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Evaluating the Relative Cost Effectiveness of the Farm Service Agency's Farm Loan Programs

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Evaluating the Relative Cost Effectiveness of the Farm Service Agency's Farm Loan Programs

PREFACE

Section 5301 of Subtitle D of Title V of the Farm Security and Rural Investment Act of 2002 (P.L. 107-171; May 13, 2002) directs the Secretary of Agriculture to conduct 2 studies of the direct and guaranteed loan programs under sections 302 and 311 of the Consolidated Farm and Rural Development Act, each of which shall include an examination of the number, average principal amount, and delinquency and default rates of loans provided or guaranteed during the period covered by the study. The first study is to cover the 1-year period that begins 1 year after the date of enactment and the second study is to cover the 1-year period that begins 3 years after enactment. At the end of the periods covered by each study, the Secretary of Agriculture is to submit to Congress a report that contains an evaluation of the results of the study, including an analysis of the effectiveness of loan programs in meeting the credit needs of agricultural producers in an efficient and fiscally responsible manner.

This report to Congress addresses this provision of the Act by: (1) documenting program objectives and loan activity and performance of direct and guaranteed farm loan programs over time; (2) examining and comparing the characteristics and the loan performance of different loan cohort groups during recent time periods; and (3) comparing the cost effectiveness of the direct and guaranteed delivery systems in reaching their mandated objectives.

ACRONYMS AND ABBREVIATIONS

ACIF	Agricultural Credit Insurance Fund
ARMS	Agricultural Resource Management Survey, USDA
CONACT	Consolidated Farm and Rural Development Act of 1961
EE	Economic emergency loans
EM	Emergency disaster loans
Farmer Mac	Federal Agricultural Mortgage Corporation
Farmer Mac II	Secondary Market for loans guaranteed by USDA
FCS	Farm Credit System
FmHA	Farmers Home Administration, USDA
FCRA	Federal Credit Reform Act
FSA	Farm Service Agency, USDA
FO	Farm ownership loan
GSE	Government sponsored enterprise
IA	Interest rate assistance
LR	Limited resource eligible borrowers
OL	Operating loan
OMB	Office of Management and Budget
SBA	Small Business Administration
SDA	Socially Disadvantaged

Evaluating the Relative Cost Effectiveness of the Farm Service Agency's Farm Loan Programs

EXECUTIVE SUMMARY

The federal government's credit programs specifically designed to serve agriculture are those administered by the U.S. Department of Agriculture's Farm Service Agency (FSA). Through the FSA and predecessor agencies, USDA has been involved in farm credit markets since the Great Depression. While the reach and breadth of federal farm credit programs have fluctuated, they have been an important source of credit to family farmers through economic impoverishment, prosperity, and political change. FSA delivers credit assistance to family farmers through direct lending programs, where loans are made and serviced by FSA staff, and through loan guarantee programs, where loans are made and serviced by commercial lenders but guaranteed against loss by FSA.

Direct farm loans have historically been more costly and their loan repayment performance has generally been weaker than have guaranteed loans for similar purposes and terms. The higher delivery cost and weaker loan repayment performance of direct loans has raised Congressional concerns over the need for continuation of this delivery system when alternative guaranteed delivery mechanisms are available. It is in this context that Section 5301 of the Farm Security and Investment Act of 2002 (P.L. 107-171) required the Secretary of Agriculture to undertake an evaluation of the direct and guaranteed loan programs administered by FSA. Congress directed that the study should examine the effectiveness of direct and guaranteed loans programs in meeting the credit needs of agricultural producers in an efficient and fiscally responsible manner. Congress directed the study to assess differences in the characteristics of direct and guaranteed loans, specifically mentioning the number and size of loans, as well as delinquency and default rates.

This report addresses the provisions of the Act by: (1) documenting FSA's direct and guaranteed farm loan program missions, objectives, loan activity, and performance over historical periods of time; (2) examining and comparing the characteristics and the loan performance of different loan cohort groups during recent time periods; and (3) comparing the costs of the direct and guaranteed loan delivery systems in reaching their mandated objectives. Guidelines for administering federal credit programs as outlined by the Office of Management and Budget are considered in addressing the issues and concerns expressed by Congress.

The Act requires an analysis of loans made between May 2003 and May 2004. But, this one-year period was considered to be too short to provide a meaningful assessment of loan repayment performance. The shortness of the study period hampered a more comprehensive evaluation of the effectiveness of the programs in meeting their objectives. Changes in FSA loan programs made prior to fiscal 2000 would have made loan performance comparisons using loans during this period more difficult. Consequently, the study period for the analysis

included loans made over a 5-year period from fiscal year 2000 through 2004. The analysis also includes emergency disaster loans, even though this program was not specifically mentioned in Section 5301 of the Act.

Study results indicate direct program borrowers are more financially stressed than guaranteed borrowers and that many current farm loan program borrowers may not be able to continue farming, at least in the short-term, without access to government subsidized credit. The study findings are generally consistent with the missions of the direct and guaranteed farm loan programs, yet the combination of higher delivery costs and loan subsidy costs means direct lending programs require larger amounts of federal resources to meet their objectives than do similar guaranteed farm loan programs. However, serving many limited resource or otherwise economically disadvantaged farmers through guaranteed loan programs may be difficult without significant program adjustments or additional financial subsidies. Even with additional subsidies or complete guarantees, commercial lenders could be unwilling to serve some current direct loan borrowers due to the higher servicing costs associated with these higher risk accounts.

What is the Role of FSA's Farm Loan Programs?

Federal credit programs attempt to resolve imperfections in credit markets or address concerns about social equity. Generally, federal credit programs have been motivated by the perceived failure of private sector lenders to adequately, efficiently, and fairly serve all segments of the borrowing public. These programs influence the allocation of credit by channeling capital to, or away from, particular groups to promote certain policy objectives or goals. Historically, farm credit markets have been considered susceptible to market failures resulting from insufficient lending resources, imperfect competition, and information asymmetries.

Imperfect competition occurs because geographic isolation or a limited number of farms may result in a scarcity of farm lenders serving a local market. Information asymmetries arise when lenders have insufficient farm business knowledge or information with which to properly evaluate farm loan requests. Information asymmetries may also arise when farm borrowers lack a sufficient track record to enable lenders to adequately evaluate their loan requests. Insufficient lending resources occurs when small lenders operating in local markets lack the liquidity necessary to fund otherwise creditworthy applicants.

The occurrence of one or more of these failures may result in some creditworthy farmers or underserved groups being unable to obtain credit or having to accept less favorable loan terms. While both FSA guaranteed and direct farm loan programs can be utilized to address the aforementioned market failures, loan guarantees are generally considered a more effective approach. Loan guarantees address market failures by lowering lending risks, which effectively lowers a lender's costs and thereby encouraging lenders to increase the supply of loans and increasing lending competition.

FSA loan programs may also act to reallocate resources to disadvantaged borrower groups

and regions. Direct loan programs, in particular, may be intended to reallocate capital toward disadvantaged groups of farmers considered less likely to qualify for loans in a competitive credit market. Primary beneficiaries of direct loan programs include socially-disadvantaged and beginning farmer groups. Socially-disadvantaged groups include racial and ethnic minorities and women. While both direct and guaranteed loan programs have targeting rules requiring that a share of lending authority be reserved or set-aside for use by socially-disadvantaged and beginning farmer groups, direct loans are more highly targeted for this purpose.

How Do Federal Farm Credit Delivery Mechanisms Differ?

FSA accomplishes its credit mission through two distinct delivery mechanisms: direct and guaranteed loan programs. Direct farm loans are made and serviced by FSA office staff, whereas guaranteed farm loans are originated and serviced by qualified commercial, cooperative, or nonprofit lenders. While there is some overlap in their respective functions, direct loan programs are broadly intended to assist those deemed underserved by credit markets because of creditworthiness concerns, such as beginning farmers and socially disadvantaged groups, while guaranteed programs are broadly intended to address general market failures that may arise from information asymmetries, lack of competition, or lack of lending resources. Office of Management and Budget guidelines encourage the use of loan guarantees over direct loans, except in situations where the subsidy needed for a guarantee is greater than can be provided through a direct loan.

Differences in general eligibility criteria, loan size limits, and loan purpose requirements between the direct and guaranteed programs are reflective of their somewhat different missions. A qualified guaranteed loan applicant must have been unable to obtain credit from private lenders at competitive rates and terms without the presence of a guarantee. Meanwhile, a qualified direct loan applicant must have been unable to obtain credit from private lenders at competitive rates and terms *even with the presence of a guarantee*. Such differences in borrower eligibility make it more likely that direct lending programs serve more economically disadvantaged farmers. In addition, the direct program's smaller loan caps make it more likely that direct programs serve smaller farms which are more likely to be economically disadvantaged. Direct loan funds are also more highly targeted to groups deemed to be underserved, resulting in a greater share of loan funds going to farmers meeting beginning and socially-disadvantaged farmer qualifications.

Irrespective of the delivery mechanism, these federal loan programs are generally intended to serve as temporary and not permanent credit sources. Graduation to commercial credit, particularly in the direct program, is encouraged through time limits on borrower eligibility and periodic reviews. Guaranteed credit is seen as a first step to graduation from federal credit (direct lending programs) to commercial sources of credit.

How Does the Repayment Performance of Direct and Guaranteed Loan Programs Compare?

Generally, direct loans did not perform as well as guaranteed loans during the study period of fiscal 2000 through fiscal 2004. Both the average monthly and 90-day delinquency rates for direct loans and direct loan borrowers was 3 to 4 times higher than for guaranteed borrowers who originated loans during the same time period. Compared to direct loans, guaranteed loans were more likely to perform without any repayment problems. For example, the share of guaranteed loans obligated in fiscal 2000 that performed with no repayment delinquencies, restructurings of the original loan contract, or loan write-off or loss through fiscal 2004, was more than twice that of direct loans.

Direct loans were found more likely to be restructured because of repayment problems, with over one-fifth of fiscal 2000 direct loans being restructured by the end of fiscal 2004. This restructuring rate compares with a rate of 5 percent for guaranteed loans during the same period. While overall loss rates for commercial and noncommercial loans alike were very low during the study period, they were greater for direct loans than for guaranteed loans. Of all direct loans originated in fiscal 2000, 2.5 percent resulted in a debt write-off or loss by the end of fiscal 2004, compared to 1.9 percent for guaranteed loans.

Are Direct and Guaranteed Loan Programs Serving the Same Clientele?

In general, the results presented reflect distinct differences in the two delivery systems. A large share of direct loans was made to groups deemed to be marginally creditworthy by private sector lending standards. Direct loans are much smaller in size and reflect the smaller family farming clientele that they serve. Direct loans were more likely to be used to finance new investments, such as the purchase of additional farmland, while guaranteed loans were frequently used to refinance existing indebtedness. Generally, FSA guaranteed loans went to groups who appeared more creditworthy than direct borrowers, yet the majority appeared unlikely to meet commercial lending standards at commercially available rates and terms.

By design, direct programs should serve higher risk applicants than the guaranteed program. Compared to guaranteed borrowers, direct borrowers carried greater amounts of debt relative to their net worth or assets, had lower net worth, received less off-farm income, were more likely to have cash flow difficulties, and operated smaller family farms. Many of these borrowers appear unable to meet commercial credit standards and would likely have had difficulty either continuing or beginning in farming without access to direct loan programs. Therefore, their financial profile appears to be consistent with the agency's mission of serving farm borrowers unable to access commercial credit at reasonable rates and terms, but yet able to project at least some level of debt repayment ability.

Study results also indicate that the direct lending delivery system is more focused on serving groups considered socially or economically disadvantaged. A much higher share of total direct lending went to socially disadvantaged farmers and beginning farmers than in the loan

guarantee program. This was especially true for direct farm ownership loans. However, because of greater annual lending authority, guaranteed loan programs actually provide greater amounts of credit to these underserved borrower groups.

Could Direct Program Borrowers Be Served Through Guaranteed Programs?

The study results suggest that many farmers currently receiving direct loans might not be served through a guaranteed-only delivery system without significant program changes. Consistent with results of previous studies, the complete or partial graduation rates of direct FSA borrowers to FSA guaranteed loans is relatively low and this occurrence is reflective of the generally higher risk profile of these borrowers. The higher default probabilities and servicing costs associated with direct loans discourage commercial lenders from serving many within this higher-risk clientele without further incentives and/or subsidies. Even with a complete federal loan guarantee, commercial lenders may be reluctant to serve many high-risk direct borrowers because greater loan servicing costs would render the loans unprofitable.

Additionally, there are a number of issues which would adversely impact the ability to serve direct borrowers through a guaranteed delivery system. Direct borrowers are afforded borrower rights provisions, such as loan decision appeals and debt restructuring rights, that commercial lenders are not required to provide. If these provisions were imposed on guaranteed loans without significant compensation, they would likely deter lenders from using USDA farm loan guarantees. The direct loan delivery system also provides borrowers with supervised credit, and guaranteed lenders would be reluctant to implement supervised credit procedures, such as borrower training programs, without recouping the costs of such actions. Further, the current guaranteed program does not provide universal coverage of all farm credit markets. One-third of U.S. counties were estimated to have a limited presence of farm lenders likely to participate in the loan guarantee program. Without program changes and/or additional incentives, some regions, at least initially, may have insufficient lenders to deliver FSA guaranteed loans.

Hence, it appears that a significant portion of borrowers currently eligible for direct farm loans may not be served under a guarantee-only delivery system, even with additional incentives or subsidies. An assessment of the size of this group, the policy merits of such an outcome, and the level of additional subsidies and program adjustments needed to facilitate transfer of direct borrowers to the guaranteed program were deemed beyond the scope of this report.

How Do Direct and Guaranteed Loan Programs Differ in their Delivery Costs?

Compared to the guaranteed loan program, direct loan programs are more likely to serve disadvantaged farmers, but that service comes at a cost. On average, direct loans require greater public resources than similar guaranteed loans for each dollar lent. For all direct loans made from fiscal 1992 through fiscal 2004, loan subsidy costs averaged 11.7 percent of total obligation volume, compared to just 3.6 percent for the guaranteed program. Said another

way, it costs the federal government an average of 11.7 cents for each dollar lent in the direct program and an average of 3.6 cents for each dollar lent in the guaranteed program.

In general, loan subsidy costs were found to be higher for direct loans, because their interest rate subsidies, anticipated loan defaults, and loss rates are notably higher. In addition, FSA collects a guarantee fee on guaranteed loans, which produces an income stream which helps offset a portion of loan subsidy costs. Most of the total loan subsidy costs were found to be associated with operating loan programs, which accounted for 83 percent of the total farm loan subsidy costs. Guaranteed farm ownership loans had the lowest subsidy rate and represented just 1 percent of total loan subsidy cost, but accounted for one-quarter of total farm loan program loan obligation volume from fiscal 1992 through fiscal 2004. The lower subsidy rate reflects a very low default rate, an absence of interest rate subsidies to borrowers, and the collection of a guarantee fee.

While direct loan programs had higher subsidy rates and costs in general, an exception to this finding was the guaranteed operating loans made with interest assistance. Over one-quarter of total loan program subsidy costs were associated with this interest rate subsidy program. The interest assistance program was found to provide an average net subsidy cost of over $19,500 per loan or 4 times that of a direct OL loan. The delivery of this subsidy was geographically concentrated among borrowers, with one-third of all such loans going to 67 U.S. counties.

When the administrative costs for the two delivery systems are included in the analysis, the cost differential between the two delivery systems widens. Total administrative costs to operate all the farm loan programs were found to be greater than the loan subsidy costs of the programs. The majority of these costs were associated with the direct lending programs. For fiscal 2000 through fiscal 2004, estimated direct program administrative costs averaged $205 million per year, which compared to an average of just $63 million per year for delivery of the guaranteed loan program.

While FSA's annual total administrative costs for delivery of farm loan programs have been relatively stable since 1992, when adjusted for inflation, administrative costs per caseload have been on the rise. This is particularly true for direct lending, where program caseloads declined 27 percent in the five years beginning in fiscal 2000. Calculated administrative expense ratios indicated that direct lending programs are significantly more costly to administer than guaranteed loan programs. The ratio shows that $100 dollars of guaranteed loan volume cost $0.76 to administer, while the same volume of direct loans cost $2.52 during the period. While administrative cost per caseload have increased in recent years, the greater amount of resources (staff-years) available per case may be a factor improving loan servicing and underwriting performance, and hence, could be reducing loan subsidy costs. Through most of the study period, a healthy farm economy improved the farm loan performance of all lenders, resulting in less need for loan servicing and reducing administrative costs relative to what may have occurred in more typical time periods.

The government's administrative costs are greater for the direct program primarily because these loans are made and serviced by FSA staff, while guaranteed loans are originated and serviced by commercial, cooperative, or nonprofit lenders meeting established criteria for being a guaranteed lender. The direct loan program requires FSA staff to provide a greater level of oversight and supervision. Moreover, lending and servicing costs are higher on these loans than on private sector farm loans (FSA guaranteed or not) due to the higher risk profile of direct loan borrowers and because strict regulatory guidelines for making or servicing direct loans must be adhered to by FSA staff. An analysis of work measurement data shows that direct loan servicing accounts for about two-thirds of all administrative costs.

Evaluating the Relative Cost Effectiveness of the Farm Service Agency's Farm Loan Programs

I. INTRODUCTION

Federal credit programs attempt to resolve imperfections in credit markets and address concerns about social equity. The federal government's credit programs specifically designed to serve farmers are those administered by the U.S. Department of Agriculture's Farm Service Agency (FSA). FSA's farm loan programs serve as the federal government's primary credit safety net for family farmers. Equalizing economic opportunities by providing credit access to all creditworthy farmers is a key mission of FSA's farm loan programs. The programs are intended to serve as temporary sources of subsidized credit to family farms unable to find sufficient commercial credit at reasonable rates and terms.

FSA delivers subsidized credit to family farmers through two mechanisms: direct loans and loan guarantees. Direct loans are made, funded, and serviced by FSA, whereas guaranteed loans are made, funded, and serviced by commercial lenders, but guaranteed up to 95 percent against loss by FSA. Both delivery mechanisms provide loans for farm ownership (FO) and for farm operating (OL) credit purposes. FO loans are available to help farmers purchase or improve farm real estate or in the case of guaranteed loans, refinance existing debts. OL loans are used to finance annual production expenses, chattel, family living expenses, and certain existing indebtedness. Emergency Disaster (EM) loans, which help farmers recover from natural disasters, such as droughts or floods, are made as direct loans only. Section 5301 of Subtitle D of Title V of the Farm Security and Rural Investment Act of 2002 (P.L. 107-171;

Legislative History of the Study

The House Committee on Agriculture's markup of the Farm Security and Rural Investment Act of 2002 (2002 Farm Bill) contained a provision (Section 345) calling for termination of the Secretary's authority to make direct OL and FO loans. Except in the case of youths, beginning farmers, and socially disadvantaged (SDA) farmers, FSA's authority to make either type of loan was to terminate 5 years after enactment. Section 345 also proposed a companion study that would evaluate the performance of the direct and guaranteed loan programs during the 5-year period prior to the sunset of the loan program authorities.

An amendment stripping the sunset provision from the legislation was offered when it came to the House floor for debate (Congressional Record). The floor amendment passed, but as a compromise to dropping the sunset provision, language requiring a study remained. The sunset provision for direct lending authority was motivated by the fact that default rates on guaranteed loans have historically been much lower than those for direct loans, and hence it was argued that cost savings could be realized by shifting lending resources from direct to guaranteed loan programs. Even though the sunset provision did not apply to direct loans made to beginning, youth, and socially disadvantaged farmers, it was argued that removal would disadvantage small farmers' and ranchers' access to credit. Without access to direct loans, less financially secure farming operations would be less able, if not unable, to obtain needed credit.

May 13, 2002) directs the Secretary of Agriculture to conduct two studies of FSA's farm loan programs authorized under sections 302 and 311 of the Consolidated Farm and Rural Development Act of 1961 (P.L. 87-128), as amended (see Appendix A for specific legislative language).[1] The two studies are to cover two distinct time periods and are to report on specific loan performance measures and provide an analysis of the effectiveness of the loan programs in meeting the needs of agricultural producers in an efficient and fiscally responsible manner.

Studies have been undertaken in the past which have analyzed federal farm credit programs and their delivery. In 2005, researchers at the University of Arkansas completed a performance-focused review of the effectiveness of direct loan programs upon the request of USDA (Nwoha, et al.). This study identified groups served, measured the time period over which borrowers used FSA direct loan programs, and examined methods to reduce loan subsidy rates. The results indicated that FSA direct loan programs served family farms and a majority of direct borrowers did not use FSA as a permanent source of credit.

A 1997 study requested by Congress and conducted by USDA concluded that rural financial markets appear to work reasonably well in assembling capital and in servicing the financial needs of major groups of borrowers in rural communities (USDA, 1997). A 1991 study comparing the economics of direct and guaranteed farm loan delivery systems concluded that the guaranteed loan program is the cost effective choice, but the results can depend on certain factors (Herr). The study goes on to conclude a complete shift to guaranteed loans would exclude some low-income and low-risk borrowers previously served by direct programs, and that some direct borrowers would have had difficulty meeting commercial standards even with a loan guarantee.

Numerous Government Accountability Office (GAO) studies have been undertaken over the years which analyzed loan portfolio performance and losses of FSA loan programs (GAO 2001a; GAO 2001b; GAO 1998a; GAO 1998b). A GAO study covering the period from 1984 through 1989 examined the implications of the shift from direct lending to guaranteed lending and found that few direct borrowers were graduating to commercial credit through the guaranteed loan programs (GAO, 1989). In January 2001, GAO removed FSA's farm loan programs from its high-risk list, stating that FSA had significantly improved the operation and condition of their farm loan programs.

As requested by the 2002 Act, this study provides an analysis of the cost and performance of the two delivery mechanisms. The analysis generally follows the guidelines established by the Office of Management and Budget of the Executive Office of the President (OMB) for evaluating federal credit program performance. In Chapter II, the objectives and economic justification for federal intervention in credit markets are discussed, along with the rationale

[1] Loan programs authorized under those two sections of the Act include FO and OL lending programs.

for maintaining both a direct and a guaranteed delivery system. In assessing the effectiveness or need for federal credit programs, OMB recommends a framework that considers inputs (resources used), outputs (goods or services produced), and net impacts on society. The third chapter reviews the series of historical events, both economic and political, that have shaped the current lending programs. Chapter IV includes a discussion of the performance of farm loans (goods or services produced) in meeting their stated objectives over the study period. Finally, Chapter IV compares the costs associated (resources used) with the delivery of direct and guaranteed loans. Net impacts on society were not included in the study.

II. JUSTIFICATIONS FOR FEDERAL FARM CREDIT PROGRAMS

Circumstances under which the Office of Management and Budget (OMB) considers federal intervention in credit markets to be justified include market failures occurring because of information asymmetry, externalities, economic disequilibrium, lack of competition, insufficient lending resources, and incomplete markets (Executive Office of the President, 2006; 2005; 2004; 2003). In some cases, OMB suggests that federal intervention in credit markets may be used to influence resource allocation. Specifically, federal credit programs can be used redistribute resources from taxpayers to disadvantaged regions or segments of the population. Loan guarantees have generally been considered preferable in addressing market failures, while direct loans may be preferred if the objective is to redistribute resources to disadvantaged groups (Gale; Grace).

Past research studies have cited asymmetric information, lack of competition, insufficient lending resources, and resource redistribution as justifications for federal intervention in farm credit markets (Bosworth, et al; Collender and Koenig). Information asymmetry, or incomplete information, occurs when a lender has less than full information on an applicant's creditworthiness. For example, lenders may find it difficult and costly to evaluate the creditworthiness of beginning farmers because of their limited credit history. The availability of FSA guarantees makes it easier and

Program Outcomes Not Considered

The ability to achieve a desired impact on society is an important component of program evaluation. Due to the constraints of time and resources, such an evaluation of outcomes was not undertaken. The study's timeframe of fiscal 2000 through fiscal 2004 was not congruent with an evaluation of program outcomes. An analysis of outcomes should determine if FSA loan programs had any quantifiable impact on the financial performance of borrowers relative to a comparable group of farms not served by FSA loan programs. Ideally, such an analysis would be undertaken through multi-year panel studies where the financial progress of groups of similar farm businesses would be compared over a long period, generally over 10 years. Groups (panels) of farms who received FSA loans could then be compared with groups of comparable farms that did not receive FSA loans.

Though no evaluation of such long-term impacts was undertaken in this study, a recent University of Arkansas study examined the 10-year change in financial well-being of farmers receiving direct FSA loans between 1994 and 1996 (Nwoha, et al). This study found that a majority of borrowers from 1994-1996 used direct farm loans as a temporary credit source. More than half of these borrowers no longer had active direct FSA loans by the end of November 2004. Further, the University of Arkansas study concluded that FSA direct loans were helping farmers move to conventional credit or leave farming completely, as is common among most U.S. farmers. However, the absence of a control group with which to compare the financial progress of FSA direct borrowers limits these results. While noted increases in net worth would be consistent with financial progress, it could not be determined if such progress was a consequence of rising farm land values or participation in the FSA direct loan program.

Regardless, intended outcomes and objectives should still be consistent with loan performance and borrower characteristics. The availability of both direct and guaranteed farm loan programs must presume that each serves to achieve a unique outcome. As such, one would expect differences in direct and guaranteed loan program performance as well as in the average characteristics of farmers served by each type of program.

less costly for commercial lenders to make loans in such circumstances. Insufficient lending resources may occur in local markets characterized by small lenders who lack the liquidity to fund creditworthy applicants. Past research has shown that access to financial services in rural credit markets has been more limited than in urban markets, raising the possibility of the incidence of imperfect competition (Avery; Levonian; Collender)**.** While both direct and guaranteed credit programs can be used to address market failures in rural credit markets, the guaranteed program is generally considered more effective for such purposes. In particular, guaranteed programs operate by reducing a lender's risk, thereby reducing costs and increasing credit availability.

Both the incidence and depth of poverty has been greater in rural regions, especially among racial and ethnic minorities (USDA, 2004c). If the policy objective is not to correct market failures but rather to reallocate resources to disadvantaged groups, a direct loan program may be desirable. Since direct loan targeting requirements are more stringent, direct loan programs may be better suited to enhance economic opportunities among disadvantaged regions and groups.

Recent structural changes occurring in credit markets may have changed the role and need for federal credit programs. Technological advances and financial services deregulation have made financial markets much more efficient and liquid. By facilitating information gathering and processing and lowering transaction costs, advances in technology have improved the ability of lenders to evaluate borrowers, reducing information asymmetries. Internet information resources and credit scoring advances have greatly lowered information and transaction costs, thereby making it easier to screen applicants and hence spur competition among lenders. Financial services deregulation has spurred credit market competition by removing geographic and industry barriers to banking and financial services. The Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994 and the Gramm-Leach-Bliley Financial Services Modernization Act of 1999 are two important examples of financial services deregulation legislation that have lessened the need for federal credit programs.

With technological advances and financial deregulation improving the likelihood that private sector lenders adequately serve rural credit markets, the federal credit program roles are becoming more explicit. The Farm Credit System (FCS), which held one-third of all farm business debt in 2004, is better suited than FSA to address broad market failures such as may occur from imperfect competition, illiquidity, or information asymmetries.[2] Consequently, FSA farm loan programs are becoming focused on serving specific market segments considered more economically disadvantaged because of their limited financial resources.

[2] The cooperative FCS provides credit to all farmers with a basis for credit in all 50 states and the Commonwealth of Puerto Rico through 95 direct lending associations (Farm Credit Administration). In addition, loans may be made to rural homeowners, certain farm-related businesses, and agricultural, aquatic, and public utility cooperatives. The Agricultural Credit Act of 1987 (P.L.100-233) authorized Farmer Mac to provide greater liquidity and lending capacity to agricultural and rural home lenders.

This includes racial and ethnic minorities, beginning farmers, and economically-depressed regions (Dodson and Koenig).

III. OVERVIEW OF FARM LOAN PROGRAMS

USDA's History in Farm Credit Markets

The origin of federal farm credit programs came in 1916 when Congress chartered the Federal Land Banks, the first component of the Farm Credit System. The introduction of direct federal farm programs came two years later when low interest loans were made available to farmers in drought-stricken regions. Federal farm emergency lending continued sporadically until the Great Depression, when permanent credit assistance commenced. New programs sought to assist poor or tenant farmers in purchasing farms and to help farm families remain on their farms or to reestablish themselves in farming (USDA, 1990). These programs also sought to improve economic efficiency by providing liquidity to rural capital markets during a period when many suppliers of capital had withdrawn.

Following the end of World War II, federal farm credit programs were reconfigured with the passage of the Farmers Home Administration Act of 1946 (McD Herr and LaDue). The new agency shifted away from the welfare orientation of the 1930's to one which provided supervised operating and farm purchase credit to family-sized farmers unable to obtain commercial credit, but who could eventually become economically viable and eligible for commercial credit (Barry). The 1946 Act stipulated that (1) loans could be used for farm purchase or improvement, but could not be made for values greater than the average value of efficient family type farms in the county; (2) loans were to go to those otherwise eligible for credit but unable to obtain credit from private sources; (3) as soon as a borrower could obtain credit from other sources he/she would be asked to apply and accept such credit; (4) interest rates on FmHA loans would be less than loans made by commercial lenders; and (5) veterans were to be given preference (Brake). These points still guide the mission of today's USDA farm loan programs.

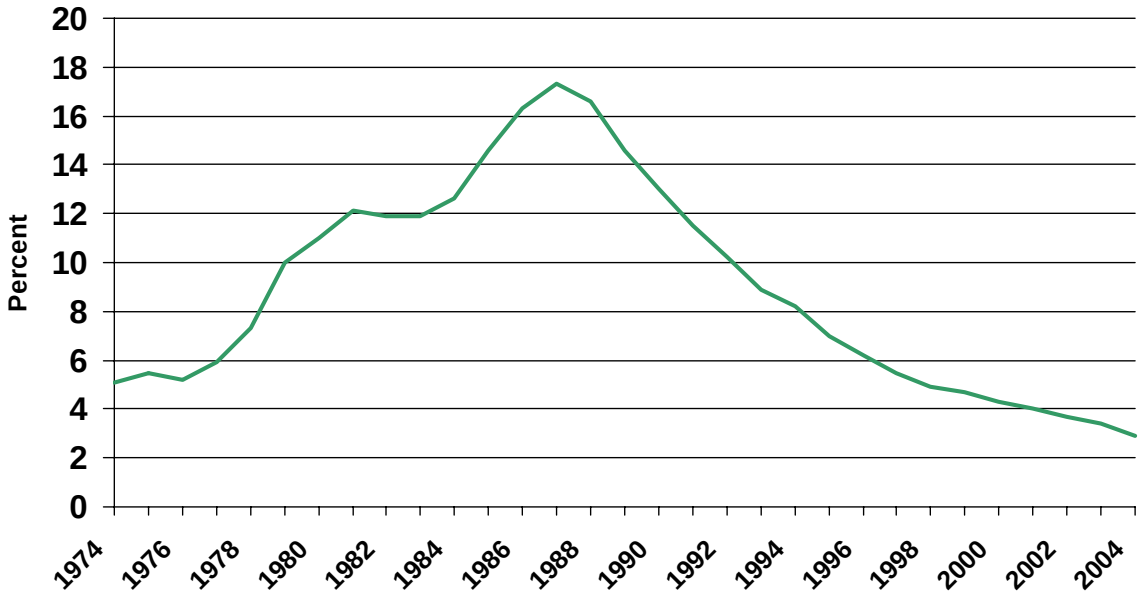
With time, FmHA was given responsibilities for administering a range of rural loan and grant programs (Koenig, 1989a). A major revamping and expansion of these programs occurred under the Consolidated Farm and Rural Development Act of 1961 (CONACT), which remains the authorizing legislation for the current farm loan programs.[3] While the scope of USDA lending grew, it accounted for a small share of total U.S. farm debt until the 1970's, when Congress used farm loans to broadly assist farmers in overcoming low farm incomes and financial stress. Congress relaxed eligibility requirements, raised lending limits, and increased annual lending authorities. As a result, constant dollar farm loan obligations soared from

[3] The administration of FmHA farm loan programs was transferred to the newly created FSA in 1994.

$2 billion per year in 1970 to nearly $16 billion by the end of the decade, with emergency lending programs leading the way.[4]

In the 1980s, the farm sector experienced widespread financial stress (Stam, et al.). Federal policies included efforts to assist in the restructuring of debts through farm loan mediation, a special chapter to the U.S. bankruptcy code for farmers, and debt restructuring and borrower rights rules for FmHA borrowers (Stam and Dixon). During the 1980s, FmHA served as an important farm financial backstop. As a result, the direct farm loan program's share of total U.S. farm debt rose from under 6 percent in 1977 to 17 percent by 1987 (figure III-1).

Figure III-1. Direct loan program share of total U.S. farm business debt, 1974–2004.[1]



[1] Includes emergency loans.

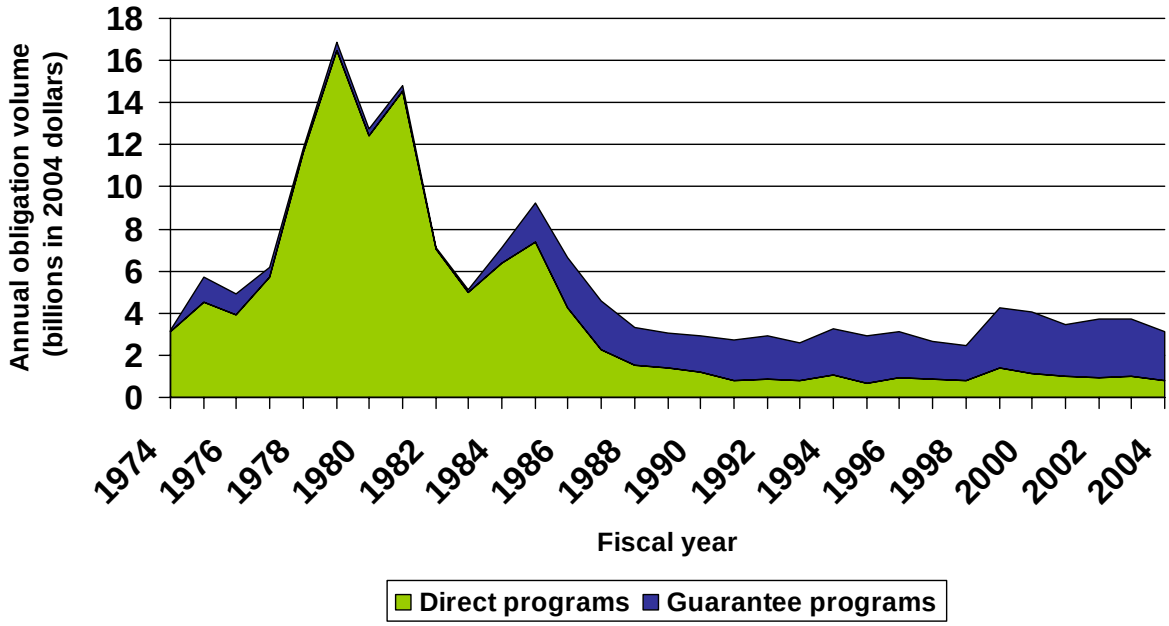
Source: USDA, Economic Research Service.

Until the 1980's, USDA involvement in farm credit markets had been primarily through direct lending programs. Though USDA began guaranteed lending in1974, it was not until fiscal 1984 that guaranteed loan obligation volume achieved a significant level (figure III-2). This reflected a government-wide effort to shift federal lending activity from more costly direct

[4] The Agricultural Act of 1978 introduced Economic Emergency loans which were available to farmers experiencing shortages of credit from regular sources or who were experiencing a cost price squeeze in their farming operations.

lending programs to guaranteed lending programs.[5]

Figure III-2. Annual loan program obligation volume, fiscal 1974-2004.[1]



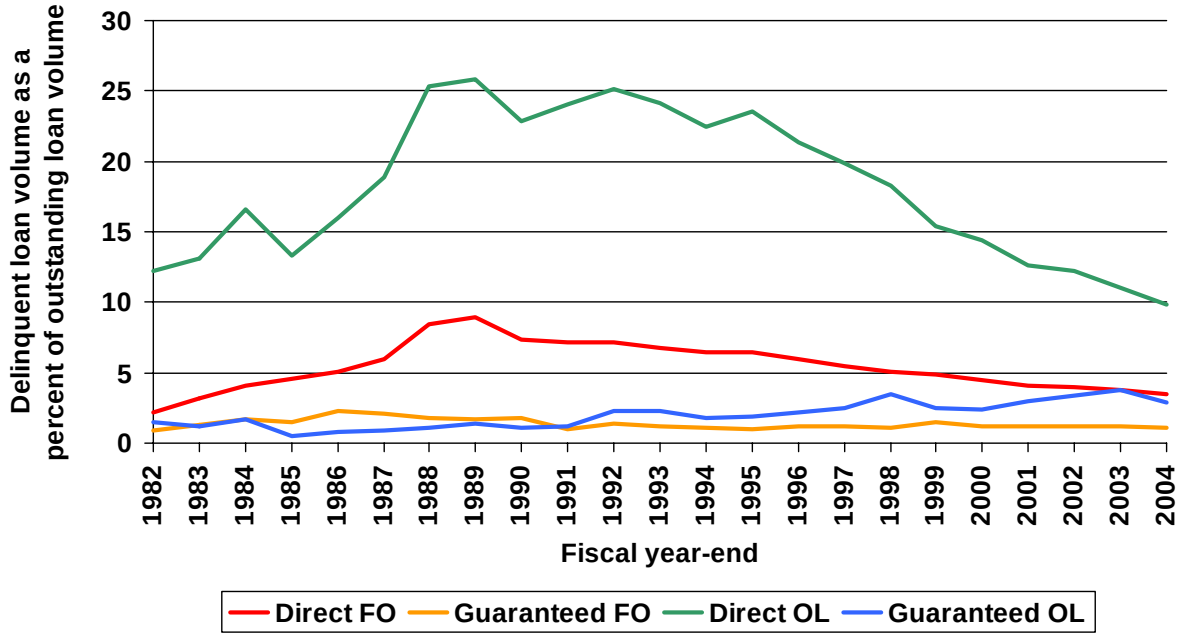
[1] Includes direct and guaranteed emergency loans.

Source: FmHA and FSA Report Code 205, various years.

The high-risk lending of the 1970's, coupled with the farm financial stress of the 1980s, lead to record direct loan program defaults and losses. Delinquent payments, as a share of total outstanding direct volume, soared to a high of 26 percent in the direct OL program by fiscal 1989 (figure III-3).

[5] The April 15, 1983 Task Force Report on Agriculture of the President's Private Sector Survey on Cost Control recommended that USDA credit programs be delivered primarily in the form of loan guarantees through certified lenders as opposed to direct loans (Grace). The report also recommended that graduated fee structures be adopted and that maximum guarantee rates be reduced or that fixed amount guarantees be adopted. The taskforce estimated substantial cost savings would materialize from lower contingent liabilities and loan processing and servicing costs.

Figure III-3. Delinquent loan payment rates, fiscal 1982–2004.



Source: FmHA and FSA Report Codes 616 and 4067, various years.

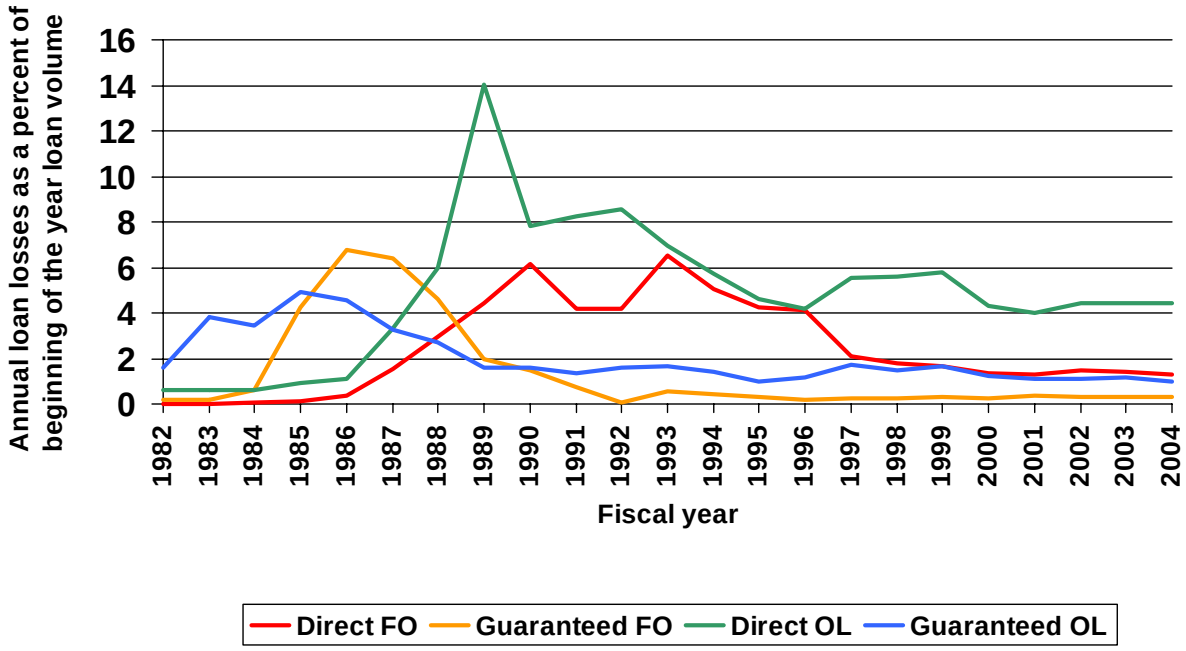
The rise in delinquency rates was aided by a 1984 court order that prohibited FmHA from initiating foreclosures. Also, FmHA was required to provide essential new operating credits to existing direct borrowers, even to borrowers in default and unable to project repayment of existing indebtedness. While the volume of nonperforming direct loans soared, guaranteed loan delinquency rates rose only modestly due to a lower credit risk, a younger loan portfolio, and fewer mandates.[6]

Following the 1980s, farm program lending was fairly stable and staff resources were focused on servicing and collecting nonperforming direct loans, which had risen during the previous two decades.[7] As the servicing and collection of nonperforming loans progressed through the 1990s, direct program losses piled up, totaling $23 billion in the 20 years starting in fiscal 1985.

[6] The guaranteed loan data base does not explicitly include information on 90-day delinquencies. Instead, 90-day guaranteed loan delinquencies were estimated using lender reports. Every 90 days, FSA requires lenders with guaranteed loans outstanding to file a loan status report. Lenders are then required to file monthly follow-up reports on those loans identified as 30 days delinquent in the lender status report.

[7] FSA follows a comprehensive set of loan servicing procedures to restructure, write-down, or write-off delinquent farm loan program debt implemented in 1987 (Koenig 1989b).

Figure III-4. Annual loan program loss rates, fiscal 1982–2004.



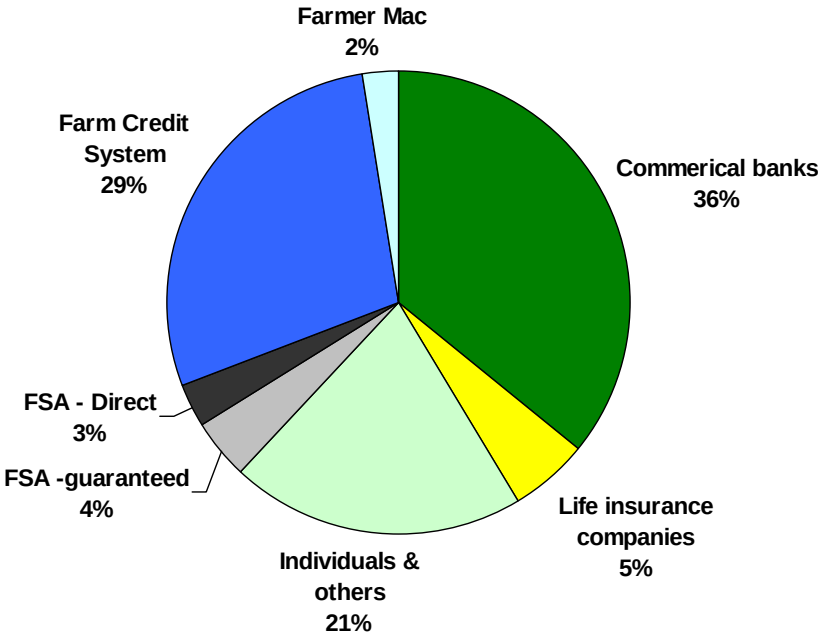
Source: Unpublished FmHA and FSA data.

While direct loss rates began to trend down in the 1990s, they have remained persistently high relative to guaranteed loan programs going into the study period, especially for emergency loans (figure III-4).

Farm Loan Program Operations

FSA's farm loan programs now provide a relatively small amount of the total credit used by U.S. farmers. Outstanding direct and guaranteed FSA loan volume stood at $6.9 and $8.9 billion at the end of 2004, reflecting 3 and 4 percent of total US farm debt, respectively (figure III-5).

Figure III-5. Estimated market share of total U.S. farm business debt, by lender group, 2004.



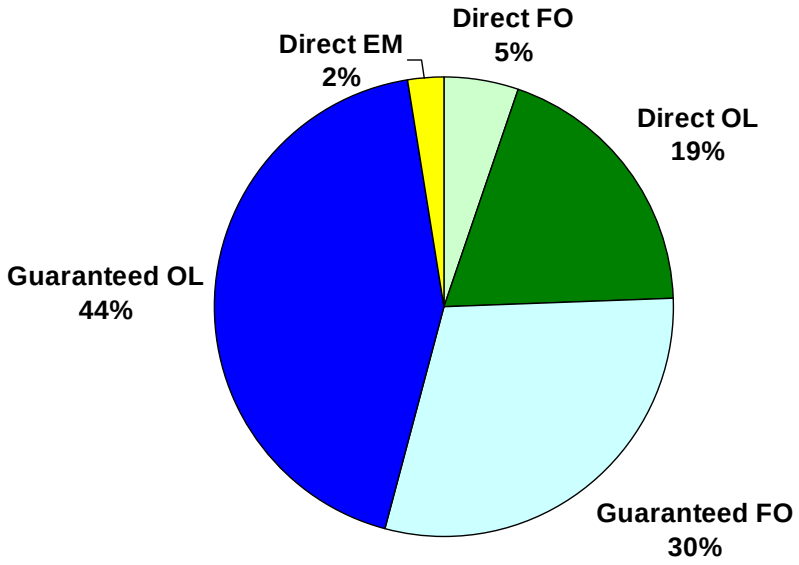
Sources: USDA/ ERS, USDA/FSA and the Federal Agricultural Mortgage Corporation.

Outstanding direct loan volume has been trending down, whereas outstanding guaranteed loan volume has been rising. Direct loan caseloads have also been declining, falling from 149,000 at the beginning of fiscal 2000 to 103,000 at the end of fiscal 2004.[8] Guaranteed caseloads stood at 47,000 at the end of fiscal 2004, down only slightly from 49,000 at the beginning of fiscal 2000. Total guarantee caseload numbers have not risen in recent years, despite higher guarantee volume, because average loan sizes have risen. In contrast, average direct loan sizes have been relatively flat.

The majority of FSA loans are made for operating loan purposes. During the study period, about two-thirds of lending volume was for operating loan purposes, with guaranteed OL making up 44 percent of the $3.3 billion in average annual total lending during the period (figure III-6).

[8] All loans within a program area owed by an individual, partnership, corporation, or trust represent a single case, regardless of the number of partners or shareholders involved. Caseload counts are greater than borrower counts because a borrower may have loans through multiple program areas.

Figure III-6. Share of total loan obligation volume by program area, fiscal 2000-2004.



Source: FSA Report Code 205, various years.

Guaranteed farm ownership loans volume made up 30 percent of total lending volume, and this loan volume grew somewhat over the study period. Direct FO and emergency loans were small programs during the period.

The Two Delivery Systems

Direct and guaranteed loans are delivered through different mechanisms. Direct loans are made and serviced by FSA county office staff. In 2005, there were 2,351 county FSA offices, but less than half of these offices housed a farm credit specialist over the 2000 to 2004 period. While only those county offices with credit specialists can provide full farm lending and servicing functions, most FSA offices are capable of handling routine loan administrative and application functions. Although local offices may get direction from the State and National office, decisions regarding direct loans are made primarily by local staff.

Direct loans are made at regular FSA borrowing rates which are set by Treasury borrowing costs and limited resources rates are available to direct borrowers who cannot cash flow their debt at the regular rate. Limited resource rates are set by formula at half the regular borrowing rate, but not less than 5 percent. In general, FSA direct loans are amortized over longer periods of time than commercial loans. Though direct loans must still be fully secured, FSA typically requires less collateral than would a commercial lender. The direct FO

program offers a farm down payment loan option for beginning farmers and FSA does participation loans with other lenders for up to 50 percent of the loan amount. In either case, FSA has a junior collateral position.

Guaranteed loans are made and serviced by qualified commercial, cooperative, or nonprofit lenders. The decision to apply for an FSA guarantee is determined by the lender and is largely a function of the lender's assessment of whether the farm loan applicant meets the lender's underwriting standards. Applications for a loan guarantee are made by qualified lenders to an FSA office based on the location of the borrower and decisions to grant a guarantee are typically made at the local level based on program criteria.

To qualify as a guaranteed lender, expertise in agricultural lending must be demonstrated by originating and servicing a sufficient volume of agricultural loans. FSA has a Certified Lender Program (CLP) and a Preferred Lender Program (PLP) which offer streamlined application procedures and expedited actions for lenders who have a proficient record of farm loan making and servicing. Lenders with a history of poor loan performance may be denied access to these programs. FSA's loan guarantees are transferable to other parties and many guaranteed loans are sold through formal and informal secondary markets.

Under a loan guarantee, FSA guarantees repayment of up to 90 percent of losses a lender may incur. For loans to certain beginning farmers and loans to refinance direct farm ownership loans, FSA provides a 95-percent guarantee. All loan guarantees are loss sharing, which means FSA will reimburse the lender for losses incurred if the loan goes into default, including loss of loan principal, some accrued interest, and certain liquidation costs (Koenig and Dodson).

Guaranteed loans are made with the terms and loan conditions typical for the participating lender. However, lenders are required to charge interest rates on FSA guaranteed loans that their typical customer would receive. FSA makes interest rate assistance (IA) on a limited number of guaranteed OL loans, which provides a 4-percent interest rate reduction on the interest rate charged by the commercial lender if the borrower cannot project repayment at the lender's typical rate.

General Eligibility Criteria

Subsidies provided through FSA's farm loan programs are attractive to all farmers, regardless of their creditworthiness. To assure that loan funds go to eligible farmers, direct and guaranteed loan applicants must be family farmers unable to obtain credit elsewhere at reasonable rates and terms.[9] Proof of inability to obtain credit elsewhere may be demonstrated through a credit denial from at least one commercial lender. In addition, applicants must

[9] A family farm is one where the applicant's farming operation is comparable in size to similar operations in the area, the farm family provide substantial share of the full-time labor, and the borrower(s) is responsible for day-to-day decision making (USDA, 2006).

demonstrate an ability to repay their debt, exhibit sufficient farm training or farm experience, and be able to fully collateralize the loan. Borrowers must also be U.S. citizens, U.S. non-citizen nationals, or qualified aliens and must certify that they are in compliance with federal laws and regulations, such as USDA farm program and conservation requirements.

There is a subtle, but key difference in the eligibility criteria for direct and guaranteed loans. An eligible guaranteed loan applicant must have been unable to obtain sufficient credit elsewhere at reasonable rates and terms *without a guarantee* (see 7CFR762.120 (h)). An eligible direct loan applicant must have been unable to obtain credit elsewhere at reasonable rates and terms *with or without a guarantee* (see 7 CFR 1941.6 and 7 CFR 1943.6).[10] Direct loans are therefore considered as a *last resort* source of credit when no commercial lender is willing to provide a guaranteed loan.

If a direct or guaranteed loan results in a loss to FSA, the borrowers are ineligible for new or additional direct or guaranteed credit. An exception allows FSA to provide new direct or guaranteed farm operating loans for annual operating expenses in certain cases. In addition, borrowers in some programs become ineligible for additional borrowing after prescribed periods of time.

Different loan amount caps on the programs greatly affect the type of farms that access the two delivery systems. Direct FO and OL loans have $200,000 borrowing limits each, allowing for $400,000 in total borrowing. Guaranteed FO and OL loans are capped at $700,000 adjusted for inflation ($813,000 for fiscal 2004), but total guaranteed FO and OL can not exceed this amount. EM loan program total indebtedness is capped at $500,000.

Program Funding and Targeting

Each year Congress appropriates funds sufficient to support a specific program level (loan obligation authority) based on the projected subsidy cost for each program. In setting annual obligation levels for each program area, Congress typically considers historic use, current farm economic conditions, federal budget priorities, and other factors. After an appropriations amount for a fiscal year is approved by Congress, FSA may later transfer budgetary authority between programs areas to better align program demand with the supply of funds, but only after first notifying Congress. This results in actual loan obligations differing from the initial amounts which were authorized for a particular fiscal year. Only the guaranteed OL program typically has any un-obligated funding at year-end. With the exception of the EM program, un-obligated loan obligation authority in a fiscal year can not generally transfer to a future fiscal year.

Eligibility for emergency (EM) loans requires that the borrower be located in a natural

[10] Under implementation of the final rule for "Regulatory Streamlining of Farm Service Agency's Direct Farm Loan Programs" as originally proposed in 69FR6056, this CFR reference will change to 7 CFR764.101 (e)

disaster declared area. Therefore, demand for EM credit is largely a function of the prevalence and severity of weather induced natural disasters. EM loan programs from time to time have had supplemental permanent funding available for years when demand rises above that anticipated at the beginning of a fiscal year. Enhancements to Federal Crop Insurance and ad hoc disaster assistance have combined to reduce the need for EM loans. And, in recent years annual carryovers of unused EM lending authority have resulted in little or no new budget authority being needed to meet current loan demand.

Congress began targeting lending authority to those deemed to be underserved by commercial lenders with passage of the Agricultural Credit Improvement Act of 1987 (P.L.100-233). That legislation required that a portion of annual lending authorities be set aside or targeted for use by socially disadvantaged (SDA) farmers. The Act defined an SDA farmer as one who "may have been subject to racial, ethnic, or gender prejudice because of their identity as members of a group without regard to their individual qualities." Initially, the targeting applied only to direct FO loans, but the Food, Agriculture, Conservation, and Trade Act of 1990 (P.L. 101-624) added direct OL loans and the Agricultural Credit Act of 1992 (P.L. 102-554) included guaranteed loans. The 1992 Act also added women to the SDA definition and targeting for beginning farmers. In general, a beginning farmer is one with less than 10 years experience owning or operating a farm.

Targeting rules require that a certain percentage of each loan program's lending authority be reserved or set-aside each year for use by SDA and beginning farmer groups.[11] Targeting ensures that these borrower cohorts have priority in obtaining loans, particularly in those programs where demand may exceed annual lending authorities. Whereas SDA targets are determined by formulas, targets for beginning farmers are set by statute.[12] For direct programs, 70 percent of FO funding and 35 percent of OL funding is reserved for beginning farmer applicants until the last month of the fiscal year.[13] For guaranteed programs, 25 percent of FO funding and 40 percent of OL funding must be reserved for beginning farmer applicants until April 1. Finally, if unsubsidized guaranteed OL program authority remains at the end of the fiscal year, this funding must be transferred to fill unmet beginning farmer demand for direct FO loans. There are no targeting requirements for EM loans.

[11] See CONACT: Section 346(b)(2) and 7 CFR 761.209

[12] Each year total lending authority is allocated to individual states. For the FO loans, the percentage of total loan funds targeted or reserved for SDA applicants is based upon the state percentage of the total rural population made up of the SDA groups. For OL loans, the reserve percentage is determined by the statewide share of total farmers from the SDA group. Gender allocations are based on the statewide percentage of total farmers who are women. Formulas for establishing target participation rates are in 7CFR761.208.

[13] Of the 70 percent reserved in the FO program, 60 percent must be reserved for the down payment loan program until April 1 of each year before any unused lending authority can be released to other beginning farmer applicants.

Atypical Economic Conditions Prevailed During the Study Period

From an historical perspective, the farm economic conditions of the study period might be best characterized as atypical. The value of farmland, the primary collateral backing agricultural loans, rose by nearly 25 percent from 2000 to 2004 (USDA, 2004b). Rising asset values diminish credit risks and thereby increase credit availability and reduce credit cost. The rise in farmland values was aided by some of the lowest interest rates in the last 50 years. The average effective interest rate on non-real estate loans made to farmers by commercial banks fell from 9.7 percent in 2000 to just 5.4 percent in 2003 and 2004 (Federal Reserve System).

The decline in risk premiums on farm lending during the period was significant. The difference between FSA and commercial non-real estate interest rates was cut in half, from around 300 basis points in 2000 to just 150 basis points in 2004 (see appendix figures 9 and 10). Even more dramatic declines in spreads occurred in farm real estate lending rates, as the average FCS lending rate actually fell below similar FSA lending rates by 2004. Lower borrowing rates greatly improve cash flows, particularly for more highly indebted borrowers, making it easier to qualify for additional credit and to repay outstanding debts.

Net farm income, net value-added and net cash income set historical records in 2003 and 2004. Two consecutive years of record high corn production and large harvests for other major crops and unusually high prices for livestock and milk generated record farm sector earnings. Net farm income for 2003 was estimated at $60 billion and $83 billion in 2004; which was an all time record (USDA, 2005). Strong incomes allowed farmers to improve their financial positions considerably and to make greater capital investments in productive assets.

Low interest rates, when coupled with strong farm income prospects, supported increased farm borrowings during the study period. Total farm business debt rose from $168 billion at the start of 2000 to a $206 billion at the end of 2004. This 23 percent rise in total farm debt contrasts with a 7 percent decline in outstanding direct and guaranteed loan volume from the beginning of fiscal 2000 through fiscal 2004. While the relative farm prosperity likely reduced some of the need for federal farm loans, the associated higher farm asset values may have resulted in the origination of larger and riskier loans.

The relative farm prosperity and historically low interest rates during the study period likely altered the mix of applicants and loan performance measures relative to more typical farm economic conditions. Because direct programs are more likely to serve farms with riskier profiles than guaranteed programs, the favorable farm economic conditions may have had a larger impact on direct loan performance and its mix of applicants than within the guaranteed loan programs.

IV. DIRECT AND GUARANTEED LOAN PROGRAM OUTPUTS

Federal credit program outputs have been described by OMB as the products provided to the public to yield desired outcomes or objectives (Executive Office of the President, 2000). Indicators of these outputs may include the number, size, terms, performance, and purpose of loans made as well as the characteristics of borrowers and markets served. The borrower and loan characteristics of direct and guaranteed loan programs were expected to differ, thereby reflecting differences in desired outcomes or objectives.

Section 5301 of the 2002 Act requires an analysis of only the loans made between May 2003 and May 2004. This one-year period was considered to be too short to provide a meaningful assessment of loan repayment performance and outcomes. For example, a loan made May 2004 may not have even had a scheduled payment due until after the study period ended. Therefore, the study period was lengthened to include loans made over a 5-year period from fiscal year 2000 through 2004**.**

Loans made prior to fiscal years 2000 were not considered because changes in direct and guaranteed program lending rules and regulations would have made comparisons more difficult. For example, beginning in fiscal year 1999, guaranteed loan size limits were increased, allowing for much larger loans in these programs (see appendix table 18)**.** The analysis includes EM disaster loans, even though this program was not specifically mentioned in Section 5301 of the Act. EM loans were included in the study because they can be used for similar purposes as OL loans and borrowers that qualify for EM loan funds may substitute them for an OL loan. Direct OL loans made to youths for agricultural projects were excluded from the study.

Loans Made and Borrowers Served by Loan Cohorts

Loan repayment performance may be influenced by economic conditions occurring over the loan term. For example, the performance of similar loans made to similar borrowers but at different time periods may differ substantially because of differences in income, asset values, interest rates, etc. To lessen time-specific economic impacts, direct and guaranteed loan performance was assessed by loan cohorts, or groups of similar type loans made during the same time period. For purposes of this study, 25 separate loan cohort groups were defined based on the program type and year in which the loan was made (see table IV-1 for listing of cohorts).

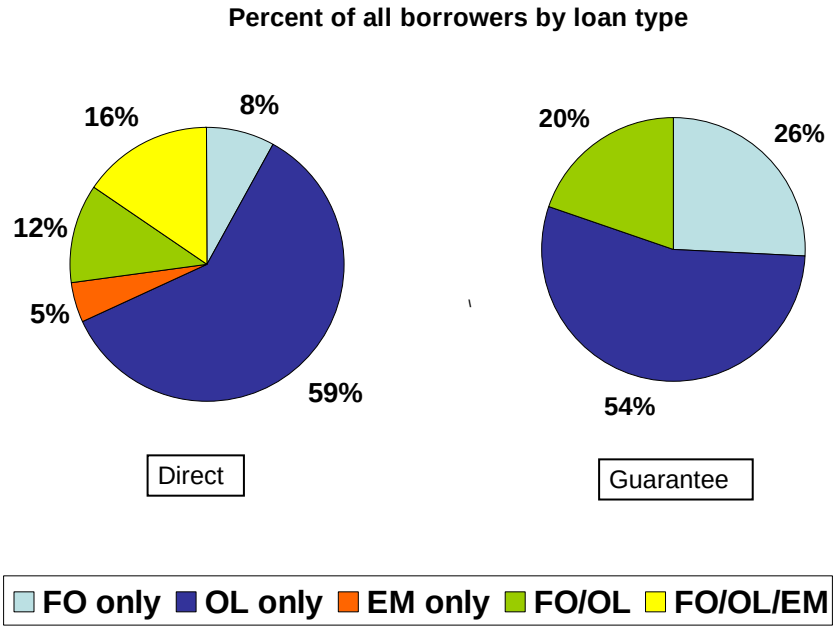
Table IV-1. Number of loans made and borrowers receiving loans, by cohort, fiscal 2000-2004.

Cohort	Fiscal year of obligation				
	2000	2001	2002	2003	2004
	Number of Loans				
Direct –excluding youth	16,230	15,365	14,285	14,645	12,519
FO-including down payment	2,041	1,499	1,482	1,416	1,207
OL-excluding youth	11,768	12,204	11,859	11,764	10,660
EM	2,421	1,662	944	1,465	652
Guaranteed	14,695	12,216	13,149	12,756	10,918
FO	3,402	3,218	3,803	4,084	3,666
OL	11,293	8,998	9,346	8,672	7,252
	Number of borrowers				
Total direct & guaranteed	20,998	20,141	19,578	19,588	17,280
Direct-excluding youth	11,782	12,322	10,997	11,198	9,806
FO	2,016	1,433	1,468	1,409	1,191
OL-excluding youth	9,206	9,715	9,426	9,437	8,542
EM	2,260	1,524	853	1,389	608
Guaranteed	10,103	8,680	9,296	9,211	8,031
FO	3,266	3,078	3,630	3,920	3,459
OL	8,094	6,717	6,908	6,520	5,628

Source: USDA Farm Loan Program data.

From fiscal 2000 to 2004, 98,000 unique farmers and ranchers received 137,000 FSA direct and guaranteed loans totaling $16.3 billion. Direct programs accounted for only about one-fourth of all dollars obligated, but because of their lower average loan size accounted for half of all borrowers served. A majority of the borrowers in both the direct and guaranteed loan programs received only OL loans (figure IV-1).

Figure IV-1. FSA borrowers by loan type, fiscal 2000–2004.



Source: USDA Farm Loan Program Database

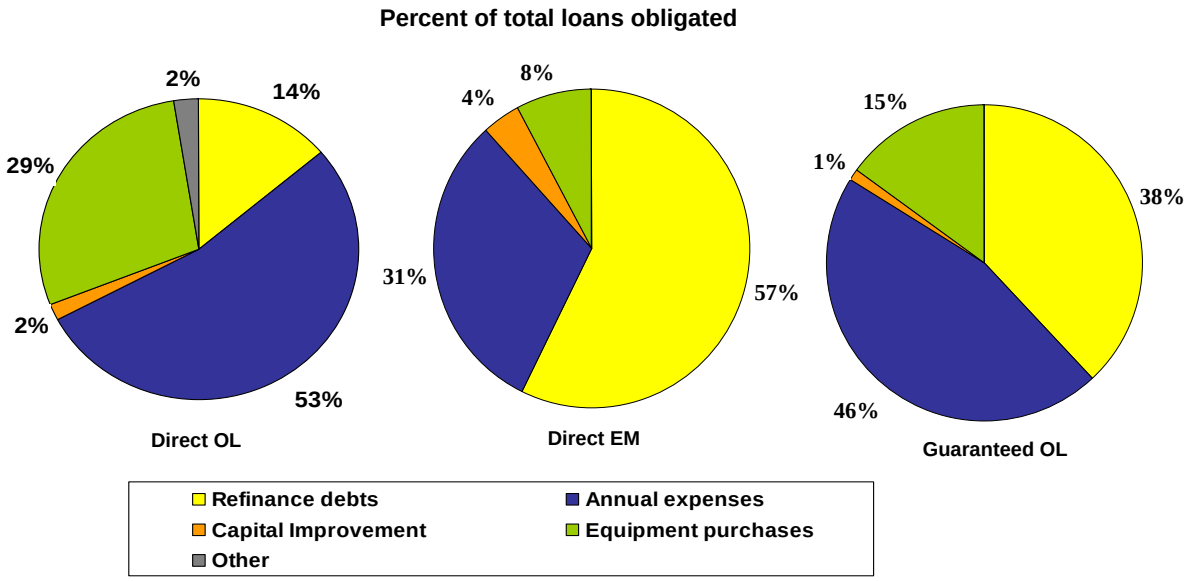
In addition, a sizable share of borrowers that received an OL also received FO loans during the period. Only 5 percent of direct borrowers were served solely through the EM loan program, and another 16 percent had at least one OL or FO loan besides the EM loan.

Guaranteed and Direct Loans Differ in Purpose and Size

The primary purpose for which loan funds were used illustrates key differences between direct and guaranteed loan programs.[14] For all loans obligated from fiscal year 2000 to 2004, a greater share of direct loans was used primarily to fund capital purchases than in the guaranteed programs. The primary purpose of over 29 percent of direct OL loan volume was to finance equipment, livestock, and other capital items, while only 15 percent of guaranteed OL loans were primarily for these purposes (figure IV-2).

[14] The loan's primary purpose was defined as the purpose for which the majority of loan funds were used.

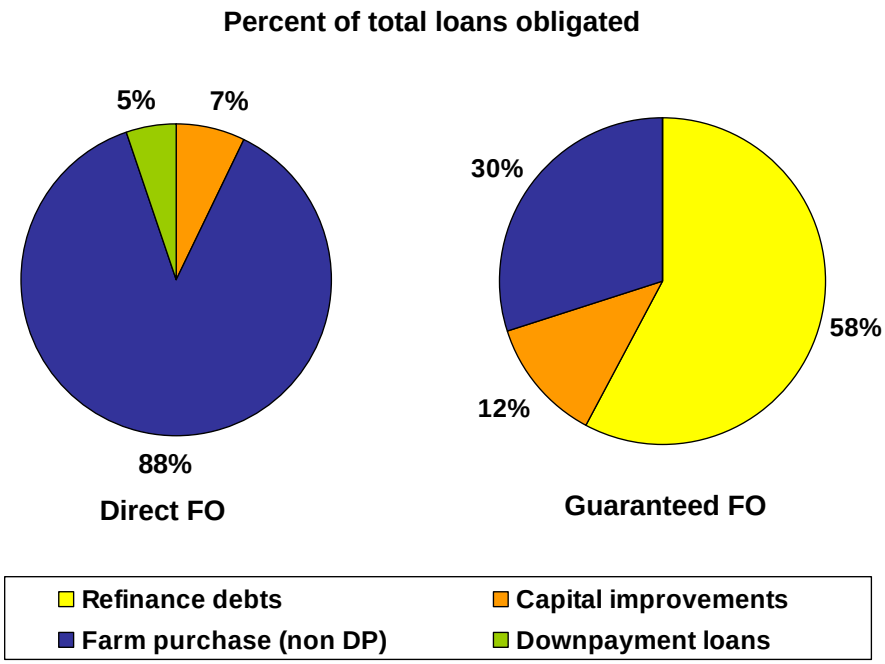
Figure IV-2. Distribution of OL and EM loans obligated, by purpose, fiscal 2000–2004.



Source: USDA Farm Loan Program Database.

Guaranteed OL loans were more likely to be used to refinance existing borrower indebtedness than are direct OL loans. Over thirty-eight percent of guaranteed OL loan volume was used primarily to refinance existing indebtedness, while 14 percent of direct OL volume was primarily used for this purpose. To some extent, the higher percentage of guaranteed loans used for refinancing purposes reflects current regulations, which limit the use of direct OL loan funds for refinancing existing non-FSA debt. By statute, the refinancing of outstanding debts is prohibited as a use of direct FO loan funds. Consequently, 100 percent of direct FO loan volume went to fund either farmland purchases or real estate capital improvements (figure IV-3).

Figure IV-3. Distribution of FO loans obligated, by purpose, fiscal 2000 – 2004.



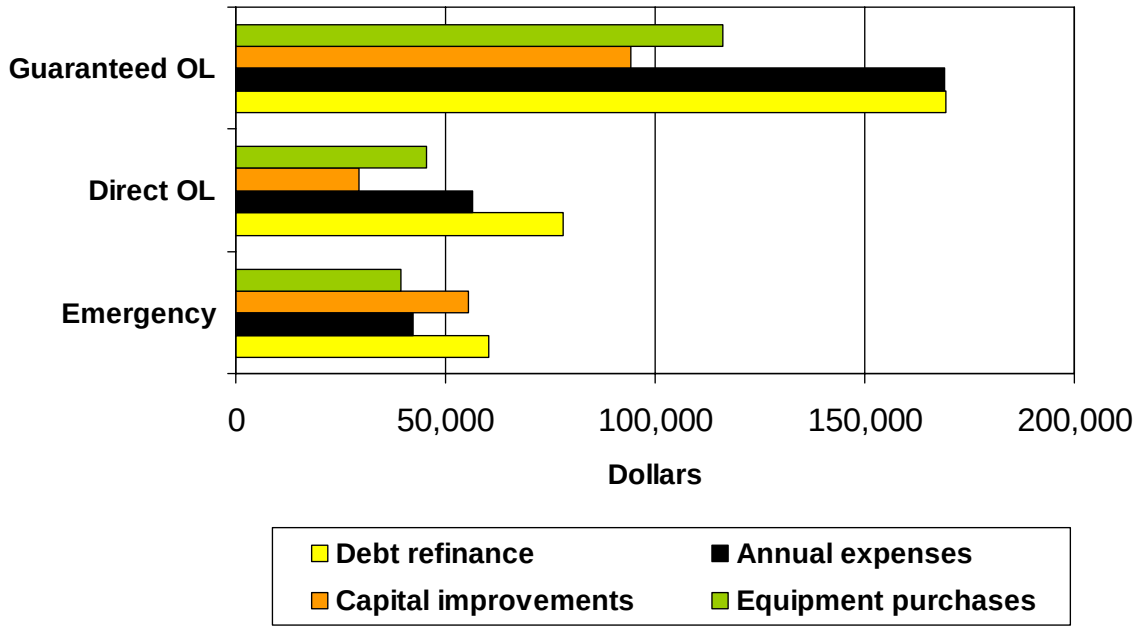
Source: USDA Farm Loan Program Database.

Since rules affecting the use of guaranteed FO loan funds were less restrictive, just 42 percent of this volume was used primarily to fund farmland purchases or improvements. The use of guaranteed FO loan funds to refinance debts suggests that these loans were used to overcome financial set-backs, whereas the direct loans were only used to fund capital expansions.

In general, there did not appear to be a much overlap in the direct and guaranteed loan programs. Only 4.3 percent of direct borrowers in fiscal 2000 had received any guaranteed financing through fiscal 2005. This is essentially unchanged from 10 years earlier when 4 percent of direct borrowers in fiscal 1991 were found to have received guaranteed loans by fiscal 1993 (GAO, 1994). Those who utilized guaranteed FO's seldom utilized any of the direct FO loan programs, such as the joint financing or farm purchase down-payment loan options. For example, less then 2 percent of guaranteed FO loans were used in conjunction with the down-payment program. Refinancing existing indebtedness using guaranteed FO loan funds has been intended to encourage the graduation of FSA direct borrowers to private credit, with a loan guarantee as an intermediate step. Nearly all loans refinanced using guaranteed FO loans were used to refinance existing commercial loans and not direct FSA loans. Therefore, while the guaranteed programs are intended to serve as an intermediate step from government credit to private sector supplied credit, the results indicate that OL and FO guaranteed and direct programs operate largely independently of each other.

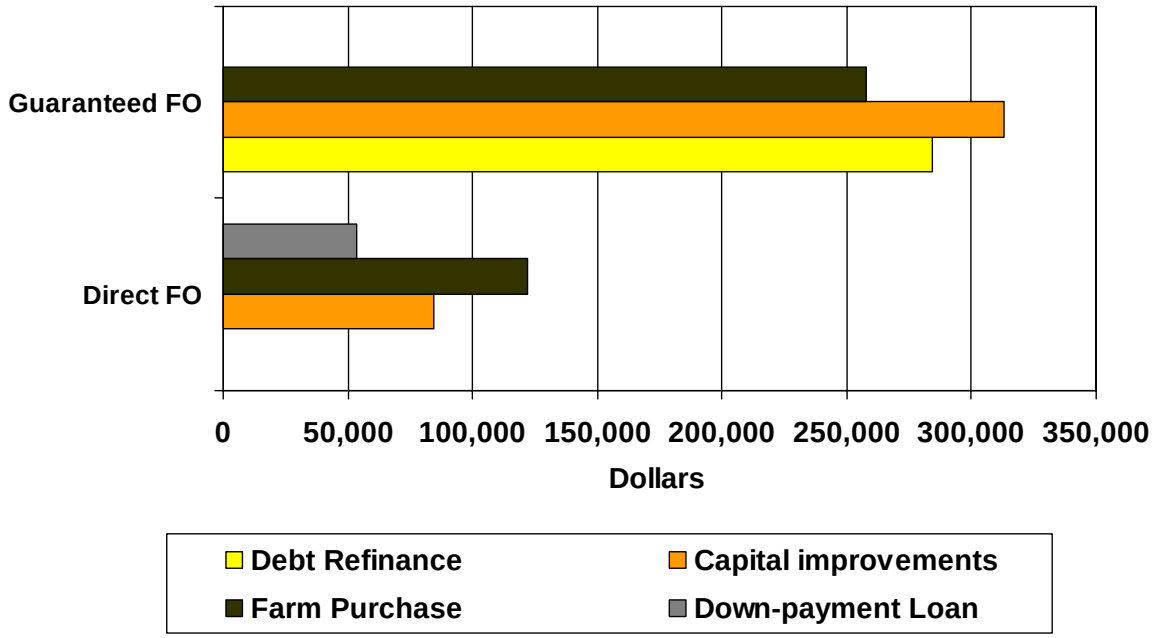
Average direct loan sizes were found to be smaller than that of guaranteed loans which would be consistent with serving smaller family farm operations. Differences in average loan sizes were greatest among operating loans. Guaranteed OL loans used for production expenses were found to be over 3 times greater than comparable direct OL loans. Guaranteed equipment purchase loans were 2.5 times larger and capital improvement loans over 3 times larger than direct OL loans used for these purposes (figure IV-4). Average guaranteed FO loans for farm land purchase and capital improvements were found to be over twice as large as direct FO loans (figure IV-5).

Figure IV-4. Average size of OL and EM loans obligated, by purpose, fiscal 2000-2004.



Source: USDA Farm Loan Program Database.

Figure IV-5. Average size of FO loans obligated, by purpose, fiscal 2000-2004.



Source: USDA Farm Loan Program Database

Differences in the average size of direct and guaranteed loans reflect the direct program's smaller statutory lending limits. Direct OL and FO indebtedness are currently each capped at $200,000 for a direct program total of $400,000, whereas total guaranteed indebtedness in fiscal 2004 could reach $813,000. Larger loan limits allow the guarantee programs to serve larger farming operations that have greater borrowed capital needs. This finding is consistent with USDA research studies showing that direct programs tended to serve smaller family farms (Dodson and Koenig).

Greater Share of Direct Loans Go to Targeted Groups

An important role of federal farm credit programs has been to redistribute resources from the taxpayer to groups considered disadvantaged such as beginning farmers, women, and racial and ethnic minorities (Executive Office of the President, 2006; 2005; 2004; 2003). By statute, direct loan program lending authority is more highly targeted to SDA or beginning farmers than guaranteed loan program lending authority (see chapter III). Past studies as well as FSA loan data indicate the important role of the direct program in financing disadvantaged groups. Dodson and Koenig found that targeting requirements may play a role in explaining the share of total indebted farmers within a county that use direct lending programs. Counties with more young and beginning farmers had a higher use of direct loans, but the impact was small. Also, among counties with racial and ethnic minority farmers, Dodson and Koenig found a

positive and significant relationship between the size of the minority population and the level of FSA farm loan program use.

About 77 percent of all direct FO loans and 50 percent of all direct OL loans were made to either SDA or beginning farmer groups during the study period (table IV-2). In contrast, 29 percent of all guaranteed FO and 32 percent of all guaranteed OL loans went to targeted groups. The majority of targeted funds went to beginning farmers, who received over 80 percent of all targeted direct FO and 65 percent of all targeted guaranteed loans over the period.

Table IV-2. Percent of loans obligated to members of targeted groups, fiscal 2000–2004.[1]

Loan cohort	Non-targeted	Women[2]	Beginning farmers[3]	Racial/ethnic minorities
		Percent of obligated loans		
Direct FO				
Total	23	4	62	11
Regular	26	4	56	14
Downpayment	NA	NA	97	3
Participation	24	5	65	6
Direct OL				
Total	50	2	39	9
Annual	50	2	38	10
7-year	50	2	39	9
Guaranteed FO				
Total	71	3	19	7
Guaranteed OL				
Total	68	1	28	3
Unsubsidized	64	1	32	3
Subsidized	77	0	21	2

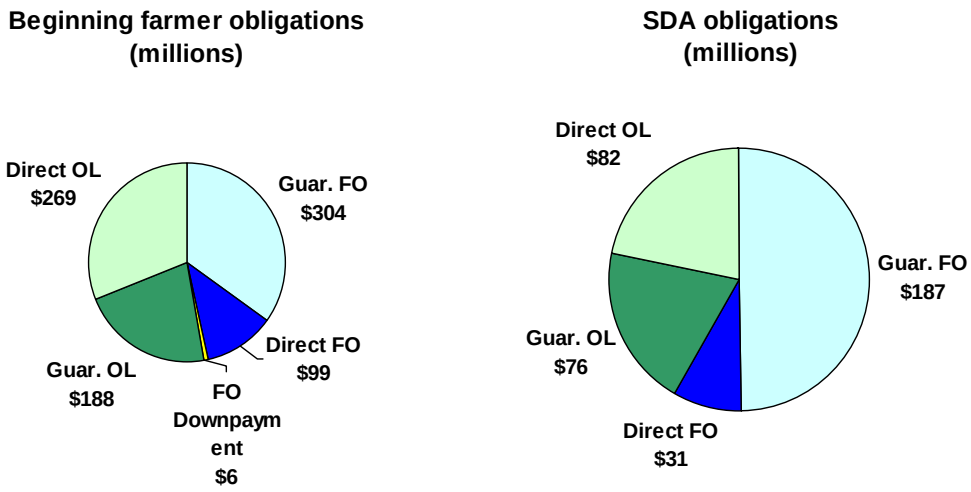
[1] Rows sum to 100 percent and are rounded.
[2] Women who were neither a member of a racial/ethnic minority nor a beginning farmer.
[3] Beginning farmers who were not a member of a racial/ethnic minority group.
NA = Not applicable
Source: USDA Farm Loan Program data.

A higher percentage of direct lending goes to racial and ethnic minorities than in the guaranteed loan programs. Guaranteed OL programs had the lowest share of total loans going to targeted groups, with only 1 percent going to (non-racial/ethnic minority, non-beginning) female farmers and only 3 percent going to racial and ethnic minority farmers. OL loans made with interest rate assistance were found to be least likely to be made to racial and ethnic

minorities, with only 2 percent of these loans going to these applicants.

Because of greater lending authority, targeted groups received larger amounts of financing through FSA's guaranteed loan programs. In fiscal 2004, $263 million in guaranteed loans were made to SDA borrowers, whereas only $113 million in loans came from direct loan programs (figure IV-6). Similar results occurred for beginning farmers, who received nearly a half billion in guaranteed loans compared to $374 million from direct loan programs.

Figure IV-6. Loan obligations by major targeted class, fiscal 2004.



Source: FSA report code 205, September 2004.

Direct Loans Generally had More Favorable Terms

Direct loans were expected to provide borrowers with a greater level of subsidy. With the exception of borrowers receiving guaranteed OL interest assistance (IA) loans, direct borrowers received lower interest rates and generally more favorable borrowing terms. Direct loan interest rates are based on the federal government's cost of borrowing, while guaranteed lending rates are based on a commercial lender's cost of funds. Consequently, direct loan borrowing rates have generally been lower than the rate charged on comparable guaranteed loans. For OL loans, unsubsidized guaranteed loan rates averaged 225 basis points greater than direct OL loan regular rates (table IV-3).[15]

[15] Limited resource rates had little impact on the analysis as the share of loans made at the 5-percent limited resource rate fell from 35 percent to zero from fiscal 2000 to fiscal 2003.

Table IV-3. Selected terms of OL loans, by cohort, fiscal 2000-2004.

Cohort	Fiscal year of obligation					
	2000	2001	2002	2003	2004	Average
	Percent					
Direct OL						
Share of all loans:						
1-year operating term	50.5	50.4	52.3	48.2	50.2	50.3
7-year term	49.5	49.6	47.7	51.8	49.8	49.7
Annual interest rate						
All loan terms	5.96	5.33	4.72	3.32	3.62	4.57
1-year operating term	6.08	5.38	4.74	3.35	3.62	4.63
7-year term	5.85	5.28	4.69	3.30	3.62	4.52
Share made at limited resource rate:						
All loan terms	35.2	23.2	1.4	0.0	0.0	11.6
1-year operating term	26.5	18.6	0.8	0.0	0.0	8.9
7-year term	44.1	27.9	2.2	0.0	0.0	14.3
Guaranteed OL						
Share of all loans:						
Line of credit	14.6	17.8	18.1	18.4	22.1	17.9
1-year term	0.5	0.4	0.5	0.7	1.2	0.7
7-year term	84.9	81.8	81.4	80.9	76.7	81.4
Annual interest rate: [1]						
All loan terms	8.06	8.29	6.21	5.64	5.67	6.84
Line of credit/1-year term	9.13	9.11	6.78	6.19	5.98	7.38
7-year term	7.87	8.10	6.08	5.51	5.58	6.72
Share made with interest assistance:						
All loan terms	48.0	34.6	33.0	29.6	21.9	34.4
Line of credit/1-year term	27.2	21.1	19.7	17.6	13.6	19.7
7-year term	51.7	37.7	36.0	32.4	24.4	37.7

[1] Unsubsidized rates

Source: USDA Farm Loan Program data.

Table IV-4. Selected terms of FO loans, by cohort, fiscal 2000-2004.

Cohort	Fiscal year of obligation					
	2000	2001	2002	2003	2004	Average
				Percent		
Direct FO						
Share of all loans made as:						
Regular loans	70.2	67.6	66.4	63.8	63.3	66.5
Downpayment loans	6.7	8.8	6.9	8.3	8.4	7.8
Participation loans	23.1	23.6	26.7	27.9	28.4	25.8
Annual interest rate						
All loans	5.58	5.37	5.37	5.11	5.19	5.33
Regular loans	5.92	5.67	5.65	5.30	5.42	5.62
Downpayment loans	4.00	4.00	4.00	4.00	4.00	4.00
Participation loans	5.00	5.00	5.00	5.00	5.00	5.00
Share with limited resource rates of 5%						
All loans	35.2	25.7	19.8	11.6	9.0	21.0
Regular loans	49.4	36.4	28.4	16.6	12.3	30.3
Guaranteed FO						
Annual contract interest rate:						
All loans	9.38	8.87	7.27	6.66	6.61	7.60
				Years		
Average maturity	18.3	18.4	18.1	18.7	18.0	18.3

Source: USDA Farm Loan Program data.

Over the study period, the gap between guaranteed FO loan rates and direct FO loan rates averaged about 170 basis points (table IV-4).[16]

If direct OL borrowers were charged the higher unsubsidized guaranteed rates, their annual loan payments would have been about 15 percent higher. Given the tight cash flows on direct loans, the higher borrowing costs would have made it more difficult for some direct borrowers to qualify for guaranteed credit without also obtaining interest rate assistance. The effective interest rate paid by borrowers receiving IA was actually lower than the direct OL rate. However, IA may not be universally available to all direct borrowers. IA use has been concentrated among counties, borrowers, and lenders. In some counties over two-thirds of

[16]Over the period, the gap between direct and guaranteed rates narrowed in part because short term interest rates in the economy, which many guaranteed borrowing rates are based upon, fell more relative to 5 year and 25 year Treasury rates in which the direct OL and FO borrowing rates are based upon. Also, a strong farm economy and competitive lending market reduced commercial lending rates on farm loans.

guaranteed OL loans use IA while other regions use IA sparingly, if at all. From fiscal 1991 through fiscal 2004, one-third of all interest assistance monies have gone to just 67 counties which were mostly located in North Dakota, Wisconsin, and Oklahoma (USDA, 2004d)

Generally, more flexibility exists in structuring guaranteed loan terms. Most guaranteed OL loans for production expenses were structured as multi-year lines-of-credit, while direct OL loans for such purposes were structured as 1-year loans. But for FO's, direct loan terms were generally more favorable to the borrower. Guaranteed FO loans were found to have shorter maturities than direct FO loans meaning direct borrowers had longer periods to repay their loans. Direct FO loans were amortized over 30 years, whereas the average length of a guaranteed FO loans was 18.3 years. Fewer than 15 percent of guaranteed FO loans were made with maturities of 30 or more years and 15 percent had maturities of 10 years or less. The shorter average maturity of guaranteed loans can be attributed, in part, to the use of balloon payments due at the end of the loan term. The use of balloon payments could have enabled guaranteed lenders to utilize amortization schedules comparable to that of a 30-year direct FO. Still, the longer loan contract associated with direct loans reduced uncertainty. Also, balloon payments add an element of risk to guaranteed borrowers not borne by direct borrowers.

Measures Indicate Stronger Guaranteed Loan Performance

A key objective of FSA credit programs has been to assist high-risk farms become successful ongoing concerns. Since becoming a successful ongoing concern requires timely loan repayment, loan repayment represents an indicator of program performance. Loans that fail to perform according to the original terms of the contract are considered as nonperforming loans.[17] Delinquency, restructuring, and loss rates were therefore used as measures of direct and guaranteed loan performance in this study.

Since FSA's farm loan programs have generally been expected to serve a higher-risk clientele, nonperforming loan levels should exceed industry averages. Default and loss rates higher than industry average would be consistent with serving a clientele unable to qualify for commercial credit at reasonable rates and terms. On the other hand, too high a default or loss rate could indicate that the programs are serving a clientele unlikely to become a successful ongoing concern. The greater focus of direct programs on serving more economically disadvantaged groups was expected to result in higher default and loss rates than experienced in the guaranteed program.

[17] Commercial lenders generally define nonperforming loans to include all nonaccrual loans, accruing loans 90 days or more past due in payment, loans in foreclosure or bankruptcy, and loans restructured after delinquency.

30-Day Delinquency Rates

One long standing measure of loan performance used by FSA is the 30-day delinquency rate.[18] This measure provides information on short term repayment problems, but is not necessarily a good indicator of severe financial stress in the portfolio. Those loans with a scheduled payment of at least $1 that had been past due for over 30 days were considered delinquent.[19]

Loan delinquency rates were calculated for each loan cohort as the share of total active outstanding loans that were delinquent at the end of each month. Delinquency rates were calculated per loan, per borrower, and per dollar of outstanding principal. Direct loan delinquency rates were seasonal, with rates peaking early in the calendar year as most annual payments became due and then falling throughout the year as payment shortfalls were resolved. Guaranteed loan delinquency rates were less seasonal, probably because guaranteed lenders tended to schedule borrower's annual payments throughout the year. To make meaningful comparisons of loan performance, month-ending delinquency rates were averaged from the time of obligation until September 30, 2004 for each delivery system. For example, the average month-end delinquency rate for direct OL's made in fiscal 2000 was 14.7 percent from the time of obligation until September 30, 2004 (table IV-5).

[18] Prior to March 5, 2005, a loan was not considered delinquent until it was 30-days past due. Under current rules, a loan becomes delinquent or past-due when payment is not made by the due date (69FR5264).

[19] This corresponds to the delinquency rate reported by FSA Report Code 616. Prior to March 5, 2005 a loan was not considered delinquent until it was 30-days past due. Under current rules, a loan becomes delinquent or past-due when payment is not made by the due date (69FR5264).

Table IV-5. 30-day delinquency rates by cohort and obligation year, fiscal 2000-2004[1]

Cohort	Fiscal year of obligation				
	2000	2001	2002	2003	2004
	Percent of loans				
Total direct	13.0	12.2	10.9	5.3	0.5
FO	6.2	5.5	4.0	2.2	0.1
OL	14.7	13.6	11.9	5.7	0.5
EM	14.5	15.8	13.5	5.8	0.5
Total guaranteed	4.4	2.6	2.0	0.6	0.1
FO	3.9	2.0	1.4	0.4	0.0
OL	4.6	2.9	2.2	0.7	0.2
	Percent of borrowers				
Total direct	12.5	11.4	10.7	5.4	0.5
Total guaranteed	4.4	2.7	2.0	0.6	0.1
	Percent of outstanding principal				
Total direct	13.1	12.7	10.3	4.8	0.5
FO	6.7	6.4	4.2	2.4	0.1
OL	16.2	15.0	12.5	5.3	0.6
EM	17.8	18.5	14.5	5.8	0.4
Total guaranteed	4.4	2.9	2.0	0.7	0.2
FO	3.9	2.2	1.4	0.5	0.1
OL	4.7	3.4	2.6	1.0	0.3

[1] Average monthly delinquency rates calculated as September 30, 2004.
Source: FSA Farm Loan Program data.

Whether measured per loan, per borrower, or per dollar of outstanding principal, the 30-day delinquency rate for the direct program cohorts greatly and consistently exceeded that for guaranteed program cohorts. For direct loan numbers, borrowers, and principal, the 30-day delinquency rate over the analysis period averaged 13 percent for direct loans compared to 4 percent for guaranteed loans. The loan performance differential was greatest among OL cohorts where direct delinquency rates were over 3 times greater than guaranteed OL delinquency rates. Difference in loan delinquency rates between direct and guaranteed FO loans, however, were not as stark as for the OL program.

The 30-day delinquency rate was lower during the first year of the loan term regardless of loan type or program. This result was expected, as recent loans are less likely to become delinquent than older loans. High delinquency rates on new loans are more likely to indicate underwriting errors in the loan making process. Compared to guaranteed loans and non-guaranteed commercial farm loans, direct loans became delinquent quicker. For loans originated in fiscal 2003, the average 30-day direct delinquency rate per borrower, per loan, or per dollar of volume was around 5 percent, which compared to just 0.62 percent for comparable guaranteed loans. Given the performance of the farm sector over this period, it is unlikely that these higher delinquency rates may be explained entirely by creditworthiness criteria. Rather, these differences could also reflect underwriting difficulties or the absence of penalties for non-payment on direct loans.

90-Day Delinquency Rates

A shortcoming of the 30-day delinquency measure is that the time period is too short to differentiate minor or temporary from permanent repayment problems. A 30-delinquency may be the result of an over-sight on the part of the borrower or a consequence of temporary cash flow shortfalls rather than serious financial distress. Alternatively, a 90-day delinquency rate, which most commercial lenders have adopted, provides a more meaningful picture of financial distress within a loan portfolio.[20] Like the 30-day delinquency rates, direct FO loans had 90-day delinquency rates which were roughly half that for direct OL loans. The relatively lower 90-day guaranteed loan delinquency rate likely reflects the ability of commercial lenders to resolve nonperforming loan accounts quicker than a government lender.

Using the same methodology as used for the 30-day calculations, the 90-day delinquency rates were found to be somewhat lower, but the same overall patterns were similar. Using the 90-day measure, the differential between direct and guaranteed loan delinquency rates widened somewhat relative to the 30-day delinquency rates. For loans obligated in fiscal 2000, the 90-day direct delinquency rate averaged 10 percent; compared to just 2.6 percent for guaranteed loans (table IV-6).

[20] While cohort performance comparisons could not be made with private sector lenders, portfolio performances of commercial lenders show that delinquency rates on farm loans ranged from 1 to 1.5 percent of their outstanding farm loan volume during the study period (USDA, 2003).

Table IV-6. 90-Day delinquency rates by cohort and obligation year, fiscal 2000-2004[1]

Cohort	Fiscal year of obligation				
	2000	2001	2002	2003	2004
	Percent of loans				
Month-end rate:					
Total direct	10.0	9.6	7.9	3.1	0.6
FO	5.1	4.3	2.7	1.1	0.0
OL	11.7	10.6	8.6	3.2	0.6
EM	9.3	13.4	10.4	3.9	1.0
Total guaranteed	2.6	1.4	0.9	0.2	0.0
FO	2.4	1.1	0.6	0.1	0.0
OL	2.7	1.6	1.1	0.2	0.0
	Percent of borrowers				
Total direct month-end	9.1	8.7	7.4	2.8	0.6
Total guaranteed month-end	2.6	1.4	0.9	0.2	0.0

[1] Calculated as September 30, 2004.
Source: FSA Farm Loan Program data.

Lifetime Delinquency Rates

Lifetime delinquency rates were calculated to show the share of all loans originated within a cohort that became delinquent at least once for either a 30-day or 90-day period from the time of obligation until September 30, 2004. These measures provide information on the likelihood an individual loan will have repayment problems. As with other delinquency rate measures, direct loans were found to be much more likely than guaranteed loans to become delinquent at least once over the life of the loan. The lifetime 30-day delinquency rate for direct loans made in fiscal 2000 was 48.4 percent, which compared to just 15.3 percent for guaranteed loans (table IV-7).

Table IV-7. Lifetime delinquency rates by cohort, fiscal 2000-2004.[1]

Cohort	Fiscal year of obligation 2000	2001	2002	2003	2004
	30-day lifetime loan delinquency rates				
Total direct	48.4	45.2	42.0	23.8	2.4
FO	43.9	38.2	26.0	13.7	0.8
OL	47.1	44.1	42.9	24.9	2.6
EM	59.1	58.2	53.9	24.3	3.2
Total guaranteed	15.3	11.2	8.0	2.6	0.4
FO	13.6	9.0	5.6	1.8	0.2
OL	15.8	12.0	9.0	2.9	0.7
	90-day lifetime loan delinquency rates				
Total Direct	38.2	35.5	31.8	13.2	2.5
FO	30.0	25.4	16.8	5.5	0.0
OL	37.9	35.1	32.1	13.6	2.7
EM	46.8	53.4	49.5	17.6	9.5
Total Guaranteed	9.0	6.2	4.3	0.8	0.0
FO	8.4	5.0	2.7	0.5	0.0
OL	9.2	6.7	4.9	0.9	0.0
	30-day lifetime borrower delinquency rates				
Total direct	51.4	47.2	43.9	25.5	2.8
Total guaranteed	16.5	12.3	8.8	2.9	0.5
	90-day lifetime borrower delinquency rates				
Total direct	30.7	28.4	25.5	8.7	1.6
Total guaranteed	9.9	6.8	4.7	1.0	0.1

[1] Calculated as September 30, 2004.
Source: FSA Farm Loan Program data.

Thus, about 1 out of every 2 direct loans made in fiscal 2000 had repayment problems at least once by the end of fiscal 2004, whereas 1 in 6 guaranteed loans had repayment problems. Lifetime 90-day loan and borrower delinquency rates for direct loans were still higher than for guaranteed loans.

As was the case for the 30- and 90-day rates, lifetime delinquency rates showed that direct loans tend to become delinquent much quicker than guaranteed loans. For loans originated in fiscal 2003, nearly one-fourth had become 30-day delinquent at least once by the end of fiscal

2004. This compared to a lifetime delinquency rate of just 2.6 percent for guaranteed loans originating in fiscal 2003.

Guaranteed Loans More Likely to Remain Active and Performing

The share of loans that not only remained active, but performed without any repayment difficulties represents another performance indicator. A large share of these loans were terminated, but had performed until termination with no defaults, losses, or restructurings. Considering loan performance up until time of termination or September 30, 2004, guaranteed loans still indicated a much higher level of loan performance. Only 48 percent of direct FO loans obligated in fiscal 2000 performed without any repayment problems through fiscal 2004 or until termination, whichever occurred first. By comparison, 86 percent of guaranteed FO loans obligated in fiscal 2000 performed with no repayment problems through fiscal year-end 2004 or until termination.

Direct Loans Were More Likely to be Restructured

As expected with higher levels of nonperformance, direct loans had a higher incidence of restructuring. Direct loans that are 90 days or more delinquent are eligible for restructuring, or primary loan servicing as described under 7 CFR part 1951, subpart S.[21] These loan servicing options may include the rescheduling of loan payments, loan consolidation, deferral of principal or interest payments, or partial write-offs of principal and interest. While guaranteed loans may be restructured in a similar manner, such decisions were at the discretion of the lender servicing the loan.

The share of direct or guaranteed loans that were restructured between the original loan obligation date and the end of fiscal 2004 was calculated for each loan cohort. Among direct loans obligated in fiscal 2000, 21.5 percent had been restructured by the end of fiscal 2004. Reflecting higher delinquency rates, restructuring was much more likely for direct EM and OL loans than for FO loans. In contrast to direct loans, only 5.2 percent of guaranteed loans obligated in fiscal 2000 had been restructured by the end of fiscal 2004 (table IV-8).

[21] Under implementation of "Regulatory Streamlining of Farm Service Agency's Direct Farm Loan Programs" these regulations will be moved to 7 CFR 766.101

Table IV-8. Lifetime loan restructuring rates, by cohort, fiscal 2000-2004.[1]

Cohort	Fiscal Year of Obligation				
	2000	2001	2002	2003	2004
	Percent of loans				
All Direct	21.5	18.4	14.8	0.8	0.0
FO	12.9	8.8	4.9	0.5	0.0
OL	21.6	19.7	15.7	0.8	0.0
EM	28.2	25.5	17.0	1.0	0.0
All Guaranteed	5.2	3.4	2.7	0.7	0.0
FO	4.4	2.5	1.9	0.4	0.0
OL	5.4	4.3	3.0	0.9	0.0

[1] Calculated as September 30, 2004. Includes all loan restructuring activities, including those under primary loan servicing options.
Source: FSA Farm Loan Program data.

Special loan servicing as described under 7 CFR part 1951, subpart S, does not apply to guaranteed loans. Thus, one might expect direct loan restructuring activity to be greater among direct loans experiencing repayment problems. For loans originating in fiscal 2000, 68 percent of 90-day delinquent direct loans were restructured compared to 51 percent of 90-day delinquent guaranteed loans. Still, the fact that over half of all 90-day delinquent guaranteed loans were restructured even though 7 CFR part 1951, subpart S, did not apply suggests that loan restructuring is influenced by factors other than regulatory requirements.

Direct Loan Write-Offs and Losses Were Larger

Loans that become nonperforming and can not be resolved can lead to losses charged against the program. In this study, program loan losses were calculated as the dollars of principal and unpaid interest not repaid due to liquidations, write-offs, and write-downs.[22] Loan loss rates were calculated for each cohort as the dollars of loan losses divided by the original loan obligation amount. Despite the high percentage of loans that ultimately become delinquent for 30 or 90 days, the loss rate on direct and guarantee loans was found to be relatively low. For loans originating in fiscal 2000, 1.8 percent of direct volume had been written-off by the end of fiscal 2004, whereas 0.7 percent of guarantee volume had been lost (table IV-9).[23]

[22] On FSA direct loans, interest payable accrues even though the loan is in default.
[23] This includes loans which were restructured with a new loan identification number and later written off. Comparable loss rates for private sector lenders could not be calculated because of the unavailability of data on similar cohorts. Loss rates on all outstanding farm loan volume during the period, however, were in the 0.1 to 0.3 percent range (USDA, 2003). Estimates of losses include: loans which were restructured and later written off.

Table IV-9. Lifetime write-offs and loss settlements by cohort group, fiscal 2000-2004.[1]

Cohort	Fiscal year of obligation				
	2000	2001	2002	2003	2004
Lifetime	Dollar amount of losses as a percentage of total obligation volume				
Total Direct	1.8	1.3	0.7	0.0	0.0
FO	0.4	0.2	0.0	0.0	0.0
OL	2.5	1.6	0.9	0.0	0.0
EM	2.2	2.2	0.0	0.0	0.0
Total Guaranteed	0.7	0.3	0.1	0.2	0.0
FO	0.3	0.3	0.0	0.0	0.0
OL	0.8	0.4	0.2	0.2	0.0
Lifetime	Loans experiencing losses as a percent of all loans disbursed				
Total Direct	2.5	1.7	0.9	0.0	0.0
FO	0.6	0.3	0.1	0.0	0.0
OL	2.6	1.8	0.9	0.0	0.0
EM	3.8	3.4	0.0	0.0	0.0
All guaranteed	1.9	0.9	0.4	0.1	0.0
FO	0.9	0.4	0.1	0.0	0.0
OL	2.2	1.1	0.5	0.1	0.0

[1] Calculated as September 30, 2004. Includes loan principal and interest losses, but excludes write-downs and write-offs associated with primary loan servicing actions, which were infrequently used during the study period.
Source: FSA Farm Loan Program data

Loss rates for farm ownership loans were very small for both delivery systems. This finding was anticipated given the rising farmland values during the study period, which kept nearly all such loans well collateralized.

The relatively low loss rates for most loan cohorts may not be indicative of future loss exposure in either delivery system. Strong farm economic conditions and rising farm asset values provided equity with which to restructure loans, thereby keeping loan losses minimal when loan repayment became a problem. Regardless of economic conditions, loss rates on new loans tend to be minimal in the first two years and then rise to a peak before falling back as the loan ages. With fiscal 2000 being the oldest loan cohort in the study, it is possible that loss rates by fiscal 2004 had not peaked and future loss rates may be higher. This may be amplified if farm economic conditions and farm asset values were to decline.

Regional Differences in FSA Loan Program Delivery

Regional comparison of FSA direct and guaranteed loan program usage provides some insight into the relationship between program demand and local market competition. The geographic isolation of some rural areas and the lack of competition for farm loans have been justifications for federal intervention in farm credit markets. In less competitive markets, it has been considered more likely that creditworthy borrowers may be denied access to credit at reasonable rates and terms, thereby resulting in greater need for federal credit assistance.

To a large extent, the geographic lending patterns of the farm loan programs reflect the structure of farming with greater use in major farm production regions, such as the upper Midwest and central Plains. But, regions or counties with greater numbers of borrowers are not necessarily those where FSA had the greatest market presence. FSA's market presence was measured using the share of total indebted farmers within the county that received at least one direct or guaranteed FO or OL loan during the study period.[24] Roughly 3 percent of all indebted farmers in the U.S. received either a direct or guaranteed loans over the study period. But, there were over 500 counties where FSA direct and guaranteed market presence was greater than 7.5 percent (figure IV-7; figure IV-8).

[24] The denominator includes all farmers reporting interest expenses paid in the 2002 Census of Agriculture (USDA, June 2004f). Ideally, the denominator would be the total number of farmers in a county that incurred new debt over the same time period, but that data does not exist.

Figure IV-7. Share of indebted farmers per county who received either a direct FO or OL loan since fiscal 2000, as of the end of fiscal 2004.

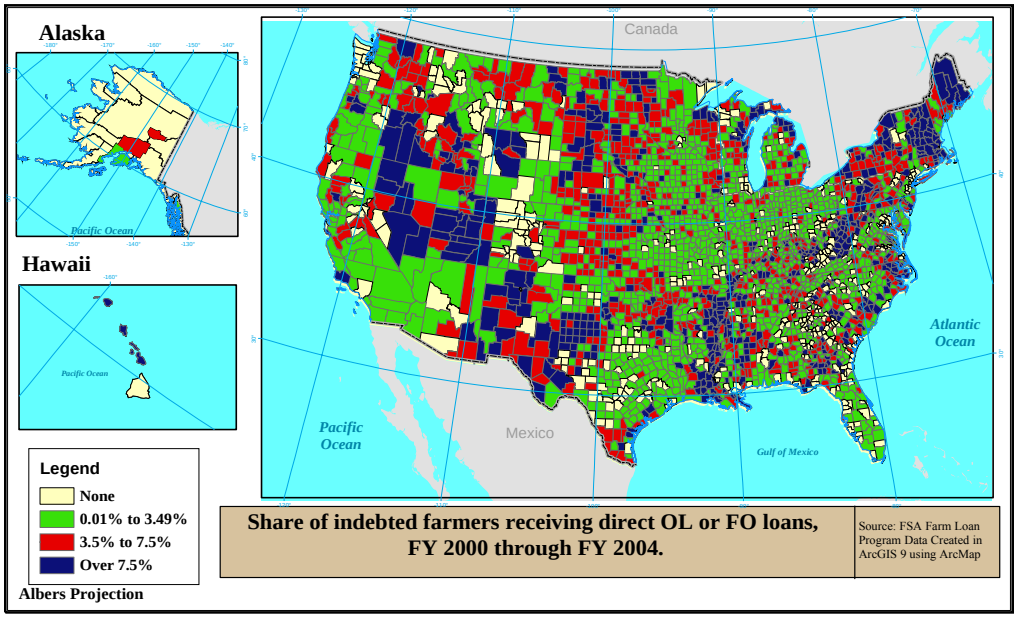
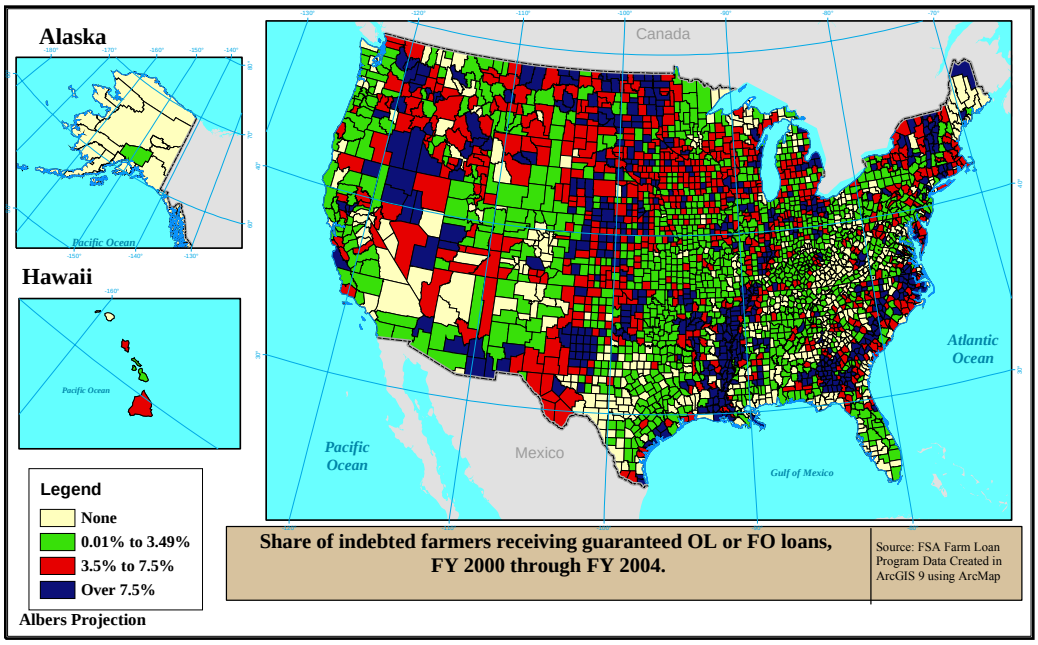


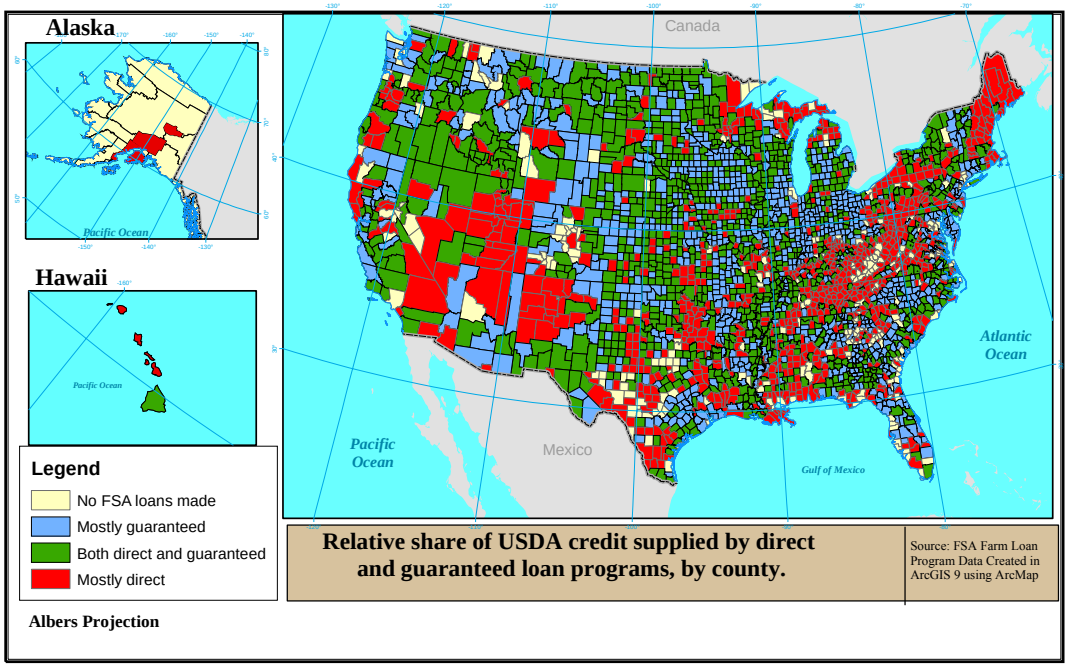
Figure IV-8. Share of indebted farmers per county who received either a guaranteed FO or OL loan since fiscal 2000, as of the end of fiscal 2004.



Many of these counties were located in non-agricultural regions that might be less competitive with respect to farm credit, such as Appalachia and the Northeast. But, market presence was also high in some agricultural regions where farm credit markets have been considered more competitive, such as the Mississippi Delta and parts of the Great Plains. Thus, local market competition alone may not explain all regional differences in FSA credit program usage.

Many counties with high direct program usage also tended to have high guaranteed program usage. Still, there were noteworthy exceptions. Out of the 3,136 U.S. counties, there were 338 counties where all FSA credit was delivered through the direct program and 224 counties where all FSA credit was delivered through the guaranteed program. Counties where the direct programs were relatively more important tended to be located in regions considered non-agricultural. This included counties located in the Northeast, Appalachia, eastern Oklahoma, the Upper Peninsula of Michigan, Utah, New Mexico, and Alaska (figure IV-9).[25]

Figure IV-9. Counties grouped by share of USDA supplied loans made as direct and guaranteed loans from fiscal 2000 to fiscal 2004.



[25] In Figure IV-9, a county was considered as a mostly direct county if between 66.66 and 100 percent of the total USDA supplied farm credit was provided through the direct program and a mostly guaranteed county if between 66.66 and 100 percent of total USDA supplied credit was provided through the guaranteed program. If between one-third and two-thirds of loans were delivered through the direct programs, both direct and guaranteed lending programs were considered active in the county.

Through their network of county offices, FSA farm loans are generally accessible in all regions of the U.S., regardless of the presence of commercial farm lenders. A 2003 study found that the presence within a county of an FSA loan servicing office combined with the absence of a specialized agricultural lender resulted in greater direct loan use and less use of guaranteed loans (Dodson and Koenig).

Thus, one may infer that the scarcity of guaranteed loans in some regions may relate to a scarcity of commercial farm lenders to deliver guaranteed loans. This suggests that in some regions of the country it may be difficult to deliver FSA credit programs through a guaranteed-only delivery system. In the absence of a direct lending program, some of the farmers within such counties may have difficulty accessing the capital necessary to operate their farm. However, the number of counties where all credit was delivered through the direct program was relatively small and these regions accounted for a small portion of aggregate U.S. farm production.

Most Direct Borrowers Would Not Meet Commercial Lending Standards

Borrower demographic and financial characteristics represent another indicator of the ability of farm loan programs to achieve desired outcomes or objectives. A significant presence of FSA borrowers with financial characteristics sufficient to meet private sector lending standards might suggest the FSA lending programs are not completely achieving their objective of reaching economically disadvantaged groups that may be underserved. Conversely, a presence of borrowers considered highly financially stressed could be indicative of a failure to identify applicants likely to become an ongoing concern and ultimately graduate to private sector credit.

FSA's Farm & Home Plan direct loan application provided detailed data on borrower and loan characteristics which were used to assess the characteristics of those receiving program benefits. The Farm & Home Plan data allow for the calculation of commonly used measures of financial performance used to evaluate applications, such as the applicant's solvency, farm profitability, collateral position, liquidity, and repayment ability. At the time of loan application, FSA's staff develop an overall classification of each applicant based on a weighted score of financial variables which include their return-on-assets (ROA), current ratio, debt-to-asset ratio, repayment margin, and loan-to-value ratio.[26]

[26] FSA requires loan accounts to be classified after the borrower receives the initial loan. This classification is tool be based on a financial statement which includes the initial loan and any changes in debt or assets, including refinancing or assets purchased with new loan funds. FSA requires an update of each borrower classification by October 1 or when a borrower obtains a new loan from FSA or another lender, the account becomes delinquent, or any servicing action occurs. Beginning in fiscal 2005, Farm & Home Plan data including loan classifications became available in electronic format for loans made since fiscal 2000.

Applicants with the best overall rating scores were considered likely candidates for commercial credit and most likely to be considered ineligible for FSA credit. The next highest group in terms of creditworthiness, was classified as standard, and was intended to identify borrowers meeting commercial standards in all but one of the credit criteria. Existing direct borrowers classified as commercial or standard were likely candidates for graduation to commercial credit (see § 1951.262).[27] The typical direct borrower would have fallen into the sub-standard category by failing to meet commercial underwriting standards in no more than 2 criteria. Borrowers in the doubtful categories would have failed to meet commercial standards on more than 2 criteria and would have been the highest risk of loss to FSA. A detailed definition of how the commercial, standard, sub-standard, and doubtful categories were calculated can be found in Appendix C.

According to FSA's loan classification procedures, few direct borrowers receiving direct loans during the study period met all commercial credit standards. Only about two percent of loans made since fiscal 2000 were classified as commercial and 11 to 18 percent were classified as standard (table IV-10).

[27] Under implementation of "Regulatory Streamlining of Farm Service Agency's Direct Farm Loan Programs" this CFR reference will change to 7 CFR 765.101

Table IV-10. Selected financial criteria for FSA direct borrowers receiving loans, fiscal 2000-2004.[1]

Evaluation Criteria	Fiscal year of obligation				
	2000	2001	2002	2003	2004
	Percent of all borrowers				
ROA /2					
7% or more	34.2	29.2	28.1	29.2	26.4
3.6% to 6.9	14.4	14.0	14.6	15.9	10.2
0.1% to 3.5%	17.1	18.8	16.7	17.3	16.2
0 or negative	34.3	38.1	40.6	37.6	47.2
Loan-to-value ratio /3					
Less than 0.50	13.9	17.7	17.6	18.6	13.2
0.50 to 0.75	16.0	18.2	18.2	18.4	17.8
0.75 to 0.90	12.4	13.9	13.6	15.1	17.3
0.90 to 1.00	7.5	7.0	8.2	6.6	6.1
1.00 or greater	50.2	43.2	42.5	41.2	45.7
Repayment margin ratio/4					
115% or more	16.3	15.9	21.2	18.8	28.9
105% to 114%	20.8	21.6	24.8	23.4	30.0
100% to 104%	41.6	40.6	35.3	37.1	29.4
Less than 100%	21.3	21.9	18.7	20.7	11.7
Current ratio					
1.25 or more	27.2	28.2	29.6	25.7	35.0
1.16 to 1.24	3.8	3.1	2.3	2.3	1.5
1.00 to 1.15	8.1	8.0	8.5	7.3	7.6
Less than 1.00	60.8	60.8	59.6	64.7	55.8
Debt-to-asset ratio					
Less than 0.40	11.8	15.4	15.3	14.0	15.2
0.40 to 0.69	35.0	38.3	37.9	36.4	34.0
0.70 to 0.99	36.2	31.0	32.7	33.0	39.6
1.00 or more	17.0	15.4	14.2	16.6	11.2
Classification code					
Commercial	1.9	1.9	2.8	1.9	2.0
Standard	10.8	11.6	14.8	12.6	18.3
Sub-standard	69.3	72.9	72.9	77.3	73.6
Doubtful/loss	18.0	13.7	9.5	8.3	6.1

[1] Estimated from post-close Farm & Home Plans. For definitions of criteria see appendix C. [2] Net farm income/value of farm property (assets) owned. [3] Security value is reduced by 20 percent from appraised value to reflect liquidation costs. [4] Debt repayment margin = sum of cash income received from farm and nonfarm sources minus anticipated family living expenses, divided by annual debt service payments.

While loans classified as commercial or standard would have been considered candidates for guaranteed credit, such classification does not mean that these borrowers should have received guaranteed rather than direct loans. FSA's classification scheme does not include all information upon which a credit decision may be based. For example, an applicant may be considered commercial with respect to the financial standards, but may have a limited or blemished credit history or insufficient farming experience causing commercial lenders to deny loan requests. The majority of loans made over the study period (about three-quarters) were classified as sub-standard. These borrowers were likely not strong candidates for commercial credit, even with an FSA loan guarantee. Over time there was a trend in improving loan quality as fewer new direct loans were classified as doubtful and a greater percentage were classified as standard. This was likely the result of the favorable economic conditions during the study period.

Examination of new direct borrower financial characteristics using Farm & Home Plan data details the shortcomings many borrowers have in meeting commercial underwriting standards. Only about 30 percent of new direct borrowers met the commercial underwriting profitability standard of 7-percent ROA. Commercial lenders generally prefer to see debt repayment margins of at least 115-percent before approving loans, a threshold met by only 20 percent of the direct borrowers. Commercial lenders typically have historically been conservative in their credit extension as a borrower's debt-to-asset ratio exceeds 0.40. About half of all direct borrowers during the study period were found to have debt-to-asset ratios exceeding 0.70, with most of the rest having ratios above 0.40.

An inability to adequately securitize (collateralize) a loan appeared to represent one of the most common shortcoming in meeting commercial lending criteria. Industry standards vary, but farm lenders generally prefer farm loan-to-value ratios not to exceed the 60 to 80 percent range. Considering liquidation costs, loan-to-value ratios over 80 percent have been considered more likely to result in loan losses. Farm & Home plan data on loan-to-value ratios show the majority of direct loans made during the study period exceeded 90 percent loan-to-value. However, loan-to-value ratios may not be an entirely accurate reflection of risk of loss. Even though the loan-to-value ratio may indicate that FSA is adequately secured, in many cases FSA's lien priority is subordinate to another lender. Therefore, risk of loss may be understated if farm asset values were to decline.

Guaranteed Borrowers Were More Creditworthy

Achievement of desired program outcomes for the guaranteed loan programs require these programs serve a clientele more creditworthy than direct borrowers but still unable to get needed credit without a federal guarantee. Data on the characteristics of guaranteed borrowers is maintained by commercial lenders and was not readily available for this analysis. Therefore, the financial characteristics of guaranteed borrowers were estimated using USDA's Agricultural Resource Management Survey for 2003 and 2004 (USDA, 2004e). These

statistics were compared to direct borrower characteristics from the Farm Business Plan database for fiscal 2003 and 2004.[28]

While data limitations prevented comprehensive comparisons of the financial characteristics of guaranteed and direct borrowers, comparisons made from available data sources suggest that guaranteed borrowers were more creditworthy than direct borrowers, and less creditworthy than comparable farms receiving non-guaranteed loans from commercial lenders.[29] Compared to direct borrowers, guaranteed borrowers that received new loans in 2003 and 2004 appeared to operate more established farming operations with higher farm sales, greater net worth, and more farm real estate holdings. The average direct borrower receiving a new direct loan owned $197,000 of farm real estate, while the average holding for a borrower receiving a new guaranteed loan was $485,000 (table IV-11).

Table IV-11. Selected characteristics of FSA and non-FSA borrowers who received loans during fiscal or calendar years 2003 and 2004.

	Farmers receiving loans in 2003 and 2004[1]		
Characteristic	Direct borrowers	Guaranteed borrowers	Non-FSA program debt[2]
		Dollars per farm	
Farm balance sheet:			
Total assets	385,388	787,953	746,923
Farm land	196,913	484,851	487,168
Total debt[3]	297,163	384,331	278,477
Net worth	88,225	403,623	486,446
Farm income statement:			
Gross cash farm income	141,253	223,549	157,547
Operating expenses	121,966	208,853	130,888
Net cash income	19,287	14,696	26,659
Off–farm income	20,251	38,202	68,078
		Percent	
Farm debt-to-asset[4]	77.1	45.7	33.7

[1]Data on FSA direct borrowers was obtained from the post-close Farm Business Plan. Data on guaranteed borrowers and non-FSA borrowers were obtained from the ARMS for 2003 and 2004. In most cases the Farm Business Plan only provided data on expectations of income and expenses, while the ARMS represented actual data. [2]Among farms with over $50,000 in annual sales. [3]Including annual operating debt repaid. [4]FSA's Farm Loan Program National Internal Review, which surveys loans of higher risk, indicated an average debt-asset ratio of 0.68 for 2003-2004.

[28] In 2004, the Farm & Home Plan was replaced by the Farm Business Plan. For more information see: http://www.fsa.usda.gov/pas/publications/facts/html/farmbizplan04.htm

[29]In many cases, FSA's Farm Business Plan only provided data on expectations of farm sales, operating expenses, net cash income, and household expenses at the time the loan was made, while the ARMS represented actual data at the end of the calendar year.

Consistent with their smaller asset base and the mission of the program, new direct borrowers appear to be operating smaller farms in terms of annual farm sales, with gross cash farm income projected to be about $100,000 less than actual gross cash income reported by the average guaranteed borrower. Despite this noticeable difference in sales, there was not as large a difference between the projected net cash farm incomes of direct borrows and actual net cash income of guaranteed borrowers, as greater operating expenses incurred by guaranteed borrowers appeared to offset their higher level of sales. There was a more substantial difference in off-farm incomes with new direct borrowers anticipating $20,000 per year, compared to $38,000 per year reported for guaranteed borrowers in 2003 and 2004.

Comparison of the characteristics of new FSA guarantee borrowers with comparable farmers that received non-FSA program loans in 2003 and 2004 shows guaranteed borrowers to be generally less creditworthy. New direct borrowers had greater debt burdens, having a debt-to-asset ratio of 0.77 compared to 0.45 for new guaranteed borrowers and the 0.34 reported for comparable farms receiving new non-FSA loans. Guaranteed borrowers also reported less farm income, lower profitability, and lower off-farm income than farm borrowers not receiving an FSA loan or loan guarantee.

In general, FSA guaranteed borrower profiles were consistent with the profiles reported by earlier studies. A USDA study of 1,625 guaranteed loans made to borrowers in fiscal 1988 found the guarantee programs generally serve large family-sized farm operations as measured by gross incomes, total assets, or acres farmed (Koenig and Sullivan). The new guaranteed borrowers in that study had above average indebtedness and more limited cash flows than the average farming operation, making them higher risk credits for commercial lenders.

In general, the characteristics of direct and guaranteed borrowers were found to be consistent with the two delivery systems serving different higher risk market segments. While there may be some direct borrowers that could obtain guaranteed loans, the borrower profiles suggest their numbers were fairly low. The disparity in creditworthiness between direct and guaranteed borrowers suggests that many commercial lenders would have avoided lending to direct program farmers, even with an FSA loan guarantee.

V. BUDGETARY COSTS OF FARM LOAN PROGRAMS

Several types of risk affect federal credit programs and hence influence program cost. The two most important risks are credit risk and operational risk (Stanton). Credit risk is the chance that borrowers in a loan program default in sufficient numbers that cause unacceptable losses. Operational risk is the risk that the agency administering a loan program loses control over its program and incurs cost beyond that anticipated. Direct and guaranteed delivery systems pose different risk structures and costs upon the government.

Direct and guaranteed farm loan programs have different objectives and clientele. Because of these and other differences, the budgetary costs of the two program areas differ. While current accounting systems, methodology, and data may limit the ability to make highly accurate cost comparisons, the following analysis, which uses public data, nonetheless confirms that cost differentials between the two programs are substantial. Estimates of farm loan program budget costs include costs associated with making and servicing loans, such as interest rate subsidy, expected loan losses, and administrative costs. This study estimates explicit costs and did not include estimates of implicit or indirect economic costs, which may result from reductions in overall economic growth due to any reallocation of resources within society.

The government's calculated subsidy rates for a direct loan are budget based and hence typically understate the actual subsidy value provided to the borrower. This occurs because the interest rates charged on loans are based on the government's cost of money, which is often less the commercial lenders, and all delivery costs and risks may not be fully covered in the rate charged the borrower. Guaranteed loans also provide a subsidy to the borrower which is not captured in the budget-based subsidy calculations because of program requirements on the rates lenders can charge borrowers. FSA direct loans made to farmers at interest rates below the Government's borrowing cost (Limited Resource Rates) or below market interest rates (Interest Assistance Program) in the case of commercial loans that are guaranteed by FSA provide an additional subsidy to borrowers who receive them and that figures into the budget subsidy cost.

The current accounting system for federal credit programs arose from the Federal Credit Reform Act (FCRA) of 1990 (P.L. 101-508).[30] Prior to the legislation, loan program costs were reflected in the budget when actual cash was disbursed (GAO, 1993). The current accounting system records the net cost to the government or "subsidy cost" of a loan program when loans are disbursed or guaranteed. This methodology allows the two delivery systems to be compared to each other and to other methods of delivering benefits, such as grants, on

[30] The Office of Management and Budget provides extensive guidelines on federal credit program cost accounting and management systems (OMB July 2004; OMB November 2000).

an equivalent basis (Executive Office of the President, 2007).[31] The subsidy cost is estimated as the present value of expected disbursements over the term of the loan less the present value of collections. As with other programs, lending agencies can make or guarantee loans only if appropriated funds are sufficient to cover loan subsidy costs. Not included in the estimation of subsidy costs are administrative costs, such as salary and wage expenses.

Estimates of Government's cost and loan subsidies were made by loan cohorts, or groups of similar types of loans made during the same time period. For example, direct FO loans made in fiscal 2000 represent a loan cohort. The subsidy rate measures the Government's estimated cost of lending $1 for a given cohort over the life of that cohort on a net present value basis. The subsidy cost or rate for each cohort was calculated by projecting the cash flows over the life of an individual loan and discounting those cash flows using an interest rate on a similar term government security. For guaranteed loans, anticipated default costs, collected loan fees, and the interest subsidy were primary factors in determining the subsidy rate. For direct loans, anticipated principal disbursement and repayments, default costs, and interest subsidy were the primary factors determining the subsidy rate for a loan cohort.

The government provides annual obligations, or budget authority, for loan cohorts into what is known as a credit program account within the Agricultural Credit Insurance Fund (ACIF). When a loan is disbursed or guaranteed, an outlay is made from the program account to a non-budgetary credit financing account. The budget authority amount given to the credit program account, in turn, supports an amount of lending, or loan obligation authority, which is determined by the loan subsidy rate. The dollars of annual lending authority for a cohort equals the appropriated dollars of budget authority for that cohort divided by that cohort's estimated subsidy rate. For example, a budget authority of $1 will support $100 of FSA loan volume at a 1-percent loan subsidy rate, but just $20 of lending volume at a 5-percent loan subsidy rate.

The original loan subsidy rate estimates used for obligating each loan cohort group were recalculated or re-estimated each year based on updated loan performance and new economic data. If the estimated cost increases from the original estimate, the program account makes additional payments to the financing account from permanent indefinite authority and not from new appropriations.[32] Likewise, if the estimated subsidy cost decreases, a payment is made from the financing account. If the government modifies the terms of an outstanding direct or guaranteed loan that decreases or increases the cost of the loan, the additional estimated cost must be covered by new appropriated funds. Because re-estimated loan subsidy rates are based on more actual loan performance information, they are better reflective of actual subsidy costs than the original estimates made for the obligating fiscal

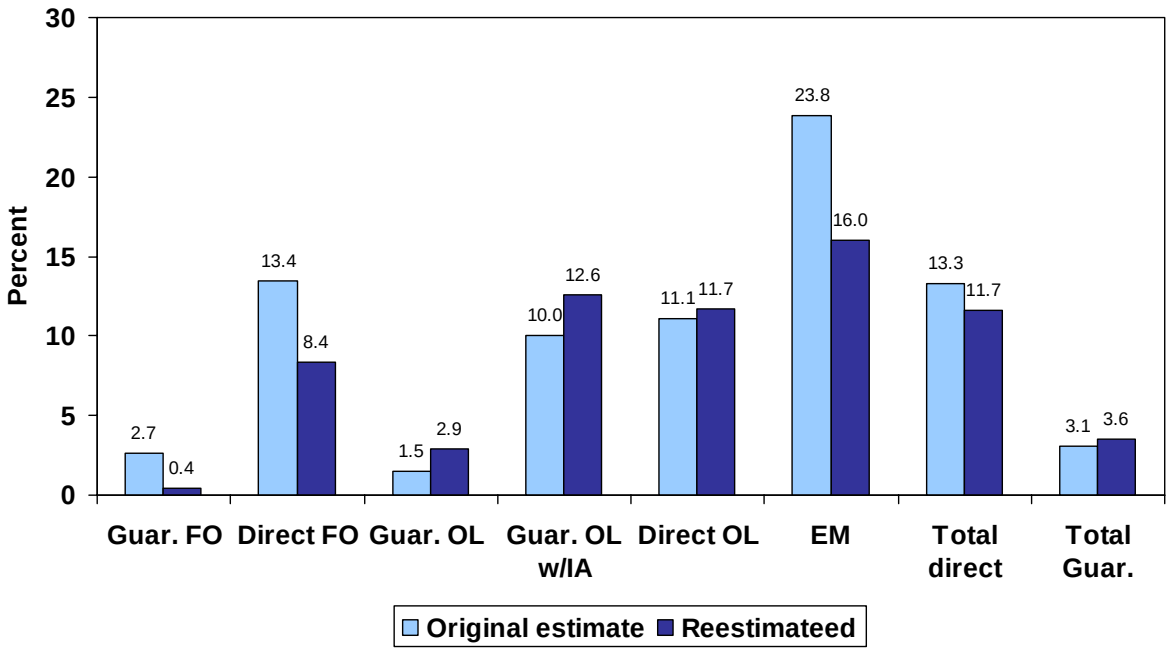
[31] See section entitled "Budget System and Concepts".
[32] Permanent indefinite authority means that Agricultural Credit Insurance Fund at the Federal Financing Bank may borrow from the US Treasury on an unsecured basis any amount needed to finance any Congressionally-authorized program activity.

year. Also, examining average subsidy costs since 1992 as opposed to just the 2000 to 2004 period was deemed to provide a better comparison than cost comparisons made using a more limited time period because cost estimates, primarily for direct loan cohorts, can vary from one cohort year to the next by significant amounts.

Direct Programs Have Higher Loan Subsidy Rates

The budget subsidy cost associated with one dollar of direct lending is notably higher than one dollar of guaranteed lending, regardless of whether measured using original or re-estimated loan subsidy rates (figure V-1).

Figure V-1. Average loan program subsidy rates, fiscal 1992-2004.



Source: Federal Budget of the United States for Fiscal 2006, Supplementary Tables for Credit Programs.

The un-weighted average annual re-estimated subsidy rate in the fiscal 2006 budget for all direct loans made from fiscal 1992 through fiscal 2004 was 11.7 percent, whereas the un-weighted average for guaranteed loans was just 3.6 percent. Guaranteed loan subsidy rates are lower because of fewer loan losses and lower interest rate subsidy costs, and also because a fee is collected from lenders. Because direct loan programs offer borrowing rates below the government's borrowing costs through limited resource rates, the interest rate subsidy is higher than for the guaranteed program. Only the guaranteed OL program offers an interest rate subsidy to the borrower through its interest assistance program.

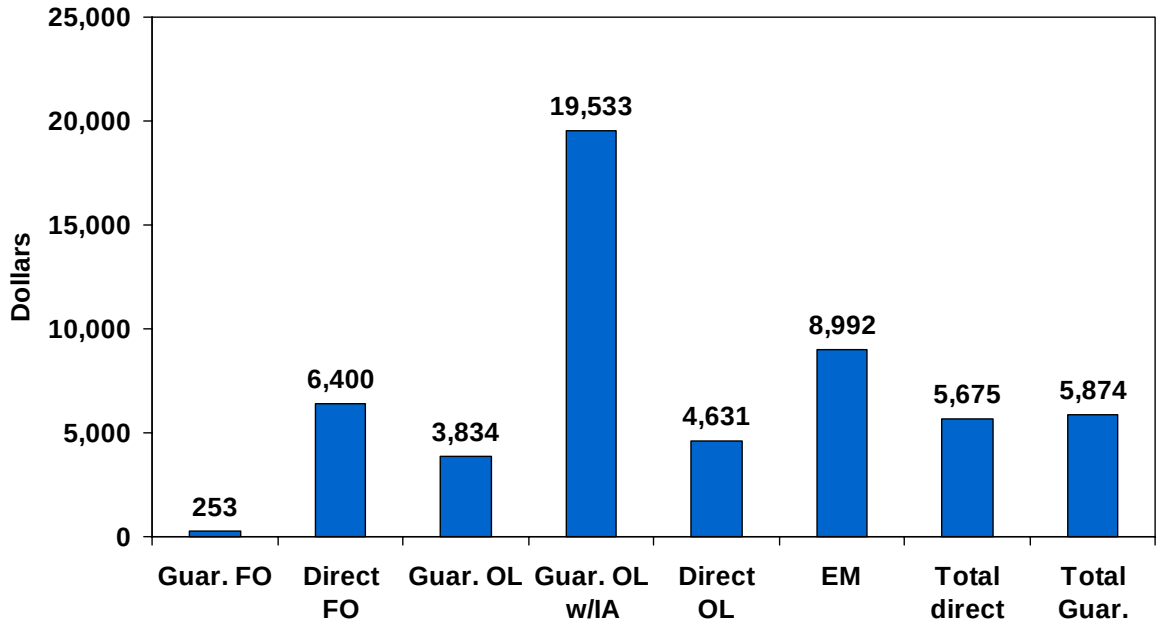
There are substantial differences in loan subsidy rates across loan program cohorts. The average re-estimated loan subsidy rate for the direct OL program during the period was 11.7 percent, whereas the rate was just 2.9 percent for the unsubsidized guaranteed OL program. However, when guaranteed OL loans are made with interest rate assistance, the re-estimated loan subsidy rate climbs to 12.6 percent. Therefore, these types of loans were more costly to make than a direct loan on a purely loan subsidy rate basis. Emergency loans also provide significant subsidized rates to borrowers and, when coupled with higher default rates, the average re-estimated subsidy rate is 16 percent, the highest of any program cohort.

The subsidy rate for the direct versus guaranteed FO programs also provides a sharp contrast in subsidy rates between the two delivery mechanisms. Direct FO loans had an average re-estimated loan subsidy rate of 8.4 percent from fiscal 1992 to fiscal 2004, which compared to just 0.4 percent for guaranteed FO loans. The difference is high because guaranteed FO loans are not made with any interest rate subsidy, while direct FO loans provide below-Treasury cost of borrowing rates to assist borrowers. Moreover, guaranteed FO loans have small loan loss rates and collect a 1-percent guarantee fee from lenders.

Interest Assistance Program Produces Highest Subsidy Cost per Loan

Despite generally higher subsidy rates for the direct loan program, the average estimated net subsidy cost per loan is close for total direct and total guaranteed loans from fiscal 1992 to 2004 (figure V-2).

Figure V-2. Average net subsidy cost per loan obligated, fiscal 1992-2004.



Sources: Federal Budget of the United States for Fiscal 2006 and FSA loan data.

This occurs in part because the average size of guaranteed loans is much larger than the average size of a direct loan and thus greater amounts of budget cost are recorded for each loan made to these borrowers. Also, the totals are similar because of the high cost of the interest rate assistance (IA) program in the guaranteed OL program. From fiscal 1992 to fiscal 2004, the average net subsidy cost of a guaranteed OL loan made with IA was $19,533, or 4 times greater than a direct OL loan ($4,631) and 5 times greater than an unsubsidized guaranteed OL loan ($3,834). Therefore, on average, each guaranteed OL loan made with interest rate assistance was nearly $15,000 more costly to make than a direct OL loan.

The high subsidy cost of a guaranteed OL loan with IA is a consequence of their large average loan size and the fixed 4 percent interest rate subsidy provided, which is typically received over multiple years of a loan guarantee contract. In fiscal 2004, just 1,339 guaranteed OL loans were obligated with IA, but those loans averaged $202,552 in size (see appendix table 17 for details on IA use). The average subsidy cost per loan made with IA has been on the rise as guaranteed OL loan sizes rose. The average guaranteed OL loan size doubled from 1992 to the present, due in part to rule changes in the late-1990s that allowed for much larger guaranteed loans and hence boosted service to larger farming operations. Direct loan sizes have been more constant over time and these programs have not had their loan caps increased since 1984. (See appendix table 18 for details on loan size caps).

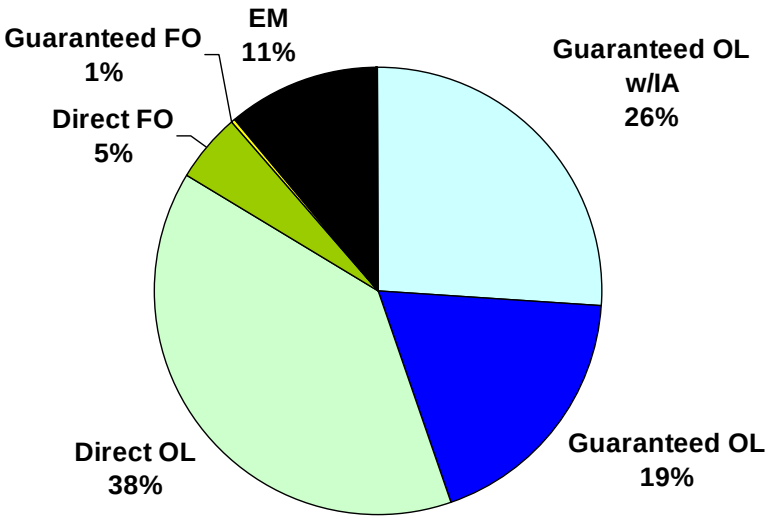
There are also wide differences between FO program cohorts. The average loan net subsidy

cost was just $253 for each guaranteed FO made, but was $6,400 per direct FO loan made. Many direct FO loans are made at rates below the Treasury's borrowing rate and hence there is a substantial borrowing rate subsidy cost for this program relative to the guaranteed loan program. The percentage of direct loans made at limited resource (LR) rates varies through time depending on market interest rates, program design, funding, and the financial condition of applicants over time. These factors greatly influence the loan subsidy rate. During the study period, LR use fell as borrowing rates in the economy fell to near 50 year lows. In fiscal 2000, 44 percent of both OL and FO loan volumes were made at the LR rate, but by fiscal 2003, only 18 percent of FO volume and no OL volume was made at this rate (see appendix table 16 for details on LR use). If market interest rates rise, subsidy costs for direct loans will once again rise as demand for LR rates likely return to more normal levels.

Operating Loans Account for Most of Total Loan Subsidy Costs

Total cumulative dollar loan subsidy costs for program cohorts were calculated as the actual disbursed obligation volume times the original loan subsidy rate after adjusting for subsidy cost re-estimates. From fiscal 1992 to 2004, $2.1 billion in loan subsidy costs were recorded in the budget for delivery of all farm loan programs. Most of this cost was associated with OL lending activity. Of the total subsidy cost, 38 percent resulted from direct OL subsidy costs and 45 percent from guaranteed OL lending costs (figure V-3).

Figure V-3. Share of total cumulative net loan subsidy costs, fiscal 1992-2004.



Source: Federal Budget of the United States for Fiscal 2006, Supplementary Tables for Credit Programs.

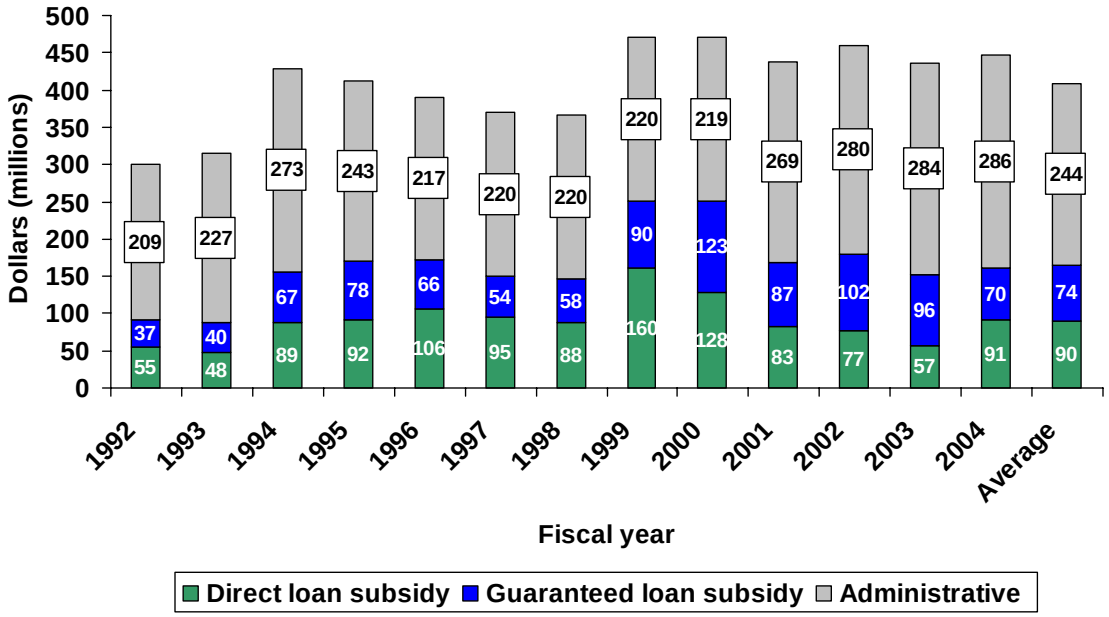
Therefore, 83 percent of the total loan subsidy cost of farm loan programs came from the operating loan programs. Operating loans accounted for just over two-thirds of total farm loan program lending volume during this period.

Direct and guaranteed FO programs accounted for only 5 percent and 1 percent of cumulative loan subsidy costs, respectively, during the period. Yet, these programs accounted for 4 and 25 percent, respectively, of the nearly $38 billion in total farm loan program obligation volume during the 13 year period. Because of their relatively low subsidy rate, guaranteed FO loan volume grew during the period with a minimal impact on total farm loan program subsidy costs. The ability to increase FO volume in the future will depend largely on what degree farm economic conditions change from the generally favorable conditions that have persisted since credit reform.

Administrative Costs Represent the Largest Share of Total Delivery Costs

Congress appropriates monies each year to cover administrative costs to delivery farm loan programs. Administrative expenses are authorized under the ACIF's program account and that amount is transferred to pay FSA operational expenses. For the 13 years beginning in fiscal 1992, a total of $3.2 billion was transferred from ACIF to cover salaries and expenses needed to operate farm loan programs. When these costs are added to the $2.1 billion in loan subsidy costs, the total budgetary cost of the farm loan programs amounted to $5.3 billion ($5.9 billion in 2004 dollars). Therefore, administrative costs accounted for 60 percent of the government's total farm loan program costs. Average annual total program cost during the 13 year period was $408 million, of which administrative expenses averaged $244 million and loan subsidy costs averaged $74 million per year for guaranteed loans and $90 million for direct loans per year (figure V-4).

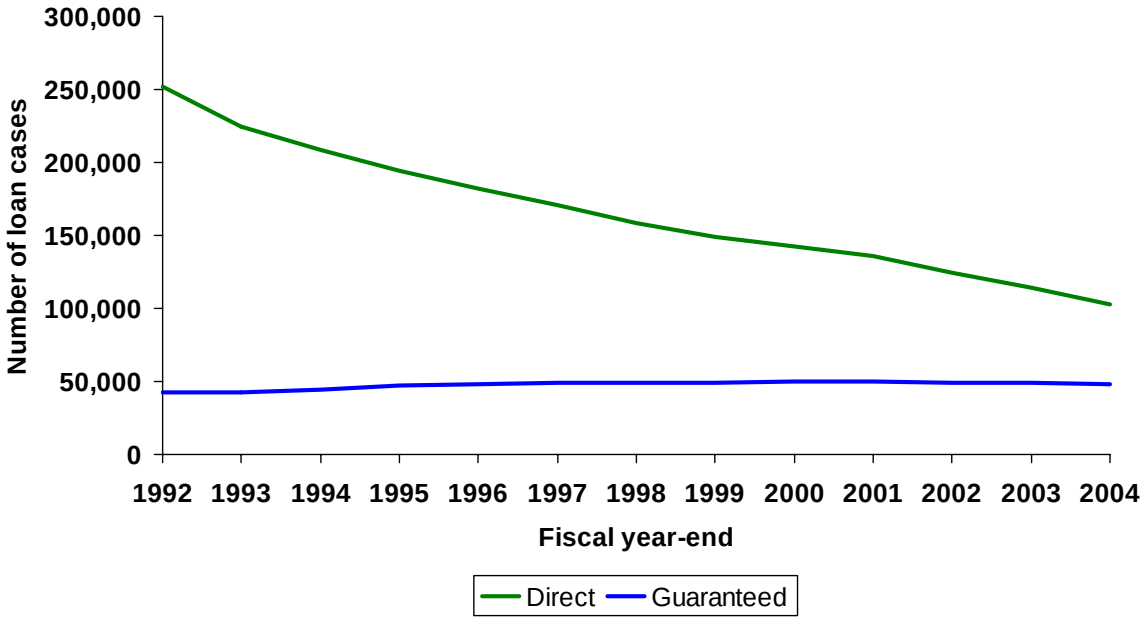
Figure V-4. Annual loan program costs, by type, fiscal 1992-2004.



Source: Federal Budget of the United States and FSA data, for various years.

Adjusted for inflation, total administrative costs have been fairly stable since federal credit reform was initiated in 1992 and averaged $272 million in 2004 dollars. However, when administrative costs are adjusted for declines in caseloads, administrative costs per outstanding case have risen since credit reform. Direct loan program caseloads fell by nearly half from over 250,000 cases at the beginning of fiscal 1992 to 103,000 at the end of fiscal 2004, while loan guarantee caseloads rose modestly from 40,169 to 47,915 (figure V-5).

Figure V-5. Outstanding loan program caseload, by program area, fiscal 1992-2004.



Source: FSA Report Codes 616 and 4067, various years.

As a result, real total FSA administrative costs per case rose from an average of $1,092 for the five years beginning in fiscal 1992 to an average of $1,605 for the five years beginning in fiscal 2000, a nearly 50 percent increase in servicing costs per case. While declines in administrative costs have not kept up with declines in total caseloads, the higher level of administrative resources available per case improves loan servicing and underwriting performance measures and hence reduces overall program costs. The reduction in caseloads has brought workloads more in line with the staffing resources which FSA considers necessary to meet current program demands (Snyder and Koehn).

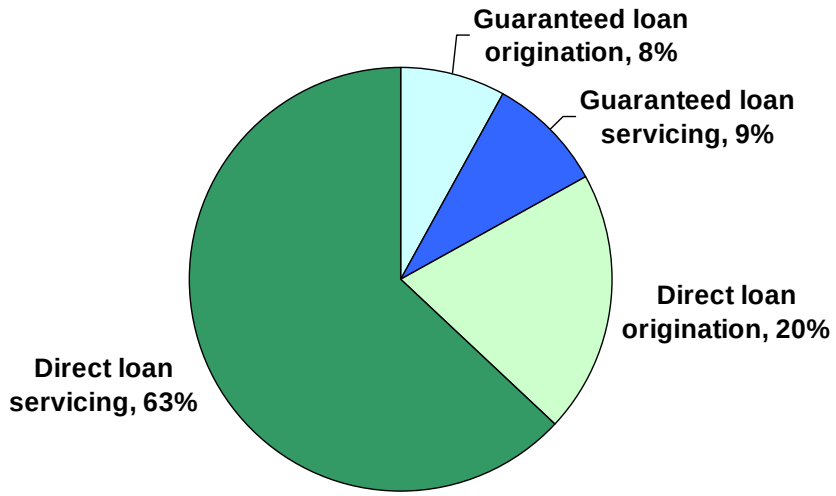
Direct Loan Servicing Accounts for Most of Total Administrative Expenses

The President's Budget does not allocate administrative costs separately for direct and guaranteed program operations. Therefore, in this study, direct and guaranteed administrative costs were estimated from an internal work-measurement study. OMB regulations require that budget projections for staffing resources be based on work-measurement data that can be used to assess the efficiency and effectiveness of program delivery activities in the Farm Service Agency (Snyder and Koehn). A Delphi study was conducted in fiscal 2000 to ascertain specific staffing needs necessary to deliver farm loan programs and meet their objectives.

The Delphi technique is an analytical methodology that allows for analysis to be completed where historical data are unavailable or obtaining it is cost prohibitive. The technique was used to determine the staffing resource requirements necessary to deliver existing program levels in compliance with statutory, judicial, and regulatory guidelines. Time to complete various work steps and their frequency in the lending process were gathered from a panel of experts, standardized, and then validated with field office visits of representative county offices. The process yielded measurement standards for various work activities, such as determining eligibility of a direct loan program application or closing a guaranteed loan.

The Delphi study conducted for fiscal 2000 indicates the majority of the money transferred from the ACIF to FSA's salary and expense account during the study period was likely used to cover costs of delivering direct loans. Study results suggest that over 83 percent of staff time was used to originate or service direct loans, with direct servicing accounting for nearly two-thirds of staff time (figure V-6).

Figure V-6. Share of total FSA staff years used for different loan functions, fiscal 2000.



Source: Farm Service Agency, Farm Loan Programs Delphi Study, Fiscal 2000.

Most guaranteed loan origination and servicing costs are assumed by private lenders, resulting in considerably lower administrative costs relative to direct programs. As a result, only 8 percent of FSA staff time was estimated to involve guaranteed loan making and 9 percent of FSA staff time was estimated to have been devoted to guaranteed loan servicing activities.

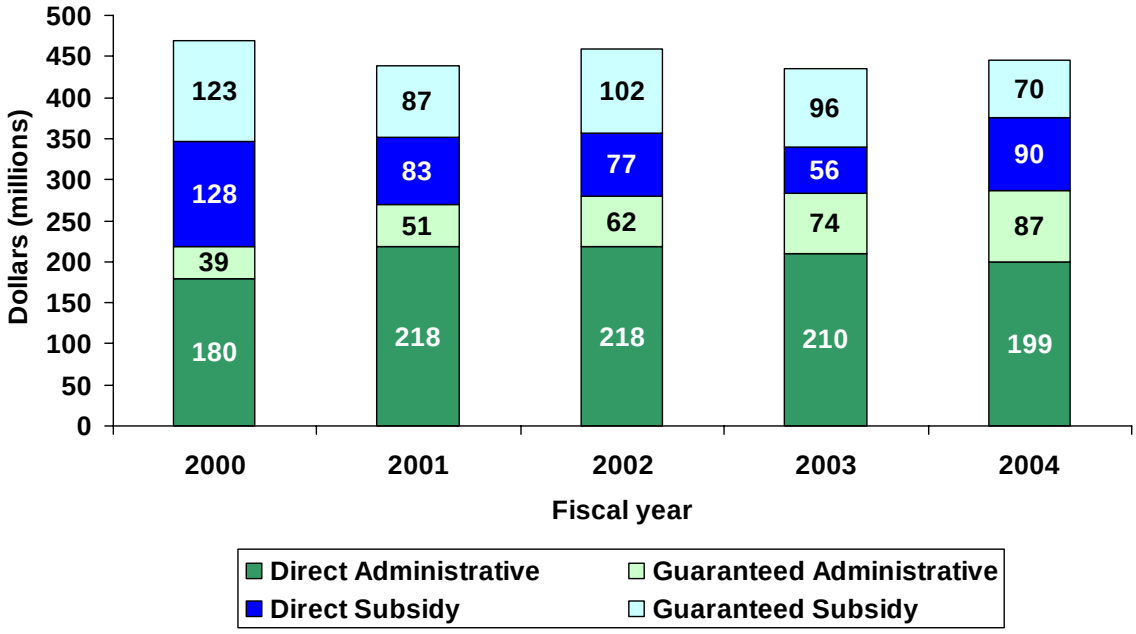
Direct loan servicing activities use the majority of FSA staff time because the direct loan program mission is to provide borrowers with "supervised credit" and because these higher risk accounts require extensive oversight and closer borrower supervision by FSA staff. In addition, as discussed elsewhere, a higher percentage of these borrowers are SDA and beginning farmer applicants who required greater oversight. The high delinquency rates of these loans elevate servicing costs relative to either commercial or guaranteed program borrowers. As discussed earlier, nearly 50 percent of direct loans obligated in fiscal 2000 had defaulted at least once by the end of fiscal 2004 and over 21 percent had terms restructured. For a nonperforming loan, FSA staff must follow extensive loan servicing procedures that include borrower review and appeal rights. These requirements lengthen the servicing process when loans do not perform and hence increase costs relative to private sector lenders. Likewise, liquidation procedures and the management and disposal of acquired property tend to be more complex and time consuming than experienced by commercial lenders.

Percentages of staff-time spent on various loan making and servicing functions from the Delphi study were used to allocate total salary and expenses among direct and guaranteed program areas in fiscal 2000 and subsequent years. For years after fiscal 2000, the percentages of staff time were adjusted to account for relative changes in loan making and loan servicing activity and loan performance. The relative change in portfolio mix from fiscal 2000 to fiscal 2001 was slight, but more significant changes in the other years suggested a slightly greater share of total salary and expense costs were being incurred to deliver guaranteed loans as opposed to direct loans than in fiscal 2000.

Using the Delphi study to allocate costs, cumulative 5-year administrative costs were estimated as $1,025 million for the direct and $313 million for guaranteed programs. Although much less than direct administrative costs, estimated guaranteed administrative costs rose due to greater volume and rising nonperforming volume relative to the direct program. Direct loan administrative costs trended down somewhat since fiscal 2001, but not in proportion to the 27 percent decline in caseloads and improving loan performance during the study period (figure V-7).

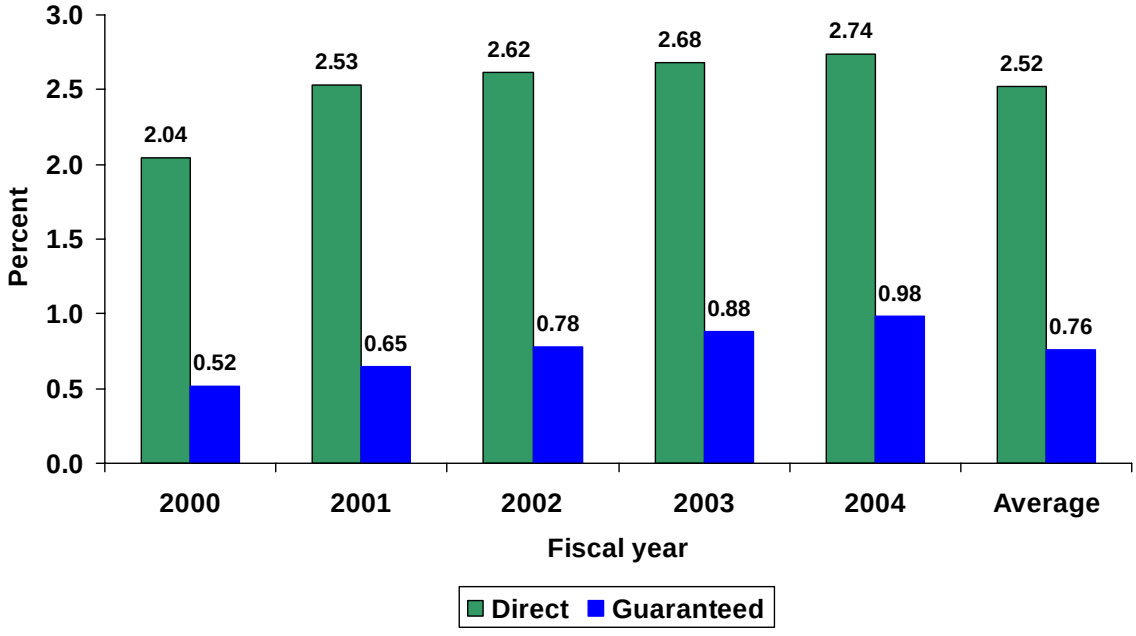
Administrative expense ratios were used to compare relative delivery costs between direct and guaranteed programs. This ratio is calculated as total annual administrative expenses divided by the average outstanding loan portfolio during a given year. For guaranteed loans, the ratio averaged 0.76 percent and for direct programs, 2.52 percent (figure V-8).

Figure V-7. Annual loan program costs, by type, fiscal 200-2004.



Source: Estimated using data from Federal Budget of the United States and FSA data, for various years.

Figure V-8. Farm loan administrative operating expense ratios, fiscal 2000-2004.



Source: Estimated using data from Federal Budget of the United States and FSA data, for various years.

As expected, this ratio indicates that direct lending programs are significantly more costly to administer than guaranteed loan programs. That is, $100 dollars of guaranteed loan volume cost $0.76 to administer while the same volume of direct loans cost $2.52.[33] During this period, the direct program outstanding volume averaged $8.3 billion and the guaranteed program outstanding volume averaged $8.1 billion, so their respective sizes were nearly identical.

Contingent Liability Arising From Operational Risk Likely Greater for Direct Loan Programs

Operational risks incurred by federal programs may not be fully captured in budget cost accounting. Operational risk is defined as the contingent liability resulting from failed or inadequate internal processes such as error or fraud or from external events such as unforeseen policy shifts or catastrophic events. Litigation costs resulting from accusations of improper program operations represent an example of operational risk.[34] Since 1997, five groups of producers have filed class-action lawsuits against USDA claiming racial, ethnic, or gender discrimination in the delivery of FSA farm loan program benefits (USDA/OIG). Direct farm loan programs have been the focus of these five suits.[35] Considerable federal resources have been employed within USDA and other federal agencies in defense of these class-action cases, one of which has been settled, while the other cases are in various judicial stages. Complete data on federal resources used to defend these and other suits are not readily available, but if settlements occur, costs can be substantial. For example, total relief payments made in the settled case, Pigford v. Glickman, resulted in 14,372 Track A approved claimants receiving just under $888 million in payments as of March 21, 2006 (Office of the Monitor).[36]

The possibility of large costs resulting from impending or potential class-action cases, or individual cases, is a contingent liability that should be considered when comparing total program costs of different delivery systems. Direct loan programs may be more prone to such costs because the loans are the sole responsibility of the issuing agency whereas guaranteed

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[33] Although not directly comparable, the Farm Credit System's Association had net operating expense ratios of about 1.5 percent during the study period and the Small Business Administration's 7a business loan guarantee program about 0.25 percent for fiscal 2003-05 (Farm Credit Administration; Small Business Administration).

[34] This cost might be captured in the liquidating accounts (permanent indefinite authority), but typically not in the program or financing accounts.

[35] The five class-action cases are Pigford (African-American) v. Glickman , Garcia (Hispanic) v. Glickman, Keepseagle (Native American) v. Glickman, Love (Women) v. Glickman, and a recent suit filed against the Department by the Black Farmers Agriculture Association. The courts recently added applicants in the guaranteed loan programs to the Keepseagle case.

[36] On April 14, 1999 a federal judge approved the Consent Decree for the case of Timothy C. Pigford et al. v. Dan Glickman. In the settlement, USDA admitted no liability, but agreed to compensate African-American farmers who could demonstrate by substantial evidence that discrimination occurred in applying for federal farm loans. In approving the consent decree, the court noted USDA's long-standing discriminatory practices by denying, delaying, or otherwise frustrating African-American farmers applications for farm loans and other benefit programs (GAO, 2006). See Gallegos for more details on the consent decree and the compensation tracks available to claimants.

lending decisions and administration are primarily conducted by participating private sector lenders. All participating lenders are subject to truth in lending and fair credit laws and regulations and may be named as defendants in such suits.

Fee Income Offsets Guaranteed Loan Subsidy Costs

User fees are employed by some federal programs to generate income to offset costs associated with the program. Most federal loan guarantee programs employ user fees that generate income to offset costs. FSA currently charges a one-time up-front 1-percent loan fee on its guaranteed farm loans, which totaled about $18 million per year during the study period.[37] Direct farm loan programs do not have user fees and therefore have no income to offset loan program costs like guarantee programs. This difference in income lowers the total cost of guaranteed loans relative to direct loan programs.

FSA's loan guarantee fee structure has remained essentially unchanged throughout the 30-year-plus history of the guaranteed farm loan programs, despite significant changes in the programs, in lending technology, and the farm borrower.[38] Any change in the fee structure that increases revenue to the guaranteed loan program financing account would increase the differential between direct and guaranteed farm loan program subsidy costs. A higher fee structure could potentially alter the composition of applicants in both program delivery systems. Some borrowers on the margin might be able to secure needed credit without an FSA guarantee, but perhaps at a somewhat higher commercial rate. Others might find a higher fee structure too costly and seek credit assistance through direct lending programs, placing greater demand on those lending resources. Imposing user fees on direct borrowers, which are least likely to be able to afford such a fee, are more likely to have a negative impact on certain aspects of program performance. Yet, an annual user fee could boost graduation rates and hence lower future servicing costs by providing a greater financial incentive for borrowers able to return to commercial lending standards to request that their loans be refinanced or have the federal guarantee dropped.

Direct Programs Represent Best Alternative for Serving Disadvantaged Groups

As discussed within this study, administrative cost burdens of operating the farm loan programs have grown as direct caseloads have shrunk. As direct volume has shrunk, the fixed costs of the delivery system have supported a smaller lending base and hence the relative cost differential between the two systems is growing. Given the relatively high delivery cost of

[37] Currently, certain beginning farmer loans and loans made with interest assistance are exempted from the fee. In fiscal 2004, approximately 25 percent of guarantee lending volume was exempt from paying the guarantee fee.
[38] In the Presidents budget for FY 2007, FSA proposed to increase fees on many of its guaranteed loan programs to "reduce the cost of the program and bring the fees in line with other Federal guaranteed loan programs" (Executive Office of the President, 2006; pg. 77). In May 2006, the agency issued a proposed rule for the new fee structure (Federal Register, 2006).

direct loan programs, OMB encourages agencies to consider more cost effective delivery mechanisms.

For example, direct loan delivery costs could theoretically be reduced through consolidation with other federal or coordination with state lending programs. Such alternatives are suggested by OMB to avoid redundancy and duplication of effort (Executive Office of the President, 2004).[39] Although some state governments that have established programs with goals and objectives similar to the FSA direct loan program, there is no such program that is national in scope. Only 21 states provided direct farm loans to farmers in August 2004.[40] And, SBA and USDA's Rural Development Agency provide business loan programs in rural areas, but generally not to farming operations.

Rather than direct loans and supervised credit, OMB also recommends the use of direct grants or technical assistance as a method to assist economically disadvantaged farmers (Analytical Perspectives, Budget of the United States Government, Fiscal Year 2007). The National Commission on Small Farms also called for beginning farmer grants as an alternative to providing subsidized loans (Koenig and Doye). Relative to direct loans, grants are typically less costly to deliver. With grants, there is no continuing loan servicing costs and no risk of additional financial losses occurring because of unexpected declines in incomes or asset values. Under a grant program, however, farmers would not benefit from the financial training received through supervised credit. And, to be equivalent in budget cost to a direct loan, a one-time grant would require the same budget authority as the subsidy cost of a corresponding loan. Direct grants of this size, by themselves, would be too small for the capital needs of modern farming operations.[41] Alternatively, a beginning farmer could potentially match a federally-supplied start-up grant with other loan funds, such as could be provided through a non-profit or state government lending program. Because the term of the subsidy is more likely to be fixed and because of potential administrative cost savings, the total subsidy value provided through a grant under these circumstances may be less costly than a direct loan.

Despite the relatively higher delivery cost associated with direct loan programs, direct loans appear to represent the best alternative for providing access to credit among economically disadvantaged groups. Some groups of farmers currently served through the direct program may not be served through a guaranteed-only delivery system. The high risk profile of direct borrowers will likely discourage commercial lenders from serving this clientele, even with the presence of a complete guarantee. While a federal loan guarantee greatly limits a lenders' exposure to loss, the loan servicing costs associated with high-risk direct borrowers may still render the loan unprofitable. Direct borrowers are afforded the benefits of supervised credit

[39] See Section entitled "Rating the Performance of Federal Programs".
[40] From: http://www.stateagfinance.org/programsindex.html , accessed July 13, 2006.
[41] For example, at a total subsidy rate of 12 percent, a grant of $12,000 would have the same budget cost as a direct loan of $100,000.

as well as borrower appeal and review rights. Imposing these provisions on guaranteed lenders without significant compensation would likely deter a commercial lender's participation in the guaranteed loan program. And, since the guaranteed program does not currently provide universal coverage of all farm credit markets, farmers in some regions may have limited access to guaranteed loans. Therefore, the findings of this study indicate that providing the current level of government assistance to direct program borrowers through a guaranteed-only delivery system would require a significant and concerted rethinking of the delivery mechanisms and perhaps changes in the respective program missions.

VI. REFERENCES

Ahrendsen, Bruce, S. Koenig, B. Dixon, C. Dodson, and L. Settlage. "Analysis of Borrower and Lender Use of Interest Assistance on FSA Guaranteed Farm Loan," in *Agricultural Finance Markets in Transition, Proceedings of the Annual Meeting of NCT-194*, Brent Glory editor, Dept. of Applied Economics and Management, Cornell University (July 2004) pp. 127-137.

Avery, R.B., R.W. Bostic, P.S. Calem, and G.B. Canner. "Changes in the Distribution of Banking Offices," *Federal Reserve Bulletin,* Vol. 83 (September 1997), pp. 707-31.

Barry, P.J. "Needed Changes in the Farmers Home Administration Lending Programs," *Am. Journal of Agricultural Economics*, Vol. 67 No. 2 (May 1985) pp. 341-344.

Bosworth, B.P., A.S. Carron, and E.H. Rhyne. *The Economics of Federal Credit Programs,* Washington, DC: The Brookings Institute (1987).

Brake, J. R. "A Perspective on Federal Involvement in Agricultural Credit Programs," *South Dakota Law Review* 19 (Summer 1974) pp. 567-602.

Collender, R. N. and S. R. Koenig. "The Role of Federal Credit Programs" in *Financing Agriculture into the Twenty-first Century*, Duncan, M. and Stam, J., editors, Westview Press, Boulder CO (1998) pp. 135-162.

Collender, R. N. "Can Federal Action Improve Efficiency in the Market for Farm Loans?" *Issue in Agricultural and Rural Finance,* AIB 724-01, U.S. Dept. of Agriculture, Economic Research Service (March 1996).

Congressional Record. H6326 (October 4, 2001), U.S. Government Printing Office.

Dodson, C. B. and S. R. Koenig. "Explaining County-Level Variability in Farm Service Agency Farm Loan Programs," *Agricultural Finance Review,* Vol. 63, No. 2 (Fall 2003) pp. 193-212.

Executive Office of the President, Office of Management and Budget. *Analytical Perspectives, Budget of the United States Government, Fiscal 2007.* (February 2006).

Executive Office of the President, Office of Management and Budget. *Analytical Perspectives, Budget of the United States Government, Fiscal 2006* (February 2005).

Executive Office of the President, Office of Management and Budget. *Analytical Perspectives, Budget of the United States Government, Fiscal 2005* (February 2004).

Executive Office of the President, Office of Management and Budget. *Analytical Perspectives, Budget of the United States Government, Fiscal 2004* (February 2003).

Executive Office of the President, Office of Management and Budget. *Analytical Perspectives, Budget of the United States Government, Fiscal 2000* (February 1999).

Executive Office of the President, Office of Management and Budget. *Federal Credit,* Circular No. A-11, Part 5 (July 2004).

Executive Office of the President, Office of Management and Budget. *Policies for Federal Credit Programs and Non-Tax Receivables*, Circular No. A-129 (Revised), (November 2000).

Farm Credit Administration. *2005 Annual Report on the Farm Credit System* (June 2006).

Federal Register. U.S. Dept. of Agriculture, Farm Service Agency, Proposed Rule: Guarantee Loan Fees, Vol. 71, No. 93 (May 15, 2006) pp. 27978-27980.

Federal Register. U.S. Dept. of Agriculture, Farm Service Agency, Final Rule: Farm Loan Programs Account Servicing Policies─Elimination of 30-Day Past-Due Period, Vol. 69, No. 23 (February 4, 2004) pp. 5264-5267.

Federal Register. U.S. Dept. of Agriculture, Farm Service Agency, Proposed Rule: Regulatory Streamlining of Direct Loan Program, Vol. 69, No. 26 (February 9, 2004) pp. 6056-6121.

Federal Reserve System. *Agricultural Finance Databook,* Federal Reserve Statistical Release E.15 (125), (Fourth Quarter 2004).

Gale, W.G. "Economic Effects of Federal Credit Programs," *American Economic Review*, Vol. 81, pp. 133-152.

Gallegos, Lou. Assistant Secretary of Administration, USDA: "Statement to the House Committee on Agriculture, Subcommittee on Department Operations, Oversight, Nutrition, and Forestry," United State Congress (September 25, 2002).

Grace, J. Peter. *President's Private Sector Survey on Cost Control: Report on the Department of Agriculture,* U.S. Government Printing Office (1983).

Herr, William. *Toward An Analysis of the Farmers Home Administration's Direct and Guaranteed Farm Loan Programs,* Staff Report 9116*,* U.S. Dept. of Agriculture, Economic Research Service (April 1991).

Koenig, S.R., and Doye, D.G., "Agricultural Credit Policy," in Outlaw, J.L. and Smith, E.G. (eds.*) The 2002 Farm Bill: Policy Options and Consequences*, Publication No. 2001-01, Farm Foundation, Oak Brook, IL, (Sep. 2001) pp. 215-220.

Koenig, S.R., and Dodson, C.B. *When Are Farm Interest Rate Subsidy Programs Most Effective?* AIB 724-11, U.S. Dept. of Agriculture, Economic Research Service (February 1998).

Koenig, S.R. and P.J. Sullivan. Profile of Participants in FmHA's Guaranteed Farm Loan Programs, Staff Report No. 9160, U.S. Dept. of Agriculture, Economic Research Service (December 1991).

Koenig, S.R. "Farmers Home Administration's Changing Role in Rural Development," *Rural Development Perspectives*, Vol. 5, No. 3, U.S. Dept. of Agriculture, Economic Research Service (June 1989a) p. 25-30.

Koenig, S.R. "Borrower Rights Legislation in Response to Farm Sector Financial Stress in the 1980s," in *Agricultural Income and Finance: Situation and Outlook Report*, AFO-33, U.S. Dept. of Agriculture, Economic Research Service (May 1989b) p. 23-25.

Levonion, M.E. "Explaining Differences in Farm Lending Among Banks," *Economic Review,* Federal Reserve Bank of San Francisco, No. 3 (1995) pp. 12-22.

McD Herr, W. and D. LaDue. "The Farmers Home Administration's Changing Role and Mission," *Agricultural Finance Review* Vol. 41 (July 1981) pp. 58-72.

National Council of State Agricultural Finance Programs. Index of States' Ag Finance Programs, accessed July 14, 2006. http://www.stateagfinance.org/programsindex.html

Nwoha, J. et.al. *Farm Service Agency Direct Loan Program Effectiveness Study*, Arkansas Agricultural Experiment Station Research Report No. 977, Division of Agriculture, University of Arkansas System, Fayetteville (December 2005).

Office of the Monitor. *Pigford v. Johanns*. Statistical page of pigfordmonitor.org. http://www.pigfordmonitor.org/stats/stat_nat.pdf (March 21, 2006).

Small Business Administration. *Fiscal 2004 Performance and Accountability Report* (November 15, 2004).

Snyder, C.J. III and P.M. Koehn. "Farm Loan Programs Delphi Study for FY 2000: Final Report." U.S. Dept. of Agriculture, Farm Service Agency.

Stam, J. M. and B.L. Dixon. *Farmer Bankruptcies and Farm Exists in the United States, 1899-2002.* Agricultural Information Bulletin, No. 788, U.S. Dept. of Agriculture, Economic Research Service (March 2004).

Stam, J.M., S. Koenig, H. Gale, S. Bentley. *An Analysis of Farm Financial Stress, Farm*

Exits, and Public Sector Assistance for the Farm Sector in the 1980's. Agricultural Economics Report No. 645, Washington, DC: U.S. Dept. of Agriculture, Economic Research Service (April 1991).

Stanton, T.H. *Federal Credit Programs: Managing Risk in the Information Age, Financial Management Series*, IBM Center for the Business of Government (April 2005).

U.S. General Accounting Office. *Farm Loan Programs: Improvements in the Loan Portfolio but Continued Monitoring Needed*, GAO-01-732T (May 16, 2001a).

U.S. General Accounting Office. *Farm Service Agency: Updated Status of the Multibillion-Dollar Farm Loan Portfolio,* GAO-01-202 (January 10, 2001b).

U.S. General Accounting Office *Farm Service Agency: Information on Farm Loans and Losses*, RCED-99-18 (November 27, 1998a).

U.S. General Accounting Office. *Farm Service Agency: Status of the Farm Loan Portfolio and the Use of Three Contracting Provisions for Loan Servicing,* RCED-98-141 (May 5, 1998b).

U.S. General Accounting Office. *Farmers Home Administration: The Guaranteed Farm Loan Program Could Be Managed More Effectively,* GAO/RCED-95-9 (November 1994).

U.S. General Accounting Office. *Federal Credit Programs: Agencies Had Serious Problems Meeting Credit Reform Accounting Requirement*, GAO/AFMD-93-17 (January 1993).

U.S. General Accounting Office. *Farmers Home Administration: Implications of the Shift From Direct to Guaranteed Farm Loans,* GAO/RCED-89-86 (September 1989).

U.S. Government Accountability Office. *Pigford Settlement: The Role of the Court Appointed Monitor*, GAO-06-469R (March 17, 2006).

U.S. Dept.of Agriculture. *FSA Handbook: Direct Loan Making for State and County Offices*. 3-FLP, Farm Service Agency, Washington, DC. (2006).

U.S. Dept. of Agriculture. *Audit Report: Minority Participation in Farm Service Agency's Programs*, Office of the Inspector General, Southeast Region, Report N. 03601-11-AT (November 2005).

U.S. Dept. of Agriculture. *Agricultural Income and Finance Outlook, AIS -83*, Economic Research Service (November 2005).

U.S. Dept. of Agriculture. *Land Values and Cash Rents, 2004 Summary*, National Agricultural Statistics Service, Sp (04), (August 2004b).

U.S. Dept. of Agriculture. *Rural Poverty at a Glance,* Economic Research Service. Rural Development Research Report No. RDRR100, (July (2004c). http://www.ers.usda.gov/publications/rdrr100/rdrr100.pdf.

U.S. Dept. of Agriculture. "Interest Assistance Cost Benefit Assessment Associated with 70 FR 36055," Farm Service Agency (May 12, 2004d).

U.S. Dept. of Agriculture, Economic Research Service and National Agricultural Statistics Service. *Agricultural Resource Management Study (ARMS*), 2004e, version 1 .

U.S. Dept. of Agriculture, National Agricultural Statistics Service (NASS). *2002 Census of Agriculture,* United States Summary and State Data, Vol.1, Geographic Area Series, Part 51, AC-02-A-51, June 2004f.

U.S. Dept. of Agriculture. *Agricultural Income and Finance Outlook, AIS -80*, Economic Research Service (March 11, 2003).

U.S. Dept. of Agriculture. *Credit in Rural America*, *An Economic Research Service Report*, AER No. 749 (April 1997).

U.S. Dept. of Agriculture. *A Brief History of the Farmers Home Administration*, Farmers Home Administration (February 1990).

Appendix A: Legislative Language

Farm Security and Rural Investment Act of 2002

(P.L. 107-171; May 13, 2002)

Title V, Subtitle D

SEC. 5301. EVALUATIONS OF DIRECT AND GUARANTEED LOAN PROGRAMS.

(a) STUDIES.—The Secretary of Agriculture shall conduct 2 studies of the direct and guaranteed loan programs under sections 302 and 311 of the Consolidated Farm and Rural Development Act, each of which shall include an examination of the number, average principal amount, and delinquency and default rates of loans provided or guaranteed during the period covered by the study.

(b) PERIODS COVERED.—

(1) FIRST STUDY.—One study under subsection (a) shall cover the 1-year period that begins 1 year after the date of the enactment of this section.

(2) SECOND STUDY.—One study under subsection (a) shall cover the 1-year period that begins 3 years after such date of enactment.

(c) REPORTS TO THE CONGRESS.—At the end of the period covered by each study under this section, the Secretary of Agriculture shall submit to the Congress a report that contains an evaluation of the results of the study, including an analysis of the effectiveness of loan programs referred to in subsection (a) in meeting the credit needs of agricultural producers in an efficient and fiscally responsible manner.

Appendix B: Major Loan Program Areas

The three major program areas for the farm loan programs at FSA are farm ownership (FO), operating loans (OL), and Emergency Disaster (EM). Both FO and OL loans are delivered directly or through loan guarantees, while EM loans are currently only delivered directly.

Operating Loan Programs

Loan purposes. OL loans can be used for a variety of farm related purposes, including the purchase of livestock, machinery, annual operating expenses, and the refinancing of existing debt under certain conditions. Use of loan funds for debt refinancing purposes is more limited under the direct program. This program can also finance a portion of family living expenses and can be used to pay for minor improvements to real estate and farm structures. Youth loans in amounts up to $5,000 are made for agricultural projects, such as 4-H or FFA projects.

Loan terms. OL loans are structured to meet individual financing situations, but direct loans typically have 1 or 7 years maturity depending on the purpose. In limited situations, OL loans can have a maturity of 15 years. Guaranteed OL loans are often structured as lines of credit, with maturities of up to 5 years. All loans must be fully collateralized. Direct OL loans can be made at FSA's regular borrowing rate or at its limited resource rate. Guaranteed OL borrowing rates are set by the participating lender, but can not exceed the rate provided an average farm customer for a similar purpose and term. Those unable to pay the lender's typical borrowing rate may qualify for interest assistance, which provides a 4 percentage point reduction in the lender's rate.

Borrowing Limits. For direct OL loans, a borrower can incur up to $200,000 in program debt. For fiscal 2006, the combined maximum total indebtedness for any combination of guaranteed OL and FO program loans is $852,000. This cap is adjusted annually if the "Prices Paid by Farmers Index" as compiled by the National Agricultural Statistics Service for the 12-month period ending August 31 of the immediately preceding fiscal year exceeds the index value for the 12-month period ending August 31, 1996. For fiscal 2006, a borrower's combination of direct OL, guaranteed OL, direct FO, and guaranteed FO debt can not exceed $1,052,000, adjusted for increases in the prices paid index.

Eligibility Rules. All applicants must provide proof that they were unable to obtain credit elsewhere at reasonable rates and terms. To qualify as a beginning farmer, the applicant or applicants cannot have operated a farm or ranch for more than 10 years, and meet all other eligibility criteria. A borrower is eligible for a direct OL loan for a maximum of 6 years after the first loan is made. After the first FSA direct or guaranteed OL loan is obtained, a borrower has up to 15 years of guaranteed OL eligibility. To facilitate graduation, FSA periodically reviews borrower files and may send a borrower prospectus to area lenders without the borrower's prior consent, if FSA determines the borrower might meet conventional commercial credit loan underwriting standards. Under FSA loan contracts, a borrower can be required to refinance FSA loans with commercial credit, but this action is

rarely undertaken.

Direct Youth Loans. FSA has authority to make youth project loans for amounts up to $5,000. These direct loans are available to rural youths to establish and operate modest income producing projects for 4-H clubs, FFA, and similar organizations. One objective of the program is to provide rural youth with a practical business and educational experience through a supervised educational program. The program is available to youth 10 to 21 years of age that are unable to obtain a loan from other sources.

Farm Ownership Programs

Loan Purposes: Direct or guaranteed FO loan funds can be used to purchase farmland, construct or repair farm structures, and develop farmland to promote soil and water conservation. Only guaranteed FO loans can also be used to refinance existing farm indebtedness. To encourage farm ownership, especially by eligible beginning farmers, joint finance loans (participation loans) were authorized in 1996. Under this authority, FSA can finance up to 50 percent of a loan that would qualify under the direct FO program at an annual interest rate of 4 percent. The balance of the loan must be financed by another lender.

Loan terms. FO loans are structured to meet individual financing situations. An FO loan can have a maturity of up to 40 years, but guaranteed loans are typically made for 30 years or less. All loans must be fully collateralized with real estate. Direct FO loans can be made at FSA's regular borrowing rate or at its limited resource rate. Guaranteed FO borrowing rates are set by the participating lender, but can not exceed the rate provided its typical borrower for a similar purpose and term.

Borrowing Limits. For direct FO loans, a borrower can incur up to $200,000 in program debt. For fiscal 2006, the combined maximum total indebtedness for any combination of guaranteed OL and FO program loans is $852,000. This cap is adjusted annually if the "Prices Paid by Farmers Index" as compiled by the National Agricultural Statistics Service for the 12-month period ending August 31 of the immediately preceding fiscal year exceeds the index value for the 12-month period ending August 31, 1996. For fiscal 2006, a borrower's combination of direct OL, guaranteed OL, direct FO, and guaranteed FO debt can not exceed $1,052,000, adjusted for increases in the prices paid index. CC 

Eligibility Rules. All applicants must provide proof that they were unable to obtain credit elsewhere at reasonable rates and terms. To qualify as a beginning farmer, the applicant or applicants can not have operated a farm or ranch for more than 10 years, and meet all other eligibility criteria. A borrower is eligible for a direct FO loan for a maximum of 10 years after the first loan is made. There are no time limits on eligibility for guaranteed FO loans. To facilitate graduation, FSA periodically reviews borrower files and may send a borrower prospectus to area lenders without the borrower's prior consent, if FSA determines the borrower might meet conventional commercial credit loan underwriting standards. Under FSA loan contracts, a borrower can be required to refinance FSA loans with commercial

credit, but this action is rarely undertaken.

Direct Beginning farmer down payment FO loans. A beginning farmer that can make cash down payment of at least 10 percent toward the purchase of a farm or ranch is eligible for a special down payment direct FO loan. Loans are made in amounts of up to 40 percent of the farm purchase price or appraised value, whichever is lower. The loan has a term of 15 years with a fixed-interest rate of 4-percent. The remaining purchase cost can be obtained from a commercial or private party lender and FSA can provide a 95-percent guarantee on this loan. The purchase price or appraised value, whichever is lower, may not exceed $250,000. FSA may also provide a 95-percent guarantee on operating loans to borrowers under this program and the guarantee fee can be waived. To ensure the programs are targeted to smaller operations, beginning farmer status also requires that the farm not own more than 30 percent of the average size farm in the county. An applicant that is not a sole proprietor must prove all parties in the farm business meet the beginning farmer criteria.

OL and FO Borrowing Rates

Regular borrowing rates on direct loans are set for the life of the loan at the current average market yield on outstanding U.S. Treasury obligations having a maturity of 5 years for OL loans and 25 years for FO loans. Limited resource rates are set at half the rate on 5 year U.S. Treasury notes, but not below 5 percent. Eligibility for the limited-resource-rate (LR) is based on need and as such the lower the creditworthiness of the borrower the greater the likelihood that additional interest rate subsidies will be provided. Eligibility is reviewed annually and is based on inability to pay regular rates on direct loans. Limited resource rates have been at their statutory minimum of 5 percent since 1986 for FO and 1990 for OL loans. FSA is required to make LR rates available on at least 25 percent of its direct FO and OL loans.

Guaranteed loan rates are negotiated between the borrower and the lender, but FSA regulations require that the lender charge guaranteed borrowers no more than their average farm customers. Under the interest assistance program, FSA reduces the rate on OL loans by 4-percentage points from the loan rate negotiated between the borrower and the lender. To be eligible for the IA program a borrower must be unable to project sufficient cash flow without such interest rate assistance. There is no minimum borrowing rate and eligibility is reviewed annually.

The Farm Security and Rural Investment Act of 2002 made IA authority permanent, capped annual lending volume at $750 million and required that at least 15 percent of annual funding be reserved for beginning farmers and ranchers (Ahrendsen, et al.). The percentage of guaranteed OL loan volume made with IA is also largely a function of annual authority and underlying demand. Lending volume for IA also fell sharply during the 5 year study period, to just 22 percent of total guaranteed OL volume in fiscal 2004 (appendix table 17).

Emergency Disaster Loan Program

Loan purposes. Loans cover production or physical losses or both in counties declared as disaster areas by the President, designated by the Secretary of Agriculture as disaster or quarantine counties, or named for physical loss loans by the FSA administrator and contiguous counties. Disasters include droughts and floods and other types of natural disasters or quarantines that cause economic losses. Loan funds can be used to refinance certain debts, pay production costs associated with the disaster year, pay essential family living expenses, and restore or replace essential property. Physical property loans can be used to replace or repair damaged essential property, such as: 1) farmland; 2) farm structures, such as buildings and fences; 3) machinery, equipment and supplies; 4) farm dwelling and its essential household contents; and 5) livestock and livestock production.

Eligibility. Eligible farmers are those who either sustained a qualifying physical loss or a production loss of at least 30 percent in any essential farm or ranch enterprise. FSA can then make loans for up to 100 percent of the farm's total actual production loss value or actual physical loss value. EM eligibility rules include a "credit-elsewhere" test. Applicants for loans less than $100,000 must have been denied credit from at least one commercial lender, and for larger loans evidence of two denials must be obtained. Also, the appropriate amount of general hazard insurance coverage or crop insurance must have been in force prior to the occurrence of the natural disaster. The maximum amount of a physical loss or production loss loan is reduced by any compensation or disaster assistance received for the loss from other sources.

Loan Terms. Maximum borrower indebtedness for the EM program is capped at $500,000. For fiscal 2006, an EM borrower may also borrow up to an additional $1,052,000 from a combination of direct OL, direct FO, guaranteed OL, and guaranteed FO programs. Loans to cover the repair or replacement of essential household property are capped at $20,000. EM loans carry rates as low as 3.75 percent for the term of the loan. EM loans are required to be fully secured by farm assets, but this can be waived if sufficient repayment ability can be demonstrated. Loan repayment terms are usually for 1 to 7 years for crop or chattel losses and 30 years for physical losses to real estate.

Appendix C: Procedures for FSA Loan Classification

REPRODUCE LOCALLY. *Include form number and date on all reproductions.*

FSA-2006-20
(03-01-00)

U.S. DEPARTMENT OF AGRICULTURE
Farm Service Agency

CLASSIFICATION OF FARMER PROGRAM BORROWER ACCOUNT

PART I - FSA SECURITY MARGIN (FSM) AND RATIO CALCULATIONS

A. FSM

Total Value of FSA Security ..... $ _____

(minus) Total Value of Prior Liens ..... - $ _____

(equals) FSA Security Share ..... = $ _____

(minus) Borrower's Total FSA Debt ..... - $ _____

(equals) FSA Security Margin (FSM) ..... = $ _____
(plus or minus)

B. KEY RATIOS

1. Debt to Asset Ratio

   Total All Debts ..... $ _____

   (divided by) Total Property Owned ..... ÷ $ _____ = _____

2. Return on Assets

   Net Cash Farm Income ..... $ _____

   (minus) Family Living Expenses ..... - $ _____

   (equals) Net Cash Return ..... = $ _____

   (divided by) Total Property Owned ..... ÷ $ _____ = _____

3. Current Ratio (Working Capital)

   Current Assets ..... $ _____

   (divided by) Current Debts ..... ÷ $ _____ = _____

4. Repayment Ability

   Balance Available ..... $ _____

   (divided by) Amount Due this Year ..... ÷ $ _____ = _____

Position 2

Appendix C: Procedures for FSA Loan Classification.(continued)

FSA-2006-20 Reverse (03-01-00)

PART II - KEY RATIO POINTS, CLASSIFICATION CODE, ESTIMATED LOSS

BORROWER'S NAME	IDENTIFICATION NO.

A. KEY RATIOS *(For each ratio check (✓) the appropriate box. Note that there is a point score above each box.)*

	POINTS 2		4		6		8	
1. DEBT/ASSET RATIO	Less than .40		.40 to .69		.70 to .99		1.00 or more	
	POINTS 1		2		3		4	
2. RETURN ON ASSETS	.07 or more		.036 to .069		.01 to .035		zero or negative	
	POINTS 1		2		3		4	
3. CURRENT RATIO *(Working Capital)*	1.25 or more		1.16 to 1.24		1.00 to 1.15		Less than 1.00	

	POINTS 2		4		6		8		10	
4. REPAYMENT ABILITY	1.15 or more		1.10 to 1.14		1.05 to 1.09		1.00 to 1.04		Less than 1.	

B. TOTAL POINTS

Ratio 1 _____

Ratio 2 _____

Ratio 3 _____

Ratio 4 _____

TOTAL ➜ _____

C. CLASSIFICATION CODE ➜ _____

Classification Code Guide

Security Margin	Total Key Ratio Points	Category	Code Number
Positive or Zero	8 or less	Commercial	1
Positive or Zero	9 to 13	Standard	2
Positive or Zero	14 or more	Substandard	3
Negative	22 or less	Doubtful	4
Negative	23 or more	Loss	5

D. ESTIMATED FSA LOSS: *(Classification Codes 4 and 5 only)*

Value of FSA Security X 20% *(liquidation costs)* $ _____

(plus) Amount of Negative FSM ..... + $ _____

(equals) Amount of Estimated Loss ..... = $ _____

CLASSIFIER *(Signature)*	TITLE	DATE

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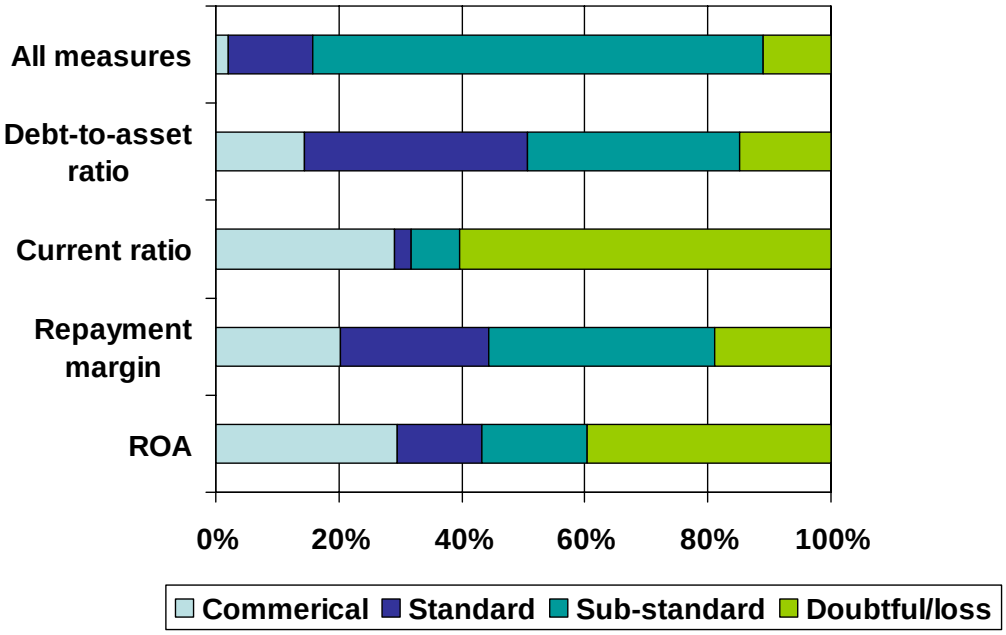
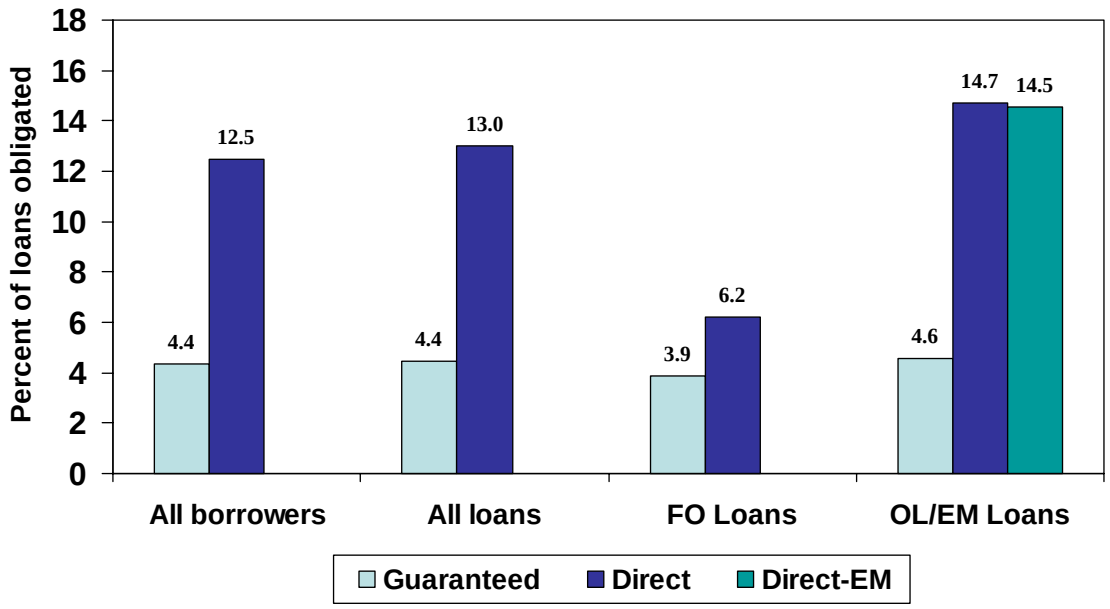
Appendix D: Supplemental Figures

Appendix figure 1. Distribution of fiscal 2000 to 2004 direct borrowers, by financial measures and classifications at time of obligation.



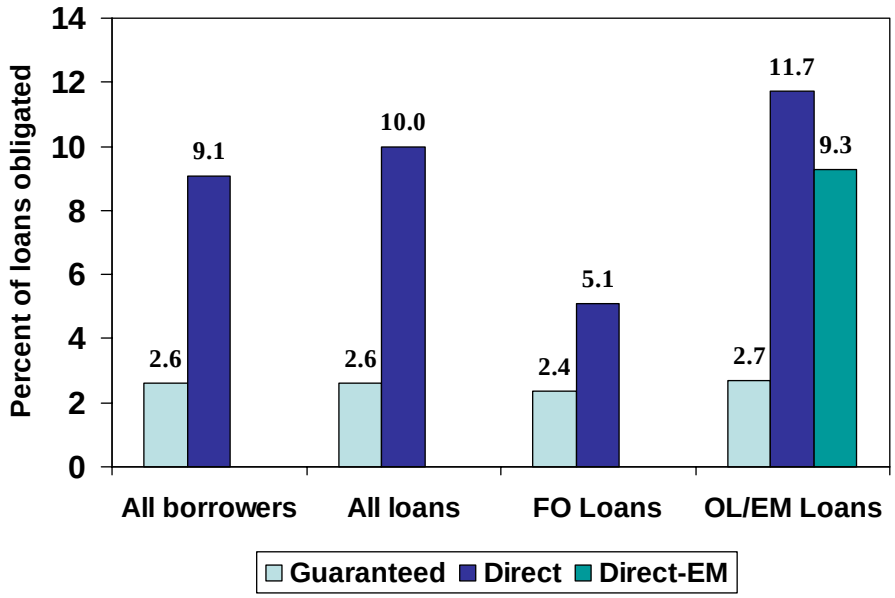
Source: FSA's Farm and Home Plans fiscal 2000 to fiscal 2004.

Appendix figure 2. Average 30-day delinquency rate, for loans obligated in fiscal 2000, by program, as of the end of fiscal 2004.



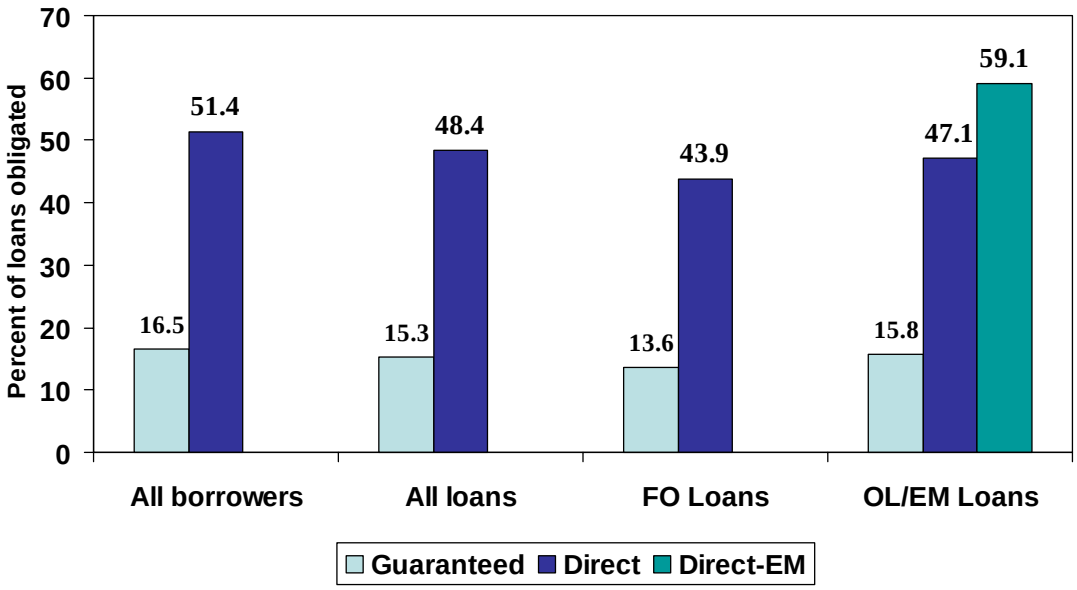
Source: USDA Farm Loan Program Database.

Appendix figure 3. Average 90-day delinquency rate, for loans obligated in fiscal 2000, by program, as of the end of fiscal 2004.



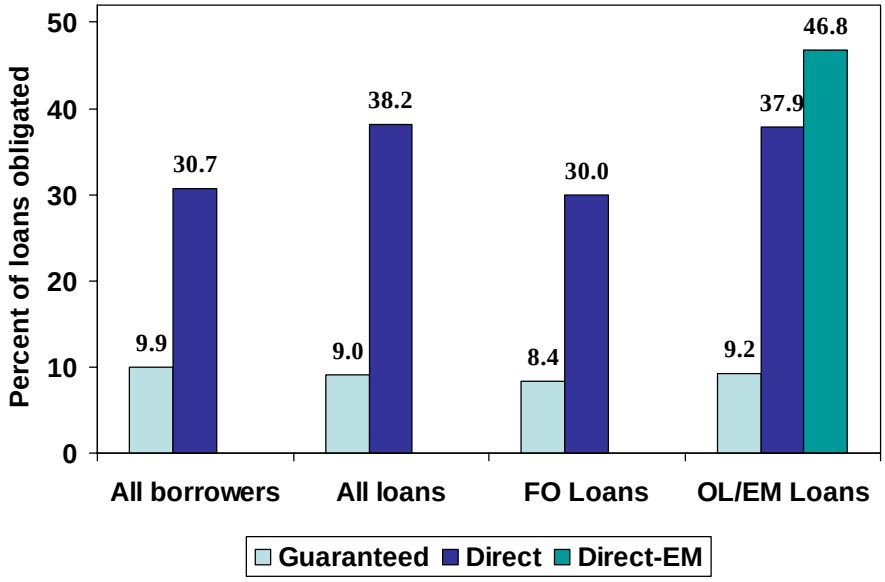
Source: USDA Farm Loan Program Database.

Appendix figure 4. Lifetime 30-day delinquency rate, for loans obligated in fiscal 2000, by program, as of the end of fiscal 2004.



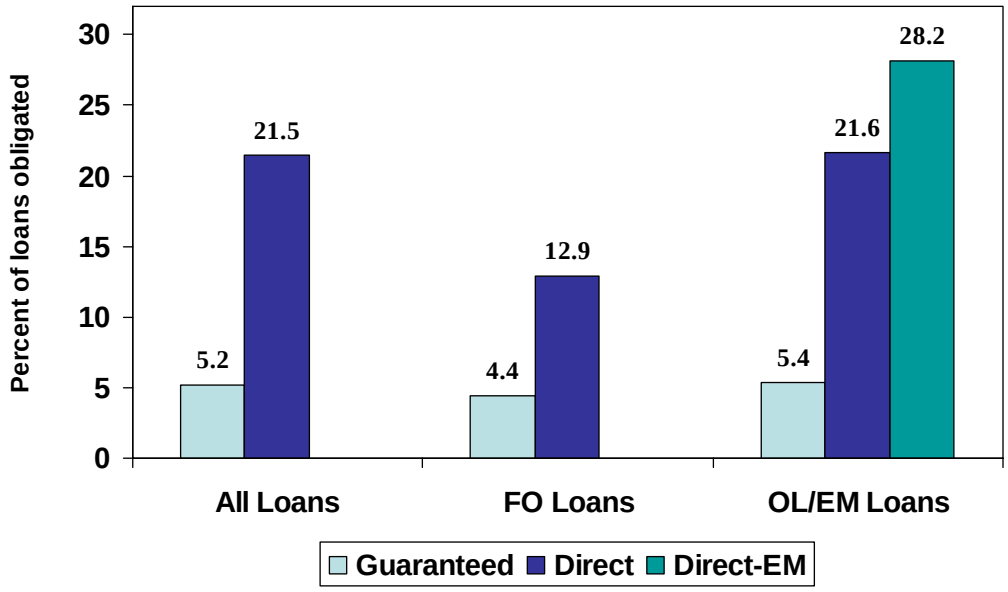
Source: USDA Farm Loan Program Database.

Appendix figure 5. Lifetime 90-day delinquency rate, for loans obligated in fiscal 2000, by program, as of the end of fiscal 2004.



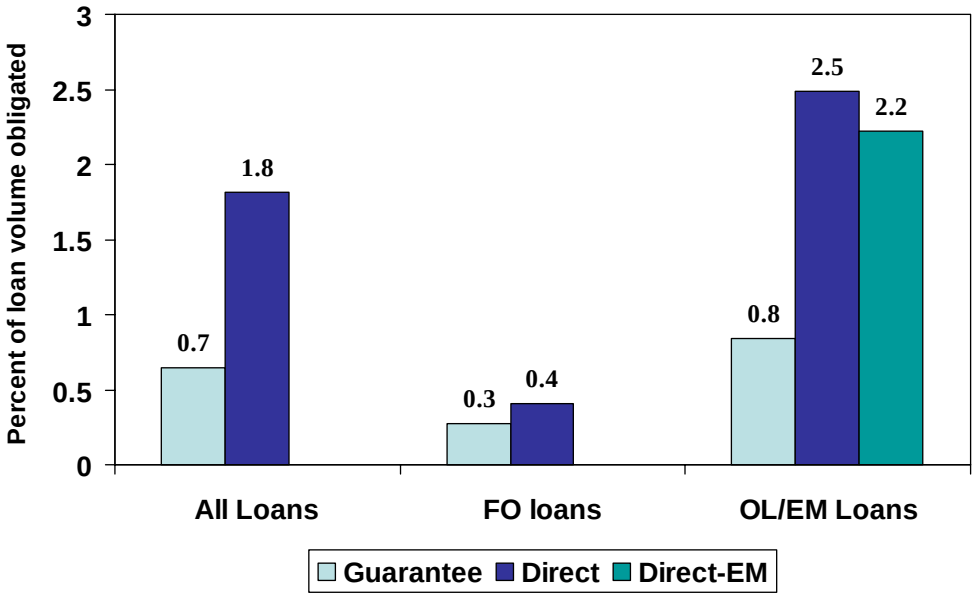
Source: USDA Farm Loan Program Database.

Appendix figure 6. Percent of loans obligated in fiscal 2000 that had been restructured, by program, as of the end of fiscal 2004.



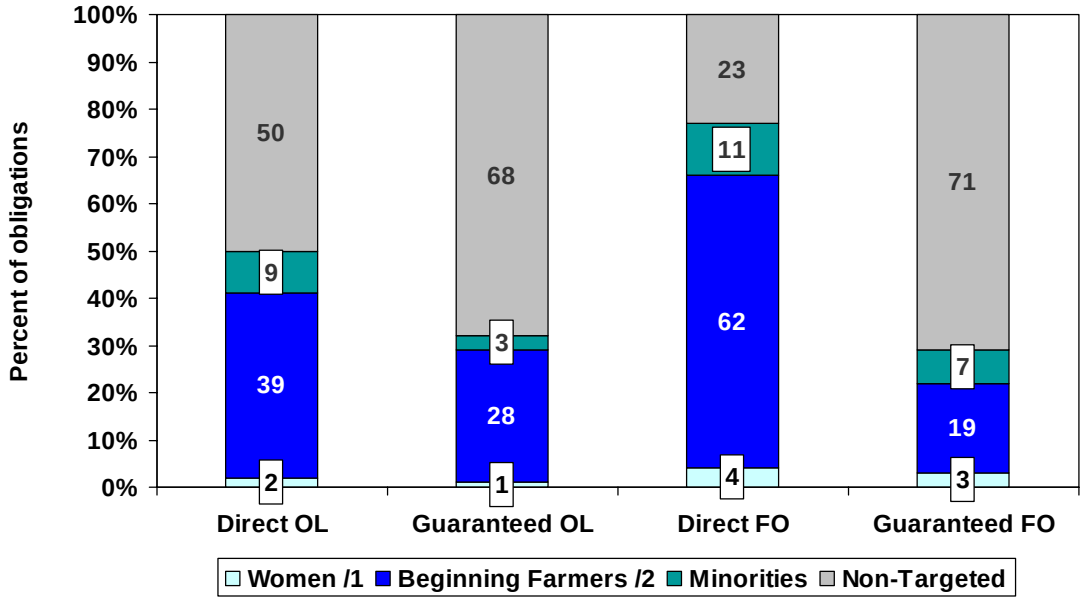
Source: USDA Farm Loan Program Database.

Appendix figure 7. Percent of loan volume obligated in fiscal 2000 that had been written-off, by program, as of the end of fiscal year 2004.



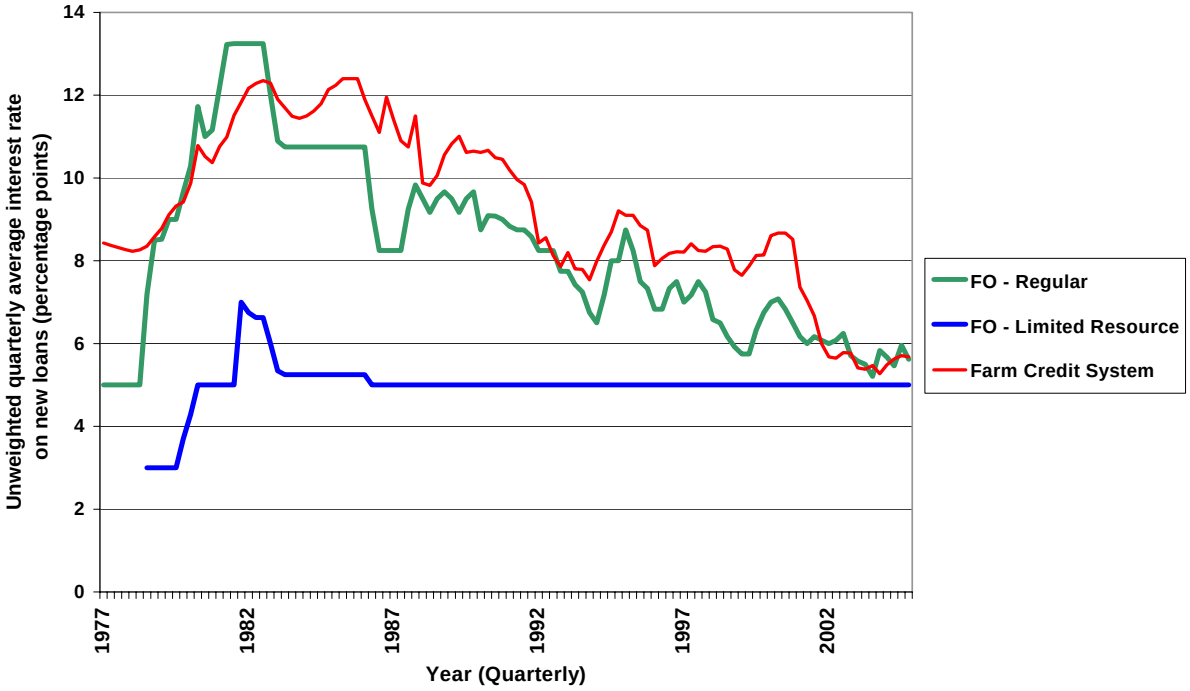
Source: USDA Farm Loan Program Database.

Appendix figure 8. Share of loan origination volume by program and target class, fiscal 2000-2004.



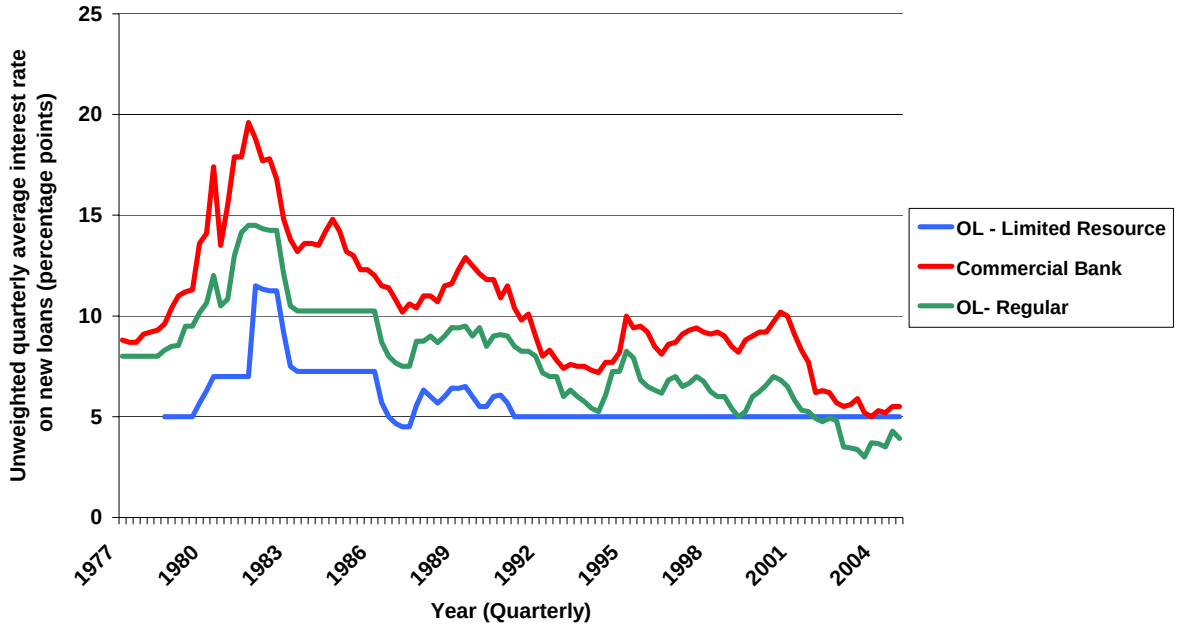
[1/] Women who are neither a member of racial or ethnic minority nor a beginning farmer. [2/] Beginning farmers who were not members of a racial or ethnic minority group.
Source: USDA Farm Loan Program Database.

Appendix figure 9. Direct farm ownership loan interest rates and Farm Credit System farm real estate loan interest rates, 1977- 2004.



Source: USDA, Economic Research Service.

Appendix figure 10. Direct operating loan interest rates and commercial bank farm non-real estate interest rates, 1977-2004.



Source: USDA, Economic Research Service.

Appendix E: Supplemental Tables

Appendix table 1. Outstanding farm business debt, 1970 to 2004.

	Total farm debt			Farm real estate debt			Nonreal estate farm debt		
Year[1]	U.S.	Direct Farm Service Agency	FSA's share of total	U.S.	Direct Farm Service Agency	FSA's share of total	U.S.	Direct Farm Service Agency	FSA's share of total
	Million dollars		Percent	Million dollars		Percent	Million dollars		Percent
1970	48,501	2,884	5.9	27,238	2,169	8.0	21,263	715	3.4
1971	52,825	3,017	5.7	28,826	2,319	8.0	23,999	698	2.9
1972	58,100	3,216	5.5	31,380	2,506	8.0	26,720	710	2.7
1973	66,769	3,456	5.2	35,188	2,654	7.5	31,580	803	2.5
1974	74,673	3,782	5.1	39,563	2,821	7.1	35,110	961	2.7
1975	83,504	4,586	5.5	43,751	2,947	6.7	39,753	1,639	4.1
1976	94,137	4,935	5.2	48,485	3,190	6.6	45,653	1,746	3.8
1977	108,404	6,399	5.9	55,834	3,462	6.2	52,570	2,937	5.6
1978	123,866	9,005	7.3	63,425	3,571	5.6	60,441	5,433	9.0
1979	147,520	14,760	10.0	75,778	5,967	7.9	71,742	8,793	12.3
1980	162,432	17,922	11.0	85,272	7,095	8.3	77,160	10,827	14.0
1981	177,687	21,443	12.1	93,905	7,726	8.2	83,782	13,716	16.4
1982	183,963	21,932	11.9	96,769	7,923	8.2	87,194	14,009	16.1
1983	186,178	22,065	11.9	98,071	8,187	8.3	88,107	13,878	15.8
1984	188,813	23,879	12.6	101,393	9,046	8.9	87,420	14,832	17.0
1985	172,155	25,116	14.6	94,090	9,232	9.8	78,065	15,884	20.3
1986	151,308	24,605	16.3	84,088	9,033	10.7	67,220	15,572	23.2
1987	138,507	23,923	17.3	75,810	8,676	11.4	62,698	15,247	24.3
1988	133,138	22,097	16.6	70,829	8,172	11.5	62,309	13,926	22.3
1989	131,030	19,130	14.6	68,761	7,424	10.8	62,269	11,706	18.8
1990	131,116	17,034	13.0	67,633	6,914	10.2	63,483	10,120	15.9
1991	131,873	15,203	11.5	67,450	6,337	9.4	64,423	8,866	13.8
1992	131,566	13,467	10.2	67,879	5,755	8.5	63,686	7,712	12.1
1993	134,312	11,989	8.9	68,433	5,254	7.7	65,879	6,735	10.2
1994	138,929	11,417	8.2	69,912	4,919	7.0	69,017	6,498	9.4
1995	142,985	10,069	7.0	71,723	4,573	6.4	71,262	5,497	7.7
1996	148,573	9,269	6.2	74,422	4,285	5.8	74,151	4,984	6.7
1997	156,907	8,572	5.5	78,514	4,022	5.1	78,394	4,550	5.8
1998	164,626	8,022	4.9	83,100	3,777	4.5	81,526	4,245	5.2
1999	167,696	7,847	4.7	87,206	3,584	4.1	80,490	4,263	5.3
2000	177,637	7,626	4.3	91,109	3,418	3.8	86,529	4,208	4.9
2001	185,703	7,498	4.0	96,008	3,347	3.5	89,695	4,151	4.6
2002	193,312	7,154	3.7	103,356	3,181	3.1	89,955	3,973	4.4
2003	197,998	6,655	3.4	107,981	2,848	2.6	90,017	3,807	4.2
2004	206,945	5,984	2.9	114,293	2,610	2.3	92,652	3,374	3.6

[1] December 31 of year shown.

Source: USDA, Economic Research Service.

Appendix table 2. Farm loan program obligations, fiscal 1970-2004.[1]

Fiscal year	Nominal dollars			Constant dollars[2]		
	Total	Direct	Guaranteed	Total	Direct	Guaranteed
	----------Million dollars----------					
1970	642.7	642.7	0.0	2,527.6	2,527.6	0.0
1971	696.2	696.2	0.0	2,607.6	2,607.6	0.0
1972	818.5	818.5	0.0	2,938.2	2,938.2	0.0
1973	1,431.9	1,431.9	0.0	4,868.5	4,868.5	0.0
1974	1,023.3	1,007.1	16.2	3,191.1	3,140.6	50.5
1975	2,008.5	1,585.4	423.1	5,723.2	4,517.6	1,205.6
1976	1,824.9	1,447.3	377.6	4,916.2	3,899.0	1,017.2
1977	2,439.0	2,249.4	189.6	6,177.8	5,697.5	480.2
1978	4,995.8	4,916.7	79.1	11,822.9	11,635.7	187.2
1979	7,705.4	7,523.1	182.3	16,840.1	16,441.7	398.4
1980	6,349.2	6,186.7	162.5	12,722.0	12,396.4	325.6
1981	8,073.9	7,945.4	128.5	14,788.8	14,553.4	235.4
1982	4,113.9	4,062.7	51.2	7,102.0	7,013.6	88.4
1983	3,070.7	3,000.1	70.6	5,099.4	4,982.2	117.2
1984	4,438.7	3,995.8	442.9	7,104.5	6,395.6	708.9
1985	5,927.7	4,753.0	1,174.7	9,207.6	7,383.0	1,824.7
1986	4,367.5	2,807.9	1,569.1	6,637.8	4,267.5	2,384.7
1987	3,080.5	1,515.0	1,587.4	4,557.3	2,241.3	2,348.4
1988	2,320.7	1,065.8	1,271.4	3,320.0	1,524.7	1,818.9
1989	2,229.6	1,030.1	1,199.5	3,073.4	1,420.0	1,653.5
1990	2,193.2	921.3	1,271.9	2,910.8	1,222.8	1,688.1
1991	2,124.1	633.7	1,490.4	2,723.8	812.6	1,911.2
1992	2,306.4	714.5	1,591.9	2,891.2	895.7	1,995.5
1993	2,135.2	672.7	1,432.5	2,616.1	824.2	1,755.1
1994	2,725.6	881.9	1,843.7	3,270.0	1,058.0	2,212.0
1995	2,501.9	563.6	1,938.3	2,941.4	662.6	2,278.8
1996	2,683.2	832.3	1,850.9	3,095.9	960.3	2,135.6
1997	2,319.3	744.8	1,574.5	2,632.2	845.3	1,786.9
1998	2,174.1	738.7	1,435.4	2,440.4	829.2	1,611.2
1999	3,839.3	1,288.9	2,550.4	4,248.0	1,426.1	2,821.9
2000	3,722.1	1,048.1	2,674.1	4,030.6	1,135.0	2,895.7
2001	3,258.5	943.6	2,314.9	3,445.8	997.8	2,447.9
2002	3,554.4	903.6	2,650.9	3,697.5	940.0	2,757.6
2003	3,616.7	954.2	2,662.5	3,694.6	974.8	2,719.9
2004	3,103.3	781.8	2,321.6	3,103.3	781.8	2,321.6
Total [3]	110,190.7	71,583.2	38,625.7	183,900.2	135,511.1	48,423.0

[1] Dollar amounts of funds loaned or guaranteed, including the dollar amount of interest rate assistance provided on guaranteed loans for years prior to 1993. Excludes obligations for nonprogram loans or certain nonfarm loans. [2]GDP price deflator, 2004=100. [3]Includes$374.8 million in obligations during the 1976 transition quarter, of which $96.1 million was guaranteed loan obligations.
Sources: Farm Service Agency, 205 Report, various issues, Farmers Home Administration Report for Fiscal 1990, and unpublished Agency data.

Appendix table 3. Direct loan obligations, by program area, fiscal 1970-2004.[1]

Fiscal year	Farm Ownership			Operating Loans		
	Loans	Dollar volume	Constant dollar volume [2]	Loans	Dollar volume	Constant dollar volume [2]
	Number	----Thousands----		Number	----Thousands----	
1970	11,491	261,497	1,028,428	46,657	275,000	1,081,533
1971	10,956	268,436	1,005,435	42,180	275,000	1,030,021
1972	13,755	355,762	1,277,080	43,845	337,286	1,210,757
1973	15,492	408,117	1,387,603	50,980	454,644	1,545,795
1974	11,981	351,376	1,095,737	53,328	509,632	1,589,245
1975	10,578	350,691	999,297	48,614	532,908	1,518,526
1976	11,353	434,260	1,169,885	43,683	529,505	1,426,473
1977	11,109	450,522	1,141,132	40,370	537,727	1,362,014
1978	12,011	550,571	1,302,963	49,334	777,998	1,841,184
1979	12,479	752,327	1,644,208	37,726	879,087	1,921,242
1980	12,719	926,197	1,855,839	31,849	849,999	1,703,159
1981	11,693	795,353	1,456,831	29,496	822,614	1,506,764
1982	10,189	657,947	1,135,846	44,370	1,203,680	2,077,972
1983	10,088	729,547	1,211,533	56,072	1,684,999	2,798,219
1984	8,456	659,228	1,055,145	59,202	1,959,997	3,137,125
1985	7,418	651,871	1,012,568	76,509	3,599,999	5,591,971
1986	4,032	371,389	564,444	49,474	2,203,178	3,348,429
1987	896	74,999	110,954	32,095	1,298,262	1,920,664
1988	1,317	114,979	164,488	23,167	899,501	1,286,816
1989	1,172	94,933	130,862	20,517	856,017	1,179,993
1990	949	79,983	106,154	16,600	733,291	973,231
1991	641	57,139	73,272	10,679	489,909	628,236
1992	730	66,659	83,560	13,784	570,737	715,441
1993	746	66,813	81,861	13,144	545,173	667,962
1994	1,066	81,980	98,354	15,737	650,965	780,986
1995	897	56,923	66,923	10,712	437,854	514,775
1996	1,120	89,260	102,989	12,992	566,583	653,727
1997	1,009	84,173	95,529	11,944	515,719	585,298
1998	978	84,069	94,365	12,988	557,089	625,316
1999	1,666	170,526	188,680	16,266	788,535	872,482
2000	2,085	233,024	252,335	14,021	664,207	719,250
2001	1,472	163,359	172,747	14,401	690,228	729,895
2002	1,520	177,861	185,020	14,622	688,070	715,765
2003	1,453	168,574	172,206	14,755	689,848	704,712
2004	1,228	142,404	142,404	13,756	609,565	609,565
Total [3]	210,013	11,111,361	23,013,156	1,092,968	29,760,998	49,779,804

[1] Obligations are the dollar amounts of funds loaned in current and constant dollars.

[2] GDP price deflator, 2004=100.

[3] Includes obligations during the 1976 transition quarter.

Sources: Farm Service Agency, 205 Report, various issues, Farmers Home Administration Report for Fiscal 1990.

Appendix table 4. Emgergency Disaster loan obligations, fiscal 1970-2004.[1]

Fiscal year	Loans	Dollar volume	Constant dollar volume [2]
	Number	----Thousands----	
1970	12,778	89,430	351,714
1971	19,804	127,635	478,061
1972	12,979	108,912	390,962
1973	128,667	557,767	1,896,415
1974	22,433	128,287	400,052
1975	41,470	683,662	1,948,100
1976	15,677	441,679	1,189,872
1977	35,489	1,167,246	2,956,530
1978	89,098	3,411,052	8,072,483
1979	62,906	2,870,139	6,272,680
1980	54,394	2,266,890	4,542,211
1981	138,990	5,112,290	9,364,072
1982	42,863	2,173,412	3,752,069
1983	8,771	565,937	939,832
1984	34,997	1,051,627	1,683,209
1985	14,060	490,876	762,490
1986	5,584	217,774	330,977
1987	2,548	113,612	168,079
1988	554	29,890	42,760
1989	2,806	73,492	101,306
1990	2,609	101,509	134,724
1991	1,181	81,402	104,386
1992	1,602	74,883	93,869
1993	885	58,607	71,807
1994	3,815	145,738	174,847
1995	1,526	68,823	80,914
1996	3,015	176,499	203,646
1997	2,490	144,880	164,427
1998	1,569	97,569	109,518
1999	3,970	329,485	364,562
2000	2,450	150,852	163,353
2001	1,679	90,026	95,200
2002	949	57,609	59,928
2003	1,479	95,698	97,760
2004	656	29,789	29,789
Total [3]	778,306	23,425,951	47,702,983

[1] Obligations are the dollar amounts of funds loaned in current and constant dollars. [2] GDP price deflator, 2004=100. [3] Includes obligations during the 1976 transition quarter.

Sources: Farm Service Agency, 205 Report, various issues, Farmers Home Administration Report for Fiscal 1990.

Appendix table 5. Guaranteed loan obligations, by program area, fiscal 1974-2004.[1]

Fiscal year	Farm Ownership			Operating Loans		
	Loans	Dollar volume	Constant dollar volume [2]	Loans	Dollar volume	Constant dollar volume [2]
	Number	----Thousands----		Number	----Thousands----	
1974	16	785	2,449	537	15,362	47,904
1975	20	941	2,682	640	17,878	50,944
1976	18	745	2,006	365	9,712	26,164
1977	13	718	1,818	169	4,616	11,692
1978	4	276	652	80	2,630	6,223
1979	89	10,837	23,685	216	15,667	34,240
1980	253	27,854	55,812	362	24,830	49,752
1981	160	17,932	32,846	342	24,989	45,772
1982	41	3,856	6,657	549	47,329	81,707
1983	110	20,032	33,267	488	50,547	83,942
1984	261	41,504	66,430	965	111,445	178,375
1985	453	67,926	105,511	9,693	1,106,849	1,719,297
1986	1,265	192,018	291,832	14,772	1,367,287	2,078,027
1987	2,137	324,419	479,949	13,614	1,240,738	1,835,563
1988	2,436	362,086	517,996	9,853	892,578	1,276,913
1989	2,139	305,062	420,518	9,863	879,174	1,211,914
1990	2,399	348,719	462,823	9,954	908,748	1,206,099
1991	2,509	365,511	468,714	10,708	1,035,283	1,327,598
1992	2,920	452,391	567,090	10,976	1,107,915	1,388,815
1993	2,754	448,953	550,070	9,783	1,013,341	1,241,575
1994	3,339	542,821	651,242	12,297	1,300,067	1,559,738
1995	3,447	559,548	657,848	12,788	1,378,323	1,620,465
1996	3,130	535,583	617,959	11,445	1,315,848	1,518,234
1997	3,040	529,705	601,172	8,908	1,044,840	1,185,807
1998	2,396	424,397	476,374	8,161	1,010,974	1,134,788
1999	3,513	774,170	856,588	12,175	1,776,233	1,965,330
2000	3,488	873,468	945,852	11,439	1,800,595	1,949,810
2001	3,283	852,276	901,256	9,085	1,462,587	1,546,641
2002	3,905	1,101,166	1,145,489	9,462	1,549,665	1,612,040
2003	4,198	1,231,165	1,257,692	8,789	1,431,302	1,462,142
2004	3,753	1,099,052	1,099,052	7,319	1,222,530	1,222,530
Total [3]	57,880	11,526,313	13,329,197	215,820	25,171,097	30,683,061

[1] Obligations are the dollar amounts of loans guaranteed in current and constant dollars, including the dollar amount of interest rate assistance provided for years prior to 1993.

[2] GDP price deflator, 2004=100. [3] Includes obligations during the 1976 transition quarter.

Sources: Farm Service Agency, 205 Report, various issues, Farmers Home Administration Report for Fiscal 1990, and unpublished FSA and FmHA data.

Appendix table 6. Direct loan program volume, delinquencies, and losses, 1976-2004.

	Number of active cases[2]			Principal outstanding			Loan losses[4]	
		Delinquent[3]			Delinquent[3]			
Year[1]	Total	Total	Share of total	Total	Total	Share of total	Total	Share of total[5]
	-------Number-------		Percent	----Million dollars----		Percent	Million dollars	Percent
1976	251,200	33,192	13.2	5,262.2	149.9	2.8	13.9	NA
1977	273,898	33,474	12.2	7,482.7	205.2	2.7	13.9	0.3
1978	296,596	33,755	11.4	9,703.2	260.5	2.7	12.2	0.2
1979	307,730	35,787	11.6	12,335.8	366.5	3.0	15.0	0.2
1980	378,986	53,335	14.1	18,867.9	721.7	3.8	12.7	0.1
1981	428,417	71,268	16.6	23,414.7	1,392.0	5.9	7.0	0.0
1982	434,158	107,538	24.8	24,163.5	2,692.5	11.1	24.6	0.1
1983	433,726	129,853	29.9	24,251.8	3,805.0	15.7	64.9	0.3
1984	447,392	141,687	31.7	25,609.1	5,085.7	19.9	116.6	0.5
1985	455,046	141,175	31.0	27,983.0	5,825.8	20.8	233.8	0.9
1986	421,651	134,565	31.9	27,575.9	6,276.5	22.8	379.1	1.4
1987	388,833	127,577	32.8	25,763.7	6,592.0	25.6	1,119.1	4.1
1988	376,388	137,958	36.7	25,065.0	8,321.7	33.2	2,021.4	7.8
1989	346,442	114,737	33.1	23,281.9	8,005.6	34.4	3,227.8	12.9
1990	299,069	80,341	26.9	19,544.2	6,138.8	31.4	3,132.2	13.5
1991	280,528	79,204	28.2	17,465.5	5,507.5	31.5	2,233.2	11.4
1992	251,892	73,657	29.2	15,536.7	4,804.8	30.9	1,823.5	10.4
1993	224,739	56,099	25.0	13,775.5	4,116.2	29.9	1,700.9	10.9
1994	208,130	47,723	22.9	12,622.6	3,569.9	28.3	1,296.9	9.4
1995	194,034	52,635	27.1	11,522.3	3,199.4	27.8	998.3	7.9
1996	182,305	42,111	23.1	10,584.2	2,420.3	22.9	1,296.0	11.2
1997	170,488	32,051	18.8	9,841.2	2,036.5	20.7	756.4	7.1
1998	158,920	28,013	17.6	9,152.6	1,692.0	18.5	672.9	6.8
1999	148,879	24,830	16.7	8,937.9	1,398.7	15.6	522.3	5.7
2000	142,294	22,118	15.5	8,657.9	1,178.6	13.6	478.6	5.4
2001	135,587	20,622	15.2	8,599.7	1,037.3	12.1	348.2	4.0
2002	124,191	19,775	15.9	8,059.2	890.5	11.0	445.3	5.2
2003	113,725	16,959	14.9	7,594.2	768.6	10.1	388.0	4.8
2004	103,301	14,094	13.6	6,935.6	621.1	9.0	291.1	3.8

[1] September 30 of year shown.

[2] Duplicated cases because some borrowers have loans under several different programs. Prior to 1988, active cases excluded those borrowers who are in foreclosure, bankruptcy, or liquidation status. Active cases do not include loans made to associations or non program loans.

[3] Past due principal and interest payments. Prior to 1988, a case was considered delinquent when a payment was more than $10 and 15 days past due. Beginning in 1988, a case is delinquent if a payment is 30 or more days past due.

[4] Total direct loan losses net of recoveries and excluding losses on nonprograms loans and loans to associations and to Indian Tribes.

[5] As a percentage of loans or volume outstanding at the beginning of the fiscal year.

Source: FSA report code 616, various issues, and unpublished FSA data.

Appendix table 7. Guaranteed loan program volume, delinquencies, and losses,1982-2004.

Year[1]	Number of active cases[2]			Principal outstanding			Loan losses[3]	
	Total	Delinquent		Total	Delinquent[4]		Total	Share of total[5]
		Total	Share of total		Total	Share of total		
	----Number----		Percent	--Million dollars--		Percent	Million dollars	Percent
1982	4,067	180	4.4	405.0	12.6	3.1	7.9	1.9
1983	3,467	186	5.4	355.5	14.6	4.1	11.9	2.9
1984	4,111	235	5.7	484.2	16.2	3.3	11.1	3.1
1985	7,160	313	4.4	834.5	19.3	2.3	22.8	4.7
1986	15,137	723	4.8	1,664.5	31.4	1.9	54.2	6.5
1987	18,887	1,052	5.6	2,384.0	42.6	1.8	79.6	4.8
1988	27,519	1,298	4.7	3,177.6	54.1	1.7	90.5	3.8
1989	30,016	1,580	5.3	3,243.7	60.6	1.9	68.0	2.1
1990	36,955	1,681	4.5	4,139.8	58.5	1.4	57.1	1.8
1991	40,169	1,904	4.7	4,526.6	59.3	1.3	51.2	1.2
1992	42,189	2,376	5.6	4,923.9	102.8	2.1	60.4	1.3
1993	42,475	2,077	4.9	5,044.8	98.5	2.0	65.5	1.3
1994	44,129	1,659	3.8	5,417.5	82.3	1.5	52.3	1.0
1995	46,838	1,821	3.9	5,933.1	91.3	1.5	36.8	0.7
1996	48,468	2,311	4.8	6,360.3	112.5	1.8	45.2	0.8
1997	49,512	2,540	5.1	6,505.2	124.5	1.9	67.7	1.1
1998	48,795	2,759	5.7	6,537.7	135.4	2.1	59.8	0.9
1999	49,279	2,925	5.9	7,326.9	172.2	2.4	66.7	1.0
2000	50,069	2,235	4.5	7,967.1	145.9	1.8	67.7	0.9
2001	50,067	2,316	4.6	7,727.5	162.1	2.1	58.8	0.7
2002	49,183	2,697	5.5	8,150.3	183.2	2.2	53.0	0.7
2003	49,273	2,846	5.8	8,726.3	211.7	2.4	53.7	0.7
2004	47,915	1,968	4.1	8,905.8	166.8	1.9	55.7	0.6

[1] September 30 of year shown.

[2] Duplicated cases because some borrowers have loans under several different programs.

[3] Gross loss settlements directly to lenders and to holders of purchased guaranteed loans less loan loss recoveries and debt offsets.

[4] Payments of principal and accrued interest 30 or more days past due.

[5] As a percentage of outstanding loan numbers or volume at the beginning of the fiscal year.

Source: Farm Service Agency, 4067 Report, various issues and unpublished data.

Appendix table 8. Farm loan program outstanding principal, delinquencies, and losses in constant dollars, 1976-2004.

	Total	Direct programs[2]			Guaranteed programs[3]		
Year[1]	Outstanding Principal	Outstanding principal	Delinquent payments[4]	Loan losses[5]	Outstanding principal	Delinquent payments[4]	Loan losses[6]
		--------Million 2000 dollars-------					
1976	NA	13,091.4	372.9	34.6	NA	NA	0.0
1977	NA	17,502.6	480.0	32.5	NA	NA	8.5
1978	NA	21,205.9	569.3	26.7	NA	NA	14.1
1979	NA	24,896.7	739.7	30.3	NA	NA	11.6
1980	NA	34,912.8	1,335.4	23.5	NA	NA	5.4
1981	NA	39,606.0	2,354.6	11.8	NA	NA	7.9
1982	39,168.0	38,522.3	4,292.5	39.2	645.7	20.1	12.5
1983	37,737.2	37,192.0	5,835.3	99.5	545.2	22.4	18.3
1984	38,568.2	37,852.5	7,517.1	172.3	715.7	23.9	16.5
1985	41,337.3	40,140.3	8,356.8	335.4	1,197.1	27.7	32.8
1986	41,039.2	38,703.0	8,809.1	532.1	2,336.1	44.1	76.1
1987	38,455.2	35,198.2	9,006.0	1,528.9	3,257.0	58.2	108.7
1988	37,311.5	33,113.6	10,993.9	2,670.5	4,198.0	71.5	119.5
1989	33,766.5	29,637.3	10,190.9	4,108.9	4,129.2	77.1	86.6
1990	29,028.1	23,954.2	7,524.0	3,839.0	5,073.9	71.7	70.0
1991	26,043.4	20,682.9	6,522.1	2,644.6	5,360.5	70.2	60.6
1992	23,685.4	17,985.4	5,562.1	2,110.9	5,699.9	119.0	69.9
1993	21,294.5	15,586.5	4,657.3	1,924.5	5,708.0	111.4	74.1
1994	19,987.0	13,984.9	3,955.2	1,436.9	6,002.2	91.2	57.9
1995	18,951.4	12,509.8	3,473.6	1,083.9	6,441.6	99.1	40.0
1996	18,054.5	11,277.5	2,578.8	1,380.9	6,776.9	119.9	48.2
1997	17,132.1	10,314.2	2,134.4	792.8	6,817.9	130.5	70.9
1998	16,264.1	9,487.3	1,753.9	697.5	6,776.8	140.4	61.9
1999	16,619.1	9,132.6	1,429.2	533.7	7,486.5	176.0	68.1
2000	16,625.0	8,657.9	1,178.6	478.6	7,967.1	145.9	67.7
2001	15,944.2	8,398.0	1,013.0	340.0	7,546.2	158.3	57.4
2002	15,571.5	7,742.0	855.5	427.8	7,829.5	176.0	50.9
2003	15,396.3	7,164.1	725.1	366.0	8,232.1	199.7	50.6
2004	14,629.1	6,404.8	573.6	268.8	8,224.3	154.0	51.4

[1] September 30 of year shown.

[2] Does not include association, Indian Tribe, or non program loans.

[3] Includes programs no longer active, such as guaranteed emergency loans.

[4] Principal and interest payments 30 or more days past due. Prior to 1988, a direct loan was considered delinquent when a payment was more than $10 and 15 days past due.

[5] Total loan losses net of recoveries and excluding losses on nonprograms loans and loans to associations and to Indian Tribes.

[6] Total loss settlements paid to lenders less loss recoveries, including guaranteed emergency loans.

NA = Not available.

Source: FSA report codes 616 and 4067, various issues, and unpublished FSA data.

Appendix table 9. Direct loan program outstanding principal and delinquent loan volume, by program area, 1976-2004.

	Farm Ownership[2]			Operating Loans[3]		
	Outstanding	Delinquent[4]		Outstanding	Delinquent[4]	
Year[1]	principal	Amount	Proportion	principal	Amount	Proportion
	----Million dollars---		Percent	---Million dollars---		Percent
1976	2,976.6	25.6	0.9	1,182.3	90.3	7.6
1977	3,246.3	30.2	0.9	1,306.7	106	8.1
1978	3,516.0	34.7	1.0	1,431.0	121.6	8.5
1979	4,024.0	34.3	0.9	1,602.6	136.8	8.5
1980	4,631.3	46.9	1.0	1,950.9	186.3	9.5
1981	5,245.3	71.1	1.4	2,134.1	249.6	11.7
1982	5,723.7	126.6	2.2	2,717.0	331.8	12.2
1983	6,199.8	198.5	3.2	3,475.4	454.9	13.1
1984	6,798.6	279.5	4.1	4,103.0	682.2	16.6
1985	7,450.0	344.2	4.6	6,157.9	821.2	13.3
1986	7,647.0	391.8	5.1	6,335.7	1,016.1	16.0
1987	7,403.8	444.4	6.0	5,876.2	1,111.5	18.9
1988	7,255.9	609.2	8.4	5,694.8	1,439.7	25.3
1989	7,003.3	622.4	8.9	5,225.6	1,347.9	25.8
1990	6,428.2	477.9	7.4	4,390.9	999.5	22.8
1991	6,022.4	433.6	7.2	3,843.4	923.3	24.0
1992	5,553.4	398.6	7.2	3,501.3	877.4	25.1
1993	5,155.7	349.8	6.8	3,092.2	744.3	24.1
1994	4,819.1	310.9	6.5	2,955.4	665.4	22.5
1995	4,547.9	294.0	6.5	2,691.1	632.1	23.5
1996	4,269.0	255.7	6.0	2,641.9	565.9	21.4
1997	4,024.4	222.1	5.5	2,572.9	512.0	19.9
1998	3,775.9	193.0	5.1	2,540.4	464.2	18.3
1999	3,576.7	173.7	4.9	2,699.0	415.2	15.4
2000	3,505.0	156.3	4.5	2,693.0	387.9	14.4
2001	3,436.6	140.9	4.1	2,924.1	367.7	12.6
2002	3,238.0	129.5	4.0	2,882.5	351.6	12.2
2003	3,032.0	115.5	3.8	2,862.6	315.9	11.0
2004	2,873.2	100.6	3.5	2,641.9	259.9	9.8

[1] September 30 of the year shown. [2] Excludes non farm enterprise loans.

[3] Excludes youth loans. [4] Past due principal and interest payments. Prior to 1988 active cases excluded borrowers in foreclosure, bankruptcy, or liquidation status. Prior to 1988 a loan was considered delinquent when a payment was more than $10 and 15 days past due. Beginning in 1988, a loan is delinquent if a payment is 30 or more days past due.

Source: Farm Service Agency, 616 report, various issues.

Appendix table 10. Guaranteed loan program outstanding principal and delinquent loan volume, by program area, 1982-2004.

	Farm Ownership			Operating Loans		
	Outstanding	Delinquent[2]		Outstanding	Delinquent[2]	
Year[1]	principal	Amount	Proportion	principal	Amount	Proportion
	----Million dollars---		Percent	---Million dollars---		Percent
1982	57.2	0.5	0.9	68.3	1.0	1.5
1983	66.7	0.9	1.3	86.6	1.0	1.2
1984	77.4	1.3	1.7	89.0	1.5	1.7
1985	121.6	1.8	1.5	410.5	1.9	0.5
1986	194.6	4.5	2.3	1,242.2	9.4	0.8
1987	324.8	6.8	2.1	1,880.3	16.9	0.9
1988	610.8	10.9	1.8	2,432.7	26.6	1.1
1989	772.3	13.5	1.7	2,370.8	32.9	1.4
1990	1,287.1	23.4	1.8	2,775.0	31.7	1.1
1991	1,520.3	15.1	1.0	2,941.2	34.7	1.2
1992	1,818.7	25.5	1.4	3,059.4	69.8	2.3
1993	2,095.0	26.0	1.2	2,913.7	67.0	2.3
1994	2,331.3	25.1	1.1	3,060.9	53.6	1.8
1995	2,592.6	26.3	1.0	3,320.9	62.5	1.9
1996	2,803.6	32.3	1.2	3,541.1	78.2	2.2
1997	2,984.9	35.1	1.2	3,507.9	86.9	2.5
1998	3,041.0	33.6	1.1	3,487.3	123.6	3.5
1999	3,231.1	48.3	1.5	4,090.0	101.7	2.5
2000	3,518.9	42.7	1.2	4,380.7	103.1	2.4
2001	3,871.3	46.3	1.2	3,850.5	115.7	3.0
2002	4,222.3	50.9	1.2	3,924.4	132.2	3.4
2003	4,718.3	58.8	1.2	4,005.5	152.9	3.8
2004	5,057.6	53.9	1.1	3,846.1	112.9	2.9

[1] September 30 of year shown.

[2] Payments of principal and accrued interest 30 or more days past due.

Source: Farm Service Agency, 4067 report, various issues.

Appendix table 11. Emergency loan program outstanding principal and delinquent loan volume, 1976 - 2004.

	Emergency Disaster			Economic Emergency		
	Outstanding	Delinquent[2]		Outstanding	Delinquent[2]	
Year[1]	principal	Amount	Proportion	principal	Amount	Proportion
	----Million dollars---		Percent	---Million dollars---		Percent
1976	953.6	28.5	3.0	NA	NA	NA
1977	2,729.5	63.6	2.3	NA	NA	NA
1978	4,505.3	98.7	2.2	NA	NA	NA
1979	6,415.6	189.8	3.0	NA	NA	NA
1980	7,454.2	407.8	5.5	4,487.2	73.8	1.6
1981	10,681.4	812.7	7.6	4,975.6	247.8	5.0
1982	10,713.3	1,696.5	15.8	4,623.5	519.5	11.2
1983	9,849.7	2,426.8	24.6	4,346.9	697.2	16.0
1984	10,019.7	3,239.3	32.3	4,313.4	849.8	19.7
1985	9,862.1	3,656.5	37.1	4,140.1	963.1	23.3
1986	9,373.4	3,798.0	40.5	3,860.1	1,026.9	26.6
1987	8,639.6	3,906.6	45.2	3,505.0	1,081.9	30.9
1988	8,413.5	4,801.6	57.1	3,376.3	1,408.6	41.7
1989	7,682.6	4,629.9	60.3	3,065.1	1,342.8	43.8
1990	6,057.3	3,605.8	59.5	2,405.9	1,009.7	42.0
1991	5,296.2	3,241.4	61.2	2,069.1	868.5	42.0
1992	4,526.2	2,763.4	61.1	1,747.1	729.7	41.8
1993	3,876.1	2,398.1	61.9	1,466.2	593.3	40.5
1994	3,435.1	1,914.8	55.7	1,244.5	492.5	39.6
1995	3,046.3	1,830.3	60.1	1,082.9	418.6	38.7
1996	2,615.8	1,250.5	47.8	919.4	327.1	35.6
1997	2,319.5	1,017.5	43.9	801.4	267.6	33.4
1998	2,039.7	804.2	39.4	685.1	215.5	31.5
1999	1,981.3	629.6	31.8	582.3	188.4	32.4
2000	1,875.2	490.7	26.2	496.4	132.6	26.7
2001	1,729.1	415.1	24.0	431.9	104.7	24.2
2002	1,508.1	319.7	21.2	360.5	82.8	23.0
2003	1,342.3	268.2	20.0	296.5	63.7	21.5
2004	1,130.5	207.9	18.4	236.3	48.5	20.5

NA = Not applicable or not available.

[1] September 30 of the year shown. [2] Prior to 1988 active cases excluded borrowers in foreclosure, bankruptcy, or liquidation status. Active cases do not include loans made to to associations or non-program loans. [3] Past due principal and interest payments. Prior to 1988, a loan was considered delinquent when a payment was more than $10 and 15 days past due. Beginning in 1988, a loan is delinquent if a payment is 30 or more days past due.
Source: Farm Service Agency, 616 report, various issues.

Appendix table 12. Farm loan program write-offs and loss settlements, by program area, fiscal 1976-2004.

Fiscal year	Farm Ownership		Operating Loans		Emergency Loans		
	Direct[1]	Guaranteed[2]	Direct[1]	Guaranteed[2]	Direct[1]	Economic[1]	Total
	----Million dollars----						
1976	1.0	0	9.4	0.2	2.1	NA	12.7
1977	0.7	0	10.6	0.2	1.7	NA	13.2
1978	0.5	0	8.6	0.2	1.0	NA	10.3
1979	0.5	0	10.0	0.1	2.1	NA	12.7
1980	0.3	0	8.7	0.1	2.7	0.1	11.9
1981	0.2	0	4.7	0.5	0.3	0.2	5.9
1982	0.9	0.1	13.7	1.1	7.1	1.9	24.8
1983	1.1	0.1	17.2	2.6	9.9	7.4	38.3
1984	2.7	0.4	22.4	3.0	18.2	10.9	57.6
1985	8.6	3.3	37.4	4.4	64.7	34.9	153.3
1986	25.3	8.2	69.5	18.6	109.7	62.9	294.2
1987	115.8	12.5	208.8	40.9	370.9	232.6	981.5
1988	219.3	15.0	349.3	50.5	808.0	370.5	1,812.6
1989	320.0	12.0	798.0	39.6	1,424.4	514.5	3,108.5
1990	432.5	11.3	408.4	37.2	1,398.6	641.6	2,929.6
1991	267.8	9.4	360.8	38.2	927.6	359.4	1,963.2
1992	250.4	1.4	328.8	47.6	868.1	340.3	1,836.6
1993	244.4	9.9	361.7	51.1	735.3	297.1	1,699.5
1994	177.2	9.0	259.7	40.9	617.8	215.3	1,319.9
1995	136.9	6.8	205.9	29.6	469.7	157.6	1,006.5
1996	187.7	5.5	113.3	39.5	823.8	152.6	1,322.4
1997	89.1	6.8	145.7	61.2	396.0	104.6	803.4
1998	72.0	7.7	144.4	51.8	357.1	88.1	721.1
1999	63.9	9.7	146.7	58.1	229.4	73.4	581.2
2000	49.5	12.8	116.0	56.0	247.9	56.9	539.1
2001	45.5	13.9	108.6	48.5	135.1	53.0	404.6
2002	50.0	12.2	129.7	43.4	214.6	46.3	496.2
2003	46.0	12.3	128.0	46.6	162.5	45.7	441.1
2004	39.1	15.5	126.8	40.6	92.9	30.2	345.1
Total	2,848.9	195.8	4,652.8	852.3	10,499.2	3,898.0	22,947.0

NA = Not applicable.

[1]Gross Write-offs and losses on loans.

[2]Gross loss settlements directly to lenders and to holders of purchased guaranteed loans. Values for 2003-04 are net of debt offsets.

Source: Farm Service Agency budget documents.

Appendix table 13. Farm loan program write-offs and loss settlements, by program area, in constant dollars, fiscal 1976-2004.[1]

Fiscal year	Farm Ownership		Operating Loans		Emergency Loans		Total
	Direct[2]	Guaranteed[3]	Direct[2]	Guaranteed[3]	Disaster[2]	Economic[2]	
	----Million 2004 dollars----						
1976	2.7	0	25.3	0.5	5.7	NA	34.2
1977	1.8	0	26.8	0.5	4.3	NA	33.4
1978	1.2	0	20.4	0.5	2.4	NA	24.4
1979	1.1	0	21.9	0.2	4.6	NA	27.8
1980	0.6	0	17.4	0.2	5.4	0.2	23.8
1981	0.4	0	8.6	0.9	0.5	0.4	10.8
1982	1.6	0.2	23.7	1.9	12.3	3.3	42.8
1983	1.8	0.2	28.6	4.3	16.4	12.3	63.6
1984	4.3	0.6	35.9	4.8	29.1	17.4	92.2
1985	13.4	5.1	58.1	6.8	100.5	54.2	238.1
1986	38.5	12.5	105.6	28.3	166.7	95.6	447.1
1987	171.3	18.5	308.9	60.5	548.7	344.1	1,452.0
1988	313.7	21.5	499.7	72.2	1,155.9	530.0	2,593.1
1989	441.1	16.5	1,100.0	54.6	1,963.5	709.2	4,285.0
1990	574.0	15.0	542.0	49.4	1,856.2	851.5	3,888.2
1991	343.4	12.1	462.7	49.0	1,189.5	460.9	2,517.5
1992	313.9	1.8	412.2	59.7	1,088.2	426.6	2,302.3
1993	299.4	12.1	443.2	62.6	900.9	364.0	2,082.3
1994	212.6	10.8	311.6	49.1	741.2	258.3	1,583.5
1995	161.0	8.0	242.1	34.8	552.2	185.3	1,183.3
1996	216.6	6.3	130.7	45.6	950.5	176.1	1,525.8
1997	101.1	7.7	165.4	69.5	449.4	118.7	911.8
1998	80.8	8.6	162.1	58.1	400.8	98.9	809.4
1999	70.7	10.7	162.3	64.3	253.8	81.2	643.1
2000	53.6	13.9	125.6	60.6	268.4	61.6	583.8
2001	48.1	14.7	114.8	51.3	142.9	56.0	427.9
2002	52.0	12.7	134.9	45.1	223.2	48.2	516.2
2003	47.0	12.6	130.8	47.6	166.0	46.7	450.6
2004	39.1	15.5	126.8	40.6	92.9	30.2	345.1
Total	3,606.7	237.5	5,947.9	1,023.6	13,292.4	5,031.0	29,139.1

[1] GDP Implicit deflator,100=2004.

[2] Gross Write-offs and losses on loans.

[3] Gross Loss settlements directly to lenders and to holders of purchased guaranteed loans.

Source: Farm Service Agency budget documents.

Appendix table 14. Annual farm loan loss rates, by major program areas, fiscal 1976-2004

Fiscal year	Farm Ownership		Operating Loans		Emergency Loans	
	Direct[1]	Guaranteed[2]	Direct[1]	Guaranteed[2]	Disaster[1]	Economic[2]
	Percent					
1976	0.03	--	0.80	--	0.22	NA
1977	0.02	--	0.90	--	0.18	NA
1978	0.02	--	0.66	--	0.04	NA
1979	0.01	--	0.70	--	0.05	NA
1980	0.01	--	0.54	--	0.04	0.00
1981	0.00	--	0.24	--	0.00	0.00
1982	0.02	0.17	0.64	1.61	0.07	0.04
1983	0.02	0.17	0.63	3.81	0.09	0.16
1984	0.04	0.60	0.64	3.46	0.18	0.25
1985	0.13	4.26	0.91	4.94	0.65	0.81
1986	0.34	6.74	1.13	4.53	1.11	1.52
1987	1.51	6.42	3.30	3.29	3.96	6.03
1988	2.96	4.62	5.94	2.69	9.35	10.57
1989	4.41	1.96	14.01	1.63	16.93	15.24
1990	6.18	1.46	7.82	1.57	18.20	20.93
1991	4.17	0.73	8.22	1.38	15.31	14.94
1992	4.16	0.09	8.55	1.62	16.39	16.45
1993	6.51	0.54	6.98	1.67	16.25	17.01
1994	5.04	0.43	5.73	1.40	15.94	14.68
1995	4.27	0.29	4.63	0.97	13.67	12.66
1996	4.13	0.21	4.21	1.19	27.04	14.09
1997	2.09	0.24	5.51	1.73	15.14	11.38
1998	1.79	0.26	5.61	1.48	15.40	10.99
1999	1.69	0.32	5.77	1.67	11.25	10.71
2000	1.38	0.26	4.30	1.23	12.51	9.77
2001	1.30	0.40	4.03	1.11	7.20	10.68
2002	1.45	0.32	4.44	1.13	12.41	10.72
2003	1.42	0.29	4.44	1.19	10.78	12.68
2004	1.29	0.33	4.43	1.01	6.92	10.19
Average3/	1.94	1.35	3.99	2.01	8.53	9.30

-- = insufficient data for calculation. NA = Not Applicable.

[1] Gross loan write-offs and losses as a share of principal balance outstanding at the beginning of the year.

[2] Gross loss settlements as a share of principal balance outstanding at the beginning of the year.

[3] Unweighted average annual loss rate.

Source: Farm Service Agency budget documents.

Appendix table 15. Averge new loan size, in constant dollars, fiscal 1970-2004.[1]

Fiscal year	Farm Ownership		Operating Loans		Emergency Disaster
	Direct	Guaranteed	Direct	Guaranteed	Direct
			---2004 dollars---		
1970	89,499	NA	23,181	NA	27,525
1971	91,770	NA	24,420	NA	24,140
1972	92,845	NA	27,614	NA	30,123
1973	89,569	NA	30,322	NA	14,739
1974	91,456	153,075	29,801	89,207	17,833
1975	94,469	134,114	31,236	79,600	46,976
1976	103,046	111,456	32,655	71,683	75,899
1977	102,721	139,836	33,738	69,186	83,308
1978	108,481	162,997	37,321	77,790	90,602
1979	131,758	266,122	50,926	158,517	99,715
1980	145,911	220,602	53,476	137,438	83,506
1981	124,590	205,286	51,084	133,838	67,372
1982	111,478	162,372	46,833	148,829	87,536
1983	120,096	302,429	49,904	172,013	107,152
1984	124,781	254,522	52,990	184,845	48,096
1985	136,501	232,917	73,089	177,375	54,231
1986	139,991	230,697	67,681	140,673	59,272
1987	123,833	224,590	59,843	134,829	65,965
1988	124,896	212,642	55,545	129,596	77,185
1989	111,657	196,596	57,513	122,875	36,104
1990	111,859	192,923	58,628	121,167	51,638
1991	114,309	186,813	58,829	123,982	88,388
1992	114,465	194,209	51,904	126,532	58,595
1993	109,734	199,735	50,819	126,911	81,138
1994	92,265	195,041	49,627	126,839	45,831
1995	74,608	190,847	48,056	126,718	53,023
1996	91,954	197,431	50,318	132,655	67,544
1997	94,677	197,754	49,004	133,117	66,035
1998	96,488	198,820	48,146	139,050	69,801
1999	113,253	243,834	53,638	161,423	91,829
2000	121,024	271,173	51,298	170,453	66,675
2001	117,355	274,522	50,684	170,241	56,700
2002	121,724	293,339	48,951	170,370	63,148
2003	118,518	299,593	47,761	166,360	66,099
2004	115,964	292,846	44,313	167,035	45,410
Average[2]	110,501	214,166	47,176	135,198	61,975

NA = Not applicable.

[1]GDP deflator, 2004 = 100.

[2]Unweighted annual average loan size.

Sources: Farm Service Agency, 205 Report, various issues, Farmers Home Administration Report for Fiscal 1990.

Appendix table 16. Direct loan Limited Resource obligations, fiscal 1981-2004.[1]

Fiscal year	Direct Farm Ownership			Direct Operating Loan		
	Limited Resource Rate			Limited Resource Rate		
	Loans	Volume	Share of total volume	Loans	Volume	Share of total volume
	Number	Dollars (000)	Percent	Number	Dollars (000)	Percent
1981	2,430	197,485	24.8	6,592	189,160	23.0
1982	1,837	150,409	22.9	5,731	143,681	11.9
1983	1,964	168,296	23.1	7,711	192,909	11.4
1984	2,705	240,188	36.4	14,627	432,798	22.1
1985	4,324	404,584	62.1	49,515	2,311,999	64.2
1986	2,921	285,623	76.9	36,370	1,603,668	72.8
1987	618	54,578	72.8	20,380	820,451	63.2
1988	980	85,518	74.4	15,131	568,447	63.2
1989	851	72,251	76.1	12,890	520,402	60.8
1990	661	58,264	72.8	9,924	439,276	59.9
1991	456	41,796	73.1	5,971	269,913	55.1
1992	467	44,519	66.8	6,486	287,787	50.4
1993	419	40,185	60.1	4,362	191,846	35.2
1994	634	45,864	55.9	3,477	152,708	23.5
1995	697	41,633	73.1	4,329	200,967	45.9
1996	835	61,735	69.2	5,055	245,491	43.3
1997	755	60,218	71.5	4,725	233,049	45.2
1998	620	48,094	57.2	4,477	233,448	41.9
1999	657	59,640	35.0	1,869	103,634	13.1
2000	899	101,414	43.5	5,005	289,030	43.5
2001	535	57,840	35.4	3,518	192,675	27.9
2002	413	47,063	26.5	237	10,987	1.6
2003	285	29,695	17.6	0.0	0.0	0.0
2004	209	21,141	14.8	0.0	0.0	0.0
Total[2]	27,172	2,418,033	41.2	228,382	9,634,326	40.6

[1] Obligations are the dollar amounts of funds loaned.

[2] Includes obligations during the 1976 transition quarter.

Sources: Farm Service Agency Report Code 205B, various issues.

Appendix table 17. Guaranteed loan Interest Assistance obligations, fiscal 1991-2004.

Fiscal year	Loans	Obligation Volume[1]	Share of total operating loan obligation volume made with IA
	Number	Dollars (000)	Percent
1991	1,683	176,388	17.0
1992	1,452	151,213	13.6
1993	1,244	138,925	13.7
1994	2,009	230,610	17.7
1995	1,623	188,673	13.7
1996	1,572	190,790	14.5
1997	1,641	216,183	20.7
1998	1,898	257,213	25.4
1999	3,490	525,508	29.6
2000	4,643	802,063	44.5
2001	2,696	464,408	31.8
2002	2,729	496,407	32.0
2003	2,213	418,379	29.2
2004	1,339	271,217	22.2
Total	30,232	4,527,977	24.5

[1] Obligations are the dollar amounts of guaranteed operating loans made with interest rate assistance (IA).

Sources: Farm Service Agency Report Code 205B, various issues.

Appendix table 18. Farm loan size caps,1970-2004.

Effective date of change	Farm Ownership		Operating Loans		Emgergency Disaster
	Direct	Guaranteed	Direct	Guaranteed	
			----Dollars----		
1970	100,000		35,000		
August 20, 1972		100,000	50,000	50,000	
August 4, 1978	200,000	300,000	100,000	200,000	
October 13, 1980					300,000/500,000 [1]
April 10, 1984			200,000	400,000	
April 4, 1996					500,000 [2]
October 21, 1998		700,000 [3]		700,000 [3]	
May 13, 2002	200,000 [4]				

[1] Borrowers able to obtain credit elsewhere had a $300,000 limit per actual loss incurred from the disaster and borrowers unable to get credit elsewhere could borrow up to $500,000 per disaster. A phase in period allowed borrowers unable to obtain credit elsewhere to obtain credit elsewhere to qualify for loans up to $1.5 million for fiscal 1980 and $1.0 million for fiscal 1980.

[2] The $500,000 cap applied to total program indebtedness of the applicant, instead individual disaster declaration of applying to each.

[3] Cap is adjusted annually beginning in fiscal 2000 if the "Prices Paid by Farmers Index" as compiled by the National Agricultural Statistics Service for the 12 month period ending in August of each year exceeds the value for the 12-month period ending August 31, 1996. Combined indebtedness under the guaranteed Operating Loan and Farm Ownership programs can not exceed $700,000 or the inflation adjusted value, whichever is greater.

[4] Downpayment Farm Ownership Program loan cap rose from $75,000 to $100,000.

Appendix table 19. Original loan program subsidy rates, fiscal 1992-2004[1].

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	Average[2]
							Percent							
Direct programs:														
Farm ownership	22.64	8.5	9.81	23.31	19.04	21.03	13.04	14.97	3.77	10.77	2.63	11.61	22.08 #	14.09
Operating loan	15.71	12.75	12.36	12.63	12.98	12.59	6.57	6.83	5.86	9.02	8.93	17.25	14.25	11.36
Emergency	20.26	24.27	28.00	31.90	29.34	30.41	24.03	23.60	15.53	24.53	13.45	20.39	13.83	23.04
Total[3]	16.84	13.33	14.72	16.06	17.10	17.01	9.61	12.20	6.79	10.80	8.00	16.57	15.66	13.44
Guaranteed programs:														
Farm ownership	4.89	4.58	3.82	3.71	3.74	3.69	3.86	1.59	0.56	0.51	0.45	0.75	0.54	2.51
Operating-Unsubsidized	1.55	1.31	0.48	0.49	1.11	1.10	1.17	1.16	1.41	1.37	3.51	3.17	3.33	1.63
Operating-Subsidized	7.82	9.12	11.95	12.47	9.12	9.08	9.64	8.74	8.81	8.16	13.56	11.80	12.77	10.23
Operating loan total[3]	2.41	2.38	2.51	2.13	2.27	2.75	3.32	3.40	4.71	3.53	6.73	5.69	5.42	3.64
Guarantee total[3]	3.13	3.06	2.90	2.59	2.70	3.07	3.48	2.85	3.35	2.42	4.12	3.41	3.11	3.09

[1] Loan subsidy estimates for year of obligation.

[2] Unweighted averages.

[3] Weighted averages.

Original calculation was an error.

Source: Supplementary Tables for Credit Programs, Federal Budget of the United States for Fiscal 2006.

Appendix table 20. Fiscal 2006 re-estimated loan program subsidy rates, fiscal 1992-2004.[1]

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	Average[2]
							Percent							
Direct programs:														
Farm ownership[3]	23.37	15.82	15.02	11.40	9.87	9.34	5.79	8.66	7.25	1.60	-2.31	-5.18		8.39
Operating loan	7.80	7.29	11.73	16.52	12.77	13.28	13.05	12.34	14.98	11.91	11.95	9.76	9.11	11.73
Emergency	19.86	24.55	16.68	24.41	21.30	23.08	18.73	20.64	17.60	10.14	9.23	-7.66	10.42	16.08
Total[4]	10.53	9.65	12.86	16.97	14.27	14.74	12.97	13.98	13.64	9.96	9.03	5.37	7.50	11.65
Guaranteed programs:														
Farm ownership	0.32	0.17	0.36	0.72	0.63	0.36	0.62	0.32	0.23	0.32	0.40	0.53	0.65	0.43
Operating-Unsubsidized	2.20	2.44	3.17	3.62	3.24	2.93	3.01	2.07	2.86	2.62	3.11	3.09	3.10	2.88
Operating-Subsidized	10.90	12.08	12.46	12.49	12.48	12.88	12.84	12.44	11.98	12.69	13.47	14.30	12.70	12.59
Operating total[4]	3.39	3.76	4.82	4.83	4.58	4.99	5.51	5.14	6.92	5.82	6.43	6.37	5.23	5.21
Total[4]	2.50	2.66	3.50	3.65	3.44	3.43	4.06	3.68	4.74	3.79	3.92	3.67	3.06	3.55

[1] Current estimate of subsidy rates as of February 2005.

[2] Unweighted averages.

[3] Value for fiscal 2004 was unavailable.

[4] Weighted averages.

Source: Supplementary Tables for Credit Programs, Federal Budget of the United States for Fiscal 2006.

Appendix table 21. Average budgetary loan subsidy cost per loan obligated, fiscal 1992 - 2004.

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	All years
	Dollar amount of loan subsidy cost per obligated loan[1]													
Direct programs:														
Farm ownership	25,336	18,410	10,599	4,698	4,033	3,221	1,679	5,924	5,440	-773	-3,741	-165	25,173	6,400
Operating loan	1,739	1,556	3,635	6,819	5,320	5,260	5,406	5,280	6,559	5,261	5,312	4,400	4,111	4,631
Emergency	7,597	15,186	5,244	9,770	10,731	11,812	10,191	16,308	9,954	4,746	5,260	-5,946	4,531	8,992
Total	3,390	3,223	4,293	7,017	6,189	6,183	5,655	7,328	6,882	4,705	4,504	3,160	5,782	5,675
Guaranteed programs:														
Farm ownership	-1,269	-1,350	-1,177	-216	-60	-190	694	470	337	708	1,068	1,474	1,759	253
Operating-Unsubsidized	2,357	2,967	3,787	4,700	4,247	3,580	3,726	2,712	4,057	3,935	4,743	4,658	4,962	3,834
Operating-Subsidized	12,368	14,686	15,666	15,939	15,695	17,610	17,491	18,495	20,357	21,899	24,274	26,737	25,237	19,533
Total	2,641	3,182	4,253	4,780	4,557	4,548	5,513	5,721	8,258	6,994	7,657	7,391	6,328	5,874

[1] Net lifetime budgetary subsidy estimate of annual obligation costs, as of February 2005.
Source: Federal Budget of the United States and FSA data, various years.

Appendix table 22. Annual loan program budgetary loan subsidy costs, fiscal 1992-2004.

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	Total
Direct loan programs								Dollars (000)						
Farm Ownership:														
Subsidy cost[1]	14,854	5,621	7,869	12,828	16,556	16,515	10,508	23,989	8,515	17,241	4,551	18,923	30,912	188,882
Subsidy reestimate cost[2,3]	3,641	8,113	3,429	-8,614	-12,039	-13,265	-8,866	-14,119	2,828	-18,379	-10,237	-19,163		-86,671
Total subsidy cost	18,495	13,734	11,298	4,214	4,517	3,250	1,642	9,870	11,343	-1,138	-5,686	-240	30,912	102,211
Operating loans:														
Subsidy cost[1]	88,211	68,597	79,520	54,716	72,775	64,249	36,339	53,305	38,797	61,802	59,118	117,810	85,500	880,740
Subsidy reestimate cost[2]	-64,246	-48,147	-22,315	18,330	-3,652	-1,425	33,880	32,581	53,168	13,958	18,551	-52,886	-28,953	-51,156
Total subsidy cost	23,965	20,450	57,205	73,046	69,123	62,824	70,219	85,886	91,965	75,760	77,669	64,924	56,547	829,584
Emergency Disaster:														
Subsidy cost[1]	14,963	14,062	40,373	21,333	50,724	43,420	22,982	72,797	23,186	21,898	7,772	19,276	3,872	356,658
Subsidy reestimate cost[2]	-2,793	-622	-20,369	-6,424	-18,369	-14,007	-6,993	-8,053	1,200	-13,929	-2,780	-28,070	-900	-122,109
Total subsidy cost	12,170	13,440	20,004	14,909	32,355	29,413	15,989	64,744	24,386	7,969	4,992	-8,794	2,972	234,549
All direct programs:														
Subsidy cost[1]	118,028	88,279	127,763	88,877	140,055	124,184	69,830	150,090	70,498	100,941	71,441	156,009	120,284	1,426,280
Subsidy reestimate cost[2]	-63,398	-40,656	-39,255	3,292	-34,060	-28,697	18,021	10,409	57,196	-18,350	5,534	-100,119	-29,853	-259,936
Total subsidy cost	54,630	47,623	88,508	92,169	105,995	95,487	87,851	160,499	127,694	82,591	76,975	55,890	90,431	1,166,344
Guaranteed loan programs														
Farm Ownership:														
Subsidy cost[1]	21,557	19,992	20,326	20,166	19,504	18,966	16,048	11,919	4,760	4,252	4,808	8,888	5,724	176,912
Subsidy reestimate cost[2]	-25,262	-23,709	-24,258	-20,909	-19,692	-19,543	-14,385	-10,268	-3,585	-1,929	-637	-2,700	878	-165,999
Total subsidy cost	-3,705	-3,717	-3,932	-743	-188	-577	1,663	1,651	1,175	2,323	4,171	6,188	6,602	10,913
Operating loans - Unsubsidized:														
Subsidy cost[1]	14,631	11,290	5,062	5,737	12,251	8,908	8,659	14,246	13,846	13,531	36,385	31,527	31,635	207,709
Subsidy reestimate cost[2]	7,821	14,045	33,900	46,737	29,676	17,111	14,677	9,310	13,725	11,609	-4,453	-894	-1,965	191,299
Total subsidy cost	22,452	25,335	38,962	52,474	41,927	26,019	23,336	23,556	27,571	25,140	31,932	30,633	29,670	399,008
Operating loans - Subsidized:														
Subsidy cost[1]	11,702	12,546	27,584	23,512	17,299	19,465	24,675	45,561	70,018	37,807	66,725	48,519	33,968	439,381
Subsidy reestimate cost[2]	6,256	5,723	3,889	2,357	7,373	9,433	8,523	18,985	24,499	21,234	-481	10,650	-176	118,265
Total subsidy cost	17,958	18,269	31,473	25,869	24,672	28,898	33,198	64,546	94,517	59,041	66,244	59,169	33,792	557,646
All guarantee programs:														
Subsidy cost[1]	47,890	43,828	52,972	49,416	49,054	47,338	49,383	71,726	88,624	55,590	107,918	88,935	71,327	824,002
Subsidy reestimate cost[2]	-11,185	-3,941	13,531	28,185	17,357	7,001	8,815	18,027	34,639	30,914	-5,571	7,056	-1,263	143,565
Total subsidy cost	36,705	39,887	66,503	77,601	66,411	54,339	58,198	89,753	123,263	86,504	102,347	95,991	70,064	967,567

[1] The budgetary subsidy cost of loans disbursed for year of obligation.

[2] Total net cumulative reestimates, including interest on resestimates as of February 2005.

[3] Value for fiscal 2004 was not calculated.

Source: Federal Budget of the United States for Fiscal 2006, Supplementary Tables for Credit Programs.

Appendix table 23. Estimates of annual farm loan program costs, fiscal 1992-2004.

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	Total
							Dollars (000)							
Direct Programs:														
Loan subsidy cost[1]	54,630	47,623	88,508	92,169	105,995	95,487	87,851	160,499	127,694	82,591	76,975	55,890	90,431	1,166,344
Guaranteed Programs:														
Loan subsidy cost[2]	36,705	39,887	66,503	77,601	66,411	54,339	58,198	89,753	123,263	86,504	102,347	95,991	70,064	967,567
Combined Program Areas:														
Loan subsidy cost	91,335	87,511	155,011	169,770	172,406	149,826	146,048	250,253	250,957	169,094	179,323	151,881	160,496	2,133,911
Administrative costs[3]	209,000	227,000	273,000	243,000	217,000	220,000	220,000	220,000	219,000	269,000	280,000	284,000	286,000	3,167,000
Total costs	300,335	314,511	428,011	412,770	389,406	369,826	366,048	470,253	469,957	438,094	459,323	435,881	446,496	5,300,911

[1] Net lifetime budgetary subsidy estimate of annual obligation costs, as of February 2005, for operating, farm ownership, and emergency loan programs.

[2] Net lifetime budgetary subsidy estimate of annual obligation costs, as of February 2005, for operating and farm ownerhship loan programs.

[3] Funds transferred to FSA to cover administrative expense outlays necessary to deliver the farm loan programs.

Source: Federal Budget of the United States, various years.

Appendix table 24. Detailed estimates of annual direct and guaranteed loan program costs, fiscal 2000-2004.

	2000	2001	2002	2003	2004	Total
			Dollars (Millions)			
Direct Programs:						
Loan subsidy cost[1]	128	83	77	56	90	434
Administrative cost allocation[2]	180	218	218	210	199	1,025
Total cost	307	301	295	265	290	1,459
Guaranteed Programs:						
Loan subsidy cost[3]	123	87	102	96	70	478
Administrative cost allocation[4]	39	51	62	74	87	313
Total cost	163	137	164	170	157	791
Combined Program Areas:						
Loan subsidy cost	251	169	179	152	160	912
Administrative costs	219	269	280	284	286	1,338
Total cost	470	438	459	436	446	2,250

[1] Net lifetime budgetary subsidy estimate of annual obligation costs, as of February 2005, for operating, farm ownership, and emergency loan programs.
[2] Estimated share of total administrative costs needed to administer direct loan programs.
[3] Net lifetime budgetary subsidy estimate of annual obligation costs, as of February 2005, for operating and farm ownership loan programs.
[4] Estimated share of total administrative costs needed to administer guaranteed loan programs.
Source: Federal Budget of the United States, various years.