been included in FCIC's recently established county insurance offers and review and, if necessary, correct its older county insurance offers that may be inappropriate in light of the increased risk that may be associated with implementing the legislative requirements for higher coverages.

--Give high priority to completing actuarial reports depicting crop year 1980 and 1981 insurance experience in order that the review and updating of FCIC's crop insurance programs might be expedited.

--Consider in the forthcoming study of actuarial methodologies, the potential for obtaining actual yield data and using such data to establish homogeneous risk groups and the proper relationship among each groups' yields and risk rates.

To improve compensation rates

--Evaluate the established rates in relation to the current, and/or expected, premium base and the private sector's costs to provide such services. The rate structure should provide reasonable compensation to the private sector for its services and, at the same time, be a cost-effective program for the Federal Government. Also, the method of compensation for loss adjustment expenses should bear a direct relationship to the expenses the reinsured companies incur in providing these services.

To improve the reinsurance program

--In view of the total costs to deliver the insurance through the reinsurance concept and the companies' limited potential for sharing in any losses under the current agreement, consider whether expansion of the reinsurance program should be limited until the operation of the current program can be evaluated.

--Consider tailoring the reinsurance agreement to each company's area of operations and base the gain and loss formula on the loss experience for the areas or States in which the company operates.

To improve quality control

--Complete the development and implementation of a formal quality control program for its reinsured companies.

--Formulate and implement an audit plan for these companies.

PREVIOUS GAO REPORTS

JULY 30, 1981, REPORT TO SENATOR JEPSEN

Our report to Senator Jepsen entitled "Analysis of Certain Operations of the Federal Crop Insurance Corporation" (CED-81-148) provides information in response to the Senator's questions about changes made or planned subsequent to the 1980 act. In summary, we found that:

--Because of the normal lag in adjusting premium rates and the decision to concentrate staff resources on expanding program coverage, FCIC had not made extensive changes in its premium rates since the passage of the 1980 act. As a result, the significant losses that occurred in crop year 1980 were not reflected in FCIC's premium rates.

--FCIC's methodology in assembling and updating data for establishing an actuarial basis for insurance had not changed since the passage of the 1980 act. However, a committee was established to review the methodology.

--Whereas 30 private insurance companies initially indicated an interest, only 17 companies sold insurance under the reinsurance agreements for crop year 1981. The primary reasons those interested companies did not participate were the lack of time to implement the program for 1981 and a concern about whether companies that write Federal crop insurance would be considered Federal contractors subject to Executive Order 11246 which deals with equal employment opportunity. The Department of Agriculture had requested a legal opinion from the Department of Labor on the matter.[1]

--FCIC conducted a promotional campaign to inform producers across the country about the Federal crop insurance program, including the availability of private hail and fire insurance and the credit permitted when hail and fire coverage is excluded from Federal coverage. Preliminary data showed that few producers applied for the hail and fire exclusion.

--FCIC estimated that total costs for fiscal year 1981 would amount to $333 million. This amount included the estimated net deficit (indemnities less premium) of $203 million for crop year 1980.

--Preliminary data showed that premiums for crop year 1981 would be about $326.5 million as compared with $157.2 million for 1980, or about a 108-percent increase. Similarly, the number of acres insured increased from about 26.3 million to 47.7 million, or about 81 percent.

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[1] On August 10, 1981, the Department of Labor informed the Department of Agriculture that the reinsurance agreements were not subject to coverage by Executive Order 11246 because they were characterizable as Federal financial assistance agreements.

MARCH 8, 1983, REPORT TO THE CHAIRMAN, SUBCOMMITTEE ON CONSERVATION, CREDIT, AND RURAL DEVELOPMENT, HOUSE COMMITTEE ON AGRICULTURE

Our report to the Chairman entitled "Information on the Federal Crop Insurance Program" (GAO/RCED-83-117) provides information on farm yield coverages, policy cancellations, indemnity payments, and State-provided subsidies.

Specifically, we found that FCIC's methodology for establishing farm yields results in yields that are generally accurate on a countywide basis. However, when yield coverages are distributed to individual farm units, many producer guarantees are either too high or too low. For crop year 1982 FCIC began offering an Individual Yield Coverage (IYC) Plan which is intended to provide a higher coverage to farmers who can prove their crop production is greater than the coverage offered by FCIC's regular crop insurance. However, participation was limited in 1982 when IYC policies accounted for less than 1 percent of the crop insurance policies sold during crop year 1982.

Many farmers continued to find fault with the program and had cancelled their coverage. For example, those farmers who had insured almost 22 percent of the acres for crop year 1981 cancelled their insurance for crop year 1982. About 46 percent of the farmers we contacted told us they cancelled their policies because of low coverage and/or high premiums.

We also found that FCIC was slow--taking more than 30 days--to process a majority of its indemnity claims. We reviewed FCIC computer records which showed that 57 percent of the indemnity claims submitted by farmers for crop year 1981, totaling more than $241 million, took over 30 days to process for payment.

The Federal Crop Insurance Act authorizes FCIC to enter into agreements with State governments whereby the States may pay an additional premium subsidy to reduce the cost of crop insurance paid by farmers. Although this provision has existed since the 1980 legislation, we did not find any State governments that were providing premium subsidies to farmers.

MARCH 9, 1983, REPORT TO CONGRESSMAN ALEXANDER

Our report to Congressman Bill Alexander entitled "Information on the Federal Crop Insurance Corporation's 1983 Standard Reinsurance Agreement" (GAO/RCED-83-114) provides information in response to the Congressman's questions on the 1983 Standard Reinsurance Agreement.

Specifically, we found that the standard reinsurance agreement, which specifies the percent of premiums that is to be allocated between the reinsured company and FCIC, differs in 1983 from the 1982 agreement as follows:

--The maximum gain or loss potential to a private company was increased from 8 to 11-1/3 percent of the premiums.

--A company is offered a percent of the premiums even in certain cases where an underwriting loss may occur. A private company will not share in underwriting losses unless its loss ratio exceeds 1.28-1/3. For 1982 private companies shared in underwriting losses when the loss ratio exceeded 1.00.

--Only when the loss ratio exceeds 2.00 would a company be placed in a less favorable risk-sharing position compared to the 1982 agreement.

Since 1948 five crops have suffered nationwide loss ratios of more than 5.33-1/3 in any one year. Under the 1983 agreement, the private insurance companies' liability is limited to 11-1/3 percent of the premiums on policies reinsured under the agreement. Under the 1982 agreement, the reinsured companies' liability was limited to 8 percent of the premiums.

We also found that:

--At specified times throughout the year, FCIC reimburses the companies for the costs associated with operating and administering the program. The amounts paid are based on percentages of premiums collected and net losses incurred and not on the private companies' actual costs. FCIC does not require private companies to report the actual cost of providing their services. Thus, we were unable to determine if any of the companies could profitably provide the same services for less reimbursement.

--FCIC relies on State licensing and monitoring of the companies to assure itself of the companies' financial soundness. We were unable to determine from the financial statements available at FCIC whether the reinsured companies had enough reserves or assets to bear the risk undertaken.

AUGUST 10, 1982, REPORT TO THE FCIC MANAGER

Our report to the FCIC Manager raised several of our concerns about the actuarial soundness of the Federal crop insurance program. In summary, we noted that FCIC had concentrated its actuarial resources on the expansion program; consequently it had not (1) performed the research necessary to resolve longstanding concerns regarding the program's actuarial soundness or (2) maintained normal review and evaluation activities. Specifically, we noted that:

--The general rate-spreading assumption used by the Field Actuarial Offices to establish premium rates for county areas may result in instances in which premium rates are priced too low for county areas with higher than average yields, while county areas with lower than average yields are charged a premium rate that is higher than justified.

--The continued use of a target loss ratio of 0.90 to determine the premium rate factor required to accumulate program reserves may be unrealistic in regard to FCIC's loss experience and may result in insufficient reserve accumulation as the program continues to expand.

--FCIC's procedures for loading county premium rates with a factor to accumulate reserves for unforeseen (catastrophic) losses had not been changed or reevaluated for at least 10 years.

--FCIC's actuarial process is subject to many administrative adjustments and limitations that degrade the actuarial process. For example, increases or decreases in premium rates are allowed to vary only by a stipulated percentage regardless of the rate which is indicated by analysis of actual experience.

--The premium rates for the 75-percent level of coverage may be priced too low while the premium rates for the 50-percent level of coverage may be priced too high due to the method FCIC uses to set the rates. For example, premium rates for these levels of coverage are set by applying specific premium rate adjustment factors to the premium rate established for a 65-percent level of coverage based on actual experience.

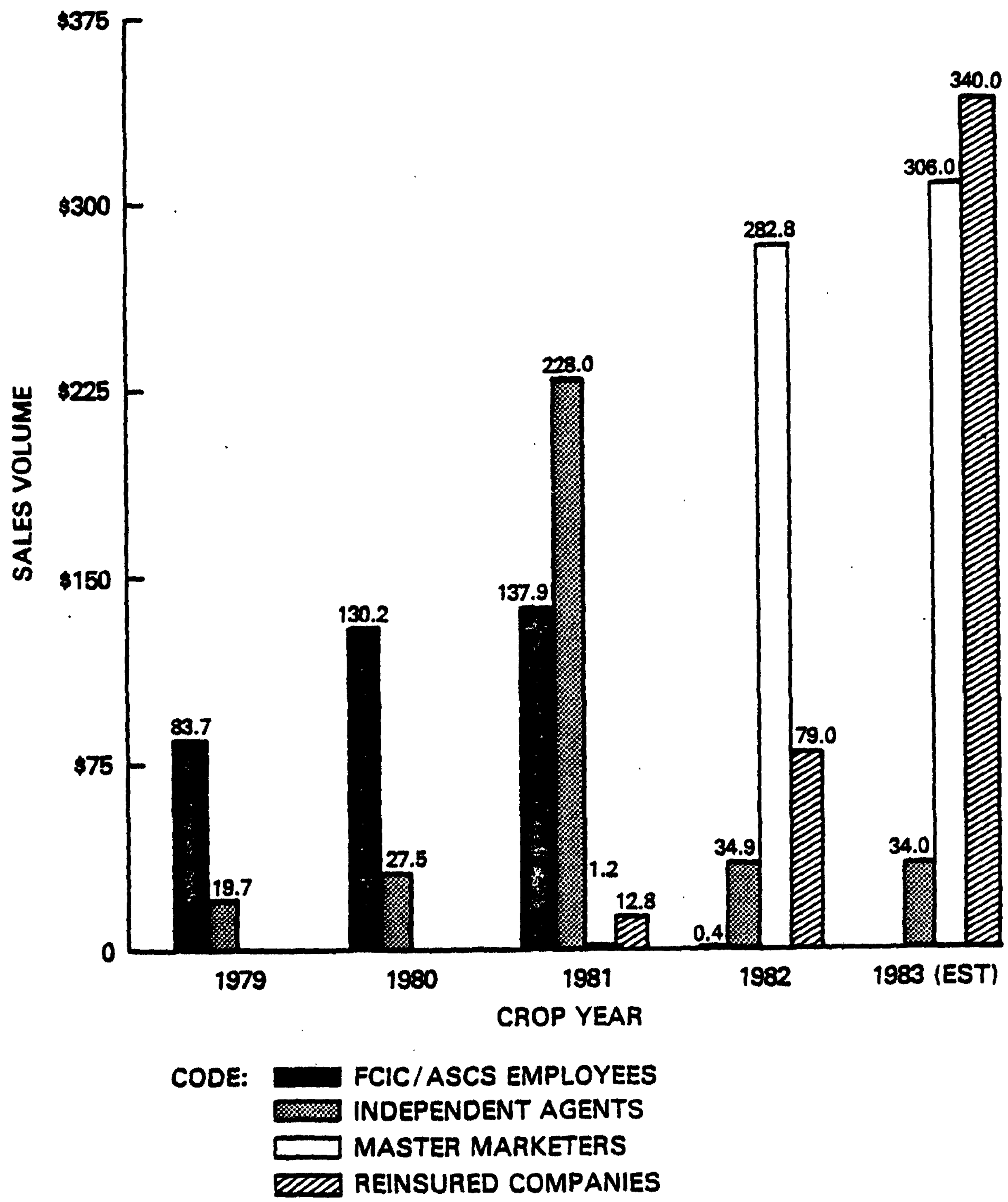
--The newly developed Individual Yield Coverage Program may expose FCIC to a significantly higher loss risk if there is large participation of producers located in the potentially underpriced high yield county areas and they also elect the potentially underpriced 75-percent level of coverage. Additionally, the program's actuarial soundness may be compromised because county area yields can be substituted for actual producer yield. Such substitution provisions may preclude identifying and evaluating actual producer yield data which could provide field underwriters with additional insight into the propriety of the specific county area premium rates assigned to these producers.

INSURANCE SALES FOR EACH DELIVERY SYSTEM BY CROP YEAR

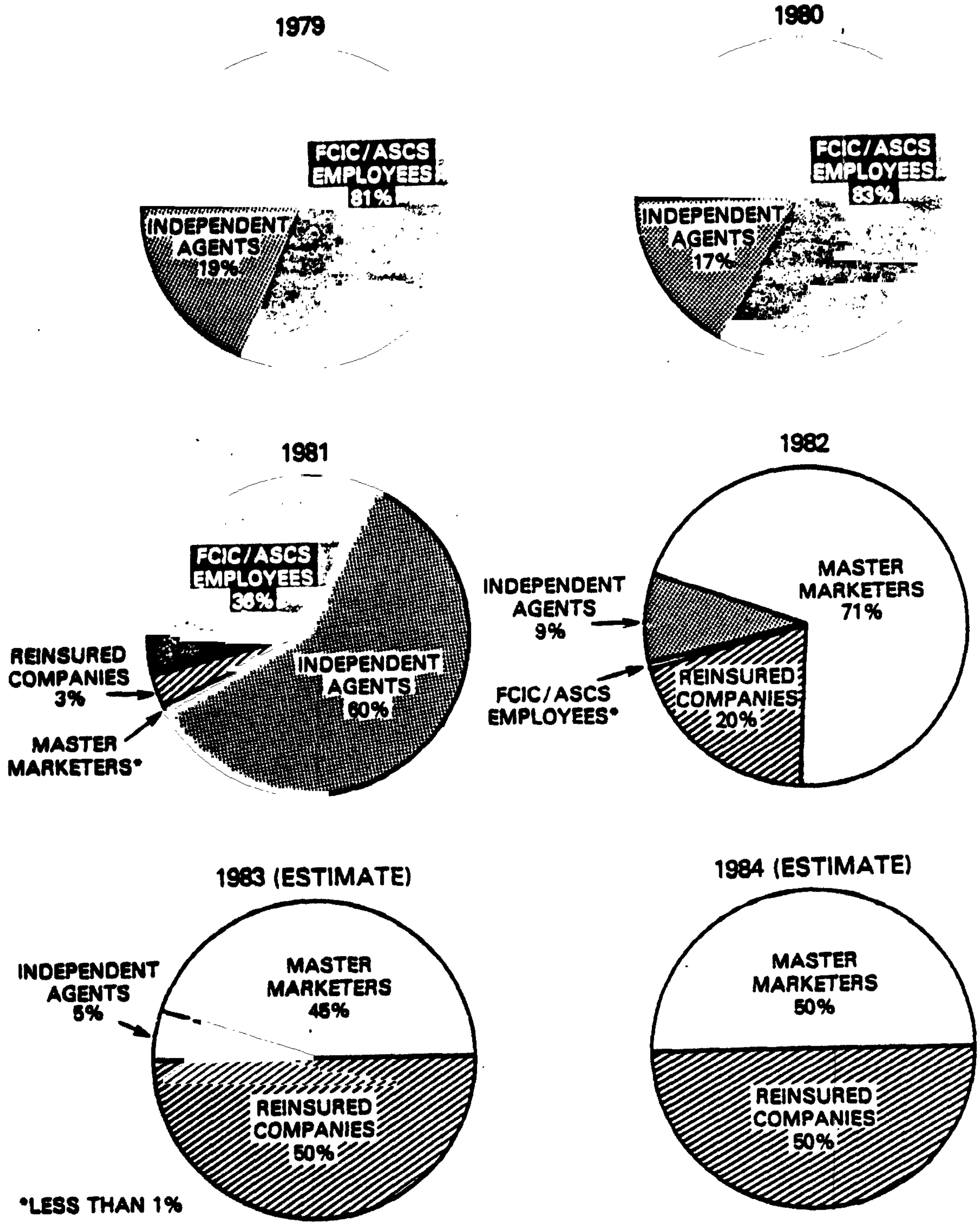
Delivery system	Crop year 1979	1980	1981	1982	1983 (est.)	1984 (est.)
	(millions)					
FCIC/ASCS employees	$ 83.7	$130.2	$137.9	$ 0.4	-	-
Independent agents	19.7	27.5	228.0	34.9	$ 34.0	-
Master marketers	-	-	1.2	282.8	306.0	$425.0
Reinsured companies	-	-	12.8	79.0	340.0	425.0
Total sales (note a)	$103.3	$157.6	$379.9	$397.0	$680.0	$850.0
Number of acres insured (in millions)	21.5	26.5	45.4	44.2	85.2	106.0

a/Totals may not add due to rounding.

INSURANCE SALES
BY DELIVERY SYSTEM
BY CROP YEAR



PERCENTAGE SHARE OF SALES BY DELIVERY SYSTEM FOR CROP YEAR 1979-1984



PREMIUMS, INDEMNITIES, AND LOSS RATIO BY CROP YEAR

	Crop year			
	1979	1980	1981	1982
	(millions)			
Premiums	$103.3	$157.6	a/$379.9	a/$397.0
Indemnities	67.2	356.4	405.7	b/488.0
Loss ratio	0.65	2.26	1.07	b/1.23

a/Includes Federal premium subsidy.

b/Current as of February 28, 1983.

REFERENCES

1. Federal Crop Insurance Corporation Task Force. <u>A Study of the Federal Crop Insurance Corporation</u>, November 4, 1970. Prepared for the Secretary of Agriculture and FCIC Board of Directors.

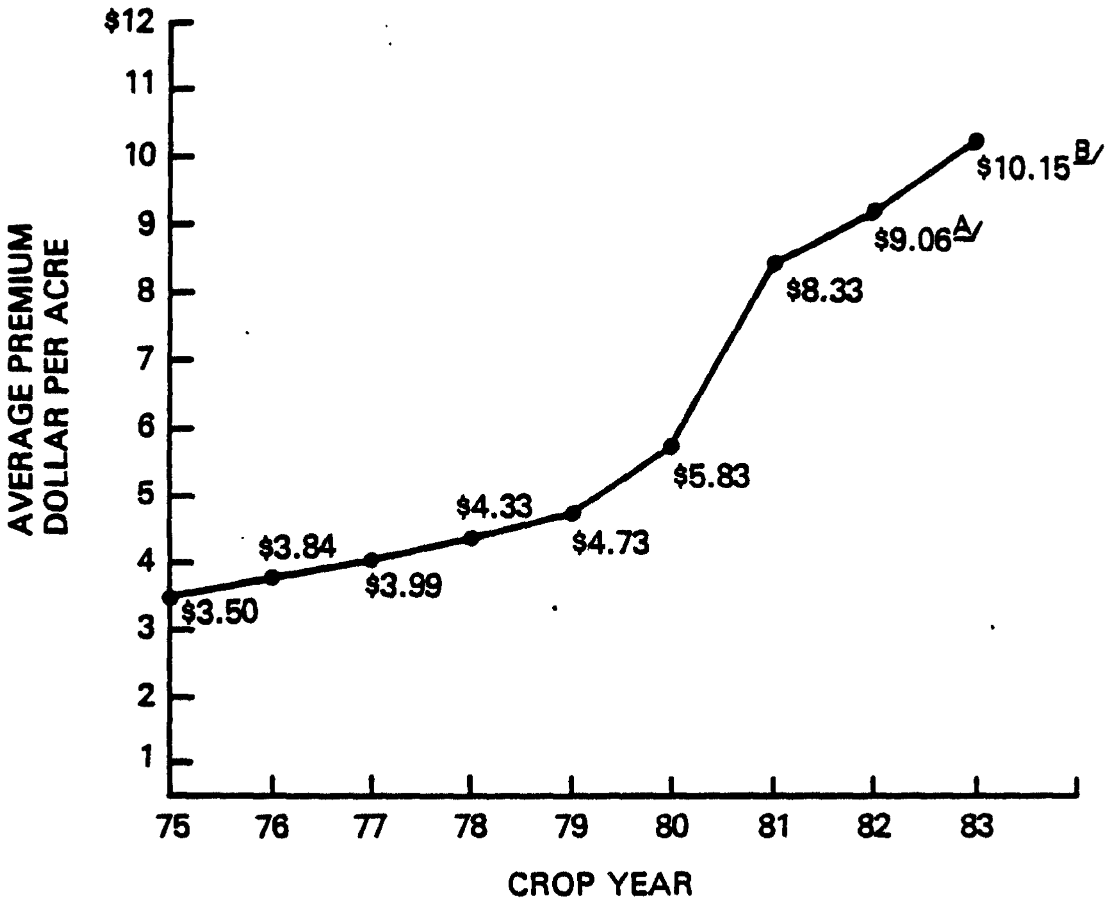
2. U.S. General Accounting Office. <u>Report to the Congress</u>, FOD-77-7, "The Federal Crop Insurance Program Can Be Made More Effective," December 13, 1977.

3. The Actuarial Research Corporation. <u>An Analysis of the Present and Proposed Federal Crop Insurance Programs</u>, March 1978. Prepared for Federal Crop Insurance Corporation, Department of Agriculture, (Contract No. 12-27-111-280).

4. Federal Crop Insurance Corporation Working Group on Individual Classification. <u>Final Option Paper On Individual Classification</u>, 1979.

5. Ernst and Whinney. <u>Review of Ratemaking Practices</u>, June 1982. Prepared for Federal Crop Insurance Corporation, Department of Agriculture.

INCREASE IN PREMIUM DOLLAR PER ACRE BY CROP YEAR



A/ PER FCIC INDEMNITY ESTIMATE AND STATUS REPORT ON REINSURED BUSINESS AS OF OCTOBER 1982

B/ ESTIMATED PREMIUM DOLLAR PER ACRE FOR 1983 BASED ON 1982 BUSINESS ($9.06) PLUS A 12-PERCENT INCREASE

GAIN AND (LOSS) DISTRIBUTION PER AGREEMENT FOR CROP YEAR

Loss Ratio	1981		1982		1983	
	Company	FCIC	Company	FCIC	Company	FCIC
.00	5	95	8	92	11 1/3	88 2/3
.40	5	55	8	52	11 1/3	48 2/3
.75	5	20	8	17	11 1/3	13 2/3
.90	5	5	3 1/3	6 2/3	6 2/3	3 1/3
.95	5	0	1 2/3	3 1/3	5	0
1.00	0	0	0	0	4 1/4	(4 1/4)
1.10	(5 1/4)	(4 3/4)	(1)	(9)	2 3/4	(12 3/4)
1.28 1/3	(6 1/5) a/	(22 1/5) a/	(2 5/6)	(25 1/2)	0	(28 1/3)
1.60	(7 1/2)	(52 1/2)	(6)	(54)	(4)	(56)
2.00	(8 1/2)	(91 1/2)	(8)	(92)	(8)	(92)
3.00	(8 1/2)	(191 1/2)	(8)	(192)	(9)	(191)
5.33 1/3	(8 1/2)	(424 4/5)	(8)	(425 1/3)	(11 1/3)	(422)

a/Does not add due to rounding to achieve common fraction.

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