

August 2003

Report of the Commission on the Application of Payment Limitations for Agriculture

**Submitted in Response to Section 1605,
Farm Security and Rural Investment Act of 2002**



*Report of the Commission on the Application of Payment Limitations for Agriculture,
Submitted in Response to Section 1605, Farm Security and Rural Investment Act of 2002.*
Prepared by the Commission on the Application of Payment Limitations for Agriculture.
August 2003. Published by the Office of the Chief Economist, U.S. Department of
Agriculture. Washington, D.C. August 2003. 168 pp.

This report is available in electronic form at <http://www.usda.gov/oc>.

Preface

The Commission on the Application of Payment Limitations for Agriculture (Commission) was established by the Farm Security and Rural Investment Act of 2002 (2002 Act). The purpose of the Commission was to conduct a study on the potential impacts of further payment limitations on direct payments, counter-cyclical payments, and marketing assistance loan benefits on farm income, land values, rural communities, agribusiness infrastructure, planting decisions of producers affected, and supply and prices of covered and other agricultural commodities.

The 2002 Act directed the Commission to prepare a report containing the results of the study, including such recommendations as the Commission considers appropriate. This report has been submitted in fulfillment of the 2002 Act to the President, the Committee on Agriculture of the House of Representatives, and the Committee on Agriculture, Nutrition, and Forestry of the Senate.

The Commission consists of three members appointed by the Secretary of Agriculture: Alice Devine, Vice President and General Counsel, Kansas Livestock Association, Kansas; Dr. Edward Smith, Associate Director, Agricultural and Natural Resource Sciences, Texas Cooperative Extension, Texas A&M University System; and William Spight, producer, Mississippi; three members appointed by the Committee on Agriculture, Nutrition, and Forestry of the Senate: Terry Ferguson, producer, Illinois; Ellen Linderman, producer, North Dakota; and Dr. Neil Harl, Charles F. Curtiss Distinguished Professor in Agriculture and Professor of Economics, Iowa State University; three members appointed by the Committee on Agriculture of the House of Representatives: Gary Black, President, Georgia Agribusiness Council; Gary Dyer, President and Chief Executive Officer, Farm Credit Services Southwest, Arizona; and Richard Newman, producer, Texas; and the Chief Economist of the Department of Agriculture, Dr. Keith Collins.

Shortly after the appointment of all members and the Commission Chair, the Commission held its first meeting in late January 2003. The Commission met nine times since then, with the final meeting in August 2003. Written comments were solicited from the public during March 2003 on the effects of further payment limitations, and the Commission received 375 comments. Copies of the comments are available from John Jinkins, Farm Service Agency, USDA, Washington D.C. The Commission held a public workshop on June 17, 2003, in Washington, D.C., where invited experts presented analyses of the effects of further payment limitations, and the public provided written and oral comments. Copies of the papers presented by the invited experts at the workshop and a transcript of the workshop are available from John Jinkins. The Commission also invited a variety of experts to provide information to the Commission during its meetings.

The Commission extends special acknowledgement to the following individuals for their contributions to the Commission's efforts:

Dr. John Jinkins, Farm Service Agency, USDA, and Dr. Larry Salathe, Office of the Chief Economist, USDA. These two individuals served as the principal staff to the Commission, and their exceptional efforts are greatly appreciated.

Staff of the Farm Service Agency for analytical assistance, including James Little, Jim Baxa, Sandy Bryant, Kimberly Graham, Dr. Terry Hickenbotham, Brad Karmen, Dan McGlynn, and Tracey Smith.

Staff of the Farm Service Agency for administrative support, including Patty Moore, Sally Reed, Lynda Smythe, Marlene Thompson, and John Williams.

Staff of the Office of Inspector General, USDA, for analytical assistance, including Thomas Carlson and Melinda Wenzl.

Staff of the Economic Research Service, USDA, for analytical assistance, including Dr. Susan Offutt, Dr. Charles Barnard, Dr. Steve Crutchfield, Linda Ghelfi, Dr. Jeffrey Hopkins, Dr. David McGranahan, Dr. Mitchell Morehart, Dr. Stephen Vogel, and Paul Westcott.

Tom Sell, USDA and formerly of the staff of the House Committee on Agriculture, and Terry Van Doren of Senator Fitzgerald's staff for background on the statutory charge to the Commission.

Shirley Brown, Office of the Chief Economist, who provided administrative support to the Commission; and Raymond Bridge, Office of the Chief Economist, and the USDA Office of Communications, for assistance in publishing this report.

Invited presenters at the June 17 Workshop included: Dr. Daniel Sumner, Professor and Frank H. Buck, Jr. Chair in Agricultural Business, University of California, Davis, and Director of the Agricultural Issues Center, University of California; Dr. Bruce Gardner, Distinguished University Professor, University of Maryland; Dr. Daryll Ray, Professor and Blasingame Chair of Excellence and Director of the Agricultural Policy Analysis Center, University of Tennessee; Dr. Pat Westhoff, Food and Agricultural Policy Institute, University of Missouri; Dr. Jim Richardson, Professor, Food and Agricultural Policy Research Institute, Texas A&M University System; Dr. Mark Lange, President, National Cotton Council; Roger Johnson, Commissioner of Agriculture, North Dakota; David Stanford, Vice President, Plains Cotton Cooperative; and Richard Bell, President and Chief Executive Officer, Riceland Foods, Inc.

The Commission is also greatly indebted to the many people who made the effort to provide written and oral comments to the Commission.

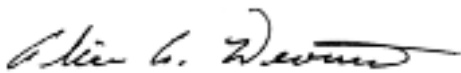
Completed this 30th day of August, 2003:




Gary W. Black
Georgia



Keith Collins, Chair
Washington, D.C.



Alice A. Devine
Kansas



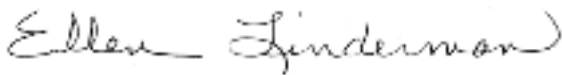
Gary R. Dyer
Arizona



Terry Ferguson
Illinois



Neil E. Harl
Iowa



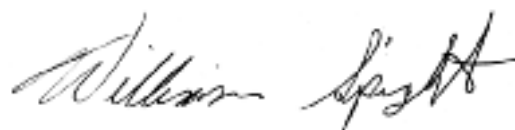
Ellen Linderman
North Dakota



Richard O. Newman
Texas



Edward G. Smith
Texas



William M. Spight
Mississippi

Contents

Report Summary and Recommendations	1
Report Summary	1
Recommendations	9
<hr/>	
Chapter 1: Overview of Payments and Payment Limitations	17
Farm Program and Payment Limit Policy Goals	17
Farm Programs Considered by the Commission	20
The Development of Payment Limits Through 2001	26
Payment Limits on the Programs Considered by the Commission	27
Off-Farm Income and Eligibility for Programs Considered by the Commission ...	27
Conclusions	28
<hr/>	
Chapter 2: Administering Payment Eligibility and Limit Rules	31
Farm Business Organization and “Person” Determination	31
Ownership Shares and Person Determination	33
Three-Entity Rule	34
Actively Engaged in Farming	35
Review of Payment Limit Determinations	37
Conclusions	38
<hr/>	
Chapter 3: Level and Distribution of Payments	41
Farm Service Agency Data on Payments	41
Economic Research Service Data on Payments	53
Conclusions	61
<hr/>	
Chapter 4: General Effects of Current Payment Limitations	65
Total Reduction in Payments	65
Reduction in Payments by Commodity	67
Reduction in Payments by State	73
Farm Structure	75
Land Values, Rural Communities, Agribusiness Infrastructure, Planting Decisions, and Supply and Prices of Covered Commodities	78
Administrative Costs	78
Commodity Certificate Exchanges	80
Conclusions	85
References	87

Chapter 5: Effects of Further Payment Limitations **89**

Effects of Further Payment Limitations on Farm Income	89
Conclusions	101
References	103
Effects of Further Payment Limitations on Farmland Values	104
Conclusions	111
References	113
Effects of Further Payment Limitations on Rural Communities and Agribusiness Infrastructure	114
Conclusions	121
References	122
Effects of Further Payment Limitations on Planting Decisions and the Supply and Prices of Crops	123
Conclusions	128
References	130

Appendix A: Supplemental Tables for Chapter 3 **131**

Appendix B: Supplemental Tables for Chapter 4 **136**

Appendix C: Supplemental Tables for Chapter 5 **155**

List of Figures and Tables **159**

Report Summary

Many objectives of farm program payments have been advanced over time, ranging from ensuring an abundant and affordable supply of food and other farm products, to conserving natural resources, to supporting the family farm. The justifications for payment limits and their implementation depend on the objectives of the payments and the effects of the limits on achieving those objectives. Payment limits are an increasing public issue today. Opinions on the objectives of farm programs are very diverse. The Federal budget deficit is record large. Although payments have declined recently, the cost of farm programs may again rise, if favorable weather increases production. This report assesses the effects of existing and further payment limitations, with the hope that the report will contribute to the continuing discussion of payment limitations for agriculture.

The Three Types of Program Payments Are Interrelated and Have Contrasting Purposes

The Commission was directed to consider three types of government payments for the program crops: food grains, feed grains, upland cotton, and oilseeds. Direct payments provide general income support through a fixed payment dependent on producers' historical acreages and yields. Counter-cyclical payments also depend on historical acreages and yields but vary depending on the level of prices. Benefits from the marketing assistance loan program are linked to current market conditions, depending on both current production and prices, with benefits increasing as production rises and prices decline. The marketing assistance loan program offers producers four possible types of benefits: loan deficiency payments, marketing loan gains, certificate exchange gains, and forfeiture gains. Certificate exchange gains and forfeiture gains are not subject to payment limits.

Each of these three payment programs has separate payment limits. The payment rates and the payment limits for each program were established in relation to one another for the program crops. This interrelationship increases the complexity of changing payment and payment limit provisions. Payment limits are uniformly applied across commodities, and regions, despite very different structural and economic situations. Further payment limits, if applied uniformly, would have very different effects across commodities and regions.

Payment Eligibility Criteria Greatly Affect the Performance of Payment Limits

"Persons" are the units to which payment limits currently apply. Persons may be human beings (individuals) or forms of business organizations, known as "entities." Current payment limit administration has two major aspects: payment eligibility criteria (recipients must be "actively engaged in farming") and payment limit implementation (payment recipients can receive payments from no more than three entities). Types of business organizations that reduce farmers' risks, such as corporations or limited partnerships, count as a single payment limit person. Types of organizations where producers pool resources but are

individually liable for claims against the farm, such as general partnerships, can potentially have as many payment limit persons as there are members. In addition, an individual, as a sole proprietor or a member of a joint operation or a partnership, may also receive payments from two other entities that may be corporations or limited partnerships. As a result, the administration of payment limits creates incentives for producers to organize their farms in ways that would not occur in the absence of the payment limitations.

To be eligible for payments, persons must be “actively engaged in farming.” To be actively engaged, they must contribute time (labor or management) and capital (land or equipment or operating expenses) to the farming operation. This actively engaged concept is an effort to define who is truly a farmer. The actively engaged rule is relaxed for share-rent landowners; they are considered to be actively engaged. This provision benefits operators by facilitating the sharing of production and marketing risks between operators and landowners. Determining active management is very difficult and lack of clear criteria likely facilitates the creation of persons for payment limit purposes.

Current Payments Reflect Farm Size, Are Concentrated in America’s Midsection, and Account for a Sizeable Share of Farm Income

Production flexibility contract (PFC) payments, market loss assistance, and marketing loan benefits averaged \$18.5 billion annually for the 1999-2001 crops. However, the President’s Budget, released in February 2003, projects government payments of \$8.8 billion for the 2002 crops and an average of \$11.6 billion per year for the 2003-07 crops. This decline, if realized, would reduce average payments to producers and perhaps lessen payment limit issues. Budget projections, however, remain uncertain. Direct payments are projected to be the largest component of payments, averaging slightly over \$5 billion per year for the life of the 2002 Act. Corn, wheat, and soybeans are expected to account for nearly three-fourths of those payments. Counter-cyclical payments are projected to average \$4.4 billion, but could reach nearly \$8 billion per year if market prices were to fall to each eligible crop’s loan rate. Marketing assistance loan benefits are projected to average \$1.6 billion per year, but could surge to over \$11 billion annually, if crop prices were to return to 1999-2001 levels. Larger than anticipated marketing loan benefits would also likely increase the use of certificates above current projections. Marketing loan benefits reached a record high in 2001 at \$8.2 billion, including certificate exchange gains of \$2 billion, which were also record high.

The 1996 Act’s payments are concentrated in the Midwest, Plains, and Delta States, areas tending to specialize in the production of program crops. Excluding conservation payments, about one-third of all farms receive government payments. In recent years, government payments have accounted for about 20 percent of gross cash income and about 100 percent of net cash income for the crops now eligible for direct and counter-cyclical payments and marketing assistance loans. The farms receiving government payments tend to have higher farm incomes and higher net worth than farms not receiving government payments. However, commercial farms (over \$250,000 in sales) receiving government payments have lower farm incomes than those not receiving government payments.

Direct and counter-cyclical payments are paid on a farm's historical production, and marketing loan benefits are available for a farm's total production of eligible crops; consequently, farm program payments increase with farm size. In 2001, the largest 6 percent of U.S. farms received 30 percent of total PFC, market loss and disaster assistance payments, and marketing loan benefits, but these farms accounted for 48 percent of the total value of agricultural production on farms receiving government payments.

Current Payment Limits Have Little Impact on Payments, Farm Income, Farmland Values, Rural Economies, or Markets

The current \$40,000 payment limit on direct payments is projected to reduce payments to producers by about 1.6 percent or \$85 million per year. This conclusion is based on Farm Service Agency (FSA) payment data prior to the 2002 Act and assumes producers reaching the payment limit do not restructure from their situations prior to the 2002 Act. The \$65,000 limit on counter-cyclical payments is projected to reduce payments by about 1.6 percent or \$125 million per year when market prices for all crops eligible for counter-cyclical payments are at or below their respective loan rate. About 1 percent of all producers (persons) are projected to have payments reduced because of current payment limits.

A larger proportion of upland cotton and rice producers are affected by current payment limits than producers of other program crops. For cotton and rice, direct and counter-cyclical payments per acre and average acreage per farm are generally higher than for other crops eligible for direct and counter-cyclical payments. Nevertheless, many producers affected by payment limits are located outside of the traditional upland cotton and rice production areas. In 2001, producers in 43 States reached the limit on PFC payments. Furthermore, making soybeans and other oilseeds eligible for direct and counter-cyclical payments under the 2002 Act will increase the number of producers that have payments reduced because of payment limits in the Corn Belt and in other regions that dominate in the production of these crops.

Producers currently have many options to reorganize their farm businesses in ways that reduce the effect of limits on direct and counter-cyclical payments. Nationally, 88 percent of farms had 1-2 persons, 11 percent had 3-5 persons, about 1 percent had 6-10 persons, and 0.1 percent had 11 or more persons in 2002. It is likely that many of the farms with a high number of persons restructured to avoid payment limits. There were 325 farms with 21 or more persons. Ninety percent of these farms were located in 9 States—Arkansas, California, Illinois, Louisiana, Mississippi, Missouri, North Dakota, Texas, and Washington. Data for 2001 indicate these were among the leading States in terms of the number of producers having payments reduced because of the limit on PFC payments and the value of payments forgone.

Current payment limits have very little effect on land values, rural communities, and agribusiness infrastructure. That is because limits on marketing loan benefits are not effective, only a small percentage of program crop producers reach the current limits on direct and counter-cyclical payments, and many of the largest farms have either restructured or are

likely to do so to lessen the extent to which the limits reduce payments. For the same reasons, current payment limits also have very limited effects on planting decisions and supplies and prices of covered commodities. In addition, direct and counter-cyclical payments are decoupled from production and consequently have little to no influence on planting decisions.

The estimated annual reduction in payments due to current payment limits, which is projected to be on the order of \$85-\$210 million, can be compared with the costs of administering and implementing payment limits. FSA estimates the costs for producers of filling out required forms at about \$8 million annually, which does not include any legal, accounting, or other fees. The Commission was unable to estimate the cost of legal, accounting, or other fees. The Federal government spends about \$16 million a year to administer regulations related to farm program payment eligibility and payment limits, including regulations that pertain to conservation and disaster programs. These costs include: employee and other expenses to see that appropriate forms are filled out and filed properly; costs to load information electronically and to develop, maintain, and refine software used to track payments; and costs to investigate, gather evidence, and prosecute instances in which producers have either violated or appear to have violated regulations on payment limits.

The use of certificates has been controversial, subject to much confusion, and often pointed to as the reason limits on marketing assistance loan benefits are ineffective. Producers can avoid the current limit on marketing loan benefits by taking out a nonrecourse marketing assistance loan, waiting until loan maturity, and then forfeiting the crops used as collateral to secure the loan. Certificates simply provide a means to obtain the marketing loan benefit without waiting for loan maturity to forfeit. As a result, prohibiting the use of commodity certificates under the current marketing loan program would likely increase loan forfeitures, which are not currently subject to payment limits.

The use of certificates under current marketing loan provisions results in little projected savings or costs to the taxpayer and only a slight increase in income for producers who would otherwise reach the payment limit and forfeit crops held as collateral for marketing assistance loans. Certificate exchanges avoid potential market disruption both during the marketing season, as stocks that would otherwise be held under loan are free to be marketed, and at the end of the season, when the government would otherwise likely sell forfeited loan stocks.

Further Limitations Could Have Substantial Regional Effects, but Modest National Effects; Much Depends on the Type of Limitations and the Ability of Producers To Adjust

Effects on Producers, Payments, and Farm Income

The effect of further payment limitations on farm income depends on the size of payments, the type of further limitations implemented, the effects on crop supplies and prices, and the extent to which affected producers may be able to restructure their farm operations.

Analysis of PFC payment data for 2000 and 2001 indicates that reducing the limit on direct payments from the current level of \$40,000 to \$30,000 per person, and assuming producers reaching the limit do not restructure further, could reduce direct payments by an additional \$255-\$275 million per year, or roughly 5 percent. With prices at the 1999-2001 levels, reducing the limit on counter-cyclical payments from \$65,000 to \$50,000 could lower counter-cyclical payments by an additional \$400-\$425 million annually, or about 5 percent. If marketing assistance loan benefits, including certificate exchanges and loan forfeitures, are limited to \$75,000, and assuming no supply response, marketing loan benefits could decline by as much as \$400-\$500 million annually, or about 4 percent. The number of producers (persons) reaching the reduced limit on direct payments would rise from about 12,300 currently to 35,000-40,000. A similar number of producers would reach the reduced limit on counter-cyclical payments, if crop prices fall back to 1999-2001 levels.

Generally, payment limits more adversely affect the incomes of cotton and rice producers than feed grain, oilseed, and wheat producers. Further payment limitations would put financial pressure on many upland cotton and rice farms, unless they are able to restructure. Further payment limitations would also reduce payments and incomes for a lesser percentage of feed grain, wheat, and oilseed farms. Nearly every State would have some producers who would have payments and incomes reduced under further payment limits. Producers affected by payment limits have a number of options for mitigating the effects on farm income. For example, owner-operators could increase the number of persons eligible for payments, cash rent out land, or sell some or all of the acreage no longer eligible for payments. In many cases, payments would be redistributed from the producers affected to producers unaffected by further payment limits, partly negating the effects of further payment limits on total payments and aggregate farm income.

Farm operators who rent land may have fewer options to offset income reductions due to further payment limits. They would likely be less able to compete with other renters for land on which they are no longer eligible for payments. If cash renting, they could try to negotiate share rent leases but would be unlikely to succeed if that creates a payment limit problem for the landowner. Another potential difficulty for tenants is that landowners could elect not to produce on the land and collect direct and counter-cyclical payments rather than renting the land out.

Effects on Farmland Values

Some studies indicate that total government payments in recent years have increased U.S. farmland values by 15-25 percent; thus reductions in payments would be expected to have an effect on farmland values. Payment effects on farmland values vary regionally, reflecting the importance of payments and the influence of nonagricultural uses and other factors on farmland values. The benefits of higher land values accrue to landowners, with many not directly involved in agricultural production. About 41 percent of all farmland is rented out by landowners who do not operate farms, although they may share in the risk of production through crop share rental agreements. Higher farmland values increase the wealth of

landowners, helping them finance the purchase of additional land. Higher farmland values also reduce the ability of limited-resource farms to purchase cropland and are of little benefit to farm operators farming mostly rented land.

In areas where competition for rented land is intense, government payments are quickly reflected in rental rates. In other areas, rental rates are slower to adjust, and tenants may retain some of the benefits of government payments. Further payment limitations, by affecting more producers, could reduce competition for land, leading to lower cash rents and land values. The effects of further payment limitations on land values, while expected to have little effect nationally, are likely to vary considerably from region to region, reflecting regional differences in land markets and the number of producers and the amount of payments affected by further limitations. In many areas, land values are heavily influenced by nonagricultural uses, program crops account for a small portion of total cropland, or further payment limitations may not affect enough producers to reduce competition materially for farmland, helping to maintain land values.

Assuming affected producers do not restructure their operations, the percentage of upland cotton and rice producers reaching the payment limit could rise sharply under further payment limitations, causing cash rents and land values to decline most in the areas that produce these crops. In Arizona and California, the percentage of upland cotton and rice producers reaching the limit on direct payments could rise to 25 percent or more if the payment limit on direct payments is reduced from \$40,000 to \$30,000. In these States, competition for land for production of non-program crops and nonagricultural uses may limit the decline in land values. Increasing numbers of upland cotton and rice producers in other States would also have their payments reduced under further payment limits. Cash rents and land values could be more affected in the Delta and Southern Plains than elsewhere. In these regions, government payments are an important source of income and cropland is primarily used for program crops.

Analysis conducted at the request of the Commission by the Food and Agricultural Policy Research Institute (FAPRI) estimated that land values would average about 0.4 percent lower and rental rates would average 0.8 percent lower nationally during 2004-12, if each farm was limited to receiving \$40,000 in direct payments, \$60,000 in counter-cyclical payments, and \$175,000 in marketing loan benefits. (Farms analyzed were those meeting the Census of Agriculture definition.) The analysis assumed projected market prices above levels during 1999-2001 and that farms would restructure so that 50-75 percent of acreage affected would continue receiving payments. The largest regional declines in land values and rental rates were predicted to occur in the Delta, Southern Plains, Far West, and Southeast, with land values declining about 0.8 percent or more and rental rates declining by 1.6 percent or more in each of these regions.

Effects on Rural Communities and Agribusiness Infrastructure

Farming's role in the Nation's rural economies has declined over time, as growth in the nonfarm economy exceeded that in farming. Out of 2,450 rural U.S. counties, the number of farm-dependent counties—those where farming accounts for 20 percent or more of county personal

income—has declined, falling from 556 in 1989 to 316 in the mid-1990s. While the farm share of rural economic activity and the farm population have declined, the rural population has grown, and average farm household income has risen to the point where it is on a par with average urban household income and exceeds average nonfarm rural household income. Despite the long-term decline in farming in the rural economy, agriculture—more broadly defined as farming plus input-supplying industries and processing, distribution, and delivery to consumers—remains a crucial part of the rural and national economy, accounting for 17 percent of U.S. employment and 12 percent of U.S. gross domestic product in 2001. Many rural counties that are farming dependent also continue to depend heavily on government payments.

The greatest effects of further payment limitations on rural communities and agribusiness infrastructure potentially occur in counties where payments are most concentrated, farm income is most dependent on payments, and the likelihood of producers being affected by further payment limits is highest. Such areas are found in: the Delta States of Arkansas, Louisiana, and Mississippi; in west Texas; and in rural areas of Arizona and California, where rice and cotton payments are concentrated. If payment limits were tightened significantly, thereby increasing the portion of producers affected, farm-dependent counties in western Kansas, central and eastern Nebraska and South Dakota, western Iowa, and a few other areas could potentially be affected as well.

Short-term effects of further payment limitations are likely to be negative for rural communities and their agribusiness infrastructure. This conclusion depends on the assumption that payments are important, which occurs when farm prices are low, and it depends on how producers adjust to reaching the payment limit. If producers reduce planted acreage, which several economic studies suggest, then in the most affected counties, there would be declines in farm income, farm input use, purchases of agribusiness services (such as specialized infrastructure like cotton ginning, warehousing, and rice milling), and farmland values. The largest negative effects are expected to be for counties where production of cotton and rice is concentrated. Producers may also shift to other crops, but such shifting is expected to be modest nationally but more pronounced regionally. Positive short-term effects include higher prices of the commodities whose acreage is reduced and lower production costs to the extent cash rents decline. These effects would partially offset the contractionary effects on the rural economies caused by the lower production and farm incomes of those directly affected by the further limits.

The long-run effects on rural economies of further payment limits are generally unknown. The short-run effects on the farm sector, just described, are likely to diminish over time, as producers adjust in a variety of ways to the payment limits. While the competitive position of small farms relative to large farms may be enhanced, little is known as to whether that would translate into positive rural community and agribusiness effects over time. Instead, most studies suggest factors other than farm structure are more important, ranging from nonfarm technology developments (from roads to telecommunications), to economic diversity, to natural amenities, to human capital investment.

Effects on Crop Planted Area, Supply, Demand, and Price

Various studies indicate that government payments over time have increased crop production from 1 to nearly 6 percent. The estimates depend on the period analyzed, as government payments have much less effect on crop production and markets when prices are high. Decoupled payments affect planting decisions much less than payments that are directly linked to current production. Consequently, further limitations that reduce direct and counter-cyclical payments would likely have considerably less impact on crop supplies and prices than equivalent further limitations that reduce marketing loan benefits.

Analysis of eliminating marketing loan benefits provides an upper bound on the effects on acreage and price that could occur under further payment limits that appreciably affect marketing loans. One USDA study estimated the elimination of marketing loan benefits could have reduced plantings of major crops by 2 to 4 million acres, with cotton acreage down 1.5 million acres in 2000, or over 10 percent, the largest percentage decline for all major crops. In response, cotton prices were projected to rise 5 cents per pound and rice prices, 10 to 20 cents per hundredweight. Another USDA study estimated that the unusually low prices of 2001/2002 would have reduced cotton acreage by 2.5 to 3.0 million acres and rice by 300,000 acres in the absence of the marketing assistance loan program.

The FAPRI analysis of a specific payment limitation scenario, cited earlier, estimated that further payment limitations could reduce the area planted to cotton by about 500,000 acres and the area planted to rice by about 250,000 acres in 2004. Cotton prices were projected to increase by 2 percent and rice prices by 8 percent in 2004, while prices for other major crops do not change significantly. FAPRI also pointed out that these effects depend on the existing program benefit levels. If cotton prices were to average below 40 cents per pound, as they did during the 2001 crop year, FAPRI projects cotton acreage could decline by 1.2 million acres in 2004, up from their estimate of 0.5 million acres under the higher baseline price of 40-50 cents per pound. Alternatively, if cotton prices were to average over 50 cents per pound, cotton acreage could fall by only 0.2 million acres.

Producers may increase production of other crops, depending on relative returns, the additional investment and machinery needed, and agronomic considerations. For many producers, alternative crops may not be feasible because of climatic conditions. Some producers or landowners may opt not to produce a crop on acreage subject to further payment limitations, particularly when market prices are considerably below the loan rate. This option is generally less desirable than renting out the land not qualifying for payments to another producer who is not affected by further payment limitations, but may be the option of choice, especially if many potential renters have payments reduced under further payment limitations.

Many of the producers affected by further payment limitations would be located in States that also produce a variety of fruits and vegetables. The 2002 Act's limitations on planting fruits and vegetables along with other factors, such as the increase in investment and equipment, availability of market outlets, including the need for contracts for many perishable crops, and volatility in prices and returns, may prevent many producers affected by further

payment limitations from shifting additional acreage into fruits and vegetables. Nevertheless, small shifts in acreage into fruits and vegetables could have negative price effects on some fruit and vegetable crops. Forage crops, such as alfalfa, may represent the best alternative for many western growers, and increased production of such crops would likely occur.

Acreage and price effects are likely to be greatest in the short term. Over time, producers affected by further payment limits are likely to adjust their operations, including reorganizations that permit the receipt of more payments or changes in landownership and rental arrangements that allow other producers to farm the program crop acreage and receive the payments associated with the acreage and production. Consequently, over the long term, changes in acreage, price, and total payments (and therefore land value and rural economy effects) are expected to be substantially lower than in the short term.

Recommendations

Section 1605 of the 2002 Act directs the Commission to study specific issues addressed in this report. In addition, the report may include “such recommendations as the Commission considers appropriate.” The focus of the Commission has been on reviewing data and analysis on the effects of further payment limits as reported in Chapters 1 through 5 of this report. In addition, the Commission believes this work has provided information that could guide future legislative and regulatory efforts that address administration, effectiveness, and integrity of payment limits. This guidance is presented in this section of the report.

Timing of Changes in the Levels and Application of Payment Limits

- **Any substantial changes should take place with reauthorization of the next Farm Bill.**
The 2002 Farm Bill establishes farm payment programs, including payment limits, through the 2007 crop year. While farm bills can be changed, their multiyear nature provides stability for production agriculture. Producers, their lenders, and other agribusiness firms make long-term investment decisions based on this multiyear legislation. Consequently, if substantial changes are to be made in payment limits, payment eligibility criteria, or regulations administering payment limits, such changes should be part of the reauthorization of the next Farm Bill.
- **If substantial changes are made, there should be an adequate phase-in period.**
If any substantial changes in payment limits were to be made, they should be phased in over a sufficient period of time to avoid unnecessary disruptions in production, marketing, and business organization, including landowner-tenant lease arrangements.

General Administration of Payment Limits

- **More resources should be allocated for payment limit administration in USDA’s Farm Service Agency (FSA) and Office of Inspector General (OIG).**

As a result of considerable interaction with those administering and auditing the payment limit program, the Commission believes that USDA staff implement payment limits with integrity and determination. Nevertheless, FSA county office staff have considerable workloads, and more resources could augment current efforts to train staff on payment limits and monitor compliance. Similarly, OIG has limited staff available for compliance and enforcement. The vast majority of farmers adhere to the rules that limit payments.

Additional resources could be used to develop a targeted, strategic approach for addressing the most questionable cases of payment limit abuse. Consideration could also be given to developing a system of graduated penalties for intentional violations of regulations that would make the penalty commensurate with the degree of the infraction.

- **Payment eligibility and limitation statutes and regulations should not create incentives that lead producers to choose one form of business organization over another.**

Farmers may organize their businesses as corporations, limited liability companies, or other types of entities to limit their personal liability for farm business debts, estate planning, and other business reasons. Under current payment limits, there are organizational structures, such as a corporation, that are treated as a single “person,” while in other business structures, where liability is not limited, such as a general partnership, each partner is a separate “person” with a separate payment limit. Payment limits should not induce a producer to choose one form of business organization over another.

- **Payment eligibility and limitation statutes and regulations should not cause producers to take on production and marketing risks that they would not otherwise undertake.**

Share lease arrangements are important risk-sharing mechanisms for producers. Changes in payment limits could provide an incentive to shift from cash to share rent or vice versa for the purpose of redistributing payments. Payment limit statutes and regulations should strive to minimize the effect on the preferred risk-sharing arrangements between landowners and tenants. Continuing to treat share rent landowners as actively engaged in agriculture helps facilitate risk sharing for producers.

- **Efforts to change payment limit policies should strive to make the policies meaningful, transparent, and simple.**

These objectives are difficult to achieve but worthy, and potential changes in payment limit policies and regulations should be tested against these objectives.

-
- **Changes in payment limits should be sensitive to differences in commodities, regions, and existing agribusiness infrastructure.**

Uniform changes in payment limit policies may have very disparate and substantial regional and local effects. Potential changes in payment limit policies and regulations should recognize these impacts.

The Need for Additional Information

- **USDA should increase efforts to provide more complete data on farm program benefits.**

More information is needed on the relationships between socioeconomic data based on farm operator households and payment data based on persons. Current databases on payments per person provide no economic or other information on the farm operation. Operation data provide incomplete information on a farm's person structure. As a result, there is no direct information available on how farms would be affected by further payment limitations. The Commission also believes that USDA needs to make a meaningful commitment to implementing section 1614 of the 2002 Act, which requires tracking of benefits provided directly or indirectly to individuals and entities. The Commission had difficulty obtaining data tracking all benefits to individuals and recommends that FSA track all benefits through entities to individuals.

- **Alternative ways of addressing payment limits, payment eligibility, and payment limit implementation need more analysis.**

Academic research on the effects of payment limits is very sparse, partly because the data are limited. Changes in payment limits should not be made without an understanding of the costs and benefits of the changes. The social costs might include reduced production efficiency for U.S. agriculture and the social benefits might include some socioeconomic effects on rural areas. Current academic research provides very limited estimates of efficiency costs and no consensus on socioeconomic benefits. These effects are likely to depend on the types of changes in limits that are made and merit additional study. In addition, most of the results of this report were based on average or deterministic prices, yields, and acreage. The consequences of changing risk-mitigating farm payment programs are better understood using probabilistic risk analysis. Such an approach would provide probability distributions of different outcomes and would make a valuable contribution to the public discussion of payment limitations.

Payment Limit Implementation and Eligibility Criteria

During preparation of this report, the Commission reviewed payment eligibility criteria and payment limit implementation. This review and public comments received identified several issues and alternative ways to address them. The Commission did not evaluate in detail the effects of the many options that became apparent, and therefore provides only conceptual

guidance on these issues. Several of the many issues identified and options to address them appear central to the debate about further payment limitations. Development of these concepts into precise proposals would require greater specificity and analysis.

- **Attributing payments directly to individuals (human beings) could improve program transparency, program administration, and farm business efficiency.**

Currently, payments are attributed to persons, which may be individuals or entities, such as corporations. This treatment raised two concerns with the Commission. First, the flow of payments from the government to and through all entities to individuals receiving the payments is not identified and therefore not transparent. Second, differential treatment of the various forms of business organizations creates incentives for producers to choose business organizations based on payments rather than risk or other business considerations. Attributing payments directly to the individual would reduce these concerns.

The Commission identified two alternatives for implementing direct attribution:

1. All payments would be attributed directly to individuals and subject to the payment limits on individuals. Entities could still qualify for and receive payments. The individual would have to be actively engaged in agriculture for the individual, or the individual's share of an entity, to receive payments. Payments to an entity would be limited by the number of individuals actively engaged in agriculture in the entity. A landowner, as well as trusts, nonprofit organizations, corporations, or other entities that own and share rent land would continue to be considered actively engaged and be eligible to receive payments.

As an example, an actively engaged individual could receive up to \$40,000 in direct payments made straight from the government to the individual. If the individual also has interest in any number of entities and is actively engaged in agriculture in these entities, the individual could receive up to an additional \$40,000 in direct payments made to the entities and attributed through them to the individual.

2. All payments would be attributed directly to an individual, but the individual would not have separate limits for payments received directly from the government and from payments received through entities. The existing limits, \$40,000 for the individual and \$40,000 from other entities, would be combined into one limit per individual. As in the alternative above, landowners, as well as trusts, nonprofit organizations, corporations, and other entities that own and share rent land would continue to be eligible and receive payments. All payments to entities would be tracked through the entities and attributed to the individuals in the entity who are actively engaged in agriculture. For both of these approaches to direct attribution, the uniqueness of pooling commodities for sale, such as by marketing cooperatives, may have to be addressed.

- **Strengthening the current criteria for determining eligibility of persons for payments could improve program integrity.**

Eligibility for payments currently requires that a person provide operating capital, equipment or land and active personal labor or management (see Chapter II). The Commission is concerned that some individuals may become eligible for payments even when their

active personal management is not contributing in a meaningful way to the farming operation. This may occur because of the difficulty of measuring management and determining compliance. Hence, the criterion of providing management may present a very low threshold for qualifying for payments, thus facilitating creation of persons for payment limit purposes. This concern could be addressed by combining the active personal labor or management requirement into a single criterion: active labor and management. The Commission did not develop explicit criteria and believes USDA should define active personal labor and management through rulemaking to ensure the individual's contribution to the operation is meaningful and measurable.

Payment Limits on Marketing Loan Benefits

Currently, there is a \$75,000 limit per person on marketing assistance loan gains (MLGs) and loan deficiency payments (LDPs), but marketing loans are nonrecourse loans, and there is no limit on loan forfeiture gains. When the \$75,000 limit is reached, a producer may continue to receive marketing loan benefits by using certificates to settle the loan or by forfeiting loan collateral to the government. While the use of certificates expedites the process by which a producer receives marketing loan benefits in excess of the \$75,000 limit, it is the nonrecourse feature of the marketing loan that makes receipt of these benefits possible.

Imposing a fixed payment limit on marketing loan benefits would require that all four methods of realizing loan program benefits—LDPs, MLGs, certificate exchange gains, and forfeiture gains—be made subject to payment limitations. Making forfeiture gains subject to the payment limit would require that access to the nonrecourse loan be limited. If the nonrecourse loan program with the option to forfeit continues, the Commission concludes there is no clear benefit to eliminating certificates and there are apparent costs (see Chapter 4).

- **Potential changes in the implementation of payment limits on marketing loan benefits must address a fundamental policy choice about who should benefit from farm program payments.**

The Commission was divided on this choice and simply offers the essence of the debate:

VIEW I—Continue the current nonrecourse marketing loan program.

Some Commissioners believe the nonrecourse loan program is a fundamental component of the farm safety net and should remain in its current form. This long-standing program, tracing to the 1930s, guarantees a minimum effective price for all of a producer's eligible production. These Commissioners view the program as essential to income stability and risk management. It is a mechanism to promote orderly marketing by helping producers finance temporary storage, providing them more flexibility to market at the appropriate time over the course of the season. This flexibility is also an important feature for the many producers who must sell into concentrated markets.

Limiting the forfeiture provision of loans is expected to reduce income and production, particularly for rice and cotton, but also for many grain and oilseed producers, and adversely affect related infrastructure for rice and cotton. The modern commercial family-size farm is large and heavily capitalized, and the current marketing loan payment limit

fails to reflect this contemporary and evolving structure of today's farms. Limiting forfeiture to achieve some uniform payment limit on marketing loan benefits for all commodities and all regions would produce inequitable income risk coverage across commodities. For example, production costs for cotton and rice equal a higher portion of the loan rate than for grains and oilseeds.

These Commissioners believe it is notable that marketing loan benefits are large only when prices are extraordinarily low, such as in 2001/2002 for cotton and rice. Removing the safety net at such a time would lead to very adverse consequences for affected producers. The FAPRI analysis conducted for the Commission demonstrated that, under a strict marketing loan limit, acreage cutbacks become quite substantial as market prices decline. These acreage cutbacks result from large income reductions for these family-size farms as well as denial of credit from their lenders because of higher financial risks.

These Commissioners believe that the consequence of a limitation on loan forfeiture would be highly disruptive to production agriculture, agribusiness infrastructure, and local economies in many areas. As affected producers reduce production or their lands are farmed by other, less efficient producers, the efficiency of American agriculture would decline. This reduction in efficiency could raise prices and make U.S. agriculture less competitive in the world.

VIEW II—The payment limit for marketing loan benefits should apply to all four types of marketing loan benefits: LDPs, MLGs, certificate exchange gains, and forfeiture gains.

Some Commissioners believe that marketing loans should be nonrecourse up to the payment limit and recourse thereafter. The loan program should not be an entitlement for all producers and for all production, regardless of farm size. Payments should be maintained as far as possible for family-size operations. These Commissioners believe that there is no public interest in providing benefits in excess of a reasonable level of income support for family-size operations. They believe that at a time of low margins in agriculture, a modest population of large, lower cost operators in a regional land market could affect farmland values and rental rates. They question whether it is in the public interest to allow large operators to influence farmland values and rental rates with the use of government payments. There is evidence in economic theory that the gains from efficiency of the larger operations are used to bid up the most limiting factor of production, which is usually land. This is accomplished by bidding up rental rates, some of which are then capitalized into land values.

These Commissioners believe the FAPRI estimates conducted for the Commission on the effects of further payment limitations demonstrate that the effects on acreage for rice and cotton would likely be modest under baseline price projections. Market prices would rise and there would be a small decline in national farmland values. If producers affected by the marketing loan limits have substantial economies of scale, then further limits could be absorbed with little restructuring. Because some affected producers may not have substantial economies of scale, a 3- to 5-year phase-in period for the marketing loan limitation should be utilized. Producers could also mitigate risks by using hedging and other risk management tools to protect against the effects of low prices, which occur periodically and did in 2001.

These Commissioners believe farm consolidation would be slowed somewhat with further marketing loan limits, and that would be beneficial to rural communities, even though empirical data are lacking on this point. They also believe that marketing loan limits would have little effect on overall farm efficiency, as the primary effect would be on reducing the economic rents of large producers. Effective payment limits on marketing loan benefits, after a reasonable adjustment period, would allow labor and capital markets to function and returns to labor and capital would be re-established near present levels. The ultimate major impact would be on farmland values and rents.

These Commissioners would consider the establishment of different loan payment limits by crop or region, although they doubt such differential limits are justified.

Chapter 1

Overview of Payments and Payment Limitations

Federal assistance to crop producers through price and income support programs began when Congress passed the Agricultural Adjustment Act of 1933, one of the first pieces of New Deal legislation. Since then, Congress has frequently created new farm price and income support programs in response to changing conditions in commodity markets, the financial condition of producers, Federal budgetary pressures, and shifts in farm policy goals.

Farm Program and Payment Limit Policy Goals

There are fundamental differences of opinion on whether the amount of Federal assistance a crop producer receives through price and income support programs should be limited, and if limited, at what level. The Commission on the Application of Payment Limitations for Agriculture (Commission) believes these differences of opinion reflect a lack of consensus on the goals of farm price and income support programs. For example, someone who believes that farm programs should provide producers with a minimum price on all production may have a different view of further payment limitations than someone who believes farm programs should help producers achieve a minimum level of income. Therefore, it is important to begin this study on the potential impacts of further payment limitations with a brief discussion of the range of goals of farm price and income support programs.

While authorizing legislation, such as the Farm Security and Rural Investment Act of 2002 (2002 Act), does not generally indicate the goals of farm price and income support programs, some goals have had enduring, although changing, effects on the evolution of farm programs. Primary goals include:

- **Foster an abundant supply of food and fiber**

This goal was evident as far back as the creation of the Nation's land settlement programs and the establishment of the land grant university system, and is sometimes referred to as a "cheap food" policy. It posits that without support, widely fluctuating prices and income would cause farmers to reduce production, leading to higher food prices. The "abundant supply" goal is also sometimes advanced as enhancing national security, because government support encourages domestic production and helps preserve the infrastructure necessary to process food and fiber. Furthermore, the programs may promote a wider geographic dispersion of production, helping to ensure an adequate supply when production falters in some areas. The "abundant supply" goal may extend beyond our borders, striving to enable the United States to be a consistent supplier to international markets and to respond to world food needs.

- **Support and stabilize farm income**

Government intervention to support and stabilize farm income began with the Depression in the 1930s and has continued to the present. Over time, programs to implement this goal have evolved from supporting market prices and controlling production to subsidized crop insurance and farm program payments, with the bulk of the payments being inde-

pendent of production (decoupled). Proponents of this goal point out that demand and supply for agricultural products are quite insensitive to changes in market prices (inelastic), and coupled with the effects of weather, would lead to large swings in farm prices and incomes in the absence of farm price and income support programs.

- **Help producers get access to credit**

The economic stability provided by farm programs enhances the ability of farmers to acquire the credit they need to run their operations. In the absence of farm price and income support programs, the risks associated with farming would increase and this increased risk would likely be reflected in reduced credit availability and higher interest rates for farm operating and real estate loans.

- **Expand agricultural exports**

Increased attention to this goal since the 1970s prompted the move away from farm policies that could reduce U.S. agriculture's ability to compete in world markets. It was the major factor in the shift away from production controls and effective price supports to payments to producers.

- **Conserve natural resources**

Conservation has been a farm program goal since the Dust Bowl of the 1930s.

Conservation programs include retiring fragile land from production as well as lessening the environmental impacts of land remaining in production. Beginning with the Food Security Act of 1985, producers may lose eligibility for farm program benefits if they produce crops on highly erodible land or on converted wetland.

- **Maintain the family farm and the vitality of rural communities**

Maintaining the family farm, including limiting the decline in farm numbers, has been espoused for reasons ranging from preservation of the Nation's agrarian heritage to maintaining economic vitality and infrastructure in rural communities. Some also argue that fewer farms lead to rural outmigration and increased unemployment and pressure on social services in urban areas.

- **Capitalize on the multiple functions of agriculture**

Increasingly, policy discussion has focused on a broader role that agriculture is now viewed as playing, such as supporting economic activity in rural areas, providing open space, protecting the environment, preserving production capacity for future generations, providing recreational and tourist benefits, and providing renewable sources for nonfood products.

- **Counter the protection provided to agriculture in other countries**

It is often argued that other countries protect their farmers and these protections put U.S. farmers at a competitive disadvantage. As a result, farm price and income support programs merely put U.S. farmers on a "level playing field."

Each of these goals has proponents and opponents, yet they remain driving forces in the continuation of farm programs. When the notion of payment limits is presented in the context of these goals, it is easy to see how conflicting views emerge. Those who view abundant farm production or increasing exports as primary goals of farm programs may well argue that there should be no payment limits at all, as any limits, if they are effective, might curtail production and therefore exports as well. In contrast, those feeling that maintaining the family farm and the vitality of rural communities are primary goals may argue there should be limits on payments if they believe that farm programs lead to diminishing farm numbers and a larger average size for the remaining farms, which could reduce economic activity in rural areas.

The primary goals advanced for placing limits on the amount of payments and other benefits a producer may receive under farm price and income support programs include:

- **Reduce government spending**

Reducing the cost of farm price and income support programs has been one factor behind the interest in further payment limits. Spending on farm price and income support programs decreased in fiscal year (FY 2002). However, based on USDA's FY 2004 President's Budget baseline, the cost of farm price and income support programs is projected to increase as a return to normal weather leads to increased crop production and lower prices. In addition, the return of large Federal budget deficits has heightened attention on trimming Federal spending, including lowering the cost of farm programs.

- **Prevent large operators from receiving excessive support**

Those expressing this goal see the primary objective of farm programs as income support and believe that very large operators generally have higher incomes (due to greater efficiency and production) and deeper pockets (more wealth) than smaller operators and therefore are in less need of government assistance.

- **Prevent wealthy non-producers from receiving payments**

Some wealthy individuals who do not depend on farming for their livelihood may qualify for farm price and income support benefits because they own farmland. Many argue that such individuals should be ineligible for farm program benefits.

- **Slow down farm consolidation and the bidding up of land values**

Those expressing this view generally see maintaining the family farm as a primary program goal. This view of payment limits rests on the argument that very large operators have lower costs than smaller farms, and government payments add enough to their net returns to enable them to buy out farms that are in a less advantageous position.

- **Redistribute agricultural program spending**

Proponents of this goal do not necessarily believe that too much is being spent on agricultural programs, but feel that some of that spending should be redirected. They could, for instance, believe that too much is spent on programs that directly support farm prices and incomes and that some of those funds would have a greater public benefit if spent on programs that help farmers to care for the environment.

This study does not address the merits of the array of goals ascribed to farm programs and payment limits. This study does present the views of the Commission on the effects of further payment limitations. The information provided should help Members of Congress and others decide whether further payment limits support or detract from the achievement of their goals for farm policy.

Farm Programs Considered by the Commission

This section reviews the operation of the three farm programs considered by the Commission: direct payments, counter-cyclical payments, and marketing assistance loans. These three programs were authorized by the Farm Security and Rural Investment Act of 2002 (2002 Act), which covers the 2002-07 crops. Examining what causes a farmer's payments from the three programs to rise or fall reveals what circumstances could cause a farmer's payments to be affected by payment limits.

Direct payments and counter-cyclical payments use "base acres" in the payment calculation. Base acres are historical averages of acres dedicated to crops eligible for farm program payments. A farm may have base acres of just one or multiple commodities. Farmers with base acres of wheat, corn, grain sorghum, barley, oats, upland cotton, rice, soybeans, peanuts, or other oilseeds are eligible for direct and counter-cyclical payments. Producers need not grow any specific crop on their farm to be eligible for payments, but they must continue to use acres equal to their base acreage in agricultural or conserving uses.

Direct Payments

The direct payments program provides participating farmers with a predetermined payment each year. The direct payment calculation uses the "direct payment yield." As with base acres, that yield is an historic farm average. Additionally, the calculation uses the "direct payment rate," which varies by commodity and is set by the 2002 Act for the 2002-07 crops.

For each commodity, the quantity eligible for a direct payment or "direct payment quantity" is 85 percent of base acreage of that commodity times the direct payment yield. The direct payment for each commodity is the direct payment quantity times the direct payment rate. Nothing in the direct payment calculation depends on the outcome of the 2002-07 growing seasons (prices, yields, etc.), so producers know beforehand if payments will be affected by

the limit on direct payments. Farm characteristics that contribute to payments being affected by the payment limit for this program include the base acres, direct payment yields, and direct payment rates for the crops eligible for direct payments.

Example: Calculating the direct payment

A farmer’s entire base acreage consists of 100 corn base acres, the corn direct payment yield for the farm is 100 bushels an acre, and the direct payment rate for corn is \$0.28 per bushel. The farmer plants 50 acres to soybeans, 40 to corn, and leaves the remainder fallow. The farmer’s direct payment would be \$2,380 (100 corn base acres times 0.85 times 100 bushels per acre times the corn direct payment rate of \$0.28 equals \$2,380). Note that the crop mix has no effect on the payment calculation.

The direct payments program succeeded the production flexibility contract (PFC) payment program that was authorized by the Federal Agriculture Improvement and Reform Act of 1996 (1996 Act). The PFC payments program operated almost identically to the direct payments program. The payment calculation was the same, although the 2001 payment rates were slightly lower than the direct payment rates (table 1.1), and some farmers have since updated their base acres. Another difference was that there was no payment for soybeans, other oilseeds, or peanuts. Because of the similarity of the two programs, this report often uses historical data from the PFC program to provide insight on how payment limits might affect the direct payments program.

Table 1.1. Comparison of payment rates for the production flexibility contract and direct payments programs

Crop	Unit	Production flexibility contract payment rate	Direct payment rate
		2001 crop	2002-07 crops
		Dollars per unit	
Wheat	bushel	0.47	0.52
Corn	bushel	0.27	0.28
Grain sorghum	bushel	0.32	0.35
Barley	bushel	0.21	0.24
Oats	bushel	0.022	0.024
Upland cotton	pound	0.0599	0.0667
Rice	hundredweight	2.10	2.35
Soybeans	bushel	n.a.	0.44
Other oilseeds ¹	bushel	n.a.	0.008
Peanuts	ton	n.a.	36.00

n.a. = Not applicable.

¹ Sunflower seed, rapeseed, canola, safflower, flaxseed, mustard seed, crambe, and sesame seed.

Counter-Cyclical Payments

In addition to base acres, the counter-cyclical payment calculation has four components:

Counter-cyclical payment yield

For some farms, this historic average yield will be different than the direct payment yield. That is because the 2002 Act provided producers who updated bases the opportunity to partially update counter-cyclical yields based on yield history during 1998-2001, an opportunity not provided for direct payment yields.

Effective price

The effective price is defined as the direct payment rate for a commodity plus the higher of that commodity's national average loan rate or the U.S. season-average price received by producers.

Target price

The 2002 Act establishes target prices for eligible commodities (table 1.2).

Counter-cyclical payment rate

If the target price exceeds the effective price for the commodity, the counter-cyclical payment rate equals the difference between the target price and the effective price, otherwise the counter-cyclical payment rate equals zero for the commodity.

Counter-cyclical payments are available only when the target price exceeds the effective price. For each commodity, the quantity eligible for a counter-cyclical payment or "counter-cyclical payment quantity" is 85 percent of base acreage of that commodity times the counter-cyclical payment yield. The counter-cyclical payment for each commodity is the counter-cyclical payment quantity times the counter-cyclical payment rate.

Example: Calculating the counter-cyclical payment

A farmer's entire base acreage consists of 100 corn base acres. The farmer plants 50 acres to soybeans, 40 to corn, and leaves the remainder fallow. The farm's corn counter-cyclical payment yield is 110 bushels an acre and the national average corn loan rate is \$1.98 per bushel. The season-average price of corn is below the national average loan rate. Therefore, the effective price equals \$1.98 plus the corn direct payment rate of \$0.28 or \$2.26 per bushel. The corn counter-cyclical payment rate would be \$0.34 (\$2.60 corn target price minus \$2.26 effective price). The farmer's counter-cyclical payment for corn is \$3,179 (100 corn base acres times 0.85 times 110 bushels per acre counter-cyclical payment yield times \$0.34 corn counter-cyclical payment rate).

Since counter-cyclical payments depend in part on current market prices, farmers will be more likely to reach the limit on counter-cyclical payments in years when high production or weak demand pushes prices down. As with direct payments, farm characteristics can also affect whether counter-cyclical payments will be affected by payment limits. These characteristics include the base acres and payment yields for the crops eligible for counter-cyclical payments.

Table 1.2. Target prices for the counter-cyclical payment program

Crop	Unit	2002-03 crops	2004-07 crops
		Dollars per unit	
Wheat	bushel	3.86	3.92
Corn	bushel	2.60	2.63
Grain sorghum	bushel	2.54	2.57
Barley	bushel	2.21	2.24
Oats	bushel	1.40	1.44
Upland cotton	pound	0.724	0.724
Rice	hundredweight	10.50	10.50
Soybeans	bushel	5.80	5.80
Other oilseeds¹	pound	0.098	0.101
Peanuts	ton	495.00	495.00

¹ Sunflower seed, rapeseed, canola, safflower, flaxseed, mustard seed, crambe, and sesame seed.

Marketing Assistance Loans

Farmers are eligible for marketing assistance loans when they harvest wheat, corn, grain sorghum, barley, oats, upland cotton, extra long staple cotton, rice, soybeans, other oilseeds, dry peas, lentils, small chickpeas, or peanuts. Wool, mohair, and honey are also eligible. To participate, farmers decide how much of their current year's production they want a loan on and pledge that amount as collateral.

Farmers can use marketing assistance loan funds for immediate needs, including paying debts and living expenses, which reduces pressure to market commodities immediately at harvest, a time when prices may be at their lowest. This can enable producers to wait until prices have improved to settle their loans and market their commodities.

Marketing assistance loans have a 9-month maturity and accrue interest. For simplicity, however, the examples assume marketing assistance loans do not accrue interest. The loans may be repaid at any time prior to maturity. These loans are “nonrecourse loans” meaning that the government must accept the collateral as full payment of the loan at loan maturity if a producer so chooses. A national loan rate per unit of collateral is set by the 2002 Act for each eligible commodity (table 1.3). For some commodities, USDA uses the national loan rate as a starting point for setting county loan rates, which reflect local variations in commodity prices.

Farmers can receive benefits from marketing assistance loans in four ways, two of which are now subject to payment limits. Each is detailed below. Extra long staple cotton is eligible for only the fourth type of benefit.

Table 1.3. National marketing assistance loan rates

Crop	Unit	2001 crop	2002-03 crops	2004-07 crops
		Dollars per unit		
Wheat	bushel	2.58	2.80	2.75
Corn	bushel	1.89	1.98	1.95
Grain sorghum	bushel	1.71	1.98	1.95
Barley	bushel	1.65	1.88	1.85
Oats	bushel	1.21	1.35	1.33
Upland cotton	pound	0.5192	0.52	0.52
Rice	hundredweight	6.50	6.50	6.50
Soybeans	bushel	5.26	5.00	5.00
Other oilseeds ¹	pound	0.093	0.096	0.093
Dry peas	hundredweight	n.a.	6.33	6.22
Lentils	hundredweight	n.a.	11.94	11.72
Small chickpeas	hundredweight	n.a.	7.56	7.43
Peanuts	ton	n.a.	355.00	355.00
Graded wool	pound	n.a.	1.00	1.00
Nongraded wool	pound	n.a.	0.40	0.40
Mohair	pound	n.a.	4.20	4.20
Honey	pound	n.a.	0.60	0.60

n.a. = Not applicable.

¹ Sunflower seed, rapeseed, canola, safflower, flaxseed, mustard seed, crambe, and sesame seed.

1. Marketing loan gains (MLGs)

Producers may repay a marketing assistance loan anytime before loan maturity at the alternative loan repayment rate announced by USDA, if the alternative rate is less than the loan rate plus accrued interest. The alternative repayment rates for upland cotton and rice are announced weekly and are commonly called “adjusted world prices” (AWPs). For most other crops, the alternative repayment rates are announced daily and are commonly called “posted county prices” (PCPs). These alternative repayment rates rise when market prices rise and decline when market prices decline.

The gain realized by the producer from repaying less than the loan principal to settle the loan is called a marketing loan gain. Marketing loan gains currently have a joint payment limit with loan deficiency payments, which are discussed in the following section.

Example: Calculating the marketing loan gain

A farmer produces 10,000 bushels of corn and pledges all of it as collateral for a marketing assistance loan. At a loan rate of \$1.98 per bushel, the farmer receives \$19,800 in loan proceeds (\$1.98 loan rate times 10,000 bushels equals \$19,800). Suppose the farmer settles the loan for \$18,000 on a day when the PCP is \$1.80 per bushel (\$1.80 times 10,000 bushels equals \$18,000). The marketing loan gain would be \$1,800 (\$19,800 loan principal minus \$18,000 equals \$1,800).

2. Loan deficiency payments (LDPs)

These payments are similar to MLGs, with the key difference being that farmers receive LDPs on current production not placed under loan. The loan deficiency payment rate is the amount by which the loan rate exceeds the alternative repayment rate on the day the farmer requests payment. The total loan deficiency payment is the payment rate times the quantity of a commodity for which a producer requests a loan deficiency payment.

Example: Calculating the loan deficiency payment

Let’s revisit the farmer who produced 10,000 bushels of corn. Rather than placing the corn under loan, that farmer might want to receive an LDP and either market the 10,000 bushels of corn or hold the crop and wait to see if the market price increases. If the PCP is \$1.80 per bushel on the day the farmer wishes to receive the LDP prior to the marketing of the corn, the loan deficiency payment rate would be \$0.18 per bushel (\$1.98 loan rate minus \$1.80 equals \$0.18). On that day, the operator would receive an LDP of \$1,800 (\$0.18 payment rate times 10,000 bushels equals \$1,800).

3. Gains from the certificate exchange process

In addition to repayment of the marketing assistance loan, commodity certificate exchanges are another way for farmers to reestablish unencumbered control of their loan collateral. The exchange process involves three sequential steps and begins with the producer taking out a marketing assistance loan. Next, the producer turns the collateral over to the Commodity Credit Corporation (CCC) in full satisfaction of the loan and purchases certificates from the CCC. The certificate’s unit price is the alternative loan repayment rate for the commodity (PCP or AWP) at the time of the certificate purchase. Lastly, the producer exchanges the certificates for the quantity of the commodity that was previously under loan and regains control of the collateral.

When the cost of the certificate used to reacquire ownership of collateral is less than the loan principal that was secured by that collateral, the farmer achieves a certificate exchange gain. There is no payment limit on certificate exchange gains.

Example: Settling a marketing assistance loan with commodity certificates

A farmer pledges 10,000 bushels of corn as collateral for a marketing assistance loan and receives \$19,800 in loan funds (\$1.98 per bushel loan rate times 10,000 bushels of corn equals \$19,800). Let's assume the farmer opts to use certificates to settle the loan. On the day the farmer settles the loan, the PCP is \$1.80 and the farmer purchases \$18,000 worth of commodity certificates (\$1.80 PCP times 10,000 bushels equals \$18,000). The farmer then exchanges the certificates to obtain the collateral previously placed under loan. The farmer's certificate exchange gain would be \$1,800 (\$19,800 loan principal retained by the producer minus the \$18,000 certificate cost equals \$1,800).

4. Forfeiture gains

Producers may settle marketing assistance loans by forfeiting ownership of the loan collateral to the government when the loan reaches maturity. The farmer benefits if the market value of collateral forfeited is less than the loan balance; such a benefit is defined as a forfeiture gain. There is no limit on forfeiture gains.

Example: Settling a marketing assistance loan by forfeiture

A farmer pledges 10,000 bushels of corn as collateral for a marketing assistance loan and receives \$19,800 in loan funds. When the loan is due, the farmer decides to forfeit the collateral to the CCC rather than repay the loan. On the day of forfeiture the PCP is \$1.80 so the collateral has an estimated market value of \$18,000 (\$1.80 PCP times 10,000 bushels equals \$18,000). The forfeiture gain would be \$1,800 (\$19,800 loan proceeds minus \$18,000 collateral value equals \$1,800).

Marketing loan gains and loan deficiency payments are subject to payment limits under the 2002 Act, while payment limits do not apply to certificate exchange gains and forfeiture gains. Since some types of marketing assistance loan benefits are not subject to payment limits, the 2002 Act does not restrict the overall amount of marketing loan benefits any producer may receive.

Marketing loan gains, loan deficiency payments, certificate exchange gains, and forfeiture gains all depend on current prices and current production. As a result, marketing loan benefits rise as market prices decline helping to stabilize farm income. If total marketing loan benefits were subject to payment limits, farmers would more likely reach the limit on benefits in years when high production or weak demand pushes prices down. Farm characteristics that would also contribute to reaching a limit on marketing loan benefits include the amount of acreage harvested and the yield per harvested acre of commodities eligible for marketing assistance loans.

The Development of Payment Limits Through 2001

Changes in farm programs during the 1960s, such as the introduction of direct payments, were important first steps toward a market-oriented agriculture. However, direct payment program costs were large and visible. In addition, attention focused on the distribution of program benefits, which showed some farmers receiving in excess of \$1 million. In reaction, Congress passed the first legislation to limit payments to producers in 1970.

In the Agricultural Act of 1970 (1970 Act), Congress mandated payment limits for farm programs designed to assist crop producers. The 1970 Act set three separate \$55,000 limits: one each for payments related to wheat, feed grains, and upland cotton. Farmers growing all three crops could have received up to \$165,000 in farm program payments. The limit applied to land diversion payments, wheat certificate payments, and other payments on the basis of parity prices in use at that time.

The Agriculture and Consumer Protection Act of 1973 (1973 Act) introduced the concept of target prices and deficiency payments for wheat, feed grains, and upland cotton. The 1973 Act established an annual per-person limit of \$20,000 for combined payments for the 1974-77 crops of wheat, feed grains, and upland cotton. Payments subject to the per-person limit included deficiency, diversion, and disaster payments. In subsequent legislation, the Congress excluded disaster payments from the payment limit for the 1977 crop. The Rice Production Act of 1975 established deficiency payments for rice and a \$55,000-per-person limit on payments for rice in 1976 and 1977. From 1979 through 1995, wheat, feed grain, upland cotton, and rice deficiency and diversion payments were subject to an annual per-person limit for all crops combined of \$50,000.

Another major step toward a market-oriented agriculture occurred in the mid-1980s. During the mid-1980s, exports stagnated and concern arose that the nonrecourse price support program was reducing the competitiveness of U.S. crops in world markets by establishing a floor on U.S. prices for wheat, feed grains, upland cotton, and rice. The Food Security Act of 1985 (1985 Act) introduced the concept of marketing loans in which producers could repay nonrecourse price support loans at less than the loan rate when the market or world price was below the loan rate. The 1985 Act did not place a limit on marketing loan benefits. However, Congress amended the 1985 Act in 1986, establishing a new combined limit of \$250,000 on a wide range of farm program payments, including loan deficiency payments and marketing loan gains. The Food, Agriculture, Conservation, and Trade Act of 1990 (1990 Act) included marketing loan gains and loan deficiency payments in a group of payments that were subject to an annual per-person limit for all crops combined of \$75,000. Under the 1996 Act, loan deficiency payments and marketing loan gains for all crops were subject to a combined limit of \$75,000 and PFC payments for all crops were limited to \$40,000. When crop prices declined sharply in the late 1990s, Congress increased the combined limit on loan deficiency payments and marketing loan gains to \$150,000 for the 1999 through 2001 crops.

Payment Limits on the Programs Considered by the Commission

Payment limits for the three farm programs considered by the Commission are set by the 2002 Act. They apply to “persons,” that is, each “person” has a separate payment limit. A person may be an individual (human being) or it may be an entity used by a producer as a way to organize the farm business, such as a corporation. Table 1.4 presents the three per-person payment limits for the farm programs considered by the Commission. The next chapter provides a fuller treatment of “persons” and other payment limit administrative issues.

Table 1.4. Current payment limitations for direct and counter-cyclical payments and marketing assistance loans

Program	Limit
Direct payments	<ul style="list-style-type: none">• \$40,000 total for direct payments for wheat, corn, grain sorghum, barley, oats, upland cotton, rice, soybeans, and other oilseeds (canola, crambe, flaxseed, mustard seed, sunflower seed, safflower, sesame seed)• \$40,000 total for direct payments for peanuts
Counter-cyclical payments	<ul style="list-style-type: none">• \$65,000 total for counter-cyclical payments for wheat, corn, grain sorghum, barley, oats, upland cotton, rice, soybeans, and other oilseeds (canola, crambe, flaxseed, mustard seed, sunflower seed, rapeseed, safflower, sesame seed)• \$65,000 total for counter-cyclical payments for peanuts
Marketing assistance loans	<ul style="list-style-type: none">• \$75,000 total for loan deficiency payments and marketing loan gains for wheat, corn, grain sorghum, barley, oats, upland cotton, rice, soybeans, dry peas, lentils, small chickpeas, and other oilseeds (canola, crambe, flaxseed, mustard seed, sunflower seed, rapeseed, safflower, sesame seed)• \$75,000 for loan deficiency payments and marketing loan gains for peanuts, wool, mohair, and honey• No limit on certificate exchange or forfeiture gains

Off-Farm Income and Eligibility for Programs Considered by the Commission

Under the 2002 Act, those whose 3-year average adjusted gross income exceeds \$2.5 million are ineligible for program benefits, unless they can establish that at least 75 percent of their income is derived from farming, ranching, and forestry. The income measure used, adjusted gross income, is a Federal income tax concept. For individuals, adjusted gross income combines earnings from wages and other sources with profits or losses from farming or any other business. Individuals and other forms of businesses are allowed various deductions when calculating adjusted gross income; health insurance expenses for the self-employed is one example.

Payments made to a corporation, general partnership, or joint venture are reduced if any participant in the organization does not meet the adjusted gross income criteria, with the percentage reduction in benefits equaling that participant's ownership interest. Those ineligible for marketing loan gains and loan deficiency payments because of the adjusted gross income restriction can still obtain marketing assistance loans and receive benefits in the form of certificate exchange and forfeiture gains. Data provided to the Commission indicate that a very small number of those previously receiving farm program benefits will become ineligible for direct, counter-cyclical, and loan deficiency payments and marketing loan gains as a result of the adjusted gross income limitation.

Conclusions

- Many objectives of payments have been advanced over time, ranging from ensuring an abundant and affordable supply of food and other farm products to conservation of natural resources to supporting the family farm. The justification for payment limits and the levels at which they are established vary depending on the objectives of the payments. For example, if the objective of payments is to provide general income support to farm households, then payment limits may serve the purpose of halting support after farm household incomes reaches some target level. Alternatively, if the purpose of payments is to ensure or expand aggregate and regionally diversified production by supporting and stabilizing farm income, then payment limits may not be justified because they may discourage production of the directly affected crops. Because people have strongly divergent views on the purpose of payments, people have strongly divergent views on payment limits.
- Payment limits are an increasing public issue today because Federal budget deficits are increasing the pressure to reduce Federal spending and because USDA projects lower farm prices in response to increasing production, raising the cost of farm programs. In addition, opinion on the objectives of farm programs is very diverse and Federal budget resources are in great demand for alternative uses.
- The three payment programs considered by the Commission provide different types of financial support with different objectives. Direct payments provide general income support through a fixed payment dependent on historical acreage and yields. Counter-cyclical payments also depend on historical acreage and yields but increase as prices decline. Benefits from the marketing assistance loan program are the most linked to current conditions, depending on both production and prices, and increase as production rises and prices decline.
- Producers may elect to receive benefits under the marketing loan assistance program in four ways: marketing loan gains, loan deficiency payments, certificate exchange gains, and forfeiture gains. All four ways may provide nearly identical benefits to the producer. Since

only two forms of marketing loan benefits are subject to current payment limits (loan deficiency payments and marketing loan gains), marketing assistance loan benefits are not limited by current payment limitations.

- Each of the three programs considered by the Commission has different limits but are linked through various mechanisms. Therefore, changes in payment limits and payment provisions may be reinforcing or contradictory. For example, if a policy objective is to limit marketing assistance loan benefits, this objective may be achieved by either changing payment limitations for marketing assistance loans or, alternatively, by making changes in the marketing assistance loan program itself, such as lowering loan rates. However, program parameters are closely linked. Lower loan rates would increase maximum counter-cyclical payment rates and potentially raise the number of producers that could have payments reduced because of the limit on counter-cyclical payments, unless target prices were also lowered.
- The specific payment limits established by Congress for each of the three payment programs considered by the Commission have changed over time. It is apparent that Congress has wanted payment limits in place but has also wanted to avoid having the limits be unduly constraining. Increasing the limit on loan deficiency payments and marketing loan gains and permitting producers to use certificates to settle loans at times of low prices are examples of actions taken to prevent payment limits from being too constraining.
- While payment programs have been adjusted over time to reflect economic and equity considerations for individual crops, payment limits generally have been uniformly imposed without regard to the economic structure of commodities or regions.

Chapter 2

Administering Payment Eligibility and Limit Rules

This chapter presents some of the key payment eligibility and payment limit rules pertaining to the three programs considered by the Commission. The administration of farm program payment limits requires first determining which farmers and farm businesses are eligible for payments and then determining how much they may receive. The cornerstone of current payment limitation and payment eligibility law is the Farm Program Payment Integrity Act of 1987, enacted as part of the Omnibus Budget Reconciliation Act of 1987. Its provisions became effective with the 1989 crop year. As indicated in the preceding chapter, the 2002 Act established the current payment limits under the three programs considered by the Commission.

The payment limitation and payment eligibility regulations are found at 7 C.F.R. Part 1400. These regulations are administered by USDA's Farm Service Agency (FSA). Most payment limitation and payment eligibility determinations are made initially by a county or area FSA committee. The FSA developed a payment limit handbook, 1-PL, to instruct field staff on how to implement the payment limitation and payment eligibility regulations. Interested readers may request copies from the FSA.

Payment limits for the three farm programs considered by the Commission apply to "persons," which includes entities. Each person has a separate payment limit. The definition of person, as used in the administration of payment limits, encompasses both individuals and the various types of entities that farmers set up to organize their business. All individual farmers and farm business entities must be "actively engaged in farming" to be considered as persons eligible for payments. That means they must contribute significant amounts of inputs to the farming operation. A discussion of the different types of farm business entities and how they are treated as persons in the administration of payment limitations follows. More detail is then provided on what it means to be actively engaged in farming.

Farm Business Organization and "Person" Determination

This section presents some of the most common ways farmers organize their business and how these business organizations are treated as persons under current payment limitation rules.

Sole Proprietorship

Around 90 percent of farming operations are owned, operated, and managed by a single individual. A sole proprietorship has no legal existence independent of its owner, which means, for instance, that only the owner, not the business, can be sued. Owners of sole proprietorships are personally liable for all their farm's debts. An individual running a sole proprietorship is considered to be one person under current payment limitation rules.

Joint Operations

Joint operations, defined by the FSA as two or more individuals who pool resources and share profits or losses, make up about 5 percent of farm businesses. As with sole proprietorships, joint operations have no legal existence independent of their owners. Participants in a joint operation have unlimited personal liability for the farm's debts. Each participant in a joint operation is considered to be one person under current payment limitation rules and adding additional individuals to the joint operation could qualify the joint operation for additional payments.

Under current payment limitation rules, spouses jointly operating a farm may be treated as two separate "persons" if neither spouse owns a substantial share of another entity that receives farm program payments as a separate person. Spouses can also be treated as two separate persons for payment limitation purposes if they each operated a farm independently before marriage and continue to do so after marriage. In that case, the spouses would be operating two independent farms, not jointly operating a farm.

General partnerships are the simplest form of partnership and most States permit their formation with just an oral agreement. The FSA makes payments under the three programs considered by the Commission directly to the partnership rather than to the individual partners. Each partner is considered to be one person under current payment limitation rules, which means that the general partnership could qualify for additional payments by adding more individuals or entities to the partnership.

Entities that Reduce Financial Risk

Farmers structure their farming operations in various ways to reduce their exposure to farming's financial risks. For example, certain business structures may limit a farmer's liability when the farming operation has legal problems or debt that cannot be paid from farm earnings. These risk-reducing entities are considered to be one person under current payment limitation rules limit regardless of how many members, partners, or shareholders they have.

About 4 percent of farming operations are organized as corporations, most of which are owned by members of a single family. Corporations have a separate legal existence from their owners, meaning that the corporation rather than the owners is ordinarily responsible for farm business debts and that the corporation can be sued. As a result, some farmers may choose the corporate form of farm business organization to protect their personal assets in case of farm financial difficulties.

Limited liability companies are the newest way farmers can organize their businesses. Limited liability companies are a hybrid form of business entity because they have the limited liability feature of a corporation and the income tax treatment of a general partnership. Their owners are called members.

Limited liability partnerships, another hybrid organizational form, eliminate the liability of an individual partner for negligence, wrongful acts, and misconduct of other partners and partnership employees. Each partner remains personally liable for that partner's own conduct and for the conduct of those under that partner's direct supervision. Partners remain personally liable for partnership commercial obligations such as loans or taxes.

Limited partners in a limited partnership are investors whose liability for partnership financial obligations is only as great as the amount of their investment. A limited partnership must have at least one general partner who manages the farm business and who is fully liable for partnership financial obligations to be considered eligible for farm program benefits.

Other Entities

Other types of entities that may qualify as one person under current payment limitation rules include an irrevocable trust, a revocable trust combined with the grantor of the trust, an estate, or a charitable organization. States along with their political subdivisions and agencies are considered one person under current payment limitation rules.

Ownership Shares and Person Determination

If an individual or entity has more than a 50-percent ownership interest in a corporation, limited liability company, limited liability partnership, limited partnership, or similar entity, the interest holder and the entity are treated as one person under current payment limitation rules. Any portion of an entity owned by the interest holder's spouse, minor children, or trust for the benefit of those children counts towards the interest holder's share. For example, if a farmer runs a sole proprietorship and in addition owns 75 percent of a farming corporation that operates another farm, the individual and the corporation would be treated as one person.

In the event two or more individuals or entities together own more than 50 percent of two or more farming entities, all of the entities are considered to be one person. For example, suppose two farming corporations each have four shareholders as shown in the following table.

Corporation A		Corporation B	
Shareholder	Percent of shares owned	Shareholder	Percent of shares owned
A	30	A	20
B	30	B	20
C	30	C	20
D	10	E	40

Individuals A, B, and C together own 90 percent of corporation A and 60 percent of corporation B. Since A, B, and C own more than 50 percent of corporations A and B, the two corporations would be counted as one person under current payment limitation rules.

Three-Entity Rule

Prior to the 1989 crop year, the payment limitation rules did not limit the number of entities (corporations, limited liability companies, limited partnerships, or similar entities) through which an individual could receive farm program payments. Beginning with the 1989 crop year, the three-entity rule has limited the number of entities through which an individual can receive program payments. Under the three-entity rule, an individual who receives payments as an individual cannot receive payments from more than two entities. An individual who does not receive payments as an individual may receive payments from up to three entities. Individuals who could potentially receive payments from more than the allowed number of entities must designate from which entities they will receive payments. The other entities not designated have to forego that individual's share of payments. The three-entity rule enables an individual to receive total payments up to twice as large as the limit for one person—the individual's limit and up to half of the limit from two other entities.

Example: Applying the three-entity rule

A farmer operates a sole proprietorship that collects \$40,000 in direct payments (remember the per-person direct payment limit is \$40,000). In addition, the farmer is a 50-percent shareholder in three farming corporations that collect direct payments:

Corporation 1 collects \$40,000

Corporation 2 collects \$40,000

Corporation 3 collects \$20,000

The three-entity rule dictates that the farmer can receive payments from just two of the corporations. Logically, the farmer would select corporations 1 and 2 in order to maximize total direct payments received. Direct payments stemming from the individual's own farm and participation in farming corporations would total \$80,000 (\$40,000 from the sole proprietorship plus \$20,000 from corporation 1 plus \$20,000 from corporation 2). Corporation 3 would have to forego the farmer's \$10,000 share of direct payments.

As discussed above, if the individual owns more than one-half of another entity, the individual and the entity would be combined into one person.

The three-entity rule does not apply to individuals, general partnerships, and joint operations. For example, take a farmer who operates two farms. On the first farm, the farmer is sole operator and the farmer is the member of a two-person general partnership that operates the second farm. In this example, the three-entity rule does not apply and the farmer would be treated as a single person eligible for \$40,000 in direct payments.

Actively Engaged in Farming

A person must meet the requirement of being actively engaged in farming to be eligible for farm program payments. To be considered actively engaged in farming, the person must make significant contributions to the farming operation in two areas:

- (1) operating funds, equipment, land, or a combination thereof; and
- (2) active personal labor, active personal management, or a combination thereof.

In addition, the above contributions, together with other qualifying contributions, must be commensurate with the individual's claimed share of the profits and losses of the farming operation, and the contributions must be at risk.

Operating Funds, Equipment, Land, or a Combination Thereof

A person must contribute a significant amount of operating funds, equipment, or land or a significant amount of a combination of two of the three or all three of the items.

For a single item, a significant contribution is a share of the item's total value that equals at least one-half of the person's ownership share (share of the business profits or losses). Total value for operating funds is the amount needed to run the operation for a year; total value for land and equipment is what it would cost to rent those items for a year.

Example: Determining significant contribution of resources

A general partnership farms on land that would rent for \$200,000 a year. One partner with a 25-percent ownership share (receives 25 percent of partnership profits or losses) provides land that would rent for \$50,000. That contribution alone, 25 percent of the total rental value of partnership land (\$50,000 contribution divided by \$200,000 total rental value equals 25 percent), qualifies the partner as making a significant contribution from the operating funds, equipment, and land group.

The partner could have contributed land worth \$25,000 and still qualify, since that contribution would be 12.5 percent of the operation total (\$25,000 contribution divided by \$200,000 equals 12.5 percent), which equals one-half of the partner's ownership share (one-half of 25 percent ownership share equals 12.5 percent).

A person might contribute a portion of two of the items or a portion of all three, but not a significant amount of any single item. In that case, the overall contribution is judged significant if it represents a share of total farm operating expenses that equals at least 30 percent of the person's ownership share. Total farm operating expense includes the cost of any inputs such as seed and fertilizer, along with the rental value of equipment and land.

Active Personal Labor, Active Personal Management, or a Combination Thereof

In addition to making a significant contribution from the previous group of inputs, a person must make a significant contribution of at least one of the items in this group or a significant contribution of a combination of the two items.

A significant contribution of active personal labor is at least the smaller of:

- 1,000 hours in a year, or
- one-half of the hours needed to operate a farm comparable in size to the person's share of the operation.

Example: Determining significant contribution of labor or management

A general partnership operates a farm requiring 1,000 hours of labor each year. One partner, who has a 50-percent ownership share, contributes 300 hours. It would take 500 hours of labor to operate a farm of the size corresponding to that partner's ownership share (1,000 hours total labor needed times 50 percent equals 500 hours). The partner's labor contribution is significant since it is more than one-half of 500 hours (300 hours divided by 500 hours equals 60 percent).

Since management is not easily measured, no attempt is made to determine what portion of total active personal management any person contributes. A management contribution is judged significant if it is critical to farm profitability, keeping in mind the person's ownership share. That is, the management contribution of a person with an 80-percent ownership share would need to impact farm profitability relatively more than the contribution of a person claiming a 20-percent share.

When a person contributes a combination of labor and management, but neither contribution meets significance requirements, the collective contribution is considered significant if it enhances farm profitability as much as a significant contribution of either of the two individual items would have. A person's overall contribution from the two groups must be at least commensurate with (meaning proportional to) the person's ownership share. Additionally, the contribution must be at risk, meaning the person must share in any loss the farming operation incurs.

Example: Determining contribution commensurate with ownership share

A two-person general partnership uses land that would cost \$100,000 to rent along with seed, fertilizer, and other inputs that cost \$50,000. The partners claim equal ownership shares. Partner one provides land that would cost \$25,000 to rent along with enough operating funds to purchase all the other inputs. Partner two provides the remainder of the land. The partners share equally in labor and management. Both partners' contributions are commensurate with their 50-percent ownership shares. (\$25,000 in land plus \$50,000 operating funds equals 50 percent of \$150,000 total operating cost; \$75,000 in land equals 50 percent of \$150,000 total operating cost; labor and management contributions are equal).

Treatment of Family Members, Landowners, and Tenants

The “actively engaged in farming” requirements are relaxed for family members, share rent landowners, and crop share renters. In farming operations in which a majority of the individuals are family members, adult family members are considered to be actively engaged in farming if they make a significant contribution of active personal labor or active personal management, or a combination thereof to the farming operation, the family member’s share of the profits or losses from the farming operation is commensurate with the family member’s contribution to the operation, and the family member’s contributions are at risk.

A landowner is considered to be actively engaged in farming if the landowner receives rent or income for the use of the land based on the land’s production or the operation’s operating results, the landowner’s share of the profits or losses from the farming operation is commensurate with the landowner’s contribution to the operation, and the landowner’s contributions are at risk. This type of business arrangement is typically referred to as a crop share lease. For instance, a landowner and tenant might agree that the landowner will receive one-third of the harvested crop from the land rented to the tenant. Sometimes share rent landowners also pay a share of the production expenses. Under a crop share lease, the landowner and tenant share the risk, since the returns to each vary depending on the volume of the crop produced on the rented land.

A crop share renter is considered to be actively engaged in farming if the renter makes a significant contribution of active personal labor to the farming operation, the renter’s share of the profits and losses from the farming operation is commensurate with the contribution to the operation, and the renter’s contributions are at risk.

Review of Payment Limit Determinations

Decisions about who is actively engaged in farming and how many persons an operation may claim are made using information farmers provide on a form called the “CCC-502” or “Farm Operating Plan.” Usually committees composed of local farmers, in conjunction with FSA county office staffs, evaluate those forms. FSA State offices review farm operations containing six or more persons. Farmers are only required to update the CCC-502 when they make a change in the organization of the farming operation.

Each year the FSA national office uses computer programs to select a sample of farming operations to review their adherence to payment eligibility and payment limit rules. In essence, that means seeing if the farming operation is run as it was portrayed on the CCC-502 form. Among criteria leading to an operation’s selection are adding or deleting a member of a joint operation or receipt of a large amount of program benefits. Farmers selected for this review must provide documentation on their operations, which could include loan documentation, canceled checks, lease agreements, and partnership agreements, along with a variety of other documentation. In addition, the USDA Office of Inspector General occasionally

initiates audits of farming operations for compliance with payment eligibility and limit rules or conducts audits at the request of the FSA. A person who is found to adopt or participates in schemes or devices with the purpose of evading the payment limitation rules is ineligible for payments in that year and the following year.

Conclusions

- Current payment limit administration has two major aspects: payment eligibility criteria (for example, payment recipients must be “actively engaged in farming”) and payment limit implementation (for example, payment recipients can receive payments from no more than three entities).
- “Persons” are the unit to which payment limits currently apply. Persons may be human beings or forms of business organizations.
- The type of farm business organization influences how many persons can be attached to a farming operation. Types of business organizations that reduce farmers’ risk (such as corporations, limited liability companies or limited partnerships) generally count as a single payment limit person. Types of organizations where producers pool resources but are individually liable for claims against the farm (for instance general partnerships) can potentially have as many payment limit persons as there are members of the partnership.
- Being able to associate more persons with the operations and thereby obtain more payment limits per operation may cause some producers to select a form of business organization that is not in the best interest of business management. For example, a farm may organize as a general partnership rather than as a corporation, when a corporate organization may be preferable for protection from liability or other reasons.
- An individual who receives payments as an individual by operating a farm as the sole operator, as a member of a joint operation, or as a partner in a general partnership can receive payments from two other entities (the three-entity rule), effectively doubling the payment limitation. The two additional entities must be corporations, limited liability companies, limited partnerships, or similar “entities” or some combination thereof. The three-entity rule likely creates additional incentives for farmers to organize their farming operation in ways that would not otherwise occur in the absence of payment limits. The three-entity rule does not apply to spouses jointly operating a farm.
- If the individual owns more than 50 percent of an entity (for example, a farming corporation), the individual and the entity would not have separate payment limits; that is, the individual and the entity’s payment limit would be combined into one single payment limit person.

-
- To be eligible for payments, individuals and entities (“persons”) must be “actively engaged in farming.” Generally, persons must contribute time (labor or management) and capital (land or equipment or operating expenses) to the farming operation to be considered actively engaged in farming. This actively engaged concept is an effort to define who is truly a farmer.
 - The actively engaged concept is intended to ensure that individuals or entities that do not share the risks of the operation and do not provide capital and legitimate labor or management to the operation do not qualify for payments. The current rules address this principle; however, who provides active management in a complex operation and how much they provide are difficult to measure.
 - The FSA and the Inspector General have ongoing programs to review enforcement of payment limits. These programs audit samples of farm operations to ensure compliance with payment limitation rules. A person in violation of payment limitation rules may become ineligible for farm program payments in that year and the following year.

Chapter 3

Level and Distribution of Payments

This chapter provides information on the size of farm program payments, the characteristics of producers that receive payments, and the distribution of payments across farms, States, and producers. Since actual data on payments under the 2002 Act were not available prior to the preparation of this report, much of the chapter focuses on farm program payments made under the 1996 Act that are similar to the payments that the 2002 Act directs the Commission to study. USDA's forecasts of future farm program payments are also included in this chapter. The data contained in this chapter are from two primary sources: USDA's FSA and USDA's Economic Research Service (ERS).

The first section of this chapter examines data on farm program payments as reported by the FSA. These data are typically reported by crop or fiscal year and include the size of farm program payments in recent years and USDA's projections of payments through the 2007 crop year. Information on payments and marketing loan benefits, including information on the use of certificates, are reported each year by crop. In addition, the FSA, at the request of the Commission, compiled data on the distribution of farm program payments by payee. USDA's forecasts of future farm program payments included in this chapter are from the FY 2004 President's Budget. The economic analysis supporting these projections was conducted in late 2002.

The second section of this chapter examines data on farm program payments as reported by the ERS. These data are reported by calendar year, corresponding with the time period used to report net farm income. When historical information on payments is available, monthly reports of farm program payments from the FSA are compiled to derive annual estimates of farm program payments. When historical information is not available, the ERS uses projections of payments by crop year to forecast calendar-year payments. The ERS uses the information on farm program payments to determine the value added by the agricultural sector and net farm income. In addition, the ERS conducts an annual survey to obtain information on producers and their farms and ranches. This survey, referred to as the Agricultural Resource Management Survey (ARMS), provides information on the characteristics of farms that receive payments. This information, including special tabulations of the survey data, as requested by the Commission, is contained in the second section of this chapter.

Farm Service Agency Data on Payments

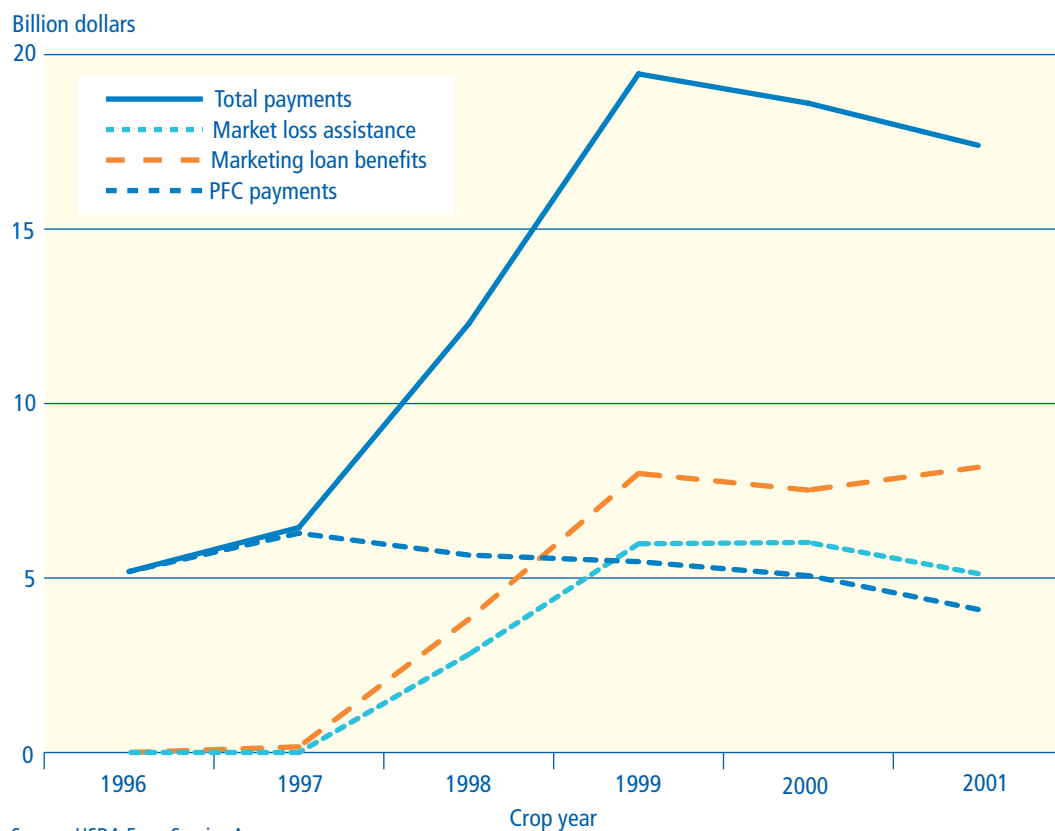
Under the 1996 Act, participating farmers with base acres of wheat, feed grains, upland cotton, and rice were eligible for production flexibility contract (PFC) payments. PFC payments are similar to direct payments under the 2002 Act in that PFC payment rates were unrelated to current market prices and payments were paid on historical production. Wheat, feed grains, upland cotton, rice, soybeans, and other oilseeds were also eligible for marketing assistance loan benefits under the 1996 Act. In addition, when market prices fell sharply beginning with the 1998 crops, Congress authorized market loss assistance in the form of supplemental PFC payments for wheat, feed grains, upland cotton, and rice and provided

direct payments to producers of soybeans, other oilseeds, peanuts, and other commodities. It is widely accepted that counter-cyclical payments under the 2002 Act were authorized by Congress to eliminate the need for market loss assistance payments to producers of wheat, feed grains, upland cotton, rice, soybeans, other oilseeds, and peanuts.

Payments by Crop Year

For the 1996-2001 crops, PFC payments, market loss assistance, and marketing assistance loan benefits averaged \$13.2 billion per year for the crops that are eligible for direct and counter-cyclical payments and marketing assistance loan benefits under the 2002 Act (appendix table 3.1). Total payments to these crops more than tripled from \$6.4 billion during the 1997 crop year to \$19.4 billion during the 1999 crop year (figure 3.1). During this 2-year period, declining market prices caused marketing assistance loan benefits to increase from \$0.2 billion during the 1997 crop year to \$8.0 billion 2 years later. Also contributing to the sharp increase in payments from 1997 to 1999, Congress authorized market loss assistance of \$2.8 billion for the 1998 crops and \$6.0 billion for the 1999 crops to compensate for low prices. Between 1999 and 2001, payments to crops eligible for direct and counter-cyclical payments and marketing assistance loan benefits declined by \$2 billion as PFC payments under the 1996 Act fell by \$1.4 billion and market loss assistance declined by \$0.9 billion, while marketing assistance loan benefits increased by \$0.2 billion.

Figure 3.1. Payments to crop producers, 1996-2001



Payments to corn producers averaged slightly over \$5 billion per year, accounting for nearly 40 percent of total PFC, market loss assistance, and marketing assistance loan benefits paid out for the 1996-2001 crops (figure 3.2). Over this period, one-fifth of total payments were paid to wheat producers. Soybean and upland cotton producers each received about 14 percent of total payments, followed by rice producers at 8 percent and other feed grain (grain sorghum, barley, and oats) producers at 5 percent. Other oilseed and peanut producers received about 1 percent of payments paid out for the 1996-2001 crops.

Peanut producers were not eligible for PFC payments and marketing assistance loan benefits for the 1996-2001 crops. Instead, the price of peanuts was supported through a two-tiered price support program in which quota peanuts were supported at a higher price than non-quota peanuts. Under the 2002 Act, the peanut price support program was replaced with direct and counter-cyclical payments, marketing assistance loans, and a buyout for quota holders.

The distribution of payments across the various crops eligible for payments tends to reflect the relative value of production. During calendar years 1996-2001, cash receipts received by farmers for feed grains, wheat, rice, upland cotton, soybeans, and peanuts averaged \$47.6 billion. Over that period, cash receipts for corn averaged \$17.5 billion or 37 percent of total receipts for all crops eligible for payments. Soybeans accounted for 30 percent of total cash receipts, followed by wheat and upland cotton, which accounted for 15 and 10 percent, respectively. Rice and other feed grains each comprised 3 percent and peanuts made up 2 percent of total cash receipts for all crops receiving payments during 1996-2001.

For the 2002-07 crops, payments to wheat, feed grain, upland cotton, rice, soybean, other oilseed, and peanut producers are projected in the FY 2004 President's Budget baseline to average \$11.2 billion per year, down \$2 billion from the 1996-2001 average and down about \$7 billion from the average for 2000-01 crops (figure 3.3). The decline in payments primarily reflects sharply lower marketing assistance loan benefits. In 2002, adverse weather lowered crop production, causing prices to increase for major crops. The increase in market

Figure 3.2. Distribution of payments by crop, 1996-2001

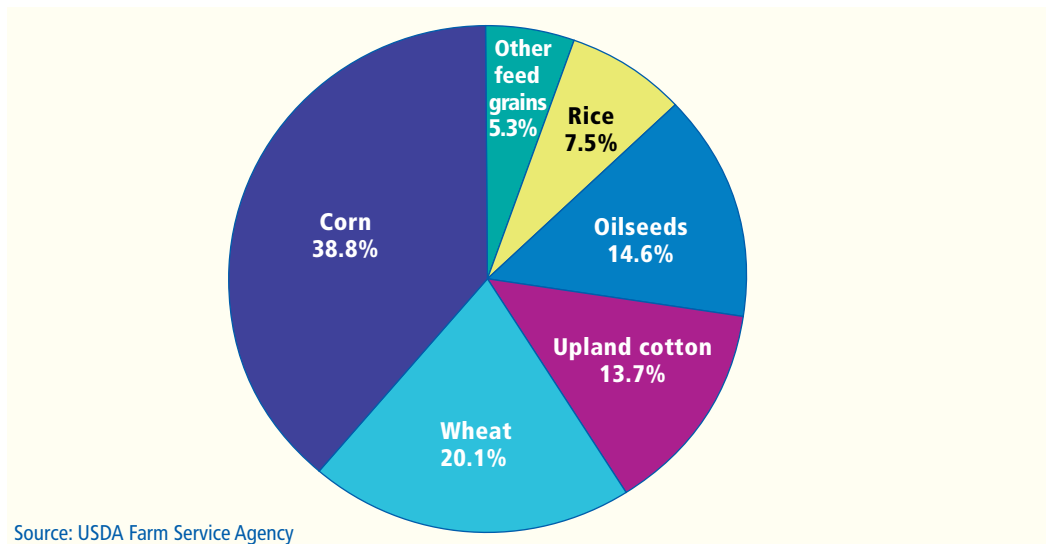


Figure 3.3. Projected payments to crop producers, 2002-2007

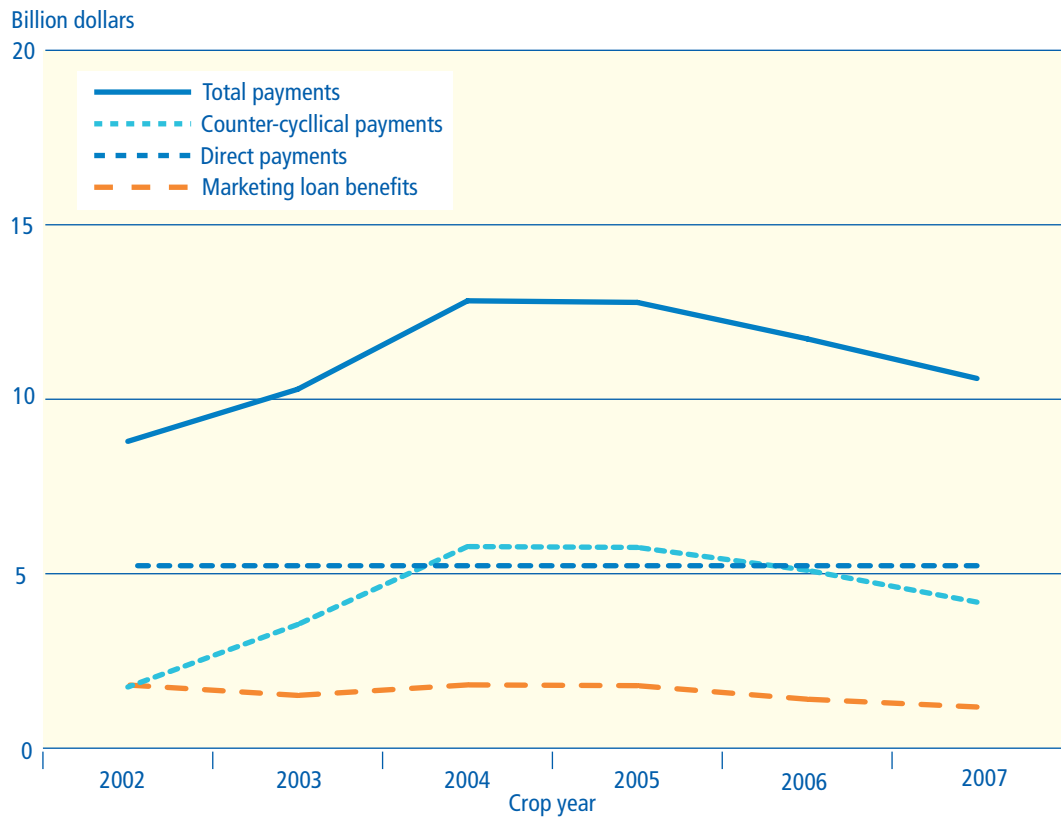
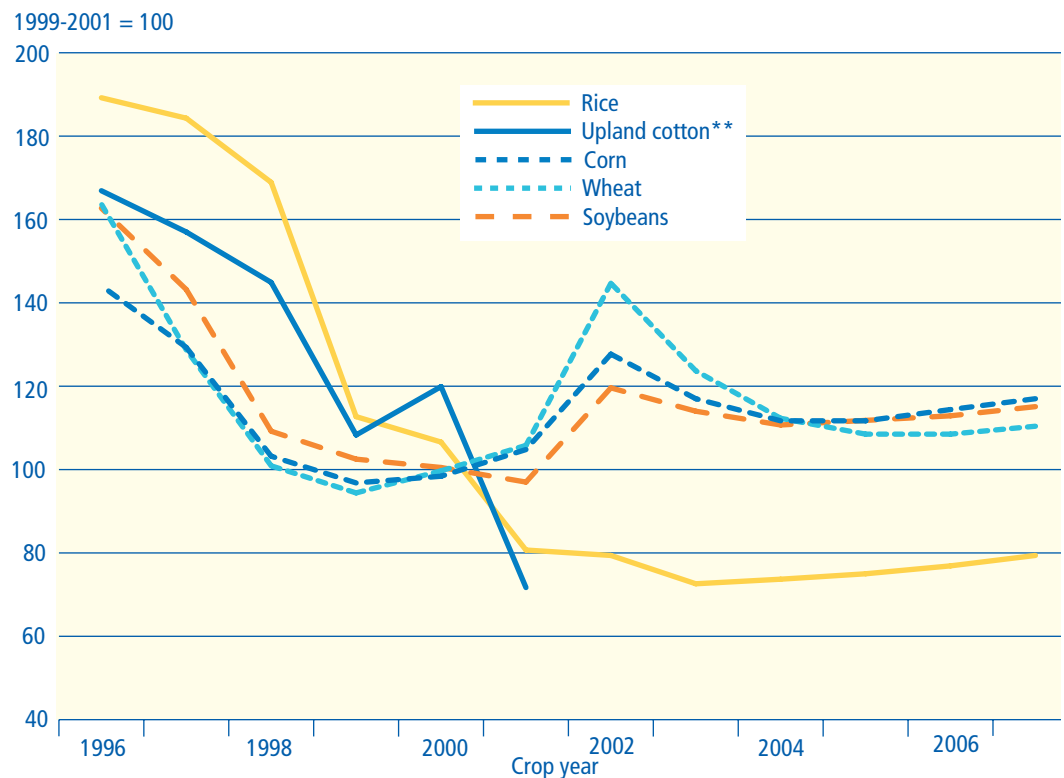


Figure 3.4. Prices received for major crops, 1996-2007*



* For actual data, see appendix table 3.2.

** USDA is prohibited by law from forecasting upland cotton prices.

Source: USDA National Agricultural Statistics Service and USDA Commodity Estimates Book FY2004 President's Budget

prices is forecast to lower marketing assistance loan benefits from \$8.2 billion for the 2001 crops to \$1.8 billion for the 2002 crops. While prices for wheat, feed grains, and soybeans are expected to moderate as weather conditions return to normal, they are not expected to return to the lows experienced during 1999-2001 (figure 3.4).

For the 2002-07 crops, the proportion of payments going to corn producers is forecast in the FY 2004 President's Budget baseline to drop to 31 percent, while the proportion of payments going to upland cotton producers is forecast to increase to about 18 percent. Wheat producers are forecast to receive about 20 percent of payments for the 2002-07 crops; rice producers, 12 percent; soybean producers, 11 percent; other feed grain producers, 4 percent; and peanut producers, 3 percent. Other oilseed producers are forecast to receive less than 1 percent of total payments paid out for the 2002-07 crops.

PFC and direct payments

The 1996 Act specified the total amount of PFC payments that would be paid out for the 1996-2001 crops and how those payments would be allocated among eligible crops each year. Under the 1996 Act, PFC payments increased from \$5.2 billion for the 1996 crops to \$6.3 billion for the 1997 crops, declining thereafter. For the 2001 crops, PFC payments were \$4.1 billion.

During 1996-98, the 1996 Act specified that the amount of PFC payments allocated to each crop be increased to reflect repayment of 1995-crop advance deficiency payments and be reduced to reflect deficiency payments paid on the 1994 and 1995 crops, causing the percentage of PFC payments going to each eligible crop to vary each year. Thereafter, the percentage of total PFC payments going to each eligible crop remained essentially fixed. For the 2001 crops, 46 percent of total PFC payments, or \$1.9 billion, were paid to corn producers. Wheat producers received \$1.1 billion; upland cotton producers, \$0.5 billion; and rice producers, \$0.4 billion. Sorghum, barley, and oats accounted for the remaining PFC payments of \$0.3 billion made on the 2001 crops.

The 2002 Act replaced PFC payments for wheat, feed grains, upland cotton, and rice with direct payments for each commodity. In addition, the 2002 Act made soybeans, other oilseeds, and peanuts eligible for direct payments. According to the FY 2004 President's Budget baseline, producers will receive \$5.2 billion annually in direct payments for the 2002-07 crops. Since payment rates and production eligible for payment are fixed through 2007, the amounts of direct payments paid out to each eligible crop are forecast to remain unchanged for the 2002-07 crops.

Direct payments for the 2002-07 crops are forecast to exceed 2001-crop PFC payments by 5 percent (\$89 million) for corn, 6 percent (\$68 million) for wheat, and 2 percent (\$2 million) for barley, but fall below 2001-crop PFC payments for grain sorghum by 7 percent (\$15 million). Direct payments for upland cotton and rice are expected to be 24 percent (\$113 million) and 14 percent (\$48 million) higher, respectively, than 2001-crop PFC payments. These changes in payments reflect differences in base acreage and payment rates under the two pay-

ment programs. For crops that were ineligible for PFC payments, soybean producers are forecast to receive annually \$728 million in direct payments for the 2002-07 crops; other oilseed producers, \$33 million; and peanut producers, \$65 million. Corn producers are forecast to receive 38 percent of direct payments; wheat producers, 22 percent; soybean producers, 14 percent; upland cotton producers, 11 percent; rice producers, 8 percent; other feed-grain producers, 6 percent; peanut producers, 1 percent; and other oilseed producers, 1 percent.

Counter-cyclical payments

The 2002 Act replaced market loss assistance payments authorized for the 1998-2001 crops with counter-cyclical payments. Market loss assistance payments to wheat, feed grain, upland cotton, rice, soybean, other oilseed, and peanut producers ranged from \$2.8 billion for the 1998 crops to \$6.0 billion for the 2000 crops and averaged \$5.0 billion annually during 1998-2001. Corn producers received slightly over 40 percent; wheat producers, 24 percent; upland cotton producers, 10 percent; rice producers, 8 percent; soybean and other oilseed producers, 7 percent; other feed-grain producers, 7 percent; and peanut producers, 1 percent of total market loss assistance payments made to crop producers during 1998-2001.

Counter-cyclical payments are forecast in the FY 2004 President's Budget baseline to average \$4.4 billion per year for the 2002-07 crops. On average, about \$1.4 billion per year or one-third of counter-cyclical payments for the 2002-07 crops are forecast to go to corn producers. Wheat and upland cotton producers are each forecast to receive about one-fifth (\$0.9 billion annually) of counter-cyclical payments for the 2002-07 crops, while soybean and rice producers are projected to receive about 10 and 8 percent of counter-cyclical payments, respectively. Peanut and other feed grain producers are each forecast to receive 4 percent of total counter-cyclical payments.

Counter-cyclical payments vary from year to year, depending on market price levels for the various crops eligible for counter-cyclical payments. For the 2002 crops, the market price projections contained in the FY 2004 President's Budget baseline trigger counter-cyclical payments for three crops—upland cotton, rice, and peanuts. For each of these crops, counter-cyclical payment rates are forecast at the maximum rate permitted under the 2002 Act (target price minus the sum of the direct payment rate and the loan rate). For 2002 crops, upland cotton producers are forecast to receive \$1.2 billion; rice producers, \$0.3 billion; and peanut producers, \$0.2 billion in counter-cyclical payments.

Increasing production and declining market prices for wheat, feed grains, and soybeans are expected to trigger counter-cyclical payments for those crops beginning with the 2003 crop year and counter-cyclical payments are forecast to reach a peak of \$5.8 billion for the 2004-05 crops. However, if prices for all crops eligible for counter-cyclical payments fall below their respective loan rate, counter-cyclical payments could rise to \$8 billion annually. Payments by crop could reach \$3.5 billion for corn, \$1.6 billion for wheat, \$0.7 billion for soybeans and other oilseeds, and \$0.2 billion for other feed grains in addition to the \$1.2 billion for upland cotton, \$0.3 billion for rice, and \$0.2 billion for peanuts forecast to be paid out for the 2002 crops.

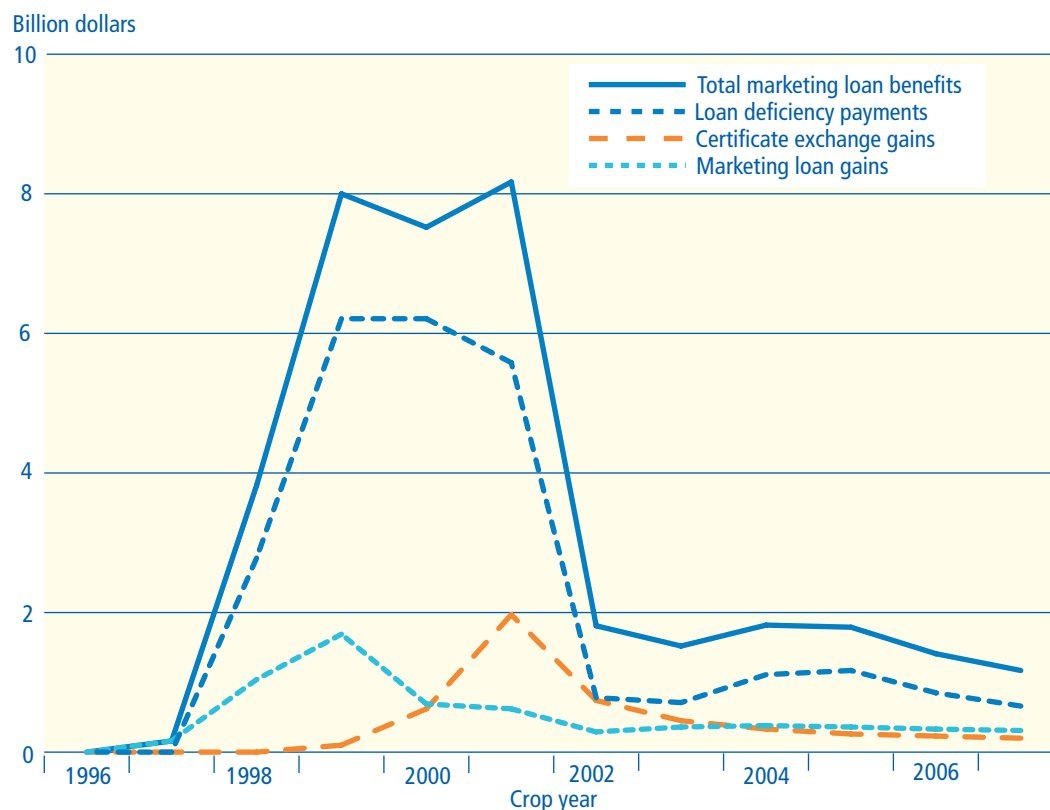
Marketing assistance loan benefits

Marketing assistance loans provide an additional safety net for producers when crop prices are low. The 1996 Act authorized marketing assistance loans for wheat, feed grains, rice, upland cotton, soybeans, and other oilseeds. The 2002 Act also made peanuts eligible for marketing assistance loans. For crops eligible for marketing assistance loans, producers receive benefits in the form of loan deficiency payments, marketing loan gains, certificate exchange gains, and loan forfeiture gains.

Marketing assistance loan benefits vary from year to year, depending on the level of market prices. For the 1996-2001 crops, marketing loan benefits averaged \$4.6 billion per year, rising from zero in 1996 to a high of \$8.2 billion in 2001 (figure 3.5). Marketing assistance loan benefits for corn reached a high of \$2.6 billion for the 2000 crop and marketing assistance loan benefits for wheat peaked at \$0.9 billion for the 1999 crop. In contrast, marketing assistance loan benefits for upland cotton, rice, and soybeans all peaked in 2001. In that year, low prices caused marketing assistance loan benefits to reach \$2.5 billion for upland cotton, \$3.4 billion for soybeans, and \$0.7 billion for rice.

For the 1996-2001 crops, loan deficiency payments averaged \$3.5 billion. Marketing loan and certificate exchange gains averaged \$1.1 billion per year for the 1996-2001 crops. Congress amended the 1996 Act to authorize the issuance of commodity certificates in October 1999.

Figure 3.5. Marketing assistance loan benefits, 1996-2007



Source: USDA Farm Service Agency and USDA Commodity Estimate Book FY2004 President's Budget

Certificate exchange gains increased from \$0.1 billion for the 1999 crops to \$0.6 billion for the 2000 crops and reached \$2.0 billion for the 2001 crops. In 2001, upland cotton and rice accounted for 99 percent of the total value of certificate exchange gains for all crops.

Marketing assistance loan benefits are forecast in the FY 2004 President's Budget baseline to drop from \$1.8 billion for the 2002 crops to \$1.2 billion for the 2007 crops. The decline reflects improvement in market prospects for wheat, feed grains, soybeans, and upland cotton. Certificate exchange gains are forecast to decline from \$0.7 billion for the 2002 crops to \$0.2 billion for the 2007 crops. Throughout this period, upland cotton and rice are projected to account for essentially all of the marketing assistance loan benefits realized from using certificates.

Marketing assistance loan benefits are forecast to average \$1.6 billion per year for the 2002-07 crops in the FY 2004 President's Budget baseline, but this forecast is greatly influenced by assumptions on market prices for crops eligible for marketing assistance loans. Low prices pushed marketing loan assistance benefits to \$8.2 billion for the 2001 crops, more than four times the peak projected for the 2002-07 crops. In addition to the potential for low prices to push marketing assistance loan benefits higher, the 2002 Act also increased loan rates for feed grains and wheat.

Adjusting marketing assistance loan benefits for the 1999-2001 crops for the change in loan rates under the 2002 Act suggests that marketing loan benefits could reach \$3.5 billion for corn, \$1.4 billion for wheat, and \$2.6 billion for soybeans if market prices returned to the lows experienced for the 1999-2001 crops. Coupled with potential marketing assistance loan benefits of \$2.5 billion for upland cotton, \$0.7 billion for rice, and \$0.7 billion for other feed grains, other oilseeds, and peanuts, total marketing loan benefits could eclipse \$11 billion annually under the 2002 Act if market prices fall back to 1999-2001 levels.

The FSA could not provide the Commission with information on forfeiture gains. The FSA was able to provide information on the amount of each crop forfeited to the Commodity Credit Corporation (CCC) and the average marketing loan gain by crop year. The quantity of each crop forfeited was multiplied by the average marketing loan gain to provide an estimate of forfeiture gains for crop years 1999-2001.

Total forfeiture gains for all crops eligible for marketing assistance loans were estimated to be below \$50 million for each of the 1999-2001 crop years, as forfeitures of wheat, feed grains, upland cotton, rice, and soybeans generally amounted to less than 1 percent of total production of each crop (table 3.1). Forfeitures of wheat exceeded 1 percent of production in 1999 and forfeitures of both rice and upland cotton exceeded 1 percent of production in 2001. In each instance, forfeitures did not exceed 2 percent of production.

Under the nonrecourse marketing assistance loan, producers may use commodity certificates to settle the loan and reestablish unencumbered control of all or a portion of the collateral used to secure the loan. This three-step process is outlined in Chapter 1 and further discussed in Chapter 4. In the absence of commodity certificates, producers reaching the payment limit on loan deficiency payments and marketing loan gains would have settled more mar-

keting assistance loans through forfeiture of the collateral to the CCC. The FSA could not provide the Commission with an estimate of the additional forfeitures that would have occurred had commodity certificates not been issued for the 1999-2001 crops.

Distribution of Payments by Person

The producers (persons) on a farm must meet certain requirements to be eligible for payments and marketing assistance loan benefits. These requirements include compliance with conservation and wetland provisions and restrictions on the planting of fruits, vegetables, and wild rice on base acres of crops eligible for payments. Payments to individuals and entities are recorded and tracked by the FSA to ensure that each person's payments do not exceed the specified limits.

For the 2001 crop year, the FSA indicates that \$4.1 billion in PFC payments were paid to 1.2 million payees on 1.7 million farms. These payees include individuals, partnerships, corporations, public institutions, and other payment recipients. Nearly 1.1 million or 91 percent of the payees receiving PFC payments received \$10,000 or less and these payees received 43 percent of all PFC payments (table 3.2). Six percent of the payees receiving PFC payments received \$10,001-\$20,000 and this group received 25 percent of all PFC payments. About 3 percent of all payees received \$20,001-\$40,000 and less than 1 percent received more than \$40,000 in PFC payments in 2001. These two groups accounted for 22 and 10 percent of

Table 3.1 Crop forfeitures and estimated forfeiture gains, 1999-2001 crops

Crop	Unit	Forfeitures			Avg. marketing loan gain			Estimated forfeiture gains		
		Million units			Dollars per unit			Million dollars		
		1999	2000	2001	1999	2000	2001	1999	2000	2001
Corn	bushel	31.7	26.6	0.6	0.32	0.17	0.09	10.1	4.5	0.1
Sorghum	bushel	0.8	0.4	--	0.26	0.21	0.04	0.2	0.1	--
Barley	bushel	1.3	0.7	0.2	0.14	0.17	0.06	0.2	0.1	--
Oats	bushel	--	0.1	--	0.19	0.21	0.05	--	--	--
Wheat	bushel	30.0	12.7	9.6	0.41	0.43	0.12	12.3	5.5	1.2
Upland cotton	pound	2.2	33.2	112.2	0.20	0.09	0.27	0.4	3.0	30.3
Rice	hundredweight	0.1	--	4.4	2.18	3.29	3.29	0.2	--	14.4
Soybeans	bushel	11.5	5.7	1.4	0.80	0.95	1.04	9.2	5.4	1.5

Source: USDA Farm Service Agency

Table 3.2 Distribution of production flexibility contract payments by size of payment, 2001

Size of payment	Payees	Payments
	Percent	
\$10,000 or less	90.9	42.6
\$10,001-\$20,000	5.9	24.7
\$20,001-\$30,000	2.0	14.6
\$30,001-\$40,000	0.8	7.9
\$40,001-\$50,000	0.1	1.8
\$50,001-\$100,000	0.3	5.1
More than \$100,000	0.1	3.3

Source: USDA Farm Service Agency

PFC payments, respectively, in 2001. Since PFC payments were limited to \$40,000 per person, payees receiving more than \$40,000 in payments were either exempt from the payment limit (public schools) or payees that included multiple persons, such as partnerships.

For the 2001 crops, 730,234 payees received loan deficiency payments and marketing loan gains. Seventy-nine percent of the payees receiving loan deficiency payments and marketing loan gains received \$10,000 or less (table 3.3). This group accounted for 23 percent of total loan deficiency payments and marketing loan gains paid that year. Ten percent of the payees receiving loan deficiency payments and marketing loan gains received \$10,001-\$20,000 in payments and 17 percent of payments went to this group. Seven percent of the payees receiving loan deficiency payments and marketing loan gains received \$20,001-\$40,000 and 3 percent received \$40,001-\$85,000. Twenty-three and 20 percent of payments went to these two groups, respectively. Seventeen percent of payments went to the less than 1 percent of payees that received more than \$85,000 in loan deficiency payments and marketing loan gains.

Slightly over 1 percent of all payees received more than the current payment limit of \$75,000 in loan deficiency payments and marketing loan gains. These payees received about one-fifth of total loan deficiency payments and marketing loan gains paid on 2001 crops. For the 2001 crops, loan deficiency payments and marketing loan gains were limited to \$150,000 per person.

The Commission requested that the FSA provide information on certificate exchange gains by State and the size distribution of certificate exchange gains by payee. The information provided by the FSA excluded certificate exchange gains on loans administered by grain cooperative marketing associations, primarily rice, but included certificate exchange gains on loans administered by other cooperative marketing associations and loan servicing agents. The payee or recipient of the certificate exchange gain is the individual or entity who was identified on the loan agreement when the loan was obtained from the CCC and the “contact producer” identified on upland cotton loans administered by cooperative marketing associations and loan servicing agents. In the case of grain cooperative marketing associations, the FSA only has records pertaining to the grain cooperative marketing association, not for the individual or entity receiving the certificate exchange gain. The FSA requested that

Table 3.3 Distribution of loan deficiency payments and marketing loan gains by size of payment, 2001

Size of payment	Payees	Payments
	Percent	
\$10,000 or less	79.0	22.5
\$10,001-\$20,000	10.1	17.3
\$20,001-\$30,000	4.6	13.3
\$30,001-\$40,000	2.3	9.7
\$40,001-\$50,000	1.3	7.0
\$50,001-\$60,000	0.8	5.2
\$60,001-\$70,000	0.5	3.8
\$70,001-\$85,000	0.5	4.2
More than \$85,000	0.9	17.1

Source: USDA Farm Service Agency

grain cooperative marketing associations provide the Commission information on certificate exchange gains by State and the size distribution of certificate exchange gains by payee, but such information was not provided prior to the completion of this study.

The data provided by the FSA indicate that certificate exchange gains amounted to \$1.7 billion for the 2001 crops, with upland cotton producers receiving 98 percent of certificate exchange gains. In contrast, the FY 2004 President's Budget baseline indicates that certificate exchange gains amounted to \$2.0 billion for the 2001 crops, with upland cotton and rice producers receiving 99 percent of certificate exchange gains. The largest discrepancy between the distributional data provided by the FSA and the FY 2004 President's Budget baseline was for rice, followed by upland cotton.

The distributional data suggest that rice producers received \$22 million in certificate exchange gains for the 2001 crop, whereas the FY 2004 President's Budget baseline indicated rice producers received \$206 million in certificate exchange gains that year. This discrepancy reflects the fact that many producers market their rice through grain cooperative marketing associations and the FSA could not provide the Commission with information on payees receiving certificate exchange gains through grain cooperative marketing associations. For upland cotton, the distributional data provided by the FSA for the 2001 crops understated certificate exchange gains by \$80 million or 4.6 percent. For wheat, feed grains, and oilseeds, the distributional data understated certificate exchange gains by less than \$10 million in 2001.

The data provided by the FSA on certificate exchange gains by State generally reflect upland cotton marketings in 2001. Texas producers received \$300 million in certificate exchange gains for the 2001 crops, the largest amount of any State (table 3.4). Mississippi producers received \$256 million in certificate exchange gains in 2001, followed by Arkansas (\$203 mil-

Table 3.4 Certificate exchange gains by State, 2001 crops

State	Dollars	State	Dollars
Alabama	61,498,002	Mississippi	256,015,002
Arizona	54,905,041	Missouri	80,542,801
Arkansas	202,854,504	Montana	121
California	188,807,391	Nebraska	517,020
Colorado	405,206	New Mexico	8,137,591
Delaware	92,422	New York	1,312
Florida	10,172,654	North Carolina	111,464,392
Georgia	145,799,675	North Dakota	83,589
Illinois	1,569,924	Ohio	260,240
Indiana	582,003	Oklahoma	15,825,007
Iowa	692,492	South Carolina	30,453,959
Kansas	3,580,883	South Dakota	1,079,445
Kentucky	526,939	Tennessee	99,677,152
Louisiana	113,348,009	Texas	299,663,184
Maryland	477,169	Virginia	9,948,798
Michigan	7,104	Washington	333
Minnesota	162,266	Wisconsin	1,435
		U.S. total	1,699,153,065

Source: USDA Farm Service Agency

lion), California (\$189 million), Georgia (\$146 million), Louisiana (\$113 million), North Carolina (\$111 million), and Tennessee (\$100 million). Producers in each of the remaining States received less than \$100 million in certificate exchange gains in 2001.

For the 2001 crops, the FSA data indicate that 23,465 payees received certificate exchange gains, averaging \$72,412 per payee. Sixty-one percent or 14,419 payees received \$50,000 or less in certificate exchange gains in 2001 and these payees accounted for 12 percent of certificate exchange gains (table 3.5). Payees receiving from \$50,001 to \$100,000 in certificate exchange gains accounted for 16 percent of all payees and 16 percent of certificate exchange gains received, while the 8 percent of payees receiving \$100,001 to \$150,000 in certificate exchange gains accounted for 14 percent of the gains. Fourteen percent of all payees received more than \$150,000 in certificate exchange gains, and they accounted for 58 percent of all certificate exchange gains.

The FSA data on certificate exchange gains do not indicate the amount by which payments may have exceeded the per-person payment limit of \$150,000 in loan deficiency payments and marketing loan gains for the 2001 crops, for several reasons. First, the contact producer or payee may be multiple persons, such as a partnership. Second, rice and upland cotton producers market a large portion of their production through cooperatives. These cooperatives may purchase and use certificates on behalf of their producer members. In order to avoid the cost and market disruption of tracking payments to individual producers, the cooperatives use certificates on a much larger portion of their marketings than would be subject to payment limits if producers individually marketed their crop. Lastly, in the absence of certificates, many producers reaching the payment limit on loan deficiency payments and marketing loan gains would likely forfeit the commodity placed under loan and receive a forfeiture gain. As mentioned earlier, the Commission was unable to determine how large forfeiture gains would have been if producers did not have the option of using certificates to settle their marketing assistance loans.

Table 3.5 Distribution of certificate exchange gains by size of payment, 2001¹

Size of payment	Payees	Payments
	Percent	
\$50,000 or less	61.4	11.9
\$50,001-\$100,000	16.1	16.0
\$100,001-\$150,000	8.5	14.4
\$150,001-\$200,000	4.9	11.7
\$200,001-\$250,000	3.1	9.6
\$250,001-\$300,000	1.7	6.4
\$300,001-\$350,000	1.2	5.5
\$350,001-\$400,000	0.7	3.8
\$400,001-\$450,000	0.5	2.7
\$450,001-\$500,000	0.5	3.2
\$500,001-\$1,000,000	1.2	10.6
More than \$1,000,000	0.2	4.1

¹ Excludes certificate exchange gains associated with grain cooperative marketing associations.

Source: USDA Farm Service Agency

Economic Research Service Data on Payments

This section provides an overview of government payments as reported in the ERS farm income accounts, information on the characteristics of farms receiving payments, and data on the distribution of payments across States and farms. In order to be comparable with other components of farm income, farm program payments are reported by the ERS on a calendar-year basis. The information presented on the characteristics of farms receiving payments and payments received by various types of farms are based on data from the ARMS. Many producers receive conservation payments but Congress did not direct the Commission to study these payments. Consequently, the Commission requested that the ERS make special tabulations of the ARMS data excluding conservation payments.

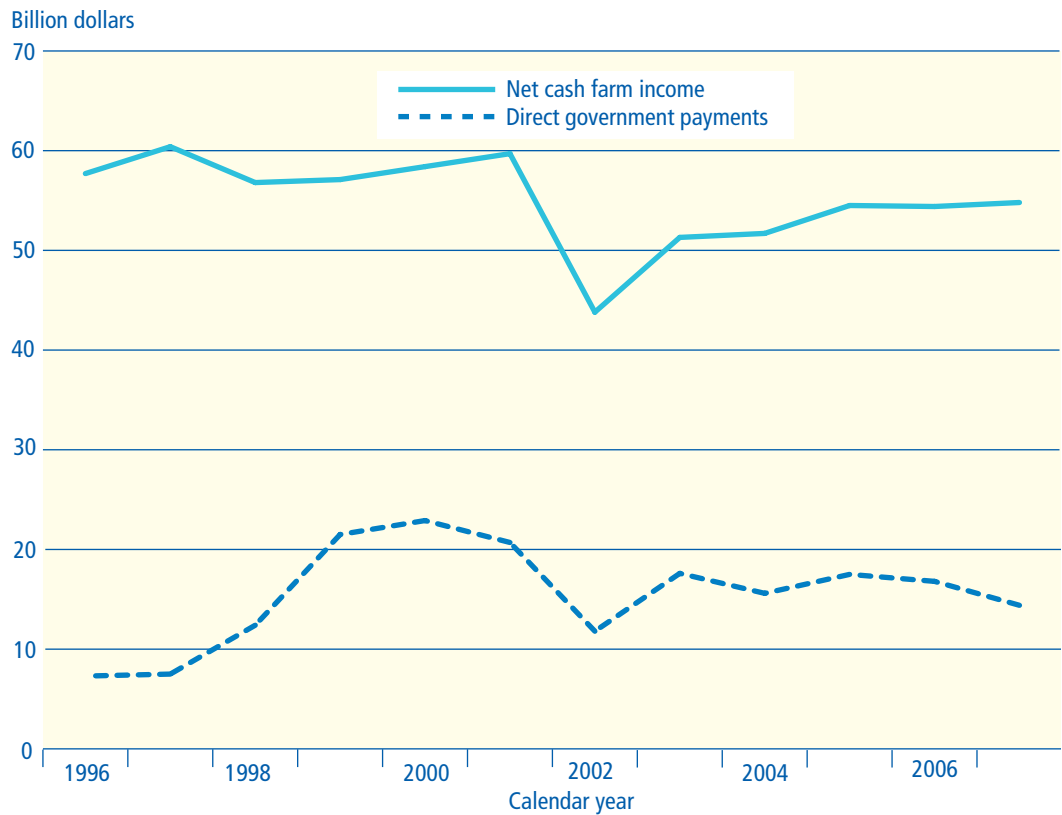
Data from the ARMS indicate that 726,062 farming operations received government payments, whereas data from the FSA indicate that 1.7 million farm units received PFC payments in 2001. The FSA relies on the operator to specify the acreage being farmed, while the ERS has adopted the USDA's National Agricultural Statistics Service (NASS) definition of a farming operation—any establishment from which \$1,000 or more of agricultural products were sold or would normally be sold during the year. Since the farm definition used by the ERS leads to fewer farms receiving payments, average payments per farm are much higher than would be indicated by the FSA data.

Payments in Relation to Farm Income

During calendar years 1996-2001, direct payments to farmers and ranchers averaged \$15.4 billion per year, but declining market prices and emergency assistance authorized by Congress in the form of market loss and disaster payments caused direct payments to average \$21.7 billion per year during 1999-2001 (figure 3.6 and appendix table 3.3). Producers received on average \$4.7 billion in PFC payments, \$6.8 billion in marketing loan benefits, \$8.2 billion in emergency assistance, and \$2 billion in conservation and other payments during 1999-2001 (appendix table 3.4). Farm program payments averaged 11 percent of total farm cash receipts, 23 percent of total crop receipts, and 37 percent of net cash farm income over the period 1999-2001.

Direct payments dropped to slightly over \$11.8 billion in calendar year 2002 (appendix table 3.4). In 2002, payments came from a mix of programs under both the 1996 and 2002 Acts. PFC payments in 2002 were \$3 billion and direct payments under the 2002 Act amounted to \$0.4 billion. Reduced production and higher market prices for wheat, feed grains, upland cotton, and soybeans reduced marketing loan benefits from \$6.2 billion in 2001 to \$2.6 billion in 2002. Peanut quota holders received \$1 billion under the 2002 Act's quota buyout program, \$0.9 billion in 2002 Act payments went to dairy producers to compensate for low prices, and producers participating in conservation programs received \$1.8 billion in payments in 2002. In 2002, farm program payments were equivalent to 6 percent of total farm cash receipts, 12 percent of crop cash receipts, and 27 percent of net cash farm income.

Figure 3.6. Net cash farm income and government payments, 1996-2007



Source: USDA Economic Research Service and USDA Agriculture Baseline Projections to 2012

During calendar years 2003-07, direct payments to farmers and ranchers are projected under the FY 2004 President's Budget baseline to average \$16.4 billion per year, reaching a high of slightly over \$17.5 billion in 2003 and falling to a low of \$14.4 billion in 2007. Payments are expected to increase in 2003 as increasing crop production is forecast to lower prices for wheat, feed grains, and oilseeds. In addition, many producers elected to sign up for payments under the 2002 Act after December 31, 2002, pushing a large portion of 2002 crop-year payments into calendar year 2003. Over the period 2003-07, farm program payments are forecast to average 8 percent of total farm cash receipts, 16 percent of crop cash receipts, and 31 percent of net cash farm income.

Government Payments by State

The ERS reports farm income and government payments by State and the NASS reports the number of farms by State. Information on the number of farms and government payments by State provides an indication of the diversity in the level of payments and payments per farm across States. In many States, conservation payments are a substantial share of government payments, but Congress did not direct the Commission to study conservation payments and they are not considered in the following discussion.

Farm program payments (excluding conservation payments) vary by State, reflecting the location of base acres and production of commodities eligible for payments. During 1999-2001, Iowa received, on average, more than \$1.9 billion in PFC payments, marketing assistance loan benefits, and emergency assistance, the largest amount of any State; followed by Illinois, \$1.8 billion; Texas, \$1.6 billion; Nebraska, \$1.3 billion; Minnesota, \$1.3 billion; Kansas, \$1.1 billion; North Dakota, \$0.9 billion; Indiana, \$0.9 billion; Arkansas, \$0.8 billion; and Missouri, \$0.7 billion (appendix table 3.5).

Comparing the dollar amount of payments per farm across States during 1999-2001 indicates that average farm payments per farm were the highest in North Dakota, \$29,700; followed by Nebraska, \$24,100; Illinois, \$22,700; South Dakota, \$21,100; Iowa, \$20,200; Kansas, \$17,600; Arkansas, \$17,300; Minnesota, \$16,200; Louisiana, \$14,300, and Indiana, \$13,600. Payments amounted to 96 percent of net cash farm income in Illinois, 81 percent in North Dakota, 77 percent in Indiana, and over 60 percent in Minnesota, Kansas, Louisiana, Iowa, Nebraska, Missouri, and Montana.

These figures indicate that payments are particularly important to the rural economies of several Midwest, Delta, and Northern and Southern Plains States. Producers in other States receive payments but payments tend to be smaller and tend to account for a smaller portion of net cash income. In States in which payments are relatively less important, livestock and fruit and vegetable production tend to account for a higher proportion of total farm receipts and farm income.

Government Payments by Farm

At the request of the Commission, the ERS made special tabulations of the ARMS data to provide information on the characteristics of farms that receive government payments. Since Congress did not direct the Commission to study conservation payments, these payments are excluded from government payments unless otherwise indicated.

The NASS reports that there were 2.15 million farms in the United States in 2001. The ARMS indicates that 41 percent of all farms, or 880,000 farms, received government payments, including conservation payments, in calendar year 2001. When conservation payments are excluded, the number of farms receiving payments falls to 726,062 and the percentage of farms receiving payments drops to 34 percent. On farms receiving government payments, the average payment per farm amounted to \$18,374 in 2001. Government payments were the equivalent of 13 percent of gross cash income and 61 percent of net cash income on farms receiving government payments. The gross income of farms receiving government payments averaged \$145,498 and net cash income averaged \$30,063 in 2001. In comparison, the gross income of all farms averaged \$85,612 and net cash income averaged \$16,706 in 2001.

Payments by farm typology

ERS splits farms into three distinct categories—rural residence farms, intermediate farms, and commercial farms. Rural residence farms are defined as farms in which the farm operator’s major occupation is something other than farming. Sixty percent of farms in the United States in 2001 fell into the category of rural residence farms. Twenty-one percent of these farms received government payments (excluding conservation) in 2001 (table 3.6). Rural residence farms receiving payments received on average \$4,827 in government payments. These payments were equivalent to 17 percent of their gross cash income and over 200 percent of their net cash income. Rural residence farms accounted for 38 percent of all farms receiving government payments and they received 10 percent of total government payments in 2001.

Intermediate farms are farms in which the farm operator reports farming as the major occupation and the farm had sales of less than \$250,000. Thirty-one percent of farms were in this category in 2001. One-half of all intermediate farms received government payments; payments averaged \$13,865. Intermediate farms receiving payments accounted for 45 percent of all farms receiving payments and these farms received 34 percent of all payments. For farms in this category receiving payments, government payments were equivalent to 16 percent of gross cash income and 77 percent of net cash income.

Table 3.6 Number of farms, average government payments (excluding conservation), and the contribution of payments to farm income by farm typology, 2001

	Unit	All farms	Rural residence farms	Intermediate farms	Commercial farms
All farms	number	2,149,683	1,286,549	659,962	203,172
Average gross cash income	dollar	85,612	11,843	66,419	615,087
Average net cash income	dollar	16,760	-2,042	12,942	148,221
Average government payments	dollar	6,206	1,026	6,925	36,673
Percent of gross cash income	percent	7.2	8.7	10.4	6.0
Percent of net cash income	percent	37.0	-50.2	53.5	24.7
Farms receiving government payments	number	726,062	273,351	329,620	123,091
Percent of all farms	percent	33.8	21.2	49.9	60.6
Average gross cash income	dollar	145,498	28,647	88,353	558,019
Average net cash income	dollar	30,063	2,256	17,961	124,220
Average government payments	dollar	18,374	4,827	13,865	60,532
Percent of gross cash income	percent	12.6	16.8	15.7	10.8
Percent of net cash income	percent	61.1	213.9	77.2	48.7
Average PFC payments	dollar	5,853	1,275	4,606	19,357
Average loan deficiency payments	dollar	6,674	1,735	4,364	23,831
Average market loss and disaster payments	dollar	4,354	1,184	3,814	12,837
Average other payments ¹	dollar	1,493	633	1,081	4,507
Farms receiving no government payments	number	1,423,621	1,013,197	330,342	80,082
Percent of all farms	percent	66.2	78.8	50.1	39.4
Average gross cash income	dollar	64,870	9,109	46,423	715,586
Average net cash income	dollar	9,975	-3,202	7,933	185,110

¹ Certificate exchange gains included in other payments.
Source: USDA Economic Research Service, ARMS

Commercial farms are farms with sales of \$250,000 or more and the farm operator reports farming as the major occupation. Ten percent of all farms were commercial farms in 2001. In 2001, 61 percent of commercial farms received government payments; payments averaged \$60,532. Commercial farms receiving payments accounted for 17 percent of all farms receiving payments and these farms received 56 percent of all government payments. Government payments amounted to 11 percent of gross cash income and 49 percent of net cash income for commercial farms receiving government payments.

Characteristics of farms receiving government payments

Since government payments (excluding conservation) are determined by the number of base acres and the amount of production of crops eligible for payments, payments increase with farm size and sales. As a result, payments tend to be concentrated among the larger farms. Even so, government payments often make a significant contribution to farm income regardless of the farm's size and income.

Table 3.7 Characteristics of all farms and farms receiving government payments (excluding conservation), 2001

	Distribution of total payments	Percent of all farms	Percent receiving payments	Distribution of farms receiving payments	Payments as a percent of gross cash income ¹	Payments as a percent of net cash income ¹	Payments per farm receiving payments
							Dollars
All farms	100	100	34	100	13	61	18,374
Economic class							
\$500,000 or more	30	3	66	6	9	41	89,419
\$250,000 to \$499,999	25	4	77	9	14	63	48,596
\$100,000 to \$249,999	25	9	70	18	15	63	24,681
\$50,000 to \$99,999	11	8	69	16	17	83	12,575
\$10,000 to \$49,999	8	21	49	30	17	370	4,991
Less than \$10,000	1	55	12	20	19	-32	1,093
Farm type							
Cash grain	49	10	92	28	20	97	31,898
Oilseeds	8	4	85	9	22	94	15,784
Rice	3	--	100	1	29	97	116,614
Cotton	7	1	89	2	22	120	55,523
Other crops	12	28	23	18	11	46	12,073
Livestock	21	57	32	42	7	53	9,321
Farm typology							
Rural residence farms	10	60	21	38	17	214	4,827
Intermediate farms	34	31	50	45	16	77	13,865
Commercial farms	56	10	61	17	11	49	60,532
Net cash income							
\$100,000 or more	35	5	67	9	10	27	69,951
\$40,000 to \$99,999	22	7	72	15	13	44	27,321
\$10,000 to \$39,999	18	13	59	22	16	67	15,219
\$1 to \$9,999	7	22	32	20	18	152	5,831
\$0 to -\$9,999	5	39	19	21	18	-100	4,488
-\$10,000 to -\$39,000	6	13	23	9	17	-59	11,562
Less than -\$40,000	8	2	54	4	13	-26	38,608

¹For farms receiving government payments.
Source: USDA Economic Research Service, ARMS

In 2001, 7 percent of all farms and 16 percent of farms receiving government payments had more than \$250,000 in sales (table 3.7). Farms with sales of \$250,000 or more received 55 percent of government payments in 2001 and they received on average \$64,815 in government payments. On these farms, government payments amounted to 11 percent of gross cash income and 49 percent of net cash income.

Seventeen percent of all farms and 35 percent of farms receiving government payments had sales of \$50,000 to \$249,999 in 2001. These farms received 36 percent of government payments and they received on average \$19,033 in government payments in 2001. On these farms, government payments amounted to 16 percent of gross cash income and 68 percent of net cash income.

Seventy-six percent of all farms and 50 percent of farms receiving government payments sold less than \$50,000 in agricultural products in 2001. These farms received 9 percent of government payments and they received on average \$3,437. Government payments amounted to 17 percent of gross cash income and exceeded net cash income on these farms.

Net cash farm income varies considerably across farms receiving government payments. In 2001, 9 percent of farms receiving government payments had net cash farm of \$100,000 or more and they received 35 percent of government payments. These farms received on average \$69,951 in government payments. Government payments amounted to 10 percent of their gross cash income and 27 percent of their net cash income.

Thirty-six percent of farms receiving government payments in 2001 had net cash income of \$10,000 to \$99,999 and they received 40 percent of all government payments. Government payments averaged \$20,125 on these farms. For this group of farms, government payments were equivalent to 14 percent of gross cash income and 52 percent of net cash income.

Fifty-five percent of farms receiving government payments in 2001 had net cash income of less than \$10,000 in 2001. These farms received 26 percent of all government payments and received on average \$8,602. Government payments amounted to 16 percent of gross cash income and exceeded net cash income on these farms.

Government payments also vary by farm type. Specialized farms are those where one commodity accounts for 50 percent or more of the total value of production of all commodities. Farms specializing in the production of crops eligible for government payments receive more in payments than farms that specialize in the production of fruits, vegetables, or livestock. In addition, per-farm payments also vary considerably for farms that specialize in the production of crops eligible for payments. While payments vary considerably across farm types, government payments generally contribute significantly to the incomes of farms producing a wide range of commodities.

In 2001, farms receiving payments and specializing in cotton and rice production received on average \$55,523 and \$116,614, respectively, in government payments, greatly exceeding average payments to other specialized crop farms. Government payments on these two specialized crop farms exceeded 20 percent of gross cash income and amounted to 97 percent of net cash income for rice farms and 120 percent of net cash income for cotton farms.

Government payments averaged from \$31,898 on farms specializing in cash grain (corn, wheat, and other feed grains) production to \$15,784 on farms specializing in oilseed (soybean, other oilseed, and peanut) production. Government payments on specialized cash grain and oilseed farms ranged from 20 to 22 percent of gross cash income and 94 to 97 percent of net cash income. Many beef cattle, hog, and dairy producers also receive government payments. For specialized livestock producers receiving payments, government payments averaged 7 percent of gross cash income and 53 percent of net cash income.

Since government payments increase with farm size, farms with above-average net worth tend to receive larger than average government payments. In 2001, 59 percent of government payments went to producers on farms with a net worth of \$600,000 or more. Twenty-

Table 3.8 Characteristics of farms receiving payments (excluding conservation) by size of payment, 2001

	No payments	Less than \$10,000	\$10,000-\$19,999	\$20,000-\$39,999	\$40,000-\$79,999	Over \$80,000
	Number					
Number of farms	1,423,621	445,333	104,154	87,899	52,677	35,999
	Dollars					
Average payment	0	3,051	14,605	27,915	55,924	138,958
	Percent					
Economic class						
\$500,000 or more	2	1	3	10	14	55
\$250,000 to \$499,999	1	2	8	19	39	36
\$100,000 to \$249,999	4	9	27	49	41	9
\$50,000 to \$99,999	4	12	40	19	–	–
\$10,000 to \$49,999	16	43	22	–	–	–
Less than \$10,000	73	32	–	–	–	–
Acres operated						
2,000 acres or more	1	3	7	13	22	50
1,000-1,999 acres	2	5	9	18	38	40
500-999 acres	3	9	27	37	34	8
250-499 acres	8	21	36	26	–	–
100-249 acres	20	34	17	5	–	–
Less than 100 acres	66	29	–	–	–	–
Net cash farm income						
\$100,000 or more	2	2	6	14	28	60
\$40,000 to \$99,999	3	8	20	33	32	17
\$10,000 to \$39,999	8	18	38	27	16	7
\$1 to \$9,999	22	28	14	6	4	–
\$0 to -\$9,999	48	30	13	–	–	–
Less than -\$10,000	17	13	9	15	18	13
Net worth						
\$900,000 or more	7	12	19	36	43	58
\$600,000-\$899,999	7	10	21	20	17	11
\$300,000-\$599,999	24	23	29	25	24	17
\$75,000-\$299,999	47	41	28	17	13	9
Less than \$75,000	15	13	–	–	–	–

– = Insufficient observations prevent estimation.
Source: USDA Economic Research Service, ARMS

one percent of all farms and 34 percent of farms receiving payments had a net worth of \$600,000 or more in 2001. In contrast, 55 percent of all farms and 42 percent of farms receiving government payments had net worth of less than \$300,000. These farms received 20 percent of government payments in 2001.

Distribution of payments

Farms that operate larger acreages of program crops and have higher-than-average sales, income, and net worth generally receive larger payments, but there are exceptions. Sixty-one percent of the farms receiving government payments received less than \$10,000 in government payments in 2001. These farms received 10 percent of government payments and, on average, received \$3,051. Seventy-five percent of these farms had less than \$50,000 in sales and 71 percent had net cash income below \$10,000 (table 3.8). The majority of these farms also had net worth in 2001 of less than \$300,000. However, 17 percent of farms receiving less than \$10,000 in payments were 500 acres or larger and 22 percent had net worth of \$600,000 or more.

In 2001, 36,000 farms received more than \$80,000 in payments; their payments averaged \$138,958. These farms, which account for 2 percent of all farms and 5 percent of farms receiving government payments, received 38 percent of all government payments. Fifty-five percent of these farms had sales of more than \$500,000 and another 36 percent had sales of \$250,000-\$499,999 in 2001. Sixty percent had net cash farm income of \$100,000 or more and about the same percentage had net worth of \$900,000 or more. In contrast, 9 percent of the farms receiving over \$80,000 in payments had sales of less than \$250,000 and many farms in this group also had low cash farm income and low net worth. One-fifth of the farms receiving \$80,000 or more in payments had net cash farm income of less than \$40,000 and 9 percent had net worth of \$300,000 or less. Without government payments, over one-third of the farms receiving more than \$80,000 in payments would have had negative net cash income in 2001.

Payments in relation to the value of production

Government payments increase with farm size and sales because of the link between payments, base acres, and production of crops eligible for government payments. As a result, the distribution of payments tends to reflect the distribution of agricultural production. In 2001, the 34 percent of farms that received government payments (excluding conservation payments) accounted for 55 percent of the value of agricultural production (table 3.9).

Even though government payments increase with farm size and sales, payments tend to be less concentrated among farms with large sales and higher net worth than total agricultural production. In 2001, 48 percent of the value of all agricultural production on farms that received government payments occurred on farms with sales of \$500,000 or more, while farms in this sales category received 30 percent of all government payments (table 3.10). Farms with net worth of \$900,000 or more accounted for 53 percent of the value of agricultural production on farms receiving government payments and they received 43 percent of government payments in 2001 (table 3.11).

Table 3.9. Distribution of farms, production, and government payments (excluding conservation) by size of payment, 2001

Size of payment	All Farms	Value of production on all farms	Farms receiving payments	Value of production on farms receiving payments	Payments
	Percent				
No payments	66.2	44.9	0	0	0
\$1-\$9,999	20.7	13.8	61.3	25.1	10.2
\$10,000-\$19,999	4.8	7.0	14.3	12.8	11.4
\$20,000-\$39,999	4.1	12.2	12.1	22.2	18.8
\$40,000-\$79,999	2.5	8.9	7.3	16.1	22.1
\$80,000 or more	1.7	13.1	5.0	23.8	37.5

Source: USDA Economic Research Service, ARMS

Table 3.10. Distribution of farms, production, and government payments (excluding conservation) by sales class, 2001

Sales class	All Farms	Value of production on all farms	Farms receiving payments	Value of production on farms receiving payments	Payments
	Percent				
Less than \$50,000	76.1	6.8	49.9	5.0	9.4
\$50,000-\$99,999	7.8	5.7	16.1	6.7	11.0
\$100,000-\$249,999	8.9	16.4	18.4	20.2	24.7
\$250,000-\$499,999	4.1	15.1	9.4	20.1	24.8
\$500,000 or more	3.2	55.9	6.2	48.0	30.1

Source: USDA Economic Research Service, ARMS

Table 3.11. Distribution of farms, production, and government payments (excluding conservation) by net worth, 2001

Net worth	All Farms	Value of production on all farms	Farms receiving payments	Value of production on farms receiving payments	Payments
	Percent				
Less than \$75,000	12.9	4.7	9.8	4.7	4.6
\$75,000-\$299,999	42.1	11.2	32.8	11.1	15.2
\$300,000-\$599,999	24.2	18.2	24.0	17.5	21.5
\$600,000-\$899,999	9.1	11.5	13.4	13.7	15.5
\$900,000 or more	11.7	54.4	20.1	53.1	43.2

Source: USDA Economic Research Service, ARMS

Conclusions

- Government payments (PFC payments, marketing loss assistance, and marketing loan benefits) averaged \$18.5 billion for the 1999-2001 crops. For the 2002 crops, government payments are forecast to decline to under \$9 billion, as declining supplies due to adverse weather have bolstered crop prices. For the 2003-07 crops, government payments are projected to average \$11.6 billion per year.

-
- Direct payments are forecast at slightly over \$5 billion per year under the 2002 Act. Corn is expected to account for about 38 percent of direct payments; followed by wheat, 22 percent; soybeans, 14 percent; upland cotton, 11 percent; rice, 8 percent; other feed grains, 6 percent; and other oilseeds and peanuts, 1 percent each.
 - The 2002 Act replaced market loss assistance, which averaged \$5 billion annually for the 1998-2001 crops, with counter-cyclical payments. Counter-cyclical payments are projected to average \$4.4 billion for the 2002-07 crops, but could reach nearly \$8 billion per year if market prices fall to each eligible crop's loan rate.
 - Marketing assistance loan benefits, including loan deficiency payments, marketing loan gains, and certificate exchange gains, reached a record of \$8.2 billion for the 2001 crops. Certificate exchange gains also peaked for the 2001 crops at \$2 billion. For the 2002-07 crops, marketing assistance loan benefits are projected to average \$1.6 billion per year, but could surge to over \$11 billion annually if crop prices fall back to 1999-2001 levels.
 - FSA payment data for the 2001 crops indicate that 91 percent of the payees receiving PFC payments and 79 percent of the payees receiving loan deficiency payments and marketing loan gains received \$10,000 or less. These payees received 43 percent of PFC payments and 23 percent of loan deficiency payments and marketing loan gains. The 1 percent of payees who received more than \$30,000 in PFC payments received 18 percent of all PFC payments. About 1 percent of payees received more than \$85,000 in loan deficiency payments and marketing loan gains. They accounted for 17 percent of all loan deficiency payments and marketing loan gains received.
 - Upland cotton and rice producers are the primary users of certificates. Data provided by the FSA indicate that 23,465 payees received certificate exchange gains for the 2001 crops, averaging \$72,412 per payee. Sixty-one percent of the payees received \$50,000 or less and this group received 12 percent of all certificate exchange gains, while 14 percent of all payees received more than \$150,000, accounting for 58 percent of all certificate exchange gains.
 - Certificate exchange gains may not indicate how much payees exceed the per-person payment limit on loan deficiency payments and marketing loan gains, because payees may be multiple persons and marketing cooperatives may use more certificates than are needed to cover the marketings of those who reach the payment limit. Furthermore, producers could choose to forfeit the commodity and receive a forfeiture gain once the payment limit is reached.
 - Payments tend to be concentrated in the Midwest, Plains, and Delta States—areas that tend to specialize in the production of crops eligible for government payments. Producers in other States receive payments but payments tend to be smaller and tend to account for a smaller percentage of net cash income.
 - About 40 percent of all farms receive farm program payments, including disaster assistance and conservation payments. Excluding conservation payments, about one-third of all farms receive government payments. In 2001, farms receiving government payments received an average of \$18,374.

-
- Government payments tend to be concentrated among the larger farms. In 2001, 9 percent of farms receiving government payments had net cash income of \$100,000 or more and received 35 percent of all payments. Thirty-six percent of farms receiving payments had net cash income of \$10,000 to \$99,999 and received 40 percent of payments, while 26 percent of payments went to the 55 percent of farms receiving payments with net cash income of \$10,000 or less.
 - Even though payments tend to be concentrated among larger farms, government payments often make a significant contribution to farm income regardless of farm size and income. On farms receiving payments and with sales of \$250,000 or more, government payments were equivalent to 11 percent of gross cash income and 49 percent of net cash income in 2001. Government payments equaled 16 percent of gross cash income and 68 percent of net cash income on farms with sales of \$50,000 to \$249,999 and payments amounted to 17 percent of gross cash income and exceeded net cash income on farms with less than \$50,000 in sales.
 - For farms specializing in the production of crops eligible for direct and counter-cyclical payments and marketing assistance loans, government payments averaged about 20 percent of gross cash income and about 100 percent of net cash income in 2001. Government payments are also important to farms specializing in livestock and other crops (crops not eligible for direct and counter-cyclical payments and marketing assistance loans) as well. For these farms, government payments averaged about 10 percent of gross cash income and about 50 percent of net cash income in 2001.
 - Farms that operate larger acreages of program crops and have higher-than-average sales, income, and net worth generally receive larger payments, but there are many exceptions. In 2001, 38 percent of government payments went to the 36,000 farms (2 percent of all farms and 5 percent of farms receiving payments) that received \$80,000 or more in payments. Of these farms, 9 percent had sales of less than \$250,000, 20 percent had net cash income of less than \$40,000, and 9 percent had net worth of \$300,000 or less.
 - Since direct and counter-cyclical payments are paid on historical production and total production of eligible crops is eligible for marketing assistance loan benefits, the distribution of payments tends to reflect the contribution of the largest farms to the total value of agricultural production. In 2001, 6 percent of farms receiving payments with sales of \$500,000 or more received 30 percent of all payments and accounted for more than 48 percent of the value of agricultural production on farms receiving payments.

Chapter 4

General Effects of Current Payment Limitations

This chapter examines the economic effects of current payment limitations and the taxpayer and producer costs of administering payment limits. The chapter also discusses the effects of permitting producers to use commodity certificates to obtain marketing assistance loan benefits. At the time this study was prepared, the FSA could not provide the Commission with information on the number of producers affected or the reduction in payments resulting from the 2002 Act's payment limitations on direct payments, counter-cyclical payments, loan deficiency payments, and marketing loan gains. To estimate the effects of current payment limitations, the Commission relied on PFC payment data provided by the FSA for the 2000 and 2001 crops. In both years, PFC payments, which correspond closely to the 2002 Act's direct payments, were limited under the 1996 Act to \$40,000 per person, the current limit on direct payments.

The effects of payment limitations on direct payments, counter-cyclical payments, loan deficiency payments, and marketing loan gains depend on the extent to which the limitations reduce payments to producers and the extent to which producers, who have payments reduced because of the limits, restructure their farming operations to avoid the reduction in payments. The FSA tracks and reduces payments when payments would otherwise exceed the payment limitation.

Total Reduction in Payments

The 1996 Act authorized \$4.190 billion in PFC payments for the 2001 crops. In that year, 5,929 or 0.5 percent of the 1,177,366 producers (persons actively engaged in agriculture) receiving PFC payments had payments reduced because of the \$40,000 limit on PFC payments (table 4.1). Producers reaching the payment limit had payments reduced by \$38 million or the payment limitation reduced total payments by 0.9 percent. On average, each producer reaching the payment limit had payments reduced by \$6,422 (appendix table 4.2).

Direct payments are projected to total about \$5.2 billion annually for the 2002-07 crops. For the 2000 crops, the 1996 Act authorized almost \$5.2 billion in PFC payments and these payments were also limited to \$40,000 per person. In 2000, 1,215,706 producers received PFC payments and 12,298 or 1 percent of producers had payments reduced because of the payment limit (table 4.1). On average, each producer reaching the payment limit had pay-

Table 4.1 Payment reduction and producers affected by the \$40,000 payment limitation on PFC payments

	2000 crops	2001 crops
Payments reduced, dollars	\$82,648,742	\$38,078,198
Payments made, dollars	\$5,066,319,393	\$4,101,876,505
Percentage reduction	1.6	0.9
Producers reaching limit	12,298	5,929
Total producers	1,215,706	1,177,366
Percentage of producers affected	1.0	0.5

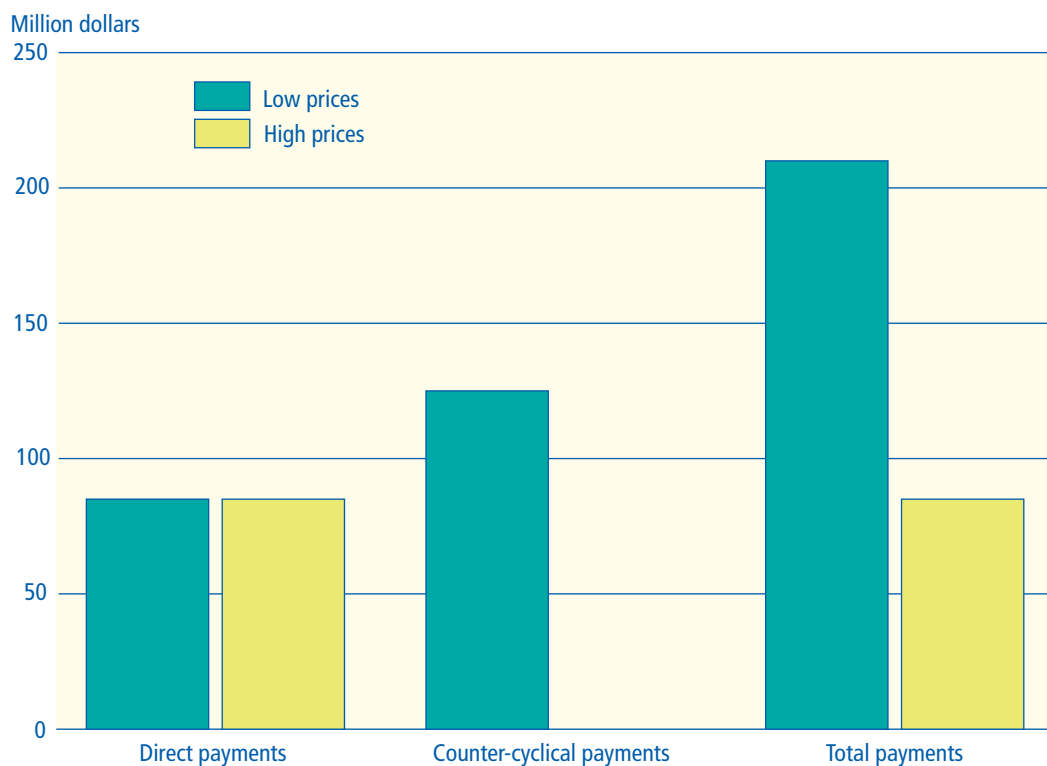
Source: USDA Farm Service Agency

ments reduced by \$6,721 and total payments were reduced by \$83 million or 1.6 percent (appendix table 4.1). Since the 2002 Act has a \$40,000 limit on direct payments and direct payments are projected to total \$5.2 billion, the payment limitation on direct payments is also expected to reduce payments by about 1.6 percent or about \$85 million per year, assuming producers who reach the payment limit do not restructure further.

The extent to which the \$65,000 limitation on counter-cyclical payments lowers payments to producers depends on the size of the payments, which varies depending on market prices. When market prices are high, direct payments will likely exceed counter-cyclical payments. For example, direct payments are projected to exceed counter-cyclical payments for the 2002 crops by \$3.5 billion. Since the payment limit on counter-cyclical payments is \$65,000, compared with \$40,000 for direct payments, the payment limit on counter-cyclical payments is expected to result in less reduction in payments than the payment limit on direct payments when direct payments exceed counter-cyclical payments. This relationship is expected to hold even though, under the 2002 Act, producers updating base acres could also elect to partially update payment yields for counter-cyclical payments. No updating of payment yields was permitted for direct payments under the 2002 Act.

If market prices for all eligible crops fall to or below the loan rate, counter-cyclical payments could reach nearly \$8 billion annually for the 2004-07 crops, greatly exceeding direct payments of \$5.2 billion. Combining the effects of the larger payments with the higher limit, the number of producers whose payments are reduced and the percentage reduction in

Figure 4.1. Estimated reduction in direct and counter-cyclical payments (current payment limits)



Source: Commission estimates

counter-cyclical payments is expected to be very similar to the number of producers whose payments are reduced and the percentage reduction in payments because of the \$40,000 limit on direct payments. Furthermore, it is very likely that many of the same producers would have both their direct and counter-cyclical payments reduced under low prices.

The possible impact of current payment limits is shown in figure 4.1. The payment limit on direct payments could reduce payments by about \$85 million, with about 1 percent of producers having payments reduced. In addition, the payment limit on counter-cyclical payments could reduce payments by about \$125 million affecting about 1 percent of producers. When prices for eligible crops move above each crop's loan rate, fewer producers would reach the \$65,000 limit on counter-cyclical payments and the reduction in payments could be much less.

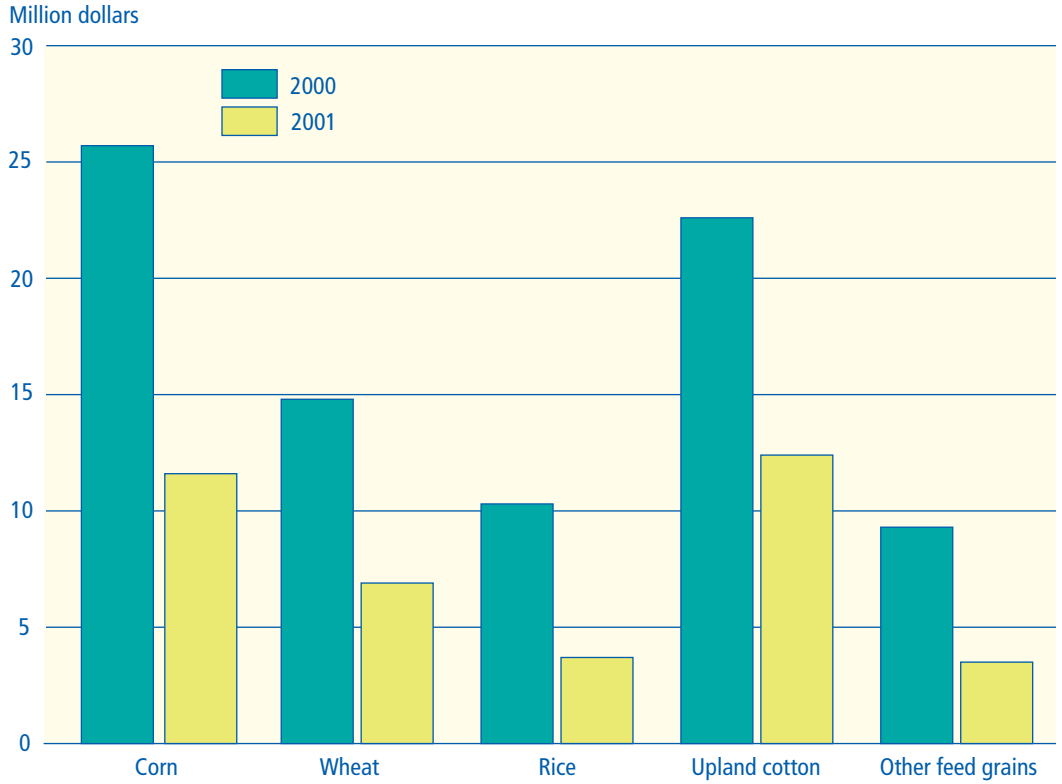
The 2002 Act limits loan deficiency payments and marketing loan gains to \$75,000 per person. However, there is no limit on marketing loan benefits realized through the use of commodity certificates or through the forfeiture of marketing assistance loans. Thus, the current payment limit on loan deficiency payments and marketing loan gains does not reduce the amount of marketing loan benefits a producer may receive.

Reduction in Payments by Commodity

In 2000, the \$40,000 limit reduced upland cotton PFC payments by \$22.6 million and rice PFC payments by \$10.3 million (figure 4.2). The reduction in payments amounted to 3.8 percent of total payments allocated for upland cotton and 2.3 percent of payments allocated for rice (appendix table 4.5). The limit reduced PFC payments for wheat by \$14.8 million and lowered corn payments by \$25.7 million, the most of any commodity in 2000. For these two crops, the reduction in payments amounted to 1.1 percent of PFC payments allocated to each. PFC payments for other feed grains (sorghum, barley, and oats) were reduced by \$9.3 million in 2000. The reduction in payments averaged 2.5 percent of total PFC payments for the three crops. Many of these producers likely had payments reduced because they also received payments for other crops, such as wheat or corn.

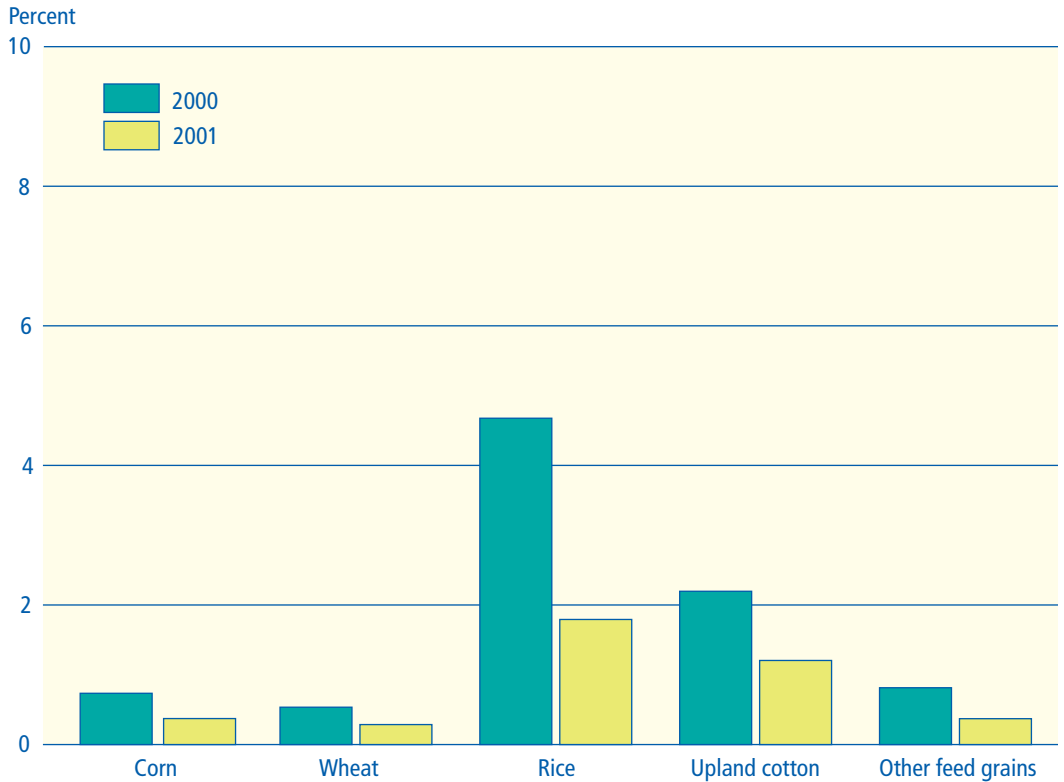
In 2001, the limit on PFC payments resulted in a smaller drop in payments for all crops, as the decline in PFC payments of about \$1 billion from the previous year caused fewer producers to reach the payment limit. In 2001, the payment limitation lowered upland cotton and rice PFC payments by \$12.4 million and \$3.7 million, respectively (appendix table 4.6). PFC payments for upland cotton were reduced by 2.5 percent and payments for rice were lowered by 1.1 percent, while payments for corn and wheat each were reduced by 0.6 percent in 2001. PFC payments for corn and wheat were lowered by \$11.6 million and \$6.9 million, respectively, because of the limit on PFC payments. Payments for sorghum, barley, and oats were reduced by \$3.5 million or 1.2 percent.

Figure 4.2. Reduction in PFC payments by commodity (\$40,000 limit)



Source: USDA Farm Service Agency

Figure 4.3. Percentage of producers having PFC payments reduced (\$40,000 limit)



Source: USDA Farm Service Agency

Payment limits tend to lower payments to a higher percentage of producers receiving upland cotton and rice payments than producers receiving payments for other crops (see appendix tables 4.3 and 4.4 for the number of producers receiving payments by crop). In 2000, the \$40,000 PFC limit reduced payments to 0.7 percent of producers receiving corn payments and 0.5 percent of producers receiving wheat payments (figure 4.3). For sorghum, barley, and oats, from 0.3 to 1.3 percent of producers receiving PFC payments for those crops had payments reduced. In contrast, 2.2 percent of the producers receiving upland cotton and 4.7 percent of the producers receiving rice PFC payments had payments lowered in 2000 because of the payment limit. In 2001, 0.3 percent of the producers receiving wheat and 0.4 percent of the producers receiving feed-grain payments had payments reduced, while 1.2 percent of the producers receiving upland cotton payments and 1.8 percent of the producers receiving rice payments had payments lowered because of the \$40,000 limit on PFC payments.

Direct payment rates for wheat, feed grains, upland cotton, and rice are between the 2000 and 2001 crop PFC payment rates. As a result, the reduction in payments in 2000 and 2001 because of the \$40,000 limit on PFC payments can be used to approximate the expected reduction in payments for those commodities resulting from the \$40,000 limit on direct payments, assuming producers reaching the payment limit do not restructure further. For the 2002-07 crops, the payment limit on direct payments is projected to reduce payments for corn by about \$15 million, other feed grains by about \$7 million, wheat by about \$10 million, rice by about \$7 million, and upland cotton by about \$20 million.

The above estimates understate the loss in direct payments due to the payment limitation, because the 2002 Act made soybeans, other oilseeds, and peanuts eligible for direct payments and these payments are also subject to limits. For soybeans and other oilseeds, direct payments for these crops will be combined with direct payments for wheat, feed grains, rice, and upland cotton to determine whether payments exceed the \$40,000 limit. Direct payments on peanuts are subject to a separate limit of \$40,000. Therefore, more producers growing oilseeds will be subject to payment limits than in the past. Making direct payments on soybeans, other oilseeds, and peanuts subject to payment limits is projected to reduce payments for the 2002-07 crops by about \$25 million annually, leading to a total reduction of about \$85 million annually in direct payments because of the \$40,000 payment limitation.

As indicated earlier, the \$65,000 payment limit on counter-cyclical payments is expected to lower total counter-cyclical payments by as much as \$125 million, if prices for all eligible crops fall below each crop's loan rate. Maximum counter-cyclical payments per base acre were compared to direct payments per acre to arrive at estimates of the reduction in counter-cyclical payments by crop due to the \$65,000 limit on counter-cyclical payments. Adjustments were made to account for differences in the payment limits and payment yields for direct and counter-cyclical payments.

Under a low-price scenario, the \$65,000 payment limit is projected to lower counter-cyclical payments by as much as \$3 million for sorghum, barley, and oats, \$3 million for rice, \$10 million for wheat, \$32 million for corn, and \$60 million for upland cotton. Including the

counter-cyclical payments that will be paid for oilseeds, the \$65,000 limit could further reduce counter-cyclical payments by an additional \$10-\$20 million, if the prices for all crops eligible for counter-cyclical payments fall below each crop's loan rate. Compared with direct payment rates, maximum counter-cyclical payment rates are much higher for corn, oats, upland cotton, and peanuts. When prices are low, the limit on counter-cyclical payments will lead to a greater reduction in payments for corn, oats, upland cotton, and peanuts than the limit on direct payments. For the remaining crops eligible for direct and counter-cyclical payments, the payment limit on direct payments is expected to lead to a greater reduction in payments than the limit on counter-cyclical payments.

A higher percentage of rice and upland cotton producers have their payments reduced because of payment limitations for two reasons. First, rice and upland cotton farms tend to be larger than wheat, oilseed, and feed-grain farms and, since direct and counter-cyclical payments are based on historical production (base acres times program yield), payments increase with farm size. According to the 1997 Census of Agriculture, farms producing rice harvested on average 336 acres of rice and farms producing upland cotton harvested on average 420 acres of upland cotton. In contrast, farms producing wheat, corn, and soybeans each averaged less than 240 harvested acres. In 1997, less than 10 percent of the farms growing corn,

Table 4.2. Distribution of farms by acres harvested, 1997

	1-49	50-99	100-249	250-499	500-999	1,000-1,999	2,000 or more
	Percent						
Corn	37.8	18.1	23.9	12.8	5.8	1.3	0.2
Sorghum	31.0	21.7	27.9	12.3	5.1	1.5	0.3
Barley	45.5	16.2	21.4	10.6	4.8	1.1	0.3
Oats	85.1	9.3	4.6	0.6	0.1	–	1/
Wheat	37.5	16.1	20.2	12.0	8.8	4.1	1.1
Soybeans	31.1	19.5	26.3	14.6	6.7	1.6	0.3
Upland cotton	15.0	11.8	23.4	20.9	18.7	8.2	1.9
Rice	8.9	9.9	31.1	30.3	15.4	3.7	0.8
Peanuts	46.5	19.2	22.6	8.2	2.8	0.5	¹

– Denotes less than 0.05 percent.

¹ Combined with previous category because of lack of data.

Source: 1997 Census of Agriculture

Table 4.3 Payments per base acre and base acreage of various crops needed to reach the payment limit on direct payments, 2002-07 crops

Crop	Unit	Payment rate, dollars per unit	Average program yield, per acre	Base acreage factor	Payment per base acre, dollars per unit	Base acres to reach \$40,000 payment limit
Corn	bushel	.28	102.7	.85	24.4	1,636
Sorghum	bushel	.35	57.0	.85	17.0	2,359
Barley	bushel	.24	46.6	.85	9.5	4,208
Oats	bushel	.024	50.6	.85	1.0	38,751
Wheat	bushel	.52	34.5	.85	15.2	2,623
Soybeans	bushel	.44	30.0	.85	11.2	3,565
Upland cotton	pound	.0667	600	.85	34.0	1,176
Rice	hundredweight	2.35	48.15	.85	96.2	416
Peanuts	ton	36	1.2	.85	36.7	1,089

Source: CCC estimates, FY 2004 President's Budget baseline

sorghum, barley, oats, soybeans, and peanuts harvested more than 500 acres of those crops (table 4.2). About 13 percent of the farms growing wheat harvested more than 500 acres of wheat but nearly one-fifth of the farms growing rice and over one-quarter of the farms growing cotton harvested more than 500 acres of those crops.

The second reason why a higher percentage of rice and upland cotton producers have their payments reduced is that payments per base acre tend to be higher for rice and upland cotton than for other commodities eligible for direct and counter-cyclical payments. For an individual producer, the payment per acre depends on the farm's program yield for each crop eligible for payments. Using estimates of national average direct payment yields as reported in the FY 2004 President's Budget baseline, direct payments average about \$96 per base acre for rice, \$37 per base acre for peanuts, \$34 per base acre for cotton, \$24 per base acre for corn, \$15 per base acre for wheat, and about \$11 per base acre for soybeans (table 4.3). As a result, it generally takes fewer acres of rice and upland cotton to reach the payment limitation on direct payments. In regions where program yields are above average, it takes fewer acres to reach the payment limitation than in regions with below-average program yields.

As with direct payments, counter-cyclical payments per acre vary widely from farm to farm and from region to region, reflecting differences in payment yields. Using estimates of national average counter-cyclical payment yields from the FY 2004 President's Budget baseline, counter-cyclical payments would average \$73 per base acre for upland cotton, \$79 per base acre for rice, and \$106 per base acre for peanuts, if market prices are at or below each eligible crop's loan rate (table 4.4). In contrast, counter-cyclical payments could average about \$40 per acre for corn, \$20 per acre for wheat, and \$11 per acre for soybeans under low prices.

Marketing assistance loan benefits per acre also tend to be higher for upland cotton and rice than for other commodities eligible for marketing assistance loans. For the 1999-2001 crops, marketing assistance loan benefits, including commodity certificate and forfeiture gains, averaged \$177 per harvested acre for rice, \$117 per harvested acre for upland cotton, \$38 per harvested acre for soybeans, \$29 per harvested acre for corn, and \$12 per harvested acre for wheat. The changes in loan rates under the 2002 Act could boost marketing loan benefits for

Table 4.4. Maximum counter-cyclical payments per base acre and base acreage of various crops needed to reach payment limit on counter-cyclical payments, 2002-07 crops

Crop	Unit	Maximum payment rate, dollars per unit		Average program yield per acre	Base acreage factor	Payment per base acre, dollars		Base acres to reach \$65,000 payment limit	
		2002-03	2004-07	2002-07	2002-07	2002-03	2004-07	2002-03	2004-07
Corn	bushel	.34	.40	127.7	.85	36.9	43.4	1,761	1,497
Sorghum	bushel	.21	.27	62.0	.85	11.1	14.2	5,873	4,568
Barley	bushel	.09	.15	55.7	.85	4.3	7.1	15,254	9,153
Oats	bushel	.026	.086	58.1	.85	1.3	4.2	50,623	15,305
Wheat	bushel	.54	.65	39.8	.85	18.3	22.0	3,558	2,956
Soybeans	bushel	.36	.36	36.3	.85	11.1	11.1	5,852	5,852
Upland cotton	pound	.1373	.1373	625	.85	72.9	72.9	891	891
Rice	hundredweight	1.65	1.65	56.32	.85	79.0	79.0	823	823
Peanuts	ton	104	104	1.2	.85	106.1	106.1	613	613

Source: CCC estimates, FY 2004 President's Budget baseline

corn by \$10 per acre, sorghum by \$16 per acre, barley by \$13 per acre, and wheat and oats by \$8 per acre, and reduce marketing loan benefits for soybeans by about \$10 per acre. Marketing assistance loan benefits per acre were left essentially unchanged under the 2002 Act for rice and upland cotton. Even though marketing assistance loan benefits vary from year to year depending on the level of market prices, marketing assistance loan benefits per harvested acre are projected to continue to be much higher for rice and upland cotton than for feed grains, soybeans, and wheat in most years. Marketing assistance loan benefits also vary widely from farm to farm and region to region reflecting differences in yields per acre across farms and regions of the country.

Generally, direct and counter-cyclical payment rates and marketing assistance loan benefits for the various crops eligible for payments reflect differences in production costs, with rice, upland cotton, and peanuts having higher payments and higher per-unit variable production cost than wheat, feed grains, and soybeans. For 2003, total support per base acre (the sum of direct payment, maximum counter-cyclical payment, and the loan rate) for corn amounts to \$2.42 per bushel or 193 percent of variable cost per bushel (table 4.5). For other feed grains, total support ranges from 145 to 164 percent of variable cost. Total support is equivalent to 218 percent of variable cost for wheat, 170 percent for peanuts, 259 percent for soybeans, 164 percent for upland cotton, and 186 percent for rice.

Table 4.5. Maximum support per base acre in relation to variable cost of production, 2003

Crop	Unit	Direct payment ¹	Maximum counter-cyclical payment ²	Marketing assistance loan rate	Total support	Variable cost	Direct payment divided by variable cost	Direct plus maximum counter-cyclical payment divided by variable cost	Total support divided by variable cost
		Dollars per unit					Percent		
Corn	bushel	0.17	0.26	1.98	2.42	1.23	14	35	193
Sorghum	bushel	0.25	0.16	1.98	2.39	1.54	17	28	164
Barley	bushel	0.15	0.07	1.88	2.10	1.43	11	15	145
Oats	bushel	0.02	0.02	1.35	1.39	0.86	2	4	153
Wheat	bushel	0.38	0.45	2.80	3.63	1.62	23	50	218
Soybeans	bushel	0.28	0.28	5.00	5.56	2.07	13	26	259
Upland cotton	pound	0.05	0.11	0.52	0.69	0.34	29	40	164
Rice	hundredweight	1.44	1.18	6.50	9.12	4.68	13	54	186
Peanuts	ton	27.39	79.13	355.00	461.53	0.11	10	39	170

Note: Direct and counter-cyclical payments are decoupled from production.

¹Direct payment rate adjusted for nonpayment acres and direct payment yield relative to projected yield.

²Counter-cyclical payment rate adjusted for nonpayment acres and counter-cyclical payment yield relative to projected yield.

Source: CCC estimates, FY 2004 President's Budget baseline and USDA Agricultural Baseline Projections to 2012

Reduction in Payments by State

In 2000, California producers reaching the \$40,000 limit on PFC payments had payments reduced by \$19.6 million (figure 4.4). A total of 1,146 California producers had their payments reduced by \$17,093 on average. Texas producers had PFC payments lowered by \$10.0 million. Reduced payments to upland cotton producers accounted for 60 percent of the reduction in payments in California and 35 percent of the payment reduction in Texas. The payment reductions in California and Texas represented 36 percent of the total reduction in payments across all States in 2000 and 39 percent in 2001.

Several other States had PFC payments reduced by \$3-\$5 million in 2000. Kansas had payments reduced by \$4.85 million, the third most of any State. In Kansas, 1,029 wheat, corn, sorghum, barley, and oats producers had payments reduced on average by \$4,711 in 2000 because of the limit of \$40,000 on PFC payments. The fourth leading State, Arkansas, had PFC payments reduced by \$4.03 million. Other States that had payments reduced by \$3-\$5 million in 2000

Figure 4.4. Reduction in PFC payments by State, 2000 (\$40,000 limit)

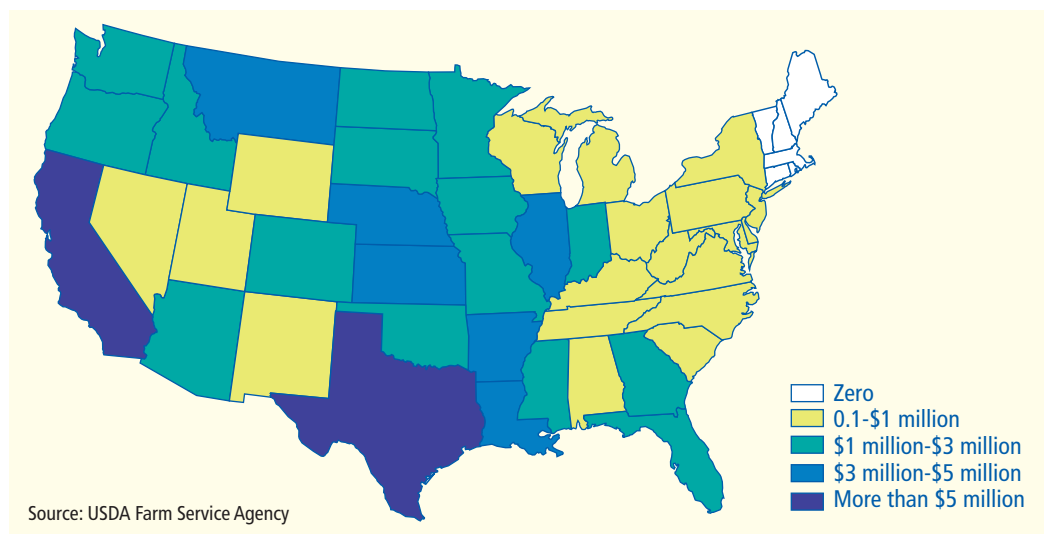
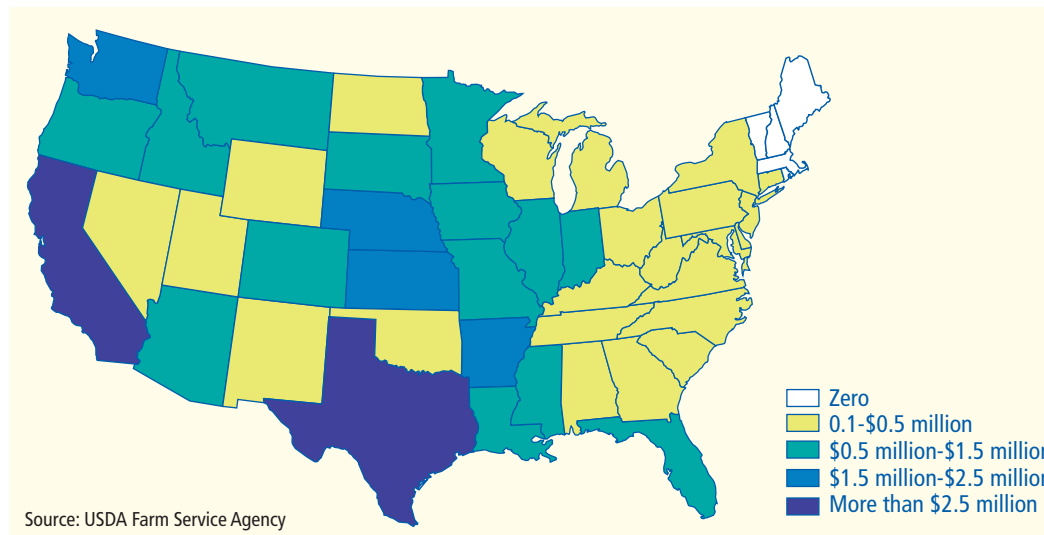


Figure 4.5. Reduction in PFC payments by State, 2001 (\$40,000 limit)



included: Nebraska, \$3.65 million; Illinois, \$3.45 million; Montana, \$3.11 million; and Louisiana, \$3.08 million. Generally, the relative ranking of States by the amount payments were reduced because of the \$40,000 limit on PFC payments holds for both 2000 and 2001 (figure 4.5).

Another measure of the relative effects of payment limits across States and regions is the percentage reduction in payments. Nationally, the \$40,000 limit on PFC payments reduced payments to producers by 1.6 percent in 2000 and 0.9 percent in 2001, but the percentage reduction in payments varied widely across States and regions (appendix table 4.3). In 2000, PFC payments to producers in Florida were reduced by 12.3 percent, the largest percentage reduction of any State (figure 4.6). Florida was followed by California (reduction of 9.7 percent), and Nevada (7.7 percent). In Nevada, 5 producers had their payments lowered an average of \$13,908. In 2000, the payment limit on PFC payments reduced payments by 3-5 percent in Arizona, Colorado, Delaware, and Oregon. For the most part, the States in which the percentage reduction in payments exceeded the national average for 2000 also had above-average percentage reductions in payments for 2001 (figure 4.7, appendix table 4.4).

Figure 4.6. Percentage reduction in PFC payments by State, 2000 (\$40,000 limit)

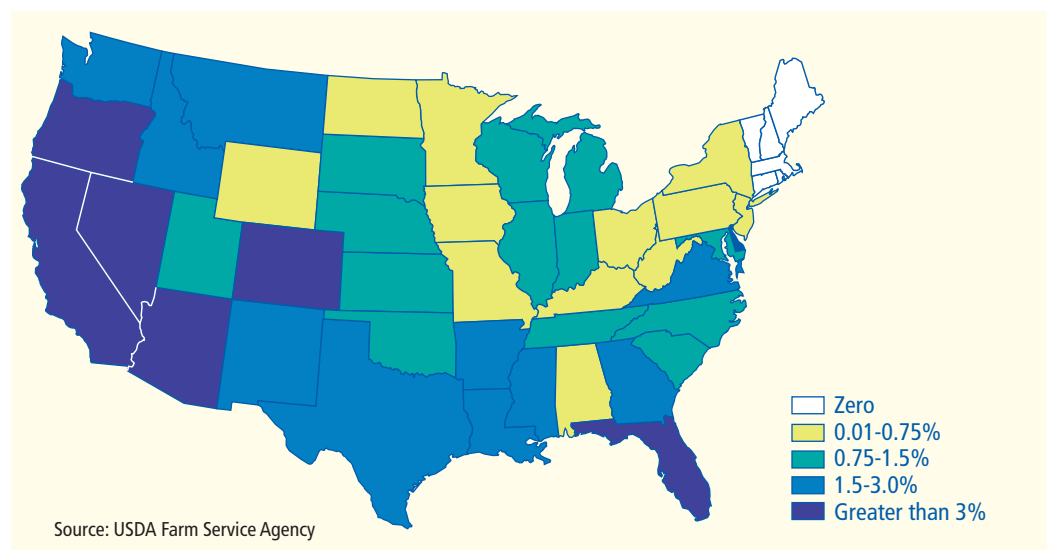
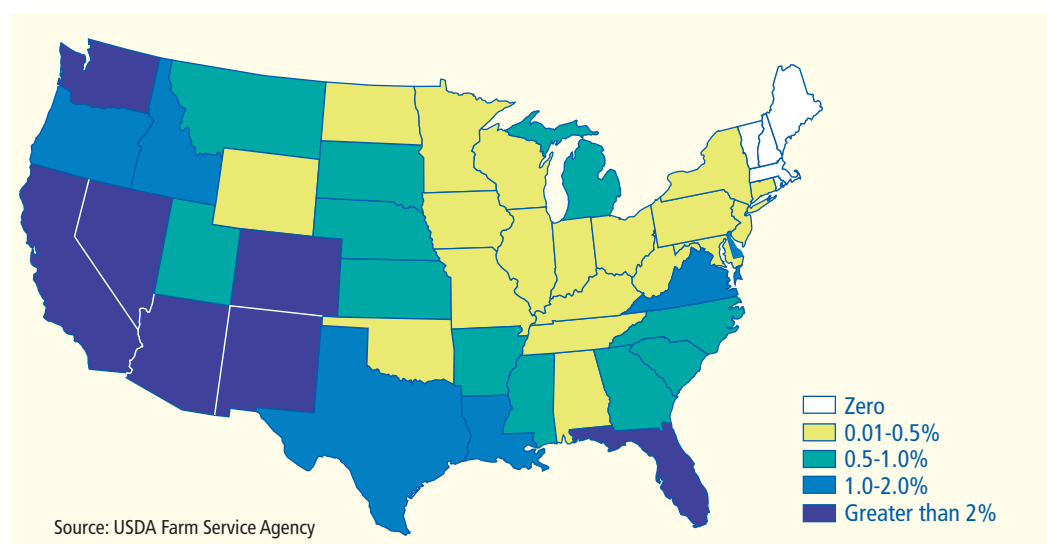


Figure 4.7. Percentage reduction in PFC payments by State, 2001 (\$40,000 limit)



While the above data support the conclusion that payment limits tend to result in a greater decline in payments in States and regions where upland cotton and rice production dominate, producers in other States and regions also are affected by payment limits. Producers in 42 States in 2000 and producers in 43 States in 2001 had payments reduced because of the \$40,000 limit on PFC payments. The producers affected by payment limits produce a variety of crops and are scattered throughout the primary wheat, feed-grain, rice, and upland cotton producing States and regions. Furthermore, making soybeans, other oilseeds, and peanuts eligible for direct and counter-cyclical payments under the 2002 Act is expected to increase the number of producers who have payments reduced because of payment limits in the Corn Belt and in other regions where there is a high level of concentration of production of these crops.

Farm Structure

The limited effects of current payment limitations on payments to producers may be due to the payment limits being set at a level at which few producers are affected. Alternatively, many producers may potentially be affected but may be able to reorganize their farming operation to limit the reduction in payments. There are several ways a farm may restructure under existing rules and qualify for additional payments. For example, the farm may add individuals or entities that are actively engaged in the farming operation with these additional persons qualifying for payments (see Chapter 2).

Restructuring of the farming operation in response to payment limits may also change the sharing of production and price risk between the landowner and the farm operator. An owner-operator reaching the limit on payments may decide not to create additional entities and instead cash rent or share rent a portion of the farm to someone else, shifting a portion of the risk to the renter. In this instance, the owner-operator may be able to capture a major portion of the payments that would otherwise be lost because of payment limits through a cash or share rental agreement. The ability of the owner-operator to capture payments by either cash or share renting would depend on the strength of the local land rental market and the extent to which government payments are bid into land rents.

The operator who rents land and reaches the payment limit may also reorganize the farming operation by adding additional individuals or entities that are actively engaged in the farming operation or switching from a cash to a share rental agreement. The acceptability of such a restructuring depends on the landowner's willingness and ability to handle risk.

Data on the size distribution of wheat, soybean, corn, rice, and upland cotton farms by State from the 1997 Census of Agriculture were used to provide an indication of the extent of farm restructuring and the amount of payments by crop that could be potentially affected by payment limitations. For each State, the number of acres needed for a farm to reach the payment limitation was determined by dividing the applicable payment limitation by the payment rate times the State average program payment yield for each eligible crop. Each farm was assumed to be operated by two eligible payment limit persons, doubling the payment

limitation for direct and counter-cyclical payments. Under these assumptions, the \$40,000 payment limitation on direct payments was estimated to reduce payments to program participants by about \$185 million annually, or 3-4 percent. In comparison, the FSA data indicate that payments are lowered by about 1.6 percent. This suggests that many farms are structured or have restructured to reduce the effects of payment limitations.

One way for farms to restructure to avoid payment limits is to increase the number of producers (persons actively engaged) in the farming operation, thereby increasing the amount of payments that a farm can receive. At the request of the Commission, the FSA provided data on the distribution of the number of producers (persons) on FSA farms. Nationally, 87.9 percent of FSA farms had 1-2 producers, 10.9 percent had 3-5 producers, 1.1 percent had 6-10 producers, and 0.1 percent of farms had 11 or more producers in 2002 (table 4.6). It is likely that many of the farms with a large number of producers are structured to lessen the effects of payment limits. In 2002, there were 325 farms with 21 or more producers. Ninety percent of these farms were located in 9 States—Arkansas, California, Illinois, Louisiana, Mississippi, Missouri, North Dakota, Texas, and Washington. In many instances, these same States were among the leading States in terms of the value of payments lost and the number of producers who had payments reduced because of the limit on PFC payments.

The current limitations on direct and counter-cyclical payments may discourage a small number of large producers from expanding. If a producer reaching the payment limitation on direct and counter-cyclical payments is limited in the ability to add additional persons that are actively engaged in the farming operation, the decision to expand would be based on the expected returns of owning or renting additional land, excluding those government payments that may be subject to payment limitations. If payments per acre are relatively low and make up a small portion of the purchase or rental value per acre, the decision to expand is probably less influenced by payment limitations.

A producer whose payments are restricted by payment limits could elect to expand by purchasing or renting cropland in which a small portion of the acreage is eligible for direct and counter-cyclical payments. Alternatively, the producer could purchase (or rent) land in which a high percentage of the land is eligible for direct and counter-cyclical payments, but the base acreage of the land purchased (or rented) applies to crops in which direct and anticipated future counter-cyclical payment rates are low compared to other crops. Even though these effects appear to be very small, current payment limitations may have limited expansion of farms specializing in upland cotton and rice production more than farms specializing in grain and oilseed production.

Table 4.6 Number of FSA farms categorized by the number of producers per farm

	1-2	3-5	6-10	11-20	21 or more	Total
Alabama	29,899	2,477	454	77	0	32,907
Alaska	70	2	0	0	0	72
Arizona	1,675	399	80	16	0	2,170
Arkansas	17,877	7,634	1,415	194	35	27,155
California	9,257	2,416	634	149	35	12,491
Colorado	14,151	3,330	347	35	4	17,867
Connecticut	1,528	52	7	0	0	1,587
Delaware	3,351	253	3	0	0	3,607
Florida	6,619	144	24	3	0	6,790
Georgia	35,815	1,979	176	8	0	37,978
Idaho	14,359	1,808	333	53	0	16,553
Illinois	132,526	24,416	1,571	153	18	158,684
Indiana	94,041	11,543	596	60	5	106,245
Iowa	138,779	10,724	544	42	5	150,094
Kansas	83,540	20,539	1,853	137	4	106,073
Kentucky	51,590	4,871	293	14	0	56,768
Louisiana	17,572	5,262	1,536	439	97	24,906
Maine	2,457	204	3	1	0	2,665
Maryland	11,136	809	12	0	0	11,957
Massachusetts	1,519	124	0	0	0	1,643
Michigan	51,686	3,632	173	23	1	55,515
Minnesota	92,483	5,067	246	8	1	97,805
Mississippi	24,010	3,781	945	179	32	28,947
Missouri	64,220	9,694	735	65	10	74,724
Montana	19,896	2,795	277	30	2	23,000
Nebraska	74,138	11,174	775	47	1	86,135
Nevada	372	35	0	0	0	407
New Hampshire	745	69	0	0	0	814
New Jersey	2,353	33	1	0	0	2,387
New Mexico	3,979	340	26	4	0	4,349
New York	22,271	1,554	59	0	0	23,884
North Carolina	50,261	3,571	361	32	3	54,228
North Dakota	50,589	5,333	458	35	17	56,432
Ohio	79,258	7,254	243	8	0	86,763
Oklahoma	47,691	5,153	451	39	0	53,334
Oregon	7,071	1,076	225	32	6	8,410
Pennsylvania	31,670	1,684	19	1	0	33,374
Rhode Island	142	0	0	0	0	142
South Carolina	20,771	761	210	2	0	21,744
South Dakota	44,640	5,051	349	13	0	50,053
Tennessee	35,916	4,927	455	15	0	41,313
Texas	86,837	19,213	2,453	287	37	108,827
Utah	3,642	212	19	2	0	3,875
Vermont	2,191	220	25	0	0	2,436
Virginia	29,334	1,060	63	0	0	30,457
Washington	7,745	2,878	658	80	12	11,373
West Virginia	3,727	74	3	0	0	3,804
Wisconsin	80,733	2,989	104	6	0	83,832
Wyoming	3,929	274	8	0	0	4,211
U.S. total	1,610,061	198,890	19,222	2,289	325	1,830,787

Source: USDA Farm Service Agency

Land Values, Rural Communities, Agribusiness Infrastructure, Planting Decisions, and Supply and Prices of Covered Commodities

Current farm programs certainly do affect land values, agribusiness infrastructure, planting decisions, and the supply and prices of covered commodities. In fact, there is strong evidence that a portion of government payments, which likely varies regionally, is bid into cash rents and capitalized into land values. Government payments support agribusiness infrastructure and affect the planting decisions and the supply and prices of covered commodities (see Chapter 5 for further discussion of the effects of government payments).

This chapter focuses more narrowly on the effects of current payment limits rather than on the effects of payments. The effects of current payment limitations on land values, rural communities, agribusiness infrastructure, planting decisions, and the supply and prices of commodities eligible for direct and counter-cyclical payments and marketing loan benefits are largely inconsequential. Few producers are affected by current payment limits and current limits only modestly reduce payments to producers.

Current payment limits reduce direct and counter-cyclical payments, which are decoupled from production, by about 1.6 percent. Producers can either elect to plant any crop, except in some instances fruits, vegetables, and wild rice, or not grow a crop and continue to receive direct and counter-cyclical payments so long as they comply with wetland provisions and conservation requirements, effectively control noxious weeds, and keep base acres in agricultural or conserving uses. Since direct and counter-cyclical payments for the most part do not depend on which crop is planted and few producers have payments reduced because of payment limits, current payment limits likely have essentially no effect on plantings and production of program crops.

Loan deficiency payments and marketing loan gains are paid on current production and a limitation on these benefits could affect supplies and prices of covered commodities. Currently, loan deficiency payments and marketing loan gains are limited to \$75,000 per person. This limitation does not affect the supplies and prices of covered commodities, since a producer reaching the payment limitation may capture the marketing loan benefit by either electing to forfeit the commodity held as collateral for a marketing assistance loan to the CCC or using commodity certificates to settle the loan.

Administrative Costs

In addition to the reduction in payments, current payment limitations impose other costs on producers. As indicated above, many producers who would otherwise be affected by payment limitations appear to partially or totally avoid current payment limitations by restruc-

turing their farming operations. Producers choosing to restructure may incur costs. These costs could include legal and other consulting fees and time spent to develop the necessary paperwork and to negotiate new crop share and cash rent agreements.

Producers must complete certain forms as required by the FSA to administer payment limitations. Producers must take time to fill out the forms needed to apply payment limits and to respond to inquiries if questions arise. The FSA estimated these costs for the Commission at about \$8 million annually (table 4.7). Producers' legal and consulting fees for forming entities to garner additional payments are not included in this estimate nor does the estimate include the cost of maintaining records and gathering information. Some producers may also seek legal advice and representation and incur additional costs if the farm business structure is challenged as a scheme or device to avoid payment limitations.

Current payment limitations reduce taxpayer costs by lowering payments slightly. These savings are partially offset by the government costs of implementing and enforcing payment limitation regulations. These costs include: employee and other expenses to oversee that forms related to the administration of payment limitations are filled out and filed properly; costs to load information electronically and to develop, maintain, and refine software used to track payments; and costs to investigate, gather evidence, and prosecute instances in which producers have either violated or appear to have violated regulations on payment limits. USDA spends about \$16 million a year on these activities. The estimate covers the cost of administering all payment limits relating to farm programs. The FSA was unable to isolate the costs of administering payment limits for the programs being considered by the Commission. The FSA county offices, which interact with producers and process forms used for payment eligibility and payment limitation determinations, incur the bulk of the government cost. USDA was unable to provide the Commission with an annual estimate of the payments recovered from those found to be in violation of payment limitation regulations.

Table 4.7. Annual government and producer costs of implementing farm program payment limits

Item	Dollars
FSA county offices ¹	12,063,188
FSA State offices ²	3,112,545
FSA Washington, D.C. staff ³	122,183
FSA cost for forms ⁴	28,157
USDA Office of the Inspector General ⁵	850,327
Total annual government cost	16,176,400
Producer cost for completing paperwork ⁶	7,883,952
Total annual government and producer cost	24,060,352

¹Source: FSA work measurement data. The estimate is an average for FY 1999 through FY 2002 and includes benefits and overhead.

²For this estimate, each FSA State office provided information on its FY 2002 expenses for implementing payment limitations.

³Cost of staff that writes regulations and handbooks and provides guidance to field staff.

⁴Source: FSA estimate submitted to the Office of Management and Budget in packet for approval of payment eligibility and payment limit forms. The estimate includes expenses for form development, printing, distribution, and storage.

⁵Source: Office of the Inspector General administrative data. The estimate is an average for FY 1999 through FY 2002 and includes the cost of audits and investigations primarily related to payment limitations. The estimate does not include the cost of audits and investigations that identified payment limitation issues incidental to the primary objectives or allegations.

⁶Source: FSA estimate submitted to the Office of Management and Budget in packet for approval of payment eligibility and payment limit forms. The estimate includes time needed to fill out forms and travel time. It is based on an average hourly wage of \$12.00.

Commodity Certificate Exchanges

The Joint Explanatory Statement of the Committee of Conference for the 2002 Act states, “The Managers intend for the Commission to examine the feasibility of improving the application and effectiveness of payment limitation requirements, including the use of commodity certificates and unlimited forfeiture of loan collateral.” Consequently, the Commission examined how certificates are used, how they are accounted for and tracked by USDA, and the general effects of their use.

Evolution of Certificates

The use of certificates in the operation of farm commodity programs became prominent in 1983 as a way to pay producers and dispose of government-owned inventory (Payment-in-Kind). Some farm program payments were paid in certificates rather than cash. The certificates were transferable and could be redeemed for surplus inventory. Redeeming certificates for government inventory became associated with the marketing assistance loan program when forfeitures of loan collateral became a concern in the late 1990s.

In the late 1990s, farm prices fell sharply as the world economy slowed, currencies of Asian countries and others depreciated sharply, and good weather resulted in large farm production. With prices well below loan rates, producers increasingly began to reach the \$75,000 payment limit on loan deficiency payments and marketing loan gains. As part of broad financial assistance to producers, Congress responded to the limitation on loan deficiency payments and marketing loan gains in two ways. In the Agriculture, Rural Development, Food and Drug Administration and Related Agencies Appropriations Act of 2000 (Public Law 106-78), enacted in October 1999, the per-person limit was increased from \$75,000 to \$150,000. In addition, the legislation amended the 1996 Act to provide the Secretary of Agriculture discretionary authority to make commodity certificates available to producers. The authority to issue commodity certificates was continued in the 2002 Act and the limit on loan deficiency payments and marketing loan gains was lowered to \$75,000 per person.

How Certificates Are Currently Used

Current law provides the Secretary of Agriculture discretionary authority to use four possible methods to make in-kind payments:

- delivery of the commodity at a warehouse or similar facility;
- transfer of negotiable warehouse receipts;
- issuance of negotiable certificates which the CCC exchanges for a commodity owned or controlled by the CCC in accordance with applicable regulations; or
- other methods deemed appropriate by the CCC to promote the efficient, equitable, and expeditious receipt of in-kind payments so that a person receiving the payments receives the same total return as if the payment had been made in cash.

In February 2000, the Secretary of Agriculture chose to implement commodity certificate provisions based on the third method listed above. For producers with outstanding nonrecourse loans, a three-step commodity certificate exchange mechanism was instituted to allow CCC to first acquire and then dispose of quantities of commodities pledged as loan collateral. The three-step process is outlined in the following table.

The certificate three-step process

Step	Action taken
1	Producer secures a marketing assistance loan from CCC, offering a specified quantity of a commodity as collateral, and receives the applicable loan rate for each unit of the commodity placed under loan.
2	Producer turns the loan collateral over to the CCC in full satisfaction of the loan and purchases a commodity certificate at the alternative repayment rate, which is the adjusted world price (AWP) or “CCC determined value,” as applicable.
3	Producer exchanges the certificate for the quantity that was momentarily in CCC’s possession.

The AWP is used for cotton and rice, and the CCC determined value is the Posted County Price (PCP) for other commodities. The AWP is the world market price adjusted to U.S. location and the PCP is the current U.S. terminal cash or spot market price adjusted for location. The certificate exchange process is not permitted if the AWP or the PCP is above the loan rate. The income gained from the use of certificates is essentially identical to that gained through a loan deficiency payment or marketing loan gain. After the certificate exchange, the producer’s income is the receipts from the sale of the commodity at the market price plus the difference between the loan rate and the loan repayment rate—the AWP for cotton and rice and the PCP for other commodities.

The AWP is used as the alternative loan repayment rate for upland cotton and rice and the PCP is used as the alternative loan repayment rate for other crops eligible for marketing assistance loans. These two alternative loan repayment rates reflect the marketing assistance loan provisions contained in the 2002 Act. Under the 2002 Act, the Secretary is required to permit producers to repay marketing assistance loans for upland cotton and rice at a rate that is the lesser of loan rate or the world market price adjusted to United States quality and location (AWP). For other crops eligible for marketing assistance loans, the 2002 Act requires the Secretary to set the repayment rate at a rate that the Secretary determines will minimize potential loan forfeitures, minimize the accumulation of stocks, minimize the cost incurred in storing the commodity, and allow the commodity to be marketed freely and competitively in domestic and international markets. In response to this mandate, USDA has used the current cash or spot market price adjusted for location (PCP) to establish the loan repayment rate for all crops except upland cotton and rice.

Data on the Use of Certificates

Certificate use has grown sharply for two reasons. First, the lower market prices of the late 1990s and early 2000s caused an increase in producers reaching the \$75,000 (\$150,000 in some years) limit on loan deficiency payments and marketing loan gains. Cotton and rice prices were particularly low during the 2001 crop year. Second, certificates are used by Cooperative Marketing Associations (CMAs) and Loan Servicing Agents (LSAs) as a means to settle loans without having to track benefits received by each person in relation to payment limits. This reduces their administrative costs and allows CMAs to LSAs to freely market cotton and rice based on market conditions without considering whether a portion of the crop being marketed on behalf of their members is subject to payment limits (Bell).

If certificates were not available, the CMA or LSA would have to check with the FSA to determine if a member has reached the limit on loan deficiency payments and marketing loan gains. It may take the FSA several days to determine whether the producer's payment limit has been reached and to provide that information to the CMA or LSA. If a producer has reached the limit on payments, that producer's production would be ineligible for a loan deficiency payment or marketing loan gain. In order to avoid the additional administrative costs and additional marketing decisions involved when a producer reaches the limit on loan deficiency payments and marketing loan gains, many CMAs and LSAs have adopted the use of certificates as the preferred mechanism for obtaining marketing loan benefits for their members. As a result, not all certificate exchanges are a result of producers reaching the payment limit (GAO).

Table 4.8 shows the marketing assistance loan benefits derived from the use of certificates in recent years.

Another reason certificates and certificate exchanges are used is to encourage producers to settle marketing assistance loans when market prices are below loan rates rather than forfeit and deliver loan collateral to the CCC at loan maturity. Marketing assistance loans are a marketing tool for producers. Rather than market a commodity, a producer can choose to use current production as collateral for a nonrecourse loan. Access to the loan is not limited, giving all producers the option of forfeiting the collateral held for the nonrecourse loan to the CCC if market prices do not rise above the loan rate plus interest.

If, after harvesting a loan-eligible crop, market prices are below loan rates, a producer may obtain a loan deficiency payment on the crop and forgo the use of the loan program. Or, the producer may use the loan program and receive a marketing loan gain by placing the crop under loan and repaying the loan at some point during its life at the loan repayment rate. If

Table 4.8. Certificate exchange gains by crop year

	1999/00	2000/01	2001/02	2002/03F
	Billion dollars			
Certificate exchange gains	0.099	0.616	1.974	0.739
	Percent			
Gains as a share of total marketing loan benefits	1.2	8.2	24.1	40.8
Share of gains accounted for by cotton and rice	93.9	85.9	98.9	100

F = forecast.

certificates are not available, once a producer reaches the \$75,000 limit on loan deficiency payments and marketing loan gains, the producer could leave any remaining collateral under loan (or place additional production under loan, if eligible), and upon loan maturity, forfeit that collateral to the CCC. The producer would forfeit, because the gain realized by forfeiting the collateral to the CCC is not subject to the payment limit on loan deficiency payments and marketing loan gains.

Certificates help to prevent loan forfeitures. The gains realized by a producer from using certificates are also not subject to payment limits. This gives producers reaching the payment limit the additional option of purchasing certificates and using the certificates to purchase the loan collateral transferred to the CCC. The current \$75,000 limit applies to loan deficiency payments and marketing loan gains, while the certificate exchange is viewed as neither; it is a transfer of title of the producer's loan collateral to the CCC with the CCC then exchanging the commodity for a certificate that was sold to the producer at the market price.

Economic Effects of the Current Use of Certificates

The Commission examined the consequences of issuing certificates under current law to avoid forfeiture of commodities to the government. As an example of the costs and benefits of permitting the use of certificates, consider a cotton producer having a single payment limit (one person only) of \$75,000 on loan deficiency payments and marketing loan gains, who harvests 1,000 acres of cotton with a yield 800 pounds per acre. The loan rate is \$0.52 per pound and the adjusted world price (AWP) is assumed to be \$0.395 per pound, making the loan deficiency payment rate \$0.125 per pound. The market price is assumed to be \$0.42 per pound, as the domestic market price is usually somewhat above the AWP for cotton.

With no payment limit, assume this producer could elect at harvest to receive \$100,000 in loan deficiency payments (1,000 acres x 800 pounds per acre x \$0.125 = \$100,000). The producer would then be free to market the crop at any time. With the payment limit in effect, the producer would receive \$75,000 in loan deficiency payments on three-quarters of the cotton production and payments are reduced by \$25,000 (table 4.9). The producer could use the remaining one-quarter of production as collateral for a marketing assistance loan.

The crop used as collateral for a loan is assumed to remain under loan until loan maturity and then be forfeited to the CCC, if prices remain below the loan rate. Assuming the CCC disposes of the cotton immediately after forfeiture by selling it at the market price, the CCC would incur estimated storage charges of \$0.04 per pound (current law requires CCC to pay storage for cotton but not for other commodities eligible for marketing assistance loans) and interest to the Treasury is estimated at \$0.005 per pound. In addition, the CCC would incur the difference between the loan principal paid to the producer and the revenue from the sale of the cotton.

In this example, the producer is also worse off because the producer was unable to receive the difference between the domestic market price and the AWP on the crop that was put under loan and forfeited to the CCC. If the producer did not have the option of forfeiting the crop, the producer's income would decline by \$25,000 rather than by \$5,000 as indicated in the above table, assuming the entire crop was marketed at harvest.

Whether CCC costs decrease or increase depends on several factors, such as the relationship between the AWP and the domestic market price and the level of these prices during the marketing year. If the market price is below the loan rate at harvest and the market price does not increase after the crop is forfeited, the government can reduce farm program costs by issuing certificates to avoid forfeitures. However, if prices are expected to rise, the government may be able to reduce outlays by not issuing certificates and encouraging forfeiture. If the AWP is below the domestic market price, the income of the producer affected by the payment limit would decline if the government did not issue certificates.

Table 4.9. Effects of loan forfeiture on farm income and CCC costs (cotton example) ¹

Item	\$75,000 limit on LDPs and MLGs with certificates	\$75,000 limit on LDPs and MLGs without certificates that results in forfeiture		
		AWP - \$0.025	AWP + \$0.025	AWP + \$0.075
CCC resale price	N.A.	AWP - \$0.025	AWP + \$0.025	AWP + \$0.075
(1) LDP paid by CCC (12.5 cents/lb.)	\$100,000	\$75,000	\$75,000	\$75,000
(2) Storage cost	N.A.	\$8,000	\$8,000	\$8,000
(3) Interest	N.A.	\$1,000	\$1,000	\$1,000
(4) Net resale cost	N.A.	\$30,000	\$20,000	\$10,000
(5) Total cost to CCC (sum of 1-4)	\$100,000	\$114,000	\$104,000	\$94,000
(6) Loan principal	N.A.	\$104,000	\$104,000	\$104,000
(7) Producer cash receipts	\$336,000	\$252,000	\$252,000	\$252,000
(8) Producer gross income (1+6+7)	\$436,000	\$431,000	\$431,000	\$431,000

N.A. = Not applicable.

¹ Example: A producer with single payment limit harvests 1,000 acres of cotton yielding 800 pounds per acre; Adjusted World Price is 39.5 cents per pound; current market prices is 42 cents per pound; loan rate is 52 cents per pound.

Source: Commission estimates

Table 4.10. Effects of loan forfeiture on farm income and CCC costs (corn example) ¹

Item	\$75,000 limit on LDPs and MLGs with certificates	\$75,000 limit on LDPs and MLGs without certificates that results in forfeiture		
		PCP - \$0.10	PCP	PCP + \$0.10
CCC resale price	N.A.	PCP - \$0.10	PCP	PCP + \$0.10
(1) LDP paid by CCC (20.0 cents/bu.)	\$90,000	\$75,000	\$75,000	\$75,000
(2) Storage	N.A.	0	0	0
(3) Interest	N.A.	\$1,400	\$1,400	\$1,400
(4) Net resale cost	N.A.	\$22,500	\$15,000	\$7,500
(5) Total cost to CCC (sum of 1-4)	\$90,000	\$98,900	\$91,400	\$83,900
(6) Loan principal	N.A.	\$148,500	\$148,500	\$148,500
(7) Producer cash receipts	\$810,000	\$675,000	\$675,000	\$675,000
(8) Producer gross income (1+6+7)	\$900,000	\$898,500	\$898,500	\$898,500

N.A. = Not applicable.

¹ Example: A producer harvests 3,000 acres of corn; yield of 150 bushels per harvested acre; producer receives loan deficiency payments up to the payment limit; receives loan at \$1.98 per bushel; PCP \$1.78 per bushel; producer markets crop at \$1.80 per bushel.

Source: Commission estimates

While the above example applies to upland cotton, the results generally hold for other commodities (table 4.10). For other commodities, the CCC does not pay storage costs, reducing the cost to the CCC when the commodity is placed under loan. However, market prices must increase somewhat during the marketing year to cover interest costs incurred by the CCC and for total CCC costs under forfeiture to fall below the cost incurred by CCC when certificates are issued.

With certificates, the harvested crop would be marketed during the marketing year as determined by market conditions. If CCC does not issue certificates, the producer reaching the payment limit would likely keep the portion of the crop not eligible for loan deficiency payments or marketing loan gains under loan until maturity, at which time the loan collateral is forfeited. This interruption of usual marketing patterns could affect availability to users and market prices during the marketing year and could result in reduced international competitiveness and lost export sales. A partially offsetting market behavior is that when stocks are isolated from the market due to government programs, private stockholders may reduce their stocks. To the extent that this substitution occurs, the disruptive effects just described may be reduced.

Another potential market disruption of not using certificates is the timing of government sales. Most forfeitures are likely to occur late in the marketing year. Government sales at that time, or carried into the harvest period of the subsequent crop year, may weaken market prices at a time when prices are already low because of harvest-time pressure.

Conclusions

- The \$40,000 payment limit on direct payments in the 2002 Act is projected to reduce payments to producers by about 1.6 percent or \$85 million per year, assuming producers reaching the payment limit do not restructure further. The \$65,000 limit on counter-cyclical payments is also forecast to reduce payments by about 1.6 percent or \$125 million per year when market prices for all crops eligible for counter-cyclical payments are at or below their respective loan rates. About 1 percent of all producers are expected to have payments reduced because of current payment limits.
- A larger proportion of upland cotton and rice producers are affected by payment limits than producers of other crops eligible for direct and counter-cyclical payments. A higher percentage of upland cotton and rice producers reach the limit on direct and counter-cyclical payments, because direct and counter-cyclical payment rates per acre (payment rate times program yield) and average acreage per farm are generally higher for rice and upland cotton than for other crops eligible for direct and counter-cyclical payments.
- Many producers affected by payment limits are located outside of the traditional upland cotton and rice production areas. In 2001, producers in 43 States reached the limit on PFC payments. Furthermore, making soybeans, other oilseeds, and peanuts eligible for

direct and counter-cyclical payments under the 2002 Act will increase the number of producers that have payments reduced because of payment limits in the Corn Belt and in other regions that are important producers of these crops.

- Producers currently have many options available to them to organize their business operation, and farm organizational structure has greatly reduced the effectiveness of limits on direct and counter-cyclical payments. Nationally, 87.9 percent of farms had 1-2 producers (persons actively engaged), 10.9 percent had 3-5 producers, 1.1 percent had 6-10 producers, and 0.1 percent of farms had 11 or more producers in 2002. It appears likely that a number of the farms with a high number of producers may be structured for the primary purpose of lessening the reduction in payments that would otherwise result from payment limits.
- In 2002, there were 325 farms with 21 or more producers. Ninety percent of these farms were located in 9 States—Arkansas, California, Illinois, Louisiana, Mississippi, Missouri, North Dakota, Texas, and Washington. These States were among the leading States in terms of the reduction in payments and the number of producers that had payments reduced because of the 1996 Act's limit on PFC payments.
- Current payment limits have very little effect on land values, rural communities and agribusiness infrastructure, planting decisions, and supplies and prices of covered commodities. The limited effects reflect the fact that only a small percentage of producers of all covered commodities reach the current limits on direct and counter-cyclical payments; further, payments to those reaching the limits are reduced only modestly and many of the largest farms are structured to lessen the extent to which the limits reduce payments.
- Producers must complete certain forms as required by the FSA to administer payment limitations. The FSA estimates this cost to producers at about \$8 million annually. This estimate does not include producers' legal and consulting fees for restructuring the farming operation in response to payment limits or the cost of legal advice and representation, if the farm business structure is challenged as a scheme or device to avoid payment limitations.
- USDA spends about \$16 million a year to administer all regulations related to farm program payment eligibility and payment limits, including payment limit regulations that pertain to conservation and disaster programs. These costs include: employee and other expenses to oversee that forms related to the administration of payment limitations are filled out and filed properly; costs to load information electronically and to develop, maintain, and refine software used to track payments; and costs to investigate, gather evidence, and prosecute instances in which producers have either violated or appear to have violated regulations on payment limits.
- Producers can avoid the current limit on loan deficiency payments and marketing loan gains by forfeiting nonrecourse marketing assistance loans or using commodity certificates. The use of commodity certificates avoids loan forfeitures, which are not currently subject to payment limits.

-
- The use of certificates under current marketing loan provisions results in little expected savings or costs to the taxpayer and only a slight increase in income for producers who would otherwise reach the payment limit and forfeit crops held as collateral for marketing assistance loans. Certificate exchanges arguably avoid potential market disruption both during the marketing season, as stocks that would otherwise be held under loan are free to be marketed, and at the end of the season, when the government would otherwise likely sell forfeited loan stocks.

References

Bell, Richard E. "Statement Before the Commission on the Application of Payment Limitations for Agriculture." Washington, D.C., June 17, 2003.

United States General Accounting Office (GAO). Farm Programs: Changes to the Marketing Assistance Loan Program Have Had Little Impact on Payments. GAO-01-964, Washington D.C., September 2001.

Chapter 5

Effects of Further Payment Limitations

This chapter examines the effects of further payment limitations on farm income, land values, rural communities, agribusiness infrastructure, producer planting decisions, and supply and prices of agricultural commodities. The chapter begins by summarizing the effects of government payments on farm income, which provides a basis for analyzing the effects of further payment limitations on other factors. The effects of further limitations on farm income vary, depending on the reduction in the various limits, the payments affected by further payment limitations, and the ways in which affected producers respond to the further limits, including the extent to which they may be able to restructure their farming operations to avoid further limitations. Despite the many uncertainties and vast number of possible options for further limiting payments to producers, this chapter attempts to draw some general conclusions as to the range of effects of further payment limitations.

Effects of Further Payment Limitations on Farm Income

Background

Past studies are in agreement that government payments increase farm income (farm cash receipts plus government payments less production expenses) and several studies indicate that \$1 billion in government payments increases farm income by \$600-\$900 million (FAPRI, 2002; Westcott and Price). Furthermore, a payment that is decoupled from production is thought to increase farm income more than an equivalent payment that is linked to the volume of production of a specific crop. Payments that are directly tied to the volume of production of a specific crop provide an incentive for producers to expand production by increasing total returns (market returns plus government payments) on each unit of production. In addition, farm programs reduce risk and the reduction in risk may also lead to increased investment and greater agricultural production. An increase in production raises aggregate production costs and lowers prices to producers, partially offsetting the additional income derived from government payments.

Government payments also raise producers' production expenses by increasing land values and land rents (see the next section of this chapter for a discussion of the relationship between government payments, land values, and land rents). Higher land values increase interest expenses for those producers who purchase land that is eligible for government payments. For producers who rent land eligible for government payments, higher land rents increase operating costs.

In the case of decoupled payments, payments are not tied to current production of a particular crop. Rather payments are determined by a producer's historical production. Since payments are not tied to the volume of current production, they do not increase with production and the incentive for producers to expand production of the crop receiving payments is greatly muted. Even though payments are decoupled from current crop-specific production, the link

between payments and historical production may create an incentive for some producers to increase production in the belief that higher production will eventually lead to larger payments in the future (see the final section of this chapter for a discussion of the relationship between government payments and the supply and prices of agricultural commodities).

Discussion

Since government payments raise farm income and reduce risk, further payment limitations would likely lower aggregate farm income and may increase risk. The magnitude of the decline in farm income and the effects on risk would depend on the reduction in the various limits, the payments affected by further payment limitations, the effects on supply and prices of agricultural commodities, and the extent to which affected producers may be able to restructure their farming operations to lessen the effects of further limitations. The effects of further payment limitations on farm income and risk are expected to vary across producers and regions and over time. As indicated earlier, a decoupled payment is expected to increase farm income by a larger amount than an equivalent payment tied to production. As a result, a payment limit that reduces decoupled payments is expected to reduce farm income more than a limit on payments tied to current production, assuming both payment limits reduce payments by an equivalent amount.

Short-run effects

In the short run, producers directly affected by further payment limits may have limited opportunity to restructure. For example, if further limitations are imposed only a few months prior to planting, affected producers may not have time to review the regulations, seek out legal advice, and develop and implement a restructuring plan that minimizes the potential effects of further limitations on farm income. Because of the short amount of time between imposition of further limitations and planting, many producers may have decided how much land they are going to plant to various crops in the coming year and pre-purchased fertilizer, seed, and chemicals. Nevertheless, lower payment limits could make it more difficult for those producers affected by further limitations to borrow money to cover operating expenses, causing some producers to adjust plantings. In the short run, producers may have entered into cash and crop share rental agreements, which establish who receives government payments and how those payments are to be divided between the landowner and the tenant.

In this instance, the effects of further limitations on farm income would largely depend on the number of producers affected and the amount of either historical or current production that would no longer be eligible for payments. If further limitations apply to payments and benefits that vary with market prices, such as counter-cyclical payments and marketing loan benefits, the decline in farm income from further payment limitations would also vary depending on market conditions.

Assuming producers do not restructure further, current payment limitations are estimated to reduce direct payments by 1.6 percent annually. When market prices for eligible crops are near each crop's national average loan rate, current payment limits are also estimated to lower

counter-cyclical payments by 1.6 percent. In total, the two limits are projected to reduce government payments by about \$210 million when market prices for eligible crops are near each crop's loan rate and \$85 million annually when counter-cyclical payments fall to zero.

The 1996 Act authorized nearly \$5.2 billion in PFC payments for the 2000 crops and payments were limited to \$40,000 per person. Under the 2002 Act, direct payments are also projected to be about \$5.2 billion and are limited to \$40,000 per person. Since the limit and value of payments are nearly the same for PFC payments in 2000 and direct payments for the 2002-07 crops, the Commission requested that the FSA use the data on the distribution of 2000-crop PFC payments to analyze the effects of further payment limitations. Two alternative scenarios were analyzed. Under the first scenario, the payment limitation on 2000 PFC payments was reduced from \$40,000 to \$30,000. The FSA analysis indicated that the reduction in the payment limit to \$30,000 would have reduced 2000-crop PFC payments by \$264 million. A total of 37,314 producers (payees) would have payments reduced under this scenario.

The second scenario reduced the payment limitation on 2000-crop PFC payments from \$40,000 to \$20,000. Lowering the payment limit from \$40,000 to \$20,000 would have reduced payments to an estimated 74,610 producers and reduced 2000-crop PFC payments by \$792 million. The estimated reductions in payments under the \$30,000 and \$20,000 payment limit scenarios are in addition to the reduction in payments caused by the \$40,000 limit on PFC payments.

The analysis of FSA PFC payment data for 2000 indicates that if the per-person limit on direct payments is reduced from \$40,000 to \$30,000, and assuming producers reaching the limit on payments have the same organizational structure as in 2000, direct payments would be reduced by 5 percent or by \$255-\$275 million annually (table 5.1). Reducing the payment limit on counter-cyclical payments from \$65,000 to \$50,000 would lower counter-cyclical payments by about 5 percent or by \$400-\$425 million annually when market prices for eligible crops are at or below each crop's national average loan rate. Under these payment

Table 5.1. Estimated annual reduction (increase above current limits) in payments under various payment limits, assuming no further restructuring

Payment limit	Direct payments	Counter-cyclical payments ¹	Marketing loan benefits ²
	Million dollars		
Direct payments			
\$30,000	255-275		
\$20,000	780-800		
Counter-cyclical payments			
\$50,000		400-425	
\$35,000		1,100-1,200	
Marketing loan benefits			
\$75,000			400-500

¹ Assumes market prices are at or below each eligible crop's national average loan rate.

² Assumes market prices are at 1999-2001 levels.

Source: Commission estimates

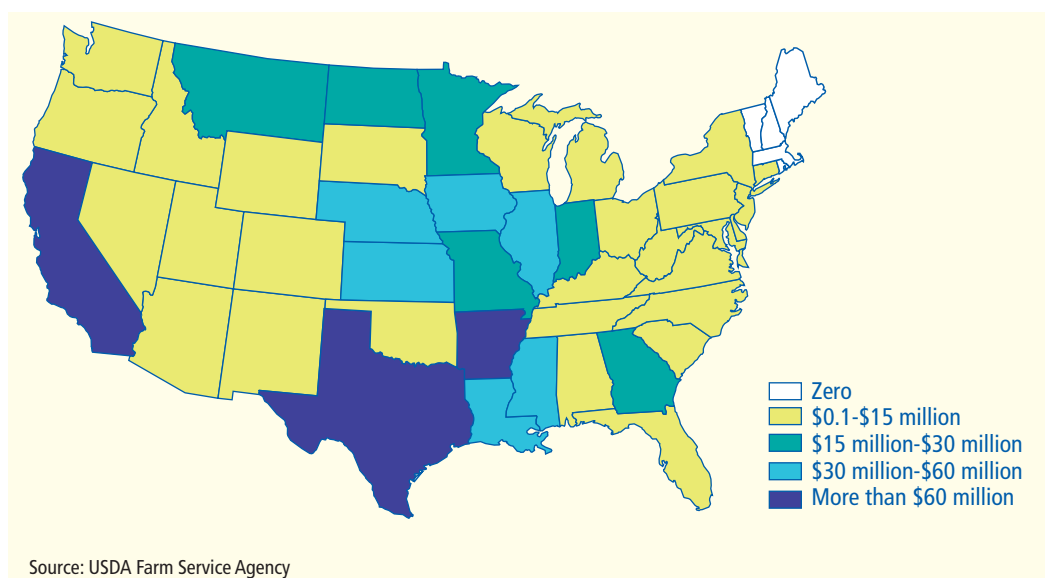
The FSA analysis of lowering the payment limit on 2000-crop PFC payments may provide an indication of the regional declines in government payments and farm income that would occur under further payment limitations for direct and counter-cyclical payments. As mentioned earlier, the value of PFC payments for the 2000 crops is nearly identical to the projected value of direct payments for the 2002-07 crops. In addition, the FSA data on payments to producers for the 2000 crops provide the best information available on the distribution of payments to producers eligible for direct and counter-cyclical payments. Since oilseeds were not eligible for PFC payments, lowering the payment limit on 2000-crop PFC payments likely understates the effects of further payment limits in areas where there is a high level of concentration of production of these crops.

The FSA analysis of lowering the payment limit on PFC payments indicates that lowering the payment limit from \$40,000 to \$30,000 on direct payments PFC could reduce payments to Texas producers by \$36 million, the most of any State (appendix table 5.1). California and Arkansas producers could have payments reduced by \$28 million and \$25 million, respectively. Producers in Illinois, Iowa, Kansas, Louisiana, Mississippi, and Nebraska could have direct payments reduced by \$10-\$20 million.

Lowering the payment limit from \$40,000 to \$20,000 on direct payments could lower payments to Texas producers by \$103 million and Arkansas and California producers could have payments reduced by \$70-\$80 million. Producers in Illinois, Iowa, Kansas, Louisiana, Mississippi, and Nebraska could have payments reduced by \$30-\$60 million.

Depending on the severity of the reduction in payment limits, many producers who in the past were unaffected by payment limits could see their payments reduced for the first time. In the short run, many of these producers may be unaware that their current business structure may dictate how much they are eligible to receive in government payments.

Figure 5.2. Reduction in payments under \$20,000 limit on 2000-crop PFC payments



The above estimates of the reduction in government payments from further limitations do not take into account any farm restructuring or adjustment in supply and prices of agricultural commodities that might occur under further payment limitations. Furthermore, as indicated earlier, the drop in government payments from further payment limitations could be partially offset by lower production expenses, reducing the decline in farm income. As mentioned earlier, those further payment limitations that reduce direct and counter-cyclical payments are expected to have much smaller effects on supply and prices of agricultural commodities than further payment limitations that reduce marketing loan benefits. As a result, the reduction in direct and counter-cyclical payments may closely approximate the short-run reduction in farm income that would occur under further limitations on direct and counter-cyclical payments.

There are no empirical estimates of how many producers could restructure or would choose to restructure under further payment limitations. In the short run, producers that have payments reduced under further payment limitations may be limited in their ability to restructure the farming operation and lessen the effects of further limitations on farm income. Nevertheless, there is no way to gauge how much restructuring may occur in the short or long run.

Long-run effects

To examine the long-run effects of further payment limitations, several example farms were constructed to illustrate the effects of further payment limitations and the actions producers might take in response to further payment limitations. These example farms included a 3,000-acre Midwest corn and soybean farm, a 4,500-acre Northern Plains wheat and barley farm, a 3,000-acre Mississippi cotton farm, a 2,000-acre Delta rice farm, and a 1,000-acre Georgia peanut farm (peanuts are generally produced in combination with other crops, but because peanuts have a separate payment limitation other crops are not included on this farm). These farms represent the largest 1 percent of farms in each region according to the 1997 Census of Agriculture. Each example farm is assumed to have two persons qualifying for payments. Market prices for determining counter-cyclical and marketing loan benefits are assumed to reflect the experience of 1999–2001, a period in which crop prices were generally low for a variety of reasons (good weather, strong dollar, slow world economic growth, etc.).

For the Midwest corn and soybean, Northern Plains wheat and barley, and Georgia peanut farms, payments are generally below the current payment limits for two persons of \$80,000 (\$40,000 per person) for direct payments and \$130,000 (\$65,000 per person) for counter-cyclical payments. The only exception is counter-cyclical payments for the Georgia peanut farm, which are estimated to exceed the limit for two persons by \$2,600. Lowering the payment limits to \$30,000 per person for direct payments and \$50,000 per person for counter-cyclical payments would not reduce payments going to the Midwest corn and soybean or the Northern Plains wheat and barley farms, while payments to the Georgia peanut farm would be reduced by \$30,000 or \$30 per acre (table 5.2). Since marketing loan benefits are projected to be less than \$150,000 for the Midwest corn and soybean farm, Northern Plains wheat and barley farm, and the Georgia peanut farm, limiting marketing loan benefits, including certificate exchanges and loan forfeiture, to \$75,000 per person would not reduce

marketing loan benefits to producers on these farms. Some large feed-grain, wheat, and oilseed farms would have payments and income reduced under further payment limitations by a larger amount than suggested by the three examples. Nevertheless, the example farms suggest that further payment limits may not lead to a sharp reduction in payments and income for many large feed-grain, wheat, and oilseed farms.

Further payment limitations would lead to a much sharper reduction in payments on the example cotton and rice farms. Assuming each farm has two persons, current limitations reduce direct payments by nearly \$51,000 on the 3,000-acre Mississippi cotton farm and by nearly \$84,000 on the 2,000-acre Delta rice farm. Current limitations lower counter-cyclical payments by nearly \$140,000 on the Mississippi cotton farm and by over \$13,000 on the Delta rice farm. Lowering per-person payment limits to \$30,000 for direct payments and \$50,000 for counter-cyclical payments would reduce payments going to both farms by \$50,000. The drop in payments would reduce per-acre net returns by 40 percent on the Mississippi cotton farm and 60 percent on the Delta rice farm.

Table 5.2. Effects of alternative payment limits and various example farms¹

	Current limits	\$30,000 limit on direct payments	\$30,000 limit on direct payments and \$50,000 limit on counter-cyclical payments	\$30,000 limit on direct payments, \$50,000 limit on counter-cyclical payments, and \$75,000 limit on marketing loan benefits
3,000-acre Midwest corn/soybean farm				
Government payments	265,533	264,843	264,543	264,843
Net cash income	372,783	372,093	372,093	372,093
Return per acre	124	124	124	124
4,500-acre Northern Plains wheat and barley farm				
Government payments	144,521	144,521	144,521	144,521
Net cash income	105,071	105,071	105,071	105,071
Return per acre	23	23	23	23
3,000-acre Mississippi cotton farm				
Government payments	487,200	467,200	437,200	310,000
Net cash income	125,700	105,700	75,700	-51,500
Return per acre	42	35	25	-17
2,000-acre Delta rice farm				
Government payments	479,500	459,500	429,500	310,000
Net cash income	82,500	62,500	32,500	-87,000
Return per acre	41	31	16	-44
1,000-acre Georgia peanut farm				
Government payments	258,400	258,400	228,400	228,400
Net cash income	192,400	192,400	162,400	162,400
Return per acre	192	192	162	162

¹ Each farm is assumed to have two persons qualifying for payments.

See appendix tables 5.2 to 5.6 for additional information.

Source: Commission estimates

If, in addition, marketing loan benefits, including the gains realized from using certificates and through forfeitures of marketing assistance loans, are limited to \$75,000 per person, payments going to the cotton and rice farms would be further reduced by more than \$100,000. For both farms, the lower payment limits on direct and counter-cyclical payments coupled with the \$75,000 per person limit on marketing loan benefits would cause returns per acre to go negative. Thus, under more restrictive payment limits, the cotton and rice farms could be under financial pressure unless they restructure. Cotton and rice farms of similar size in other regions would likely face similar financial pressure, and farms in areas with higher yields, such as those in Arizona and California, would have payments reduced more than the two example cotton and rice farms. Also, higher yielding grain and oilseed farms, such as those in irrigated areas, could have payments reduced much more than indicated by the example farms.

The Food and Agricultural Policy Research Institute (FAPRI) analyzed the possible implications of limiting a farm operation as defined by the Census of Agriculture to no more than \$40,000 in direct payments, \$60,000 in counter-cyclical payments, and \$175,000 in marketing loan benefits. FAPRI examined the effects of this stylized payment limitation scenario on the supply and prices of agricultural commodities, government payments, and farm income over the 2004-12 period. The assumptions supporting FAPRI's analysis are:

- The payment limit applies to a farming operation as defined by the Census of Agriculture.
- Producers are unable to avoid further limitations simply by “paper” reorganizations, certificates cannot be used to redeem marketing loans, and producers are prohibited from using loan forfeitures to avoid limitations.
- The size distribution of farms has changed since 1997 in much the same way as it changed between 1992 and 1997.
- The estimates of production ineligible for payment can be used to estimate both crop supply response and payments to producers.
- Limitations on direct payments have little effect on crop supplies, limitations on counter-cyclical payments have only a modest effect, and limitations on marketing loan benefits have much larger consequences.
- Producers adjust so that 50 percent of the acreage that would otherwise be ineligible for payments would retain eligibility for payments the first year and this proportion increases to 75 percent after 5 years.

In calendar year 2004, FAPRI estimates the stricter payment limits would reduce government payments by \$464 million or 2.5 percent and farm income by \$352 million or 0.7 percent (table 5.3). Farm income declines less than government payments as lower production costs, including rent paid to non-operators, more than offset lower crop marketing receipts. Over the period 2004-12, FAPRI projects government payments would decline on average

by \$435 million (2.5 percent) per year and farm income would drop by an average of \$238 million (0.5 percent) per year. The largest annual decline in government payments is projected to occur in 2005 with government payments declining by over \$700 million.

FAPRI indicates that the results of their analysis are very sensitive to the level of market prices, and the changes in government payments and farm income could be much more or less than indicated by the above averages. To indicate the sensitivity of the results to underlying assumption on market prices, FAPRI provided information on the likelihood that gov-

Table 5.3. FAPRI estimated average impacts of stricter payment limitations¹

	2004				2004-2012 Average			
	Current policy	Stricter limits	Absolute difference	Percentage difference	Current policy	Stricter limits	Absolute difference	Percentage difference
Crop area planted	Million acres				Million acres			
				Percent				Percent
Cotton	13.98	13.47	-0.51	-3.66%	13.65	13.45	-0.20	-1.48%
Rice	3.14	2.89	-0.25	-7.92%	3.14	3.07	-0.07	-2.23%
Corn	79.64	79.65	0.01	0.01%	80.72	80.70	-0.02	-0.03%
Soybeans	73.41	73.52	0.11	0.15%	73.67	73.71	0.03	0.04%
Wheat	62.01	61.99	-0.02	-0.04%	61.40	61.35	-0.05	-0.08%
Sorghum	9.68	9.74	0.06	0.61%	9.51	9.51	-0.01	-0.07%
6 major crops	241.85	241.25	-0.61	-0.25%	242.10	241.79	-0.32	-0.13%
Crop prices, marketing year	Dollars				Dollars			
Cotton/lb.	0.482	0.493	0.011	2.30%	0.514	0.520	0.006	1.13%
Rice/cwt.	4.845	5.243	0.399	8.23%	5.475	5.620	0.146	2.66%
Corn/bu.	2.097	2.096	-0.001	-0.04%	2.181	2.182	0.001	0.06%
Soybeans/bu.	5.008	4.999	-0.008	-0.17%	5.201	5.199	-0.002	-0.04%
Wheat/bu.	3.091	3.092	0.002	0.05%	3.230	3.232	0.002	0.07%
Sorghum/bu.	1.959	1.955	-0.004	-0.19%	2.060	2.062	0.002	0.07%
Government outlays, fiscal year	Million dollars				Million dollars			
Cotton	2,899	2,841	-57	-1.98%	2,513	2,321	-192	-7.63%
Rice	1,305	1,223	-82	-6.29%	1,142	1,044	-98	-8.60%
Corn	4,954	4,926	-28	-0.57%	5,304	5,225	-79	-1.49%
Soybeans	2,163	2,156	-8	-0.36%	2,044	2,032	-12	-0.59%
Wheat	2,290	2,269	-21	-0.91%	2,124	2,084	-40	-1.89%
Sorghum	393	389	-4	-0.94%	413	404	-9	-2.11%
Net CCC+Conservation	19,933	19,733	-200	-1.00%	19,952	19,520	-431	-2.16%
Farm income, calendar year	Million dollars				Million dollars			
Government payments	18,832	18,368	-464	-2.46%	17,648	17,213	-435	-2.47%
Crop marketing receipts	103,408	103,302	-106	-0.10%	112,767	112,761	-6	-0.01%
Other income plus inventory change	134,222	134,092	-130	-0.10%	138,446	138,423	-22	-0.02%
Rent to non-operators	13,135	13,047	-89	-0.68%	14,108	13,998	-110	-0.78%
Other production costs	194,165	193,906	-259	-0.13%	205,316	205,202	-114	-0.06%
Net farm income	49,162	48,810	-352	-0.72%	49,437	49,198	-238	-0.48%
	Dollars per acre				Dollars per acre			
Land value, end of year	1,335.21	1,332.71	-2.50	-0.19%	1,485.32	1,479.55	-5.78	-0.39%

¹ Results represent average of stochastic results for 500 alternative futures.

ernment payments and other variables would fall within a prescribed range. FAPRI indicated that during the period FY 2004-12 average annual government payments are projected to fall by \$325 to \$600 million 95 percent of the time under their stylized payment limit scenario.

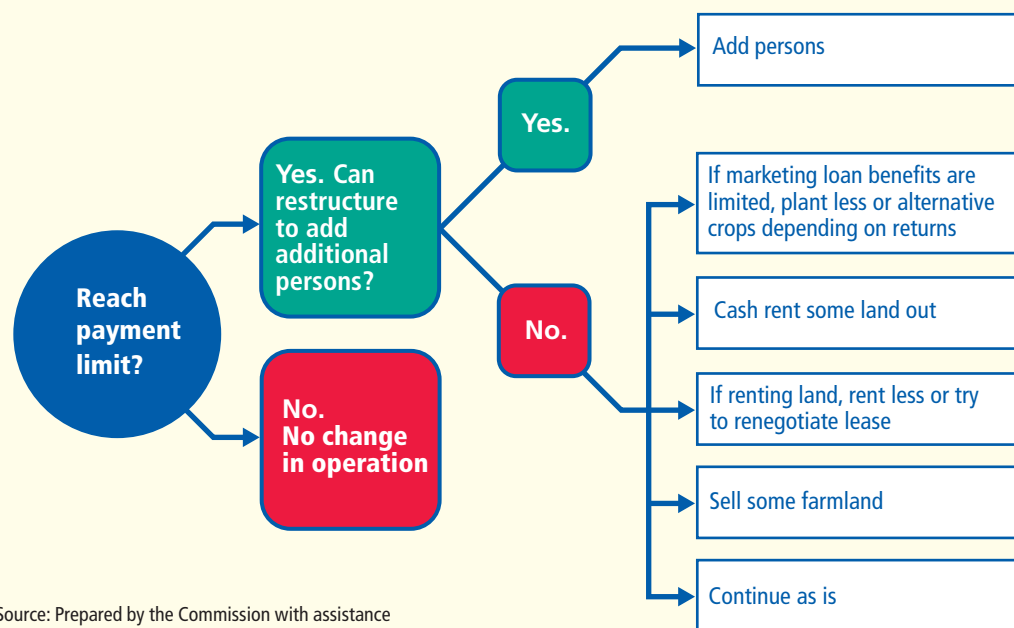
Assuming the same payment limitation applies to all crops, a higher percentage of upland cotton and rice producers would be affected by further limitations, and payments to these producers would likely decline by a larger percentage than payments to producers of other crops. Under FAPRI's stylized scenario, 44 percent of rice, 23 percent of cotton, and 1-3 percent of grain and oilseed Census of Agriculture farms would have payments reduced if direct payments were limited to \$40,000, counter-cyclical payments were limited to \$60,000, and marketing loan benefits were limited to \$175,000.

Over time, lawyers, consultants, business analysts, and affected producers may develop a range of strategies to restructure farming operations to lessen the effects of further payment limits. These strategies could involve adding additional partners or other entities to the farming operation, thereby increasing the number of persons eligible for payments and the amount of payments going to the farm operation.

Another strategy by owner-operators to reduce the effects on farm income of further payment limitations would be to try to recapture any loss in payments through cash or crop-share rental agreements (figure 5.3). Alternatively, an owner-operator could choose to sell the acreage subject to further limitations. For many of those affected by further payment limitations, selling or renting out land may be a difficult decision.

If a producer cash rents most of the land being farmed and is affected by further payment limitations and unable to add persons to the operation, the producer may choose to operate less land, share rent with the landowner, or try to negotiate a lower cash rental rate (figure

Figure 5.3. Payment limit decisions for an owner-operator



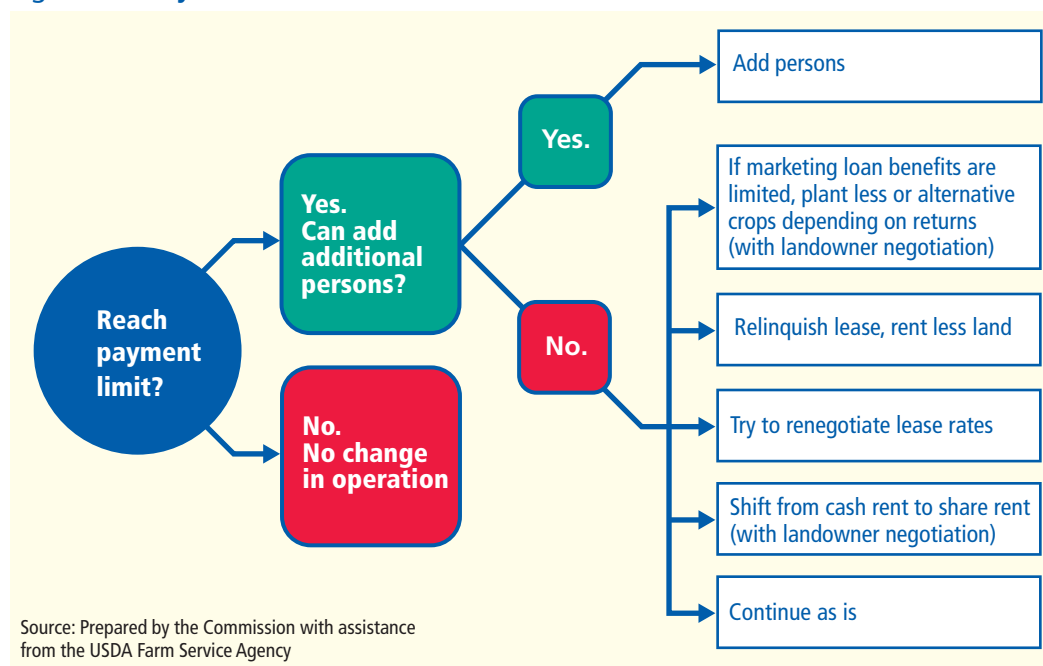
Source: Prepared by the Commission with assistance from the USDA Farm Service Agency

5.4). Lowering the amount of rent paid or the portion of the crop going to the landowner under a crop share lease could put the renter who reaches the payment limitation at a competitive disadvantage relative to other renters. If the landowner chooses not to share rent or reduce the cash rent, the landowner could seek out another renter who is not subject to further payment limitations, not grow a crop and, if eligible, receive direct and counter-cyclical payments, or, if practical, farm the land and be eligible for direct and counter-cyclical payments and marketing loan benefits.

A share-rent landowner who is affected by further payment limitations may be able to add persons by transferring some of the land to a family member or someone else (figure 5.5). Alternatively, the share-rent landowner could shift from share rent to cash rent on some of the land, sell some farmland, or try to renegotiate the lease. The ability of the landowner to renegotiate the lease would depend on the strength of the land rental market, which varies considerably from region to region.

Landowners who cash rent out their land and whose tenant is affected by further payment limitations could elect under further payment limitations not to rent and receive direct and counter-cyclical payments so long as the landowner keeps the land in agricultural uses. During a period of low prices, direct and counter-cyclical payments for rice and to a lesser extent for upland cotton may be large enough to cause some landowners to decide not to rent out their land, as evidenced in rice areas in Texas in recent years (ERS rice study). This option could become more appealing to some landowners in some high-cost producing areas, especially if increasing numbers of renters have payments reduced because of further payment limitations. In this instance, the payments that previously went to the farm operator would now go to the landowner.

Figure 5.4. Payment limit decisions for a tenant

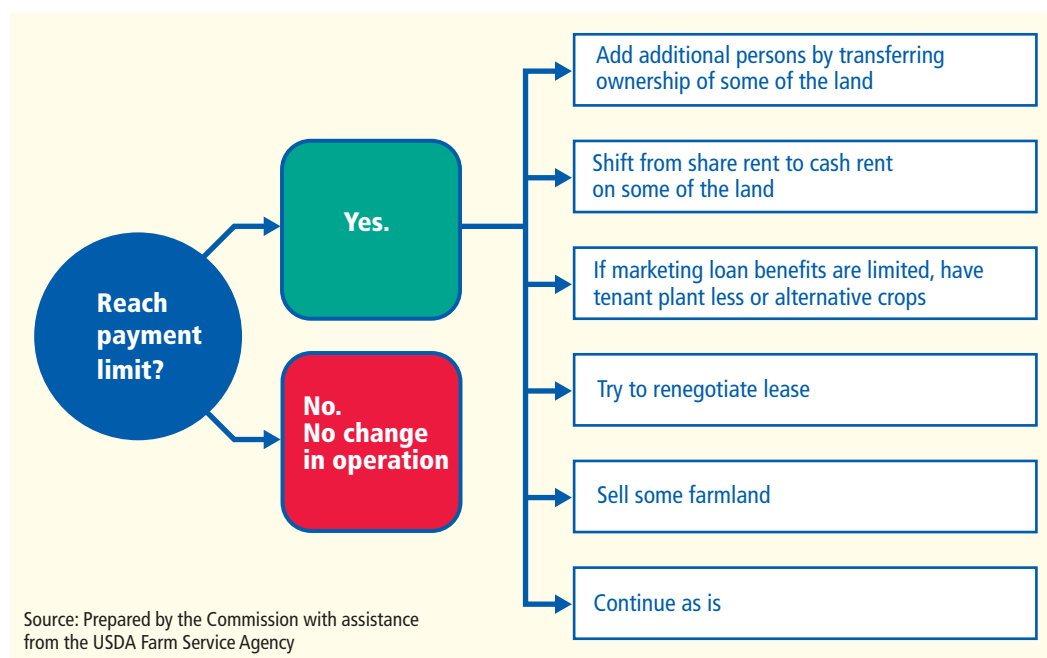


In many instances, payments would be redistributed from producers affected to producers unaffected by further limits, partially negating the effects of further payment limits on government payments and aggregate farm income. In addition to payments being redistributed, the sharing of production and price risk also may be affected by further payment limitations. For example, a share-rent landowner reaching the payment limit could decide to cash rent, shifting more of the production and price risk to the renter.

Producers affected by further payment limitations could alter their farming operation by reducing production of crops that receive government payments and planting more profitable crops that either are not eligible for government payments or that have per-acre payments that are lower than the crops currently produced. These shifts in crop acreage could increase cash receipts and lower payments for those crops in which farmers reduce acreage and lower cash receipts and raise payments for those crops in which farmers increase acreage. These effects are discussed later in this chapter.

If the most efficient producers reduce production in response to further payment limitations, economic efficiency could be reduced, although the principal effect is expected to be a reduction in the profits attributed to economies of scale. However, smaller, less efficient producers may expand production as they purchase or rent additional land from those affected by further payment limitations and in the process become more efficient. Presently, there is not sufficient information on how farms might adjust to further payment limitations or on cost differences by farm size to reach a conclusion as to the effects of further payment limitation on economic efficiency (Gardner).

Figure 5.5. Payment limit decisions for a share-rent landowner



Conclusions

- Past studies indicate that for each \$1 billion reduction in government payments farm income declines by \$600-\$900 million. The magnitude of the decline in farm income would depend on the reduction in the various limits, the payments affected by further payment limitations, the effects on crop supplies and prices, and the extent to which affected producers may be able to restructure and lessen the effects of further limits. A payment limit that reduces decoupled payments tends to lead to a greater reduction in farm income than a payment limit that reduces payments tied to current production.
- Initially, producers affected by further payment limits may have limited opportunity and limited information on which to develop a restructuring plan that lessens the effects of further limits on payments and farm income. Over time, many affected producers in consultation with business advisors, lawyers, and others are likely to develop a range of strategies to lessen the effects of further payment limitations.
- In 2000, PFC payments of nearly \$5.2 billion were authorized and payments were limited to \$40,000 per person. Since direct payments are projected to be \$5.2 billion annually and subject to a \$40,000 limit, FSA data on the distribution of PFC payments for 2000 were used to analyze the effects of further payment limits. Based on the FSA data for 2000, reducing the limit on direct payments from \$40,000 to \$30,000 and assuming producers reaching the limit do not restructure further, direct payments would be reduced by \$255-\$275 million or 5 percent per year. Reducing the limit on counter-cyclical payments from \$65,000 to \$50,000 could lower counter-cyclical payments by as much as \$400-\$425 million or 5 percent annually, assuming prices are at or below each eligible crop's loan rate. These reductions in payments would be in addition to savings under current payment limits.
- Reducing the payment limit on direct payments to \$30,000 would likely increase the number of producers reaching the payment limit from about 12,300 currently to 35,000-40,000. A similar number of producers would reach the limit on counter-cyclical payments if the limit were reduced from \$65,000 to \$50,000 and crop prices fell back to 1999-2001 levels.
- Lowering the limit on direct payments to \$20,000 and counter-cyclical payments to \$35,000 could reduce direct payments by \$780-\$800 million annually and counter-cyclical payments by as much as \$1.1-\$1.2 billion annually. The lower payment limits would reduce payments by about 15 percent. The number of producers reaching the payment limit on direct payments would increase to about 75,000 or 6 percent of all producers eligible for direct and counter-cyclical payments.
- If marketing loan benefits, including certificate exchanges and loan forfeitures, are limited to \$75,000 and assuming no supply response, marketing loan benefits could decline by as much as \$400-\$500 million annually.

-
- The decline in government payments resulting from limits on counter-cyclical payments and marketing loan benefits is extremely sensitive to the level of market prices. As market prices increase, the decline in payments and farm income from further payment limits drops off sharply. Conversely, as prices decline, payments increase, providing an income safety net, but further payment limitations would tend to reduce the safety net that is provided to some, or perhaps, many producers.
 - Generally, payment limits more adversely affect the incomes of cotton and rice producers than feed-grain, oilseed, and wheat producers. And, it would appear that further payment limitations could put financial pressure on upland cotton and rice farms unless they are able to restructure. Even so, further payment limitations would also lower payments and incomes of many large feed-grain, wheat, and oilseed farms. Nearly every State would have some producers that would have payments and incomes reduced under further payment limits.
 - In the short run, producers in some regions previously unaffected by payment limits may be unaware that their current business structure may dictate how much they are eligible to receive in government payments. They also may be unaware of viable restructuring options that would lessen the effects of further payment limits.
 - Producers affected by payment limits have a number of options for mitigating the effects of payment limits on farm income. Options available to owner-operators include increasing the number of persons eligible for payments, increasing the acreage cash rented, or selling some or all of the acreage for which the producer is ineligible for payments because of payment limits. In many instances, payments would be redistributed from the producers affected to producers unaffected by further payment limits, partially negating the effects of further payment limits on government payments and aggregate farm income. Also, any further limitation could affect who shares in production and price risk.
 - Producers who rent land and have their payments reduced because of further payment limits would likely be unable to compete with other renters for that land on which they are no longer eligible to receive payments. In addition, landowners could elect to not grow a crop and collect direct and counter-cyclical payments rather than leasing the land out.
 - During a period of low prices, direct and counter-cyclical payments for rice and to a lesser extent for upland cotton may be large enough to cause some landowners to decide not to rent out their land. This option could become more appealing to landowners if increasing numbers of renters have payments reduced because of further payment limitations. In this instance, a large portion of the payments previously going to the farm operator would go to the landowner.
 - Payment limitations affect the largest producers and these producers generally have lower per-unit production costs than other producers. Smaller, less efficient producers may expand production and become more efficient under further payment limitations. Lack of

information on how farms might adjust to further payment limitations and on cost differences by farm size prevent reaching any conclusion on the effects of further payment limitations on economic efficiency.

References

- Food and Agricultural Policy Research Institute, University of Missouri and Iowa State University. "The House and Senate Farm Bills: A Comparative Study." FAPRI Policy Working Paper #01-02, March 2002.
- Food and Agricultural Policy Research Institute, University of Missouri. "FAPRI Analysis of Stricter Payment Limitations, Testimony to the Commission on the Application of Payment Limitations." FAPRI-UMC Report #05-03, June 2003.
- Food and Agricultural Policy Research Institute, University of Missouri. "FAPRI Analysis of Stricter Payment Limitations: Additional Information." June 2003.
- Gardner, Bruce. "Payment Limit Issues: What Do We Really Know, What is Plausible but Uncertain, and Where Are We Totally in the Dark?" Testimony presented to the Commission on the Application of Payment Limitations for Agriculture, Washington, D.C., June 17, 2003.
- Tweeten, Luther. "Farm Commodity Programs: Essential Safety Net or Corporate Welfare?" *Agricultural Policy for the 21st Century*, edited by Luther Tweeten and Stanley R. Thompson. Iowa State Press, 2002.
- U.S. Department of Agriculture, Economic Research Service. *Farm Program Payments and the Economic Viability of Production Agriculture*, A Report to Congress. August 2002.
- Westcott, Paul and Mike Price. Estimates done at the request of the Commission on the Application of Payment Limitations for Agriculture utilizing the Economic Research Service's FAPSIM model, 2003.

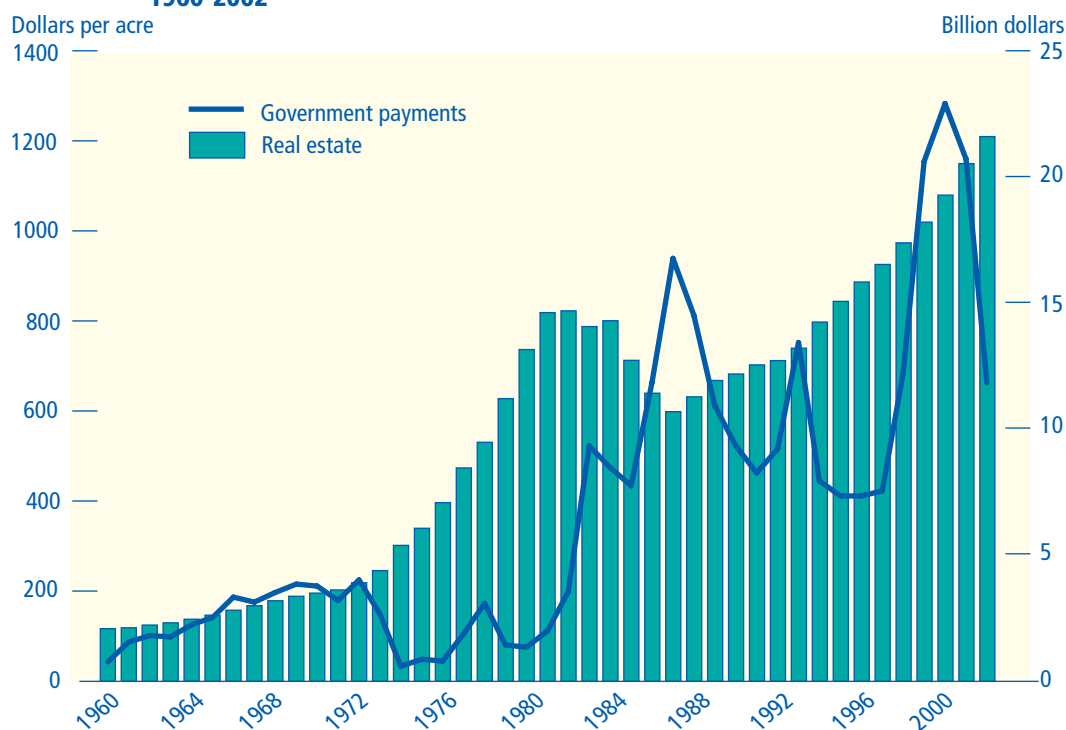
Effects of Further Payment Limitations on Farmland Values

Background

Farm real estate, essential for agricultural production, is a crucial factor affecting the equity and well-being of farm households. Today, land in farms accounts for over one-half of the total area of the contiguous 48 States. Most farms continue to be owned by the operator; however, these wholly owned farms are smaller than the national average farm size and thus account for only about one-third of the total land in farms. Producers who rent all or a portion of the land they farm account for the remaining two-thirds of the land in farms. About 40 percent of all the land in farms is rented out by landowners who are not directly engaged in farming. Thus, much of the benefits of higher land values go to landowners, many of whom are not directly involved in the production of agricultural products.

This section uses the term “non-operator landlords” to be consistent with the farm operator concept used by USDA in reporting economic data on farms and farm operator households. A farm operator is the person who makes the day-to-day management decisions on the farm, and there is one primary operator per farm. For the purposes of payment limits, non-operator landlords may not make the day-to-day management decisions on the farm, but they may be actively engaged in agriculture and eligible for farm program payments, if they own the land and share in the risk of production by receiving rent in the form of the crop produced on the land. Many non-operator landlords have a strong association with agriculture—29 percent live on the farm rented out and another 28 percent live within 5 miles (Barnard et al. 2001).

Figure 5.6. Average value of U.S. farm real estate and direct government payments, 1960-2002



Source: USDA Economic Research Service and USDA National Agricultural Statistics Service

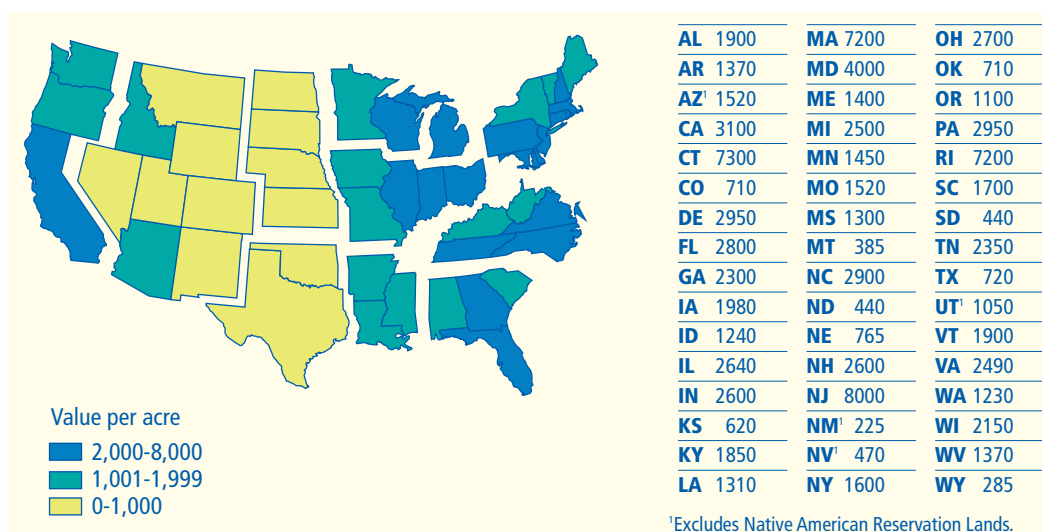
As a productive asset, the land generates income in the form of rental payments to the non-operator landlord and in the form of returns to the land from the sale of agricultural products for the owner-operator. Landlords usually receive a cash rental payment (cash rent) or a share of the crop (share rent) from the renter in exchange for the right to produce crops on the land.

The value of U.S. farmland at the end of 2002 is estimated at \$1,039 billion, accounting for nearly 80 percent of the total asset value of farms. The value of farmland has steadily risen since the farm credit crisis of the mid-1980s (figure 5.6). Farmland increased at an annual average rate of 4 percent during the 1990s and rose 4 percent last year.

The value of an income-producing asset generally is expected to reflect the present value of the anticipated income that can be earned from that asset over its life, which for land is long into the future. The present value of the expected income stream from owning farmland depends on the market value of the products that can be produced on the land each year into the future, other income, including government payments, that may be associated with the land, the cost of production, the cost of maintaining the land and adhering to any regulations related to the use of the land, and the discount rate or rate of interest. These concepts depend on many factors, such as yield per acre or productivity, land quality, production risks, expected future market prices of farm products, expected future prices of production inputs, expected environmental requirements, expected government farm program payments or benefits, and others (e.g., Roka and Palmquist, Gardner).

The value of farmland is also influenced by its value in nonagricultural uses. For example, the value of farmland may exceed the present value of the expected income stream in agricultural use if the land has a greater expected value for its use in a housing development, a commercial business, recreational use, or other such nonfarm uses. ERS estimates that urban influence affects the value of an estimated 17 percent of U.S. farmland (Barnard, 2001). Because there are many factors that influence the value of farmland, farmland values vary substantially by region (figure 5.7) and the relationship with total government payments is quite variable as reflected in figure 5.6.

Figure 5.7. Average value per acre of farm real estate, January 1, 2002



¹Excludes Native American Reservation Lands.

Source: USDA National Agricultural Statistics Service

A number of studies have examined government payments as a factor in explaining farmland values. The logic for how land values are affected by government payments is generally this: if government payments are directly associated with the land, then returns from investing in that land would be higher than investing in other land, and a land buyer would be willing to pay more for the land that is directly eligible for government payments. The effects of government payments on farmland values are particularly strong when the eligibility to receive farm commodity program payments is attached to specific land or the production of specific crops, payments make up a substantial portion of producers' net returns, and payments are expected to continue several years into the future.

Farmland is often the principal source of collateral for farm loans. Higher farmland values increase the wealth of those who own farmland, enabling farm operators who own farmland to more readily finance operating expenses and the purchase of additional land and equipment. But, higher farmland values increase the amount of capital needed to purchase farmland, making it more difficult for farmers with limited assets to obtain the financing needed to expand their farming operation. In addition, higher farmland values may be of little benefit to operators farming mostly rented land.

In early 1997, professional farm managers indicated that in areas where competition for rental land was intense, PFC payments were almost immediately captured by landowners and reflected in rental rates and land values. Given the intense competition for leased land in many areas, tenants operating on cash leases found their lease rates being bid up until the landowner had captured most of the tenant's share of PFC payments. Producers with share leases reported that some landowners reduced their share of expenses, retained a larger crop share, or converted from share leases to cash leases. However, in areas where competition for rental land was less intense, tenants retained much of their PFC payments (Ryan et al). Goodwin and Mishra estimate that each additional dollar per acre of PFC payments increased U.S. average rents by \$0.81 to \$0.83 per acre during 1998-2000.

Barnard et al. (2001) estimated that \$62 billion or 20 percent of the value of the land producing the 8 major program crops (wheat, rice, corn, sorghum, barley, oats, soybeans, and cotton) was due to PFC payments, market loss assistance, disaster payments, and marketing loan benefits under the provisions of the 1996 Act and subsequent disaster legislation. The study also found that most of the increase in land values due to government payments accrued to non-operator landlords, since they owned over 60 percent of the land planted to the 8 major program crops. Another study examined the likely effect of a permanent decoupled payment of \$6 billion per year, similar to production flexibility contract payments or direct payments, and concluded that average U.S. farmland values would be 8 percent higher (Burfisher and Hopkins).

The effects of farm commodity payments on cropland values vary geographically, reflecting differences in relative productivity, cost of production, payments for crops eligible for direct and counter-cyclical payments and marketing loan benefits, and the influence of nonagricultural uses on farmland values. A number of counties do not produce any crops eligible for direct and counter-cyclical payments and marketing loan benefits, and thus do not receive any farm commodity payments. Regions receiving the largest amount of direct and counter-cyclical payments and marketing loan benefits in 2001 were the Corn Belt, Delta,

Plains, and West Coast. Barnard et al. (2001) found that farm commodity program payments raised the value of the land producing the 8 major program crops by nearly 25 percent in the Corn Belt and the Plains States and about 15 percent in the Delta, but 10 percent or less in the Northeast, Southeast, and most Western States.

Discussion

Since government payments raise land values and cash rents, further payment limitations would likely lower land values and cash rents by some amount. The magnitude of the change in land values and cash rents would depend on the reduction in the various payment limits, the effects on production and prices of agricultural commodities, the strategies selected by those affected by further payment limits, and the competition for land in agricultural and nonagricultural uses. The effects of further payment limitations on land values and cash rents are expected to vary considerably from region to region, reflecting regional differences in land markets and the number of producers and amount of payments affected by further limitations.

Currently, about 1 percent of all producers have payments reduced under current payment limits. In other words, 99 percent of all producers are not affected by current payment limits. Since the vast majority of producers are unaffected by current limits and their earnings from additional land purchases would include government payments, it is very unlikely land values and cash rents are reduced by current payment limits. A possible exception could be upland cotton and rice acreage in some areas. About 2 percent of upland cotton producers and 5 percent of rice producers have payments reduced under current limits, and in some areas the percentage is much higher. In 2000, 14 percent of Arizona producers, and 10 percent of California producers, 4 percent of Arkansas producers, and 3 percent of Mississippi producers reached the \$40,000 limit on PFC payments. In all of the remaining States, less than 2 percent of producers reached the limit on PFC payments. The majority of producers reaching the payment limit in Arizona, California, Arkansas, and Mississippi were upland cotton and rice producers. Still, the vast majority of producers in these States were unaffected by payment limits.

Under further payment limitations, increasing numbers of producers could have payments reduced. As more and more producers have their payments reduced, competition for land could decline, leading to lower cash rents and land values. Landowners whose payments are reduced because of payment limits would be ineligible to receive payments on purchased land. For those operators who rent land and whose payments are reduced by further payment limitations, the amount of rent they would be able to pay would decline unless they accepted a reduced return. As a result, further payment limits could reduce the extent to which government payments become capitalized into cash rents and land values.

Further payment limits may have little effect on cash rents and land values when averaged over all regions, for a variety of reasons. As mentioned earlier, land values in many areas are influenced by nonagricultural uses and in certain areas crops eligible for direct and counter-cyclical payments and marketing loan benefits are either not grown or make up a relatively small proportion of total farmland. In these areas, it is very unlikely that further payment limitations would reduce cash rents and land values.

In areas that primarily grow crops eligible for government payments, the effects of further payment limits would depend on the number of producers affected by further limits, the reduction in payments, and importance of government payments in determining the value of farmland and cash rents. The FSA analysis of lower payment limits on 2000-crop PFC payments suggests that reducing the payment limit on direct payments from \$40,000 to \$30,000 per person would increase the percentage of producers whose payments are reduced because of payment limitations from about 1 percent currently to about 3 percent, assuming producers do not restructure further. The 3 percent of producers who would have payments reduced under a \$30,000 limit on direct payments account for an estimated 25-30 percent of the value of program crop production. Lowering the payment limit on direct payments to \$20,000 per person would increase the percentage of producers whose payments are reduced to about 6 percent. These farms are estimated to account for 40-50 percent of the value of program crop production. The substantial share of the value of program crop production on farms subject to

Figure 5.8. Percentage of producers having payments reduced under \$30,000 limit on 2000-crop PFC payments

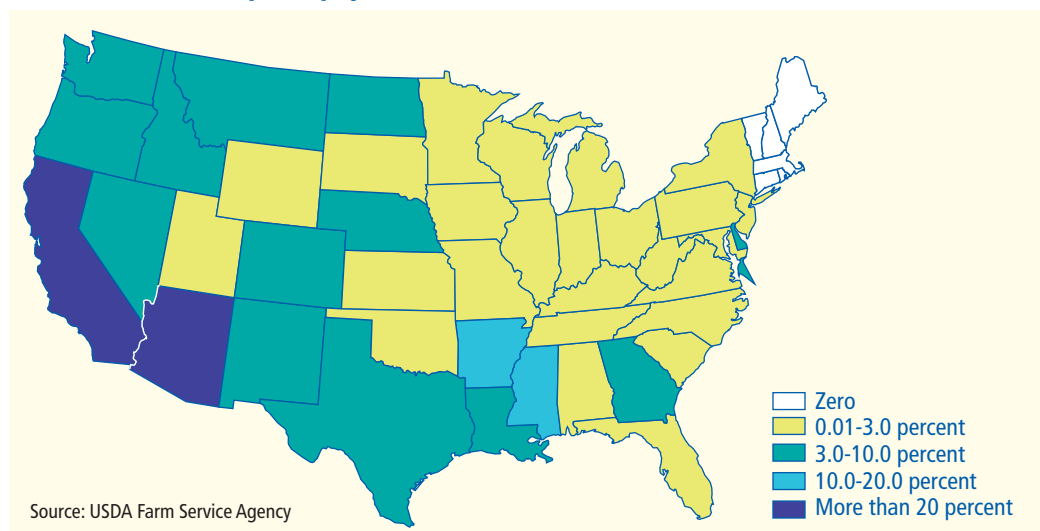
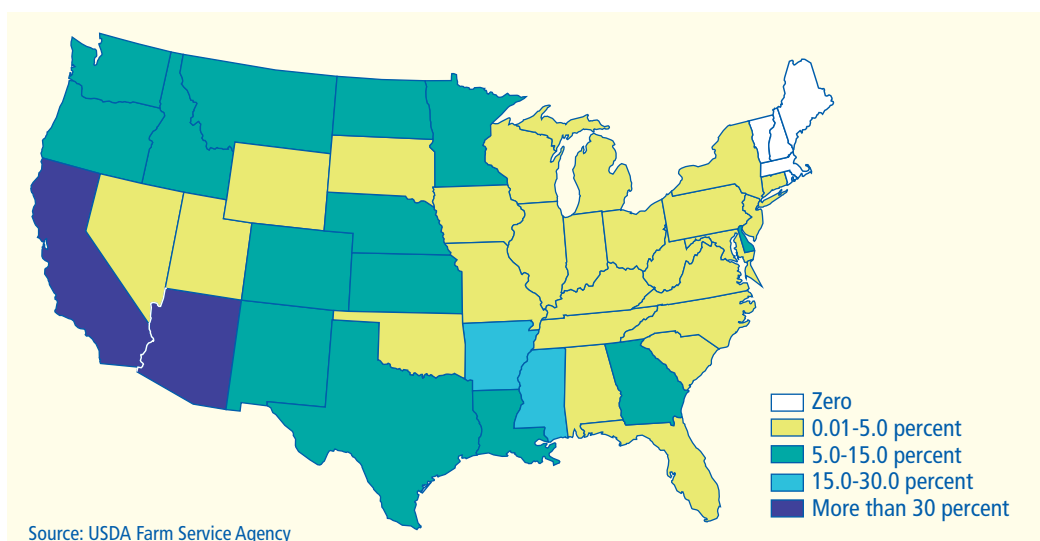


Figure 5.9. Percentage of producers having payments reduced under \$20,000 limit on 2000-crop PFC payments



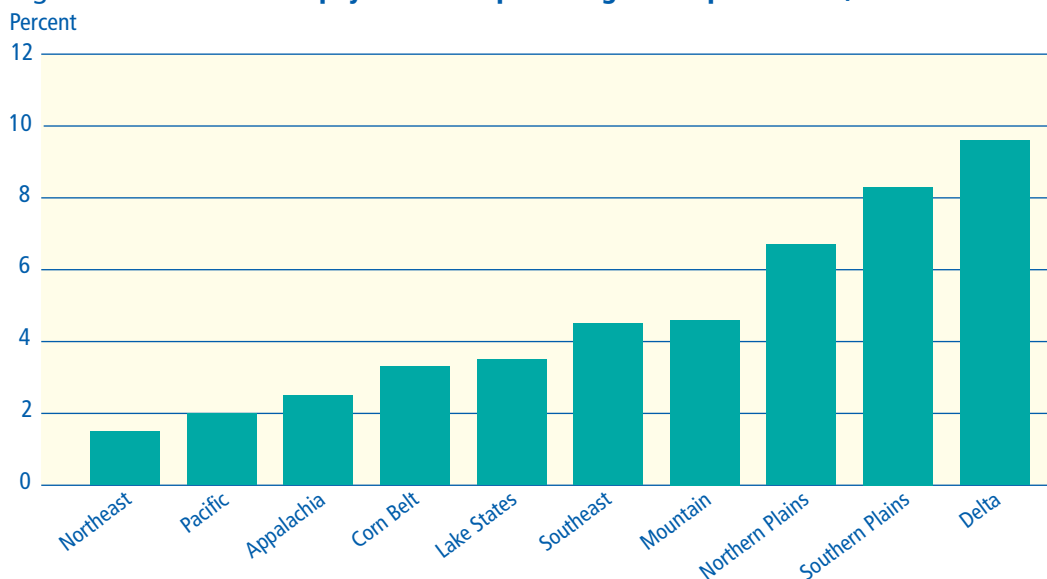
further payment limits could reduce the competition for land to produce program crops and land values, especially in areas where a high percentage of the cropland is devoted to program crop production.

Assuming affected producers do not restructure their farming operations, the percentage of producers reaching the payment limit in some States could rise sharply under further payment limitations, causing cash rents and land values to decline. For example, lowering the limit on direct payments from \$40,000 to \$30,000 could raise the percentage of Arizona and California producers reaching the limit on direct payments to 30 percent or higher (figure 5.8). Producers reaching the limit on direct payments in these two States could account for over 60 percent of the value of program crop production in these two States. If the limit on direct payments was reduced to \$20,000, over three-fourths of Arizona producers could have payments reduced and nearly one-half of California producers, and these producers could account for over 85 percent of the value of program crop production (figure 5.9). In these two States, competition for land for the production of nonprogram crops and nonagricultural uses may limit the decline in land values under further payment limits.

Increasing numbers of producers in States other than Arizona and California would also have their payments reduced under further payment limits. Further payment limitations could reduce cash rents and land values more in the Plains and Delta than in other regions. In these two regions, government payments are an important source of income and cropland is primarily used in the production of program crops. In 2001, government payments averaged 5 percent or less of total cropland value in all regions except the Northern Plains, Southern Plains, and Delta (figure 5.10). Within these three regions, the effects of further payment limits would be more pronounced in areas in which there is little competition for land for the production of nonprogram crops and nonagricultural uses.

Northeast	CT, DE, ME, MD, MA, NH, NJ, NY, PA, RI, VT
Pacific	CA, OR, WA
Appalachia	KY, NC, TN, VA, WV
Corn Belt	IL, IN, IA, MO, OH
Lake States	MI, MN, WI
Southeast	AL, FL, GA, SC
Mountain	AZ, CO, ID, MT, NV, NM, UT, WY
Northern Plains	KS, NE, ND, SD
Southern Plains	OK, TX
Delta	AR, LA, MS

Figure 5.10. Government payments as a percentage of cropland value, 2001¹



¹Payment data for calendar 2001 from ERS; cropland value for 2002 from NASS.

Barnard et al. (2001) estimate that government payments in the Northern Plains, Southern Plains, and Delta account for 15-25 percent of the value of cropland and about 10 percent of the value of cropland in Arizona and California. Since further payment limits would not completely eliminate all payments, farmland values would certainly fall by less than 15-25 percent in the Plains and Delta and by less than 10 percent in Arizona and California under further payment limits. In addition, the extent to which further payment limits reduce farmland values would also depend on the ability of producers to restructure their farming operations and lessen the decline in payments. As indicated in the previous section, producers may have limited opportunity to restructure in the short run. In the long run, increasing numbers of producers may find ways to restructure, lessening the effects of further payment limits on farm income, cash rents, and farmland values.

Economists invited to testify before the Commission concluded that farmland prices would decline under further payment limits, but that the declines would be variable (Sumner) and likely modest overall (Gardner, Ray, and FAPRI). FAPRI estimated the effects on land values and cash rents of payment limits of \$40,000 for direct payments, \$60,000 for counter-cyclical payments, and \$175,000 for marketing loan benefits (with no loan forfeiture gains above this level) per farm. Under this payment limit scenario, FAPRI estimated that land values would average 0.39 percent lower and rental rates would average 0.78 percent lower nationally during 2004-12 (table 5.4). On average, FAPRI estimates land values would decline by about \$6 per acre and the decline is estimated to range from slightly over \$4 to about \$8 per acre with 95 percent confidence. The largest regional declines in land values and rental rates were predicted to occur in the Delta, Southern Plains, Far West, and Southeast. In each of these regions, FAPRI projected land values would decline on average by 0.78 percent or more and rental rates would fall on average by 1.57 percent or more during 2004-12. In all of the remaining regions, land values on average were projected to fall by 0.22 percent or less and rental rents on average were projected to fall by 0.44 percent or less.

Table 5.4. FAPRI's estimates of stricter payment limitations on land values and rental rates¹

	Land values		Rental rates	
	2004	2004-12 average	2004	2004-12 average
	Percentage change from baseline			
United States	-0.19	-0.39	-0.68	-0.78
Corn Belt	-0.09	-0.18	-0.33	-0.37
Central Plains	-0.11	-0.22	-0.39	-0.44
Delta States	-0.49	-1.18	-1.79	-2.38
Far West	-0.38	-0.85	-1.36	-1.72
Lake States	-0.09	-0.17	-0.31	-0.34
Northeast	-0.09	-0.19	-0.34	-0.39
Northern Plains	-0.10	-0.20	-0.37	-0.41
Southeast	-0.39	-0.78	-1.39	-1.57
Southern Plains	-0.49	-1.02	-1.76	-2.05

¹Limitation of \$40,000 in direct payments, \$60,000 in counter-cyclical payments, and \$175,000 in marketing loan benefits per Census of Agriculture farm. Results assume producers adjust so that 50 percent of acreage otherwise ineligible remains eligible for payments in the first year, rising to 75 percent in 5 years.

Government payments increase land values and cash rents. Since land is used as collateral to finance purchases of farmland and equipment, some argue that farm programs promote the growth of large farms, and the competitive advantages of large farms are putting financial pressure on small and medium-size farms. Others counter that the competitive advantages of large farms are not enhanced by government payments and growth in large farms largely reflects the efficiencies that can be garnered through larger operations. Large operations would exist in the absence of government programs because of their increased efficiencies. This group also argues that government payments help to support small and medium-size farms and this support leads to more small and medium-size farms and less concentration in agriculture. Farm structural issues are examined further in the next section.

Conclusions

- About 40 percent of all farmland is rented out by landowners who do not operate farms (non-operator landlords). Thus, a substantial portion of benefits of higher land values and cash rents go to individuals who are not directly involved in the production of agricultural products.
- The value of farmland depends on the market value of the products that can be produced on the land in the future, the cost of producing those products, other income, including government payments that may be associated with owning the land, the value of the land in nonagricultural uses, and the discount rate.
- Higher farmland values increase the wealth of those who own farmland, enabling them to more readily finance the purchase of additional land. Higher farmland values may also make it more difficult for farmers with limited resources to purchase cropland.
- In areas where competition for rental land is intense, government payments are almost immediately captured by landowners and reflected in rental rates. In areas where competition for rental land is less intense, rental rates are slower to adjust and tenants may retain some of the benefits of government payments.
- Government payments in the form of direct payments, counter-cyclical payments, and marketing loan benefits affect the value of farmland and land rents. Several studies indicate that government payments in recent years have increased farmland values nationally by 15-25 percent. The effects on farmland values vary regionally reflecting regional differences in productivity, cost of production, payments for crops eligible for direct and counter-cyclical payments and marketing loan benefits, and the influence of nonagricultural uses on farmland values.
- Under further payment limitations, more producers could have payments reduced, which could reduce competition for land, leading to lower cash rents and land values. The effects of further payment limitations on land values are likely to vary considerably from region to region, reflecting regional differences in land markets and rental arrangements, and the number of producers and the amount of payments affected by further limitations.

-
- Further payment limits may have little effect on farmland values when averaged over all regions. Land values in many areas are influenced by nonagricultural uses and crops eligible for direct and counter-cyclical payments and marketing loan benefits are either not grown or account for a small portion of total cropland. In many areas that primarily grow crops eligible for government payments, further payment limitations may not affect enough producers to materially reduce competition for farmland, helping to maintain land values.
 - Assuming affected producers do not restructure their farming operations, the percentage of producers reaching the payment limit could rise sharply in some regions under further payment limitations, causing cash rents and land values to decline. In Arizona and California, the percentage of producers reaching the limit on direct payments could rise to 30 percent or more if the payment limit on direct payments is reduced from \$40,000 to \$30,000 and 50 percent or more of producers could have payments reduced if the limit on direct payments is lowered to \$20,000 per person. In these two States, competition for land for the production of nonprogram crops and nonagricultural uses may limit the decline in land values under further payment limits.
 - Increasing numbers of producers in States other than Arizona and California would also have their payments reduced under further payment limits. Further payment limitations could reduce cash rents and land values more in the Northern Plains, Southern Plains, and Delta States than in other regions. In these three regions, government payments are an important source of income and cropland is primarily used in the production of program crops.
 - FAPRI estimated that land values would average 0.39 percent lower and rental rates would average 0.78 percent lower nationally during 2004-12, if each Census of Agriculture farm was limited to receiving \$40,000 in direct payments, \$60,000 in counter-cyclical payments, and \$175,000 in marketing loan benefits. The largest regional declines in land values and rental rates were predicted to occur in the Delta, Southern Plains, Far West, and Southeast, with land values declining 0.78 percent or more and rental rates declining by 1.57 percent or more in each of these regions.

References

- Barnard, Charles, Gerald Whittaker, David Westenbarger, and Mary Ahearn. "Evidence of Capitalization of Direct Government Payments into U.S. Cropland Values." *Amer. J. Agr. Econ.* 79(November 1997): 1642-50.
- Barnard, Charles, Richard Nehring, James Ryan, and Robert Collender. "Higher Cropland Value from Farm Program Payments: Who Gains?" *Agricultural Outlook*, November 2001, pp. 26-30. Economic Research Service, USDA.
- Burfisher, Mary E. and Jeffrey Hopkins, editors. "Decoupled Payments: Household Income Transfer in Contemporary Agriculture." *Agricultural Economic Report No. 822*, February 2003. Economic Research Service, USDA.
- Food and Agricultural Policy Research Institute, University of Missouri. "FAPRI Analysis of Stricter Payment Limitations, Testimony to the Commission on the Application of Payment Limitations." FAPRI-UMC Report #05-03. June 17, 2003.
- Gardner, Bruce. "U.S. Commodity Policies and Land Prices." Paper presented at Conference on Government Policy and Farmland Markets, Economic Research Service, USDA, Washington, D.C., May 6, 2002, 23 p.
- Gardner, Bruce. "Payment Limit Issues: What Do We Really Know, What is Plausible but Uncertain, and Where Are We Totally in the Dark?" Testimony presented to the Commission on the Application of Payment Limitations for Agriculture, Washington, D.C., June 17, 2003.
- Goodwin, Barry K. and Ashok K. Mishra. "Explaining Regional Differences in the Capitalization of Policy Benefits into Agricultural Land Values." Chapter in *Government Policy and Farmland Markets: Implications of the New Economy*, Ed. A. Schmitz and C. Moss, Iowa State Press, forthcoming.
- Ray, Daryll E. "Payment Limitations." Testimony presented to the Commission on the Application of Payment Limitations for Agriculture, Washington, D.C., June 17, 2003.
- Roka, Fritz M. and Raymond Palmquist. "Examining the Use of National Databases in a Hedonic Analysis of Regional Farmland Values." *Amer. J. Agr. Econ.* 79(November 1997): 1651-56.
- Ryan, James, Charles Barnard, and Robert Collender. "Government Payments to Farmers Contribute to Rising Land Values." *Agricultural Outlook*, June/July 2001, pp. 22-26. Economic Research Service, USDA.
- Sumner, Daniel A. "Consequences of Additional Farm Program Payment Limits." Testimony presented to the Commission on the Application of Payment Limitations for Agriculture, Washington, D.C., June 17, 2003.

Effects of Further Payment Limitations on Rural Communities and Agribusiness Infrastructure

This section evaluates the implications of further payment limitations for rural communities and agribusiness infrastructure. In the following discussion, rural areas are defined as outside of metropolitan areas. Metropolitan areas are counties having at least one city of at least 50,000 residents, or are urbanized areas as determined by the Census Bureau, and include counties that are economically tied to metropolitan counties. The effects of further payment limits on a rural area and its infrastructure depend on the effects of the further limits on farm income, land values, and agricultural production, and the importance of these factors to the overall economic activity of the area, as well as economic opportunities off the farm.

Background

Rural America consists of about 80 percent of the Nation's land and in 2001 was home to 56 million people, about 20 percent of the U.S. population (Hamrick). Throughout much of the Nation's history, the term "rural" was interchangeable with agriculture. Today, many rural areas continue to be defined by agriculture, both in terms of its visibility on the landscape and its contribution to economic activity and growth. However, rural areas differ widely across the United States in terms of population density, available resources, income levels, and sources of economic growth, including farming (Gale). In the 20th century, the farm economy grew much more slowly than the nonfarm economy, progressively reducing the dependence of many rural areas on agriculture for job creation and income growth. Population moved off the farm and into the nonfarm economy in both urban and rural areas. Both the urban and rural population grew as the number people living on farms declined. The farm share of the U.S. rural population fell from about two-thirds to about one-tenth during the 20th century.

Despite the decline in farming in relation to the U.S. economy and the rural economy, agriculture continues to make a substantial contribution to U.S. economic activity in terms of the more broadly defined food and fiber system. The food and fiber system includes the economic activity in farm input, production, processing, distribution, wholesaling, and retailing industries. The agribusiness infrastructure accounts for the vast majority of the economic activity and jobs generated by the food and fiber system. In 2001, the food and fiber system accounted for 12.3 percent of total U.S. gross domestic product (GDP) and 16.7 percent of total U.S. employment. In 2001, farming accounted for 0.7 percent of GDP; farm production inputs, 4.2 percent; and food manufacturing and distribution, 7.4 percent (table 5.5).

Nationally, farming accounted for about 8 percent of employment in farm and farm-related industries in 2001. In comparison, food service accounted for 27 percent; wholesale and retail trade, 34 percent; food manufacturing and transportation, 8 percent; and farm production inputs, 19 percent. There is some difference regionally in these shares, such as textiles accounting for over 7 percent total employment in farm and farm-related industries in the South but less than 1 percent in the North Central States, and wholesale and retail trade accounting for 39 percent of total employment in farm and farm-related industries in the Northeast but about 30 percent in the Midwest (Schluter et al). Despite these differences, the relative shares of employment provided by various segments of the food and fiber system are similar by region.

The declining trend in the importance of farm income to the U.S. and rural economy is illustrated in figure 5.11. Net farm income fell as a share of the personal income of rural areas from about 10 percent in the early 1970s to under 2 percent by 2001. While this decline occurred during most of the 20th century, the household incomes of farm families steadily improved relative to that of both urban and rural nonfarm families.

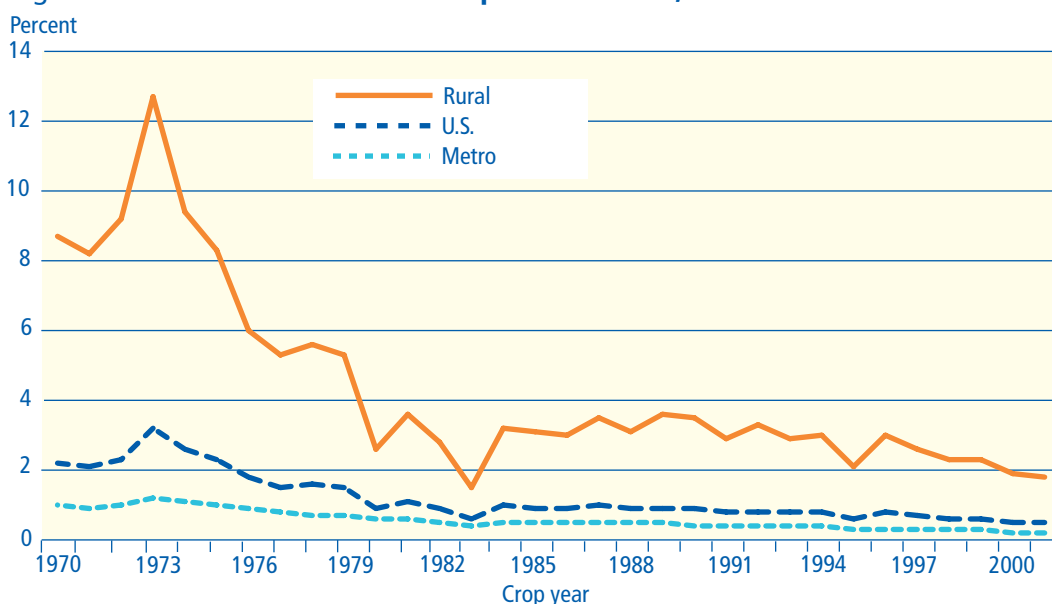
Although the growth of the nonfarm economy has been responsible for the bulk of the job creation in most rural areas, farming remains the primary economic activity in many counties. In 1997, farm and farm-related industries accounted for 23 percent of employment in nonmetro

Table 5.5. Contribution of the food and fiber system (FFS) to the U.S. economy, 2001

	Value added to GDP	Share of FFS contribution to GDP	Share of GDP	Number of workers	Share of FFS employment	Share of total U.S. employment
	Billion dollars	Percent	Percent	Thousands	Percent	
Farming	73.8	5.9	0.7	1,922	8.1	1.4
Total inputs	422.781	34.0	4.2	4,528	19.1	3.2
Mining	17.1	1.4	0.2	59	0.2	--
Forestry, fishing, and agricultural services	14.5	1.2	0.1	394	1.7	0.3
Manufacturing	84.0	6.8	0.8	1,128	4.8	0.8
Services	307.2	24.7	3.0	2,947	12.4	2.1
Manufacturing and distribution	748.4	60.1	7.4	17,295	72.9	12.2
Manufacturing:						
Food processing	168.3	13.5	1.7	1,278	5.4	0.9
Textiles	30.3	2.4	0.3	810	3.4	0.6
Leather	0.1	--	--	1	--	--
Tobacco	16.8	1.3	0.2	26	0.1	--
Distribution:						
Transportation	41.3	3.3	0.4	568	2.4	0.4
Wholesaling and retailing	334.4	26.9	3.3	8,145	34.3	5.7
Foodservice	156.9	12.6	1.6	6,461	27.2	4.6
Total food and fiber system	1,244.6	100.0	12.3	23,740	100.0	16.7

Source: USDA Economic Research Service

Figure 5.11. Farm income as a share of personal income, 1970-2001



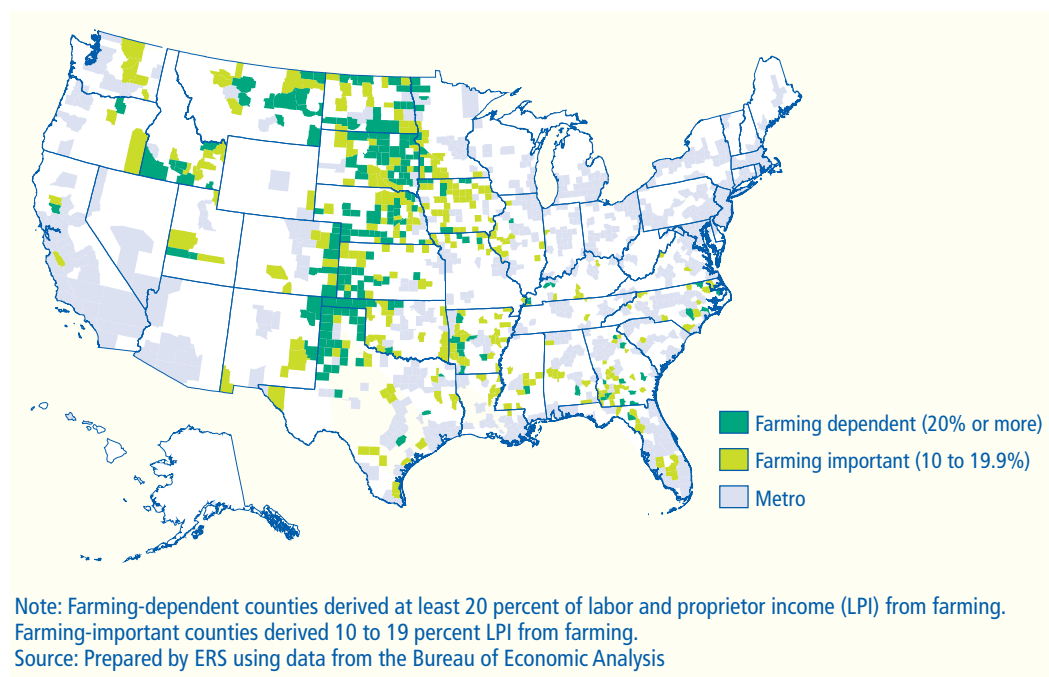
Source: USDA Economic Research Service and Bureau of Economic Analysis, Department of Commerce

counties, ranging from a low of 12.3 percent in Nevada to a high of 31.2 percent in Nebraska (Majchrowicz). The share of farm and farm-related industry jobs in nonmetro counties was generally lowest in the coastal States but 20 percent or more in 31 States.

Another measure of the importance of farm production to a local economy is the portion of local income derived from farming. ERS classifies nonmetro counties that receive 20 percent or more of labor and proprietors' income from farming as "farming-dependent" counties (figure 5.12). In the mid-1990s, there were 316 farming-dependent counties, down from 556 in 1989 (Kassel et al.). In another 312 counties, farming accounted for 10 and 20 percent of total labor and proprietor income ("farming-important" counties) in the mid-1990s. In 1997, the farming-dependent and farming-important counties accounted for about one-fourth of the Nation's rural counties but only 16 percent of the rural population, contained 400,000 farms, and produced one-third of U.S. agricultural production.

The dramatic decline in the number of producers over the past several decades has been accompanied by readily observable impacts on rural communities. The market for crop inputs has been largely unaffected but the market for inputs related to the number of people involved in farming has generally declined. In addition, the decline in the number of people living on farms, particularly in farming-dependent counties, has had an effect on the delivery of public services in rural areas including education, health care, and a range of other social services. The decline in public services has been exacerbated to the extent that State and Federal assistance is based on population. At the same time, the size of trade territories has shifted toward larger and more distant cities and towns, with a consequent further impact on the level of economic buoyancy of smaller communities.

Figure 5.12. Nonmetro counties with at least 10 percent of income from farming



Discussion

Examining the role of payments in all rural areas and in farming-dependent and farming-important counties may provide insight into the potential effects of further payment limits on rural communities and agribusiness infrastructure. Farm program payments were equal to only 1.3 percent of total personal income in all U.S. rural counties in 2001 (table 5.6). However, in a few States, notably in the Northern Plains, Western Corn Belt, and Southern Plains, farm program payments were equal to 3 to 10 percent of total personal income in rural counties. In 2001, farm program payments accounted for 3 percent or more of non-metro personal income in Illinois, Iowa, Kansas, Minnesota, Montana, Nebraska, North Dakota, and South Dakota. The FSA analysis of 2000 PFC payment data suggests that reducing the limit on direct payments from \$40,000 to \$30,000 would reduce payments going to these States by 3-5 percent and reducing the payment limit to \$20,000 would lower payments to these States by 8-16 percent. While many producers would have payments reduced, the reduction in payments probably would have very limited effects on most rural communities in these States.

Within a State, the effects of further limits on rural economies would be greater in counties where farm program payments are an important source of farm income and farming is important to the local economy. The rural farming-dependent and farming-important counties are

Table 5.6. Farm program payments as a share of State nonmetro personal income, 2001

State	Percent	State	Percent
Alabama	0.5	Montana	3.3
Alaska	0.0	Nebraska	6.3
Arizona	0.2	Nevada	0.1
Arkansas	2.5	New Hampshire	0.0
California	0.7	New Jersey	0.0
Colorado	1.5	New Mexico	0.6
Connecticut	0.0	New York	0.1
Delaware	0.3	North Carolina	0.4
Florida	0.2	North Dakota	10.0
Georgia	0.7	Ohio	0.9
Hawaii	0.0	Oklahoma	1.3
Idaho	1.1	Oregon	0.4
Illinois	3.0	Pennsylvania	0.1
Indiana	1.5	Rhode Island	0.0
Iowa	4.5	South Carolina	0.3
Kansas	3.7	South Dakota	5.6
Kentucky	0.5	Tennessee	0.5
Louisiana	1.6	Texas	2.1
Maine	0.0	Utah	0.3
Maryland	0.4	Vermont	0.1
Massachusetts	0.1	Virginia	0.2
Michigan	0.4	Washington	1.0
Minnesota	3.0	West Virginia	0.0
Mississippi	1.4	Wisconsin	0.6
Missouri	1.8	Wyoming	0.4
		U.S.	1.3

Source: Bureau of Economic Analysis, Department of Commerce

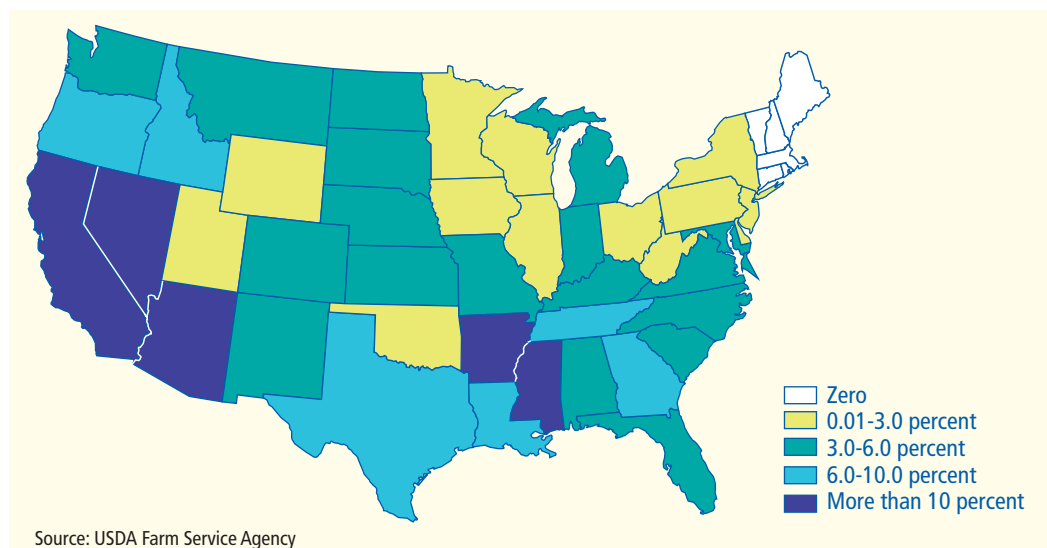
located in the same areas where direct government payments are concentrated. The dependence on farming and the high share of government payments in farm income make these counties especially sensitive to changes in farm programs. Payments in 2000 were equal to 25 percent or more of cash receipts in many counties throughout the Corn Belt, Northern and Southern Plains, Delta, and Southeast.

Farm programs provide a stable source of income to producers of program crops and benefit other agriculture-related businesses. Increased farm income generated in part by the payments results in additional goods and services purchased in the local economy, which contributes to economic expansion in the nonfarm economy. Over time, government payments are capitalized into higher farmland values, stabilizing the property tax base for rural communities.

Based on the concentration of payments, the dependency on farming, and the reduction in payments that could occur under further payment limitations (which depends on market prices and the levels at which limits are established), further payment limitations would likely have the greatest effect on the rural communities and agribusiness infrastructure located in the Delta States of Arkansas, Louisiana, and Mississippi; in west Texas; and in rural areas of Arizona and California. The FSA analysis of 2000-crop PFC payments indicates that lowering the payment limit on direct payments to \$30,000 could reduce payments in these States by 8-15 percent and reducing the limit to \$20,000 could lower payments by 24-40 percent (figure 5.13 and 5.14). Depending on the reduction in payments under further payment limitations, some rural counties in several other States would be affected as well.

The nature of the effects would depend on what adjustments are made by producers affected by further limits. The largest negative impacts would occur if program payments decline and producers reduce production. Under a stylized payment limit scenario of \$40,000 for direct payments, \$65,000 for counter-cyclical payments, and \$175,000 for marketing loan benefits, FAPRI estimated that cotton acreage could decline by 0.2-1.4 million acres (1-10 percent) and rice acreage could fall by 0.1-0.6 million acres (3-19 percent) in 2004 compared with baseline levels (95-percent confidence interval).

Figure 5.13. Percentage reduction in payments under \$30,000 limit on 2000-crop PFC payments

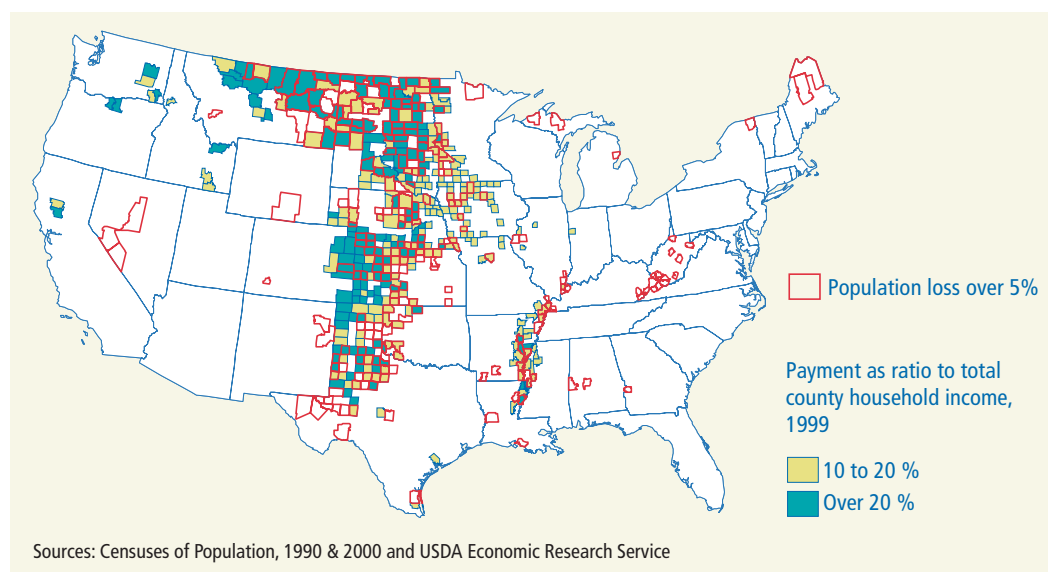


crops (which could be viewed as a proxy for program payments) did not explain growth in agriculture in the county. In testimony before the Commission on the effects of further payment limits, Gardner concluded, “Therefore, we are quite in the dark about consequences for rural communities” (Gardner, 2003).

Research examining counties that have lost population also provides some insight on the possible long-run effects of payments and payment limits. Although the rural population grew overall during the 20th century, many counties experienced population declines tied to the decline in the farm population. Population decline reduces the demand for and the ability to provide public services and threatens long-term community survival. During the 1990s, over half of the farming-dependent counties and about 40 percent of farming-important counties lost population, compared with only about 20 percent for other rural counties. Population losses occurred mainly in the Plains States, in areas where the concentration of payments is high (figure 5.15). Population increases occurred in the eastern Corn Belt, the South, the Mountain States, and some other areas. ERS associates the population increases with non-farm job opportunities, new value-added agricultural processing, and natural amenities.

Goetz and Debertin discuss various ways farm program payments affect outmigration from agriculture. Farm program payments may affect outmigration through the capitalization of payments into land values. Two outcomes are possible: higher land values may act as a deterrent to farm consolidation by increasing the capital needed to finance expansion or, alternatively, higher land values may act as a barrier to entry to new farmers and hasten consolidation by those already in farming. Government payments may also affect outmigration by increasing investment in agriculture, thereby fostering expansion and farm consolidation. The authors concluded, based on data for 1980-90, that outmigration increased as government payments made up a larger share of farm market receipts. The effects of farm structure on outmigration generally indicated that the greater the proportion of farms in high sales categories, the smaller the county population loss.

Figure 5.15. Rural population loss, 1990-2000, and farm program payments, 1999-2000 average



A study by Huang, Orazem, and Wohlgemuth examined the causes of rural population change during 1950-90. They concluded that there is no evidence that higher farm income raises rural county population. Their analysis indicates that higher farm income is associated with higher farm population, but higher farm income does not lead to an increase in the rural nonfarm population and thereby results in no significant increase in the rural population. Their results indicate that rural economies that are more diversified have stronger population growth than rural economies that depend on a few industries for the bulk of their employment and economic activity.

Conclusions

- Farming's role in rural economies has declined over time as growth in the nonfarm sector has exceeded that in farming. The number of farming-dependent counties—those where farming accounts for 20 percent or more of personal income—has declined as well, falling from 556 in 1989 to 316 in the mid-1990s, out of 2,450 rural U.S. counties.
- While farming has declined as a share of rural economic activity, and the farm population has declined, the rural population has grown and average farm household income has risen to the point where it is on a par with average urban household income and exceeds average nonfarm rural household income.
- Despite the long-term decline in farming in the rural economy overall, agriculture, more broadly defined as farming plus input-supplying industries and processing, distribution, and delivery to consumers domestically or abroad, remains a crucial part of the rural and national economy, accounting for 17 percent of U.S. employment and 12 percent of U.S. gross domestic product in 2001.
- In addition, many rural counties that are farming-dependent (20 percent or more of income coming from farming) or farming-important (10 to 20 percent of income from farming) continue to depend heavily on government payments. Large areas of the Plains States, Corn Belt, and Delta have farm program payments equal to 25 percent or more of farm cash receipts and 50 percent or more of net farm income. The greatest effects of further payment limitations on rural communities and agribusiness infrastructure potentially occur in counties where payments are most concentrated, farm income is most dependent on payments, and the likelihood of producers being affected by further payment limits is highest. Such areas are found in: the Delta States of Arkansas, Louisiana, and Mississippi; in west Texas and the rice-growing regions of the upper Gulf Coast; and in rural areas of Arizona and California, where rice and cotton payments are concentrated. Depending on the reduction in payments under further payment limitations, counties in western Kansas, central and eastern Nebraska and South Dakota, western Iowa, and a few other areas could potentially be affected as well.
- In the short run, further payment limitations are expected to affect negatively rural communities and agribusiness infrastructure. If producers reduce planted acreage, which economic modeling suggests would most likely occur if marketing assistance loan benefits are limited, including certificate and loan forfeiture gains, and prices are below the loan rate

for program crops, then in the most affected counties, farm income declines, farm input use declines, purchases of agribusiness services decline, and farm land values decline. These negative effects on rural communities and agribusiness infrastructure would be partially offset by higher prices for commodities whose acreage is reduced, increased acreage of alternative crops, and lower production costs to the extent cash rents decline.

- The long-run effects on rural economies of further payment limits are generally unknown. The short-run negative effects on rural communities and agribusiness infrastructure are likely to diminish over time as producers adjust in a variety of ways to further payment limits. While the competitive position of small farms relative to large farms may be enhanced, little is known as to whether that would translate into positive rural community and agribusiness effects over time. Economic studies do not suggest that farm structure is an important factor explaining a county's economic or population growth. Instead, studies suggest other factors, ranging from nonfarm technology developments (from roads to telecommunications), to economic diversity, to natural amenities, to human capital investment, are prime factors.

References

- Gale, Fred. "Nonfarm Growth and Structural Change Alter Farming's Role in the Rural Economy." *Rural Conditions and Trends*, Vol. 10, No. 2, 2000, pp. 2-6. Economic Research Service, USDA.
- Gardner, Bruce L. *American Agriculture in the Twentieth Century, How It Flourished and What It Cost*. Cambridge, Massachusetts and London England: Harvard University Press, 2002.
- Gardner, Bruce. "Payment Limit Issues: What Do We Really Know, What is Plausible but Uncertain, and Where Are We Totally in the Dark?" Testimony presented to the Commission on the Application of Payment Limitations for Agriculture, Washington, D.C., June 17, 2003.
- Goetz, Stephan J., and David Debertin. "Rural Population Decline in the 1980s: Impacts of Farm Structure and Federal Farm Programs." *Amer. J. Agr. Econ.* 78(August 1996): 517-529.
- Hamrick, Karen, editor. "Rural America at a Glance." Rural Development Research Report No. RDRR94-1, September 2002. Economic Research Service, USDA.
- Huang, Tzu-Ling, Peter F. Orazem, and Darin Wohlgenuth. "Rural Population Growth, 1950-1990: The Roles of Human Capital, Industry Structure, and Government Policy." *Amer. J. Agr. Econ.* 84(November 1997): 615-627.
- Kassel, Kathleen and Thomas Carlin. "Economic Growth in Farming Areas Lags the Rest of Rural America." *Rural Conditions and Trends*, Vol. 10, No. 2, 2000, pp. 10-16. Economic Research Service, USDA.
- Majchrowicz, Alex. "Agricultural Wholesale and Retail Trade Jobs Account for Two-Thirds of Farm and Farm-Related Employment." *Rural America*, Vol. 16, No. 1, 2001, pp. 53-55.
- Schluter, Gerald and William Edmondson. "Where is Agriculture Important?" *Rural Conditions and Trends*, Vol. 10, No. 2, 2000, pp. 17-21. Economic Research Service, USDA.

Effects of Further Payment Limitations on Planting Decisions and the Supply and Prices of Crops

Background

Many studies have examined the effects of government payments on producers' planting decisions and the supply and prices of crops. While the estimates vary considerably, past studies generally conclude that government payments increase crop production and lower crop prices. Depending on the relative levels of government support and the extent to which such support is tied to current production, government payments may increase production of one crop at the expense of another. For example, the 2002 Act raised marketing assistance loan rates for wheat and feed grains relative to soybeans. This change in relative loan rates provides an incentive for producers to switch some acreage formerly planted to soybeans to wheat and feed grains. Increased plantings of wheat and feed grains would lead to lower prices for those crops, while reduced plantings of soybeans would lead to higher prices for soybeans.

Westcott et al., analyzed the impacts of the 2002 Act on commodity markets. The analysis assumed that direct and counter-cyclical payments did not affect production. Direct and counter-cyclical payments are paid on historical acreage and yield and do not depend on current plantings. Production could be affected because of increased wealth and investment and reduced risk provided by direct and counter-cyclical payments. However, Westcott et al., argue the effects of direct and counter-cyclical payments on production are small and conclude that most of the impacts on commodity markets of the 2002 Act initially come from the change in marketing assistance loan rates, since these benefits are fully coupled to current production. With higher loan rates for most commodities, total plantings for major crops are projected to increase about 2 million acres per year, or less than 1 percent, during 2002-04 and by a lesser amount thereafter. Acreage is projected to increase for wheat, corn, and sorghum but decline for soybeans, reflecting the relative change in loan rates under the 2002 Act.

FAPRI (2002) also conducted an analysis of the 2002 Act. FAPRI projects total plantings of major crops would increase on average by 1.8 million acres per year during 2002-04. Reflecting the relative change in loan rates, soybean acreage declines while plantings of other major crops increase in the short run. Soybean prices are forecast to average about \$0.08 per bushel higher in response to the decline in plantings. Larger plantings of wheat and feed grains cause prices for those crops to average about \$0.05 per bushel lower during 2002-04.

The FAPRI and Westcott et al., studies provide estimates of the change in crop supplies and prices under the 2002 Act as opposed to continuation of the 1996 Act. Several studies have also examined the impacts on commodity markets of completely eliminating all farm programs. Elimination of all farm programs would lead to larger adjustments in planted acreage and prices of major crops. Various studies indicate that government payments increase crop production by 1 to 6 percent (Tweeten). However, the estimates depend heavily on the time period of analysis. During periods of relatively strong market prices, government payments have much less effect on crop production and market prices than when market prices are historically weak.

Discussion

Further payment limitations will likely lead to some reduction in total acreage planted to major crops and a relative shift in acreage away from those crops most adversely affected to crops less adversely affected by further payment limitations. The magnitude of the change in total acreage and shifts between crops would depend on the payments affected by further limitations, the level of prices for crops affected by further payment limits, the extent to which producers may be able to restructure to avoid further limitations, and the competition for land in agricultural and nonagricultural uses.

A drop in acreage of crops affected by further payment limitations would boost prices for those crops. The price increases would raise the cash receipts of producers not directly affected by the tighter limits and help cushion the drop in income by those directly affected. Returns to producers who continue to plant these crops would likely be affected only modestly, because higher prices would reduce marketing loan benefits and counter-cyclical payments. If producers affected by further payment limitations shift to the production of other program crops, the income of producers who traditionally plant these crops would likely be only modestly reduced because lower prices would increase marketing loan benefits and counter-cyclical payments for those crops. Increased plantings of crops that are not eligible for payments and marketing loan benefits would lower returns to producers of those crops.

Decoupled payments, such as direct and counter-cyclical payments, are generally believed to be much less production-distorting than payments that are directly linked to current production, such as marketing loan benefits. Under the 2002 Act, participating producers are permitted to plant all the acreage eligible for direct and counter-cyclical payments to any crop, except for some limitations on plantings of fruits, vegetables, and wild rice. As a result, producers' planting decisions are expected to be largely unaffected by direct and counter-cyclical payments and producers are expected to select the mix of crops to plant based on relative market returns and agronomic considerations. In contrast, marketing loan benefits do depend on how much and which crops are planted and, thereby, alter producers' planting decisions. Marketing assistance loans and to a lesser extent counter-cyclical payments reduce risk, which may be an important factor farmers use in deciding how much acreage to allocate to various crops. This suggests that further limitations that reduce direct and counter-cyclical payments would tend to have considerably less impact on crop supplies and prices than further limitations that reduce marketing loan benefits.

The elimination of marketing loan benefits may provide an upper bound for the adjustment in acreage and prices that could occur under further payment limits, since further limits on direct and counter-cyclical payments are expected to result in considerably less adjustment in acreage and prices. Westcott and Price analyzed the effects of eliminating marketing loans on production and prices of major crops over the period from 1998 through 2005. The baseline used for the analysis was the USDA 2000 baseline, which did not anticipate the sharp decline in cotton price for 2001 crop year. That study suggests that elimination of marketing loan benefits would have reduced plantings of major crops by 2 to 4 million acres (1-2 percent). Elimination of marketing loan benefits would have lowered cotton acreage by an esti-

mated 1.5 million acres in 2000 or by over 10 percent, the largest percentage decline in acreage for all major crops. In response to the decline in acreage, cotton prices would have been about 5 cents per pound higher. Lower rice acreage would have raised rice prices by 10 to 20 cents per hundredweight.

The Commission requested that the above study be updated to take into account the sharp decline in cotton prices for the 2001 crop (Westcott). The updated analysis indicated that elimination of marketing loan benefits for the 2001 crop would have lowered cotton acreage by 2.5 to 3.0 million acres or 15-20 percent and reduced rice acreage by 300,000 acres or 10 percent. The much larger decline in cotton acreage projected in the updated analysis indicates that the effects of further payment limitations on marketing loan benefits on supply and prices of agricultural commodities and on producer income are very dependent on the level of market prices.

FAPRI (2003) examined the possible implications of limiting any operation as defined by the Census of Agriculture to no more than \$40,000 in direct payments, \$60,000 in counter-cyclical payments, and \$175,000 in marketing loan benefits over the period 2004-12. In 2004, FAPRI estimates the stricter payment limitation would reduce the area planted to cotton by about 510,000 acres and the area planted to rice by about 250,000 acres (table 5.3). Cotton acreage is estimated to decline by 4 percent and rice acreage drops by 8 percent while acreage of other major crops changes by less than 1 percent. Longer-run impacts on planted acreage are assumed to be much smaller as producers adjust to the stricter limits on payments and reduced acreage leads to higher market returns. In response to the drop in acreage, FAPRI projected cotton prices would increase by 2 percent and rice prices would increase by 8 percent in 2004, while prices for other major crops would not change significantly (table 5.3). The effects on prices also tend to moderate after 2004, reflecting the smaller adjustment in planted acreage.

The effects of further payment limits on marketing loan benefits, acreage, and commodity prices depend on the level of market prices for major crops. If the loan repayment rate is at or above the loan rate for a crop, further payment limits would have essentially no effect on marketing loan benefits. In this situation, acreage for the crop could increase if further limits reduce marketing loan benefits for competing crops. In contrast, if the loan repayment rate is considerably below the loan rate for a crop, further payment limits on marketing loan benefits could lead to a significant reduction in planted acreage.

FAPRI examined the adjustment in cotton acreage that would occur under further limits at different cotton prices. If cotton prices average below 40 cents per pound as they did during the 2001 crop year, cotton acreage would have declined by 1.2 million acres in 2004, up from 0.5 million acres under the higher baseline price of 40-50 cents per pound. If cotton prices average over 50 cents per pound, FAPRI projects cotton acreage would fall by 0.2 million acres under stricter payment limits. This suggests that higher cotton prices combined with higher prices for other program crops could lead to little or no change in cotton acreage

under further payment limits. The sensitivity of acreage adjustments under further payment limits to the level of market prices increases the difficulty of drawing definitive conclusions on the effects of further payment limitations on the supply and prices of crops.

Producers affected by further payment limits could decide to increase production of crops that are relatively less affected by further payment limits. For rice and upland cotton producers, competing crops might include grains, oilseeds, hay, or other nonprogram crops. The decision to shift acreage to another crop would depend on relative returns, share rental agreements, the additional investment and machinery needed to plant an alternative crop, and other agronomic considerations. For many producers, planting alternative crops may not be a feasible option because climatic conditions may restrict which crops can be profitably grown. In addition, further payment limitations may restrict a producer's ability to finance new equipment that would be needed to plant and harvest crops not currently grown on the farm.

FAPRI's analysis of stricter limits suggests that most of the acreage affected by further payment limitations would not be planted to alternative crops. Instead, most of the acreage affected by further payment limitations would continue to be planted to the same crop by either the producer affected by further payment limitations or rented to another producer not affected by further payment limitations who also chooses to plant the same crop. For example, FAPRI's analysis of limiting any operation as defined by the Census of Agriculture to no more than \$40,000 in direct payments, \$60,000 in counter-cyclical payments, and \$175,000 in marketing loan benefits indicates that cotton and rice acreage would decline by 760,000 acres in the first year, while acreage of other major crops would increase by 150,000 acres. These acreage adjustments also suggest that some producers may elect to not to grow a crop on some acreage under further payment limits.

If a producer who rents land is subject to further payment limitations, lower payments would reduce the amount of rent the producer could pay unless the producer elected to accept a lower return. If the producer elects to reduce the amount of rent paid on the land no longer eligible for payments, the landowner could decide to either rent that land to another producer not affected by further payment limits or not grow a crop and receive the payments that previously went to the renter. Not growing a crop and receiving payments previously going to the renter could be an option for landowners in some areas, especially if many renters have payments reduced under further payment limitations. However, this option is generally less desirable than renting out all the land that would not qualify for payments to another producer who is not affected by further payment limitations. Thus, the decline in total planted area under further limitations would depend on the number of producers affected by further payment limitations and the strength of land rental markets, which could vary considerably from region to region.

Producers affected by further payment limitations may consider planting fruits, vegetables, hay, or other crops that are not eligible for direct and counter-cyclical payments or marketing assistance loans. Although fruits and vegetables are produced commercially in every State, this industry is concentrated in some key cotton-producing regions (Arizona State University, National

Food and Agricultural Policy Project). California is currently the second largest cotton-producing State and the largest producer of fruits and vegetables. In fact, the value of fruit and vegetable production in California exceeds the Nation's total value of cotton production. In California, the leading cotton-producing counties with significant fruit and vegetable production are Fresno, Kern, Kings, and Merced counties. In addition to cotton, each county has large areas committed to the production of several fruit and vegetable crops, such as grapes, tomatoes, almonds, cantaloupes, oranges, walnuts, peaches, and sweet potatoes. Arizona is another leading producer of cotton and fruits and vegetables, as is Texas (table 5.7). In these three States, many producers would have payments reduced under further payment limitations.

Under the 2002 Act, producers receiving direct and counter-cyclical payments may plant any commodity on base acres except fruits, vegetables, and wild rice (planting flexibility provision). Producers in regions where there is a history of double cropping fruits, vegetables, and wild rice can expand plantings of these crops without giving up eligibility for direct and counter-cyclical payments. In addition, producers with a history of planting those crops can expand plantings of them, but lose direct and counter-cyclical payments on each base acre planted to fruits, vegetables, and wild rice. Producers who violate these exceptions to planting fruits, vegetables, and wild rice on base acres are generally ineligible for direct and counter-cyclical payments. It is unclear whether these provisions, if retained, would be effective in limiting the expansion in acreage devoted to fruits, vegetables, and wild rice under further payment limitations. Other factors, such as the increase in investment and equipment, availability of market outlets, and volatility in prices and returns, may be more important in limiting the expansion in area planted to fruits, vegetables, and wild rice under further payment limitations.

There is no available research that indicates the extent to which further payment limitations would lead to an increase in supplies of fruits, vegetables, hay, or other nonprogram crops and the resulting adjustment in prices and returns that would occur in those markets. Even so, small shifts in acreage out of upland cotton or other crops affected by further payment

Table 5.7. Cotton and fruit and vegetable production in leading cotton-producing States, 2001

State	Cotton			Fruits and vegetables		
	Production value	National rank	U.S. share of production	Production value	National rank	U.S. share of production
	Million dollars		Percent	Million dollars		Percent
Texas	1,001	1	20	604	7	2
California	706	2	14	13,412	1	49
Georgia	570	3	12	499	10	2
Arkansas	503	4	10	42	36	--
North Carolina	412	5	8	356	12	1
Mississippi	370	6	7	49	33	--
Louisiana	271	7	5	102	27	--
Alabama	217	8	4	65	31	--
Missouri	215	9	4	45	34	--
Arizona	209	10	4	927	4	3

-- Denotes less than 0.5 percent.

Source: National Food and Agricultural Policy Project, Arizona State University

limits could have negative effects on some fruit and vegetable producers. For example, there are more than 300,000 acres of upland cotton in Fresno and Kern counties of California and less than 30,000 acres of garlic. Shifting just 1 percent of the cotton acreage to garlic would cause a 10-percent increase in garlic acreage, which could reduce already depressed garlic prices by 25 percent (Sumner).

Further payment limitations could lead to an increase in acreage devoted to hay. Producers can plant hay on base acres with no reduction in direct and counter-cyclical payments. In addition, many producers already devote some acreage to hay, market outlets are readily available, and little additional investment would be required to expand the area devoted to hay. In 2002, 64.5 million acres were planted to hay. Some shifting of acreage from program crops into hay under further payment limitations probably would not have much effect on hay prices.

Conclusions

- Various studies indicate that government payments increase crop production by 1 to 6 percent. However, the estimates depend on the time period of analysis. During periods of strong market prices, government payments have much less effect on crop production and market prices than when market prices are historically weak.
- Decoupled payments, such as direct and counter-cyclical payments, are generally believed to be much less production-distorting than payments that are directly linked to current production, such as marketing assistance loan benefits. This suggests that further limitations that reduce direct and counter-cyclical payments would have considerably less impact on crop supplies and prices than further limitations that reduce marketing assistance loan benefits.
- The elimination of marketing assistance loan benefits may provide an upper bound to the adjustment in acreage and prices that could occur under further payment limits. During 1999-2000, a period of very weak crop prices and record marketing loan benefits, the elimination of marketing loan benefits would have reduced plantings of major crops by an estimated 2.5 to 3.0 million acres in 2000, with cotton acreage falling by an estimated 1.5 million acres or by over 10 percent, the largest percentage decline in acreage for all major crops. In response to the decline in acreage, cotton prices would have been about 5 cents per pound higher and lower acreage would have raised rice prices by 10 to 20 cents per hundredweight.
- FAPRI (2003) examined the possible implications of limiting any operation as defined by the Census of Agriculture to no more than \$40,000 in direct payments, \$60,000 in counter-cyclical payments, and \$175,000 in marketing loan benefits over the period 2004-12. In 2004, FAPRI estimates the stricter payment limitation would reduce the area planted to cotton by about 510,000 acres and the area planted to rice by about 250,000

acres. In response to this drop in acreage, FAPRI projected cotton prices to increase by 2 percent and rice prices increase by 8 percent in 2004, while prices for other major crops would not change significantly.

- If cotton prices average below 40 cents per pound as they did during the 2001 crop year, cotton acreage could decline by 1.2 million acres in 2004, up from FAPRI's estimate of 0.5 million acres under the higher baseline price of 40-50 cents per pound. If cotton prices average over 50 cents per pound, FAPRI projects cotton acreage could fall by 0.2 million acres under stricter payment limits. Another study examined the effects of elimination of marketing loan benefits for the 2001 crop year, when cotton prices averaged 30 cents per pound, and concluded that cotton acreage would have fallen by 2.5 to 3.0 million acres. The sensitivity of acreage adjustments under stricter payment limits to the level of market prices increases the difficulty of drawing definitive conclusions as to the effects further payment limitations would have on the supply and prices of crops.
- Producers affected by further payment limits could decide to increase production of crops that are relatively less affected by further payment limits. The decision to shift acreage to another crop would depend on relative returns, share rental agreements, the additional investment and machinery needed to plant an alternative crop, and other agronomic considerations. For many producers, planting alternative crops may not be a feasible option because climatic conditions restrict which crops can be profitably grown.
- Not growing a crop may be an option under further payment limitations for some producers when market prices are considerably below the loan rate. This option is generally less desirable than renting out all the land that would not qualify for payments to another producer who is not affected by further payment limitations. Thus, the decline in total planted area under further limitations would depend on the number of producers affected by further payment limitations and the strength of land rental markets, which could vary considerably from region to region.
- Many of the producers affected by further payment limitations would be located in States that also produce a wide variety of nonprogram crops, including fruits, vegetables, and hay. The 2002 Act's limitations on planting fruits and vegetables along with other factors, such as the increase in investment and equipment, availability of market outlets, and volatility in prices and returns, may prevent many producers affected by further payment limitations from shifting additional acreage into fruits and vegetables. Nevertheless, small shifts in acreage into fruits and vegetables could have negative price effects on some fruit and vegetable crops.
- Further payment limitations could lead to an increase in acreage devoted to hay. Some shifting of acreage from program crops into hay, such as alfalfa in western States, probably would occur. The effect on hay prices may be limited, since nearly 65 million acres were planted to hay in 2002.

References

- Food and Agricultural Policy Research Institute, University of Missouri. Farm Security and Rural Investment Act of 2002: Preliminary FAPRI Analysis. May 2002.
- Food and Agricultural Policy Research Institute, University of Missouri. “FAPRI Analysis of Stricter Payment Limitations, Testimony to the Commission on the Application of Payment Limitations.” FAPRI-UMC Report #05-03. June 17, 2003.
- National Food and Agricultural Policy Project. “Farm Program Payment Limitations: Potential Implications for the Produce Industry.” Arizona State University, Policy Briefing Paper NFAPP #3-02, June 2003.
- Sumner, Daniel A. “Consequences of Additional Farm Program Payment Limits.” Testimony Presented to the Commission on Application of Payment Limitations for Agriculture, Washington, D.C., June 17, 2003.
- Tweeten, Luther. “Farm Commodity Programs: Estimated Safety Net or Corporate Welfare?” Agriculture Policy for the 21st Century, edited by Luther Tweeten and Stanley R. Thompson. Iowa State University Press, 2002.
- Westcott, Paul C. “Marketing Loans and Payment Limitations.” Presentation to the Commission on the Application of Payment Limitations for Agriculture, May 2003.
- Westcott, Paul C., and J. Michael Price. Analysis of the U.S. Commodity Loan Program with Marketing Loan Provisions. Agricultural Economic Report 801, April 2001. Economic Research Service, USDA.
- Westcott, Paul C., C. Edwin Young and Michael Price. The 2002 Farm Act: Provisions and Implications for Commodity Markets. Agriculture Information Bulletin 778, November 2002. Economic Research Service, USDA.

Appendix A

Supplemental Tables for Chapter 3

Appendix table 3.1. Government payments by type and commodity, crop years 1996-2007

	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03F	2003/04F	2004/05F	2005/06F	2006/07F	2007/08F
Million dollars												
PFC/Direct payments												
Corn	1,745	3,384	2,632	2,545	2,350	1,895	1,984	1,984	1,984	1,984	1,984	1,984
Sorghum	201	338	286	277	257	209	194	194	194	194	194	194
Barley	137	113	120	115	107	88	90	90	90	90	90	90
Oats	9	8	9	8	8	6	4	4	4	4	4	4
Wheat	1,940	1,397	1,496	1,445	1,337	1,076	1,144	1,144	1,144	1,144	1,144	1,144
Upland cotton	699	597	637	614	575	474	587	587	587	587	587	587
Rice	455	448	478	465	433	352	400	400	400	400	400	400
Soybeans	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	728	728	728	728	728	728
Other oilseeds	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	33	33	33	33	33	33
Peanuts	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	65	65	65	65	65	65
Total	5,186	6,285	5,658	5,469	5,067	4,100	5,229	5,229	5,229	5,229	5,229	5,229
Market loss payments												
Corn	N.A.	N.A.	1,308	2,544	2,545	2,157	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Sorghum	N.A.	N.A.	141	277	276	236	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Barley	N.A.	N.A.	59	115	114	97	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Oats	N.A.	N.A.	4	8	8	7	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Wheat	N.A.	N.A.	745	1,445	1,444	1,223	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Upland cotton	N.A.	N.A.	316	613	613	524	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Rice	N.A.	N.A.	238	464	464	398	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Soybeans	N.A.	N.A.	0	438	475	402	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Other oilseeds	N.A.	N.A.	0	22	24	20	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Peanuts	N.A.	N.A.	0	55	56	62	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Total	N.A.	N.A.	2,811	5,981	6,019	5,126	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Counter-cyclical payments												
Corn	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	0	1,052	2,191	2,191	1,753	1,315
Sorghum	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	0	54	133	163	133	103
Barley	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	0	31	67	67	67	45
Oats	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	0	5	17	17	17	17
Wheat	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	0	228	1,142	1,396	1,396	1,269
Upland cotton	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	1,247	1,247	1,001	793	705	610
Rice	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	331	331	331	331	331	331
Soybeans	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	0	421	721	621	521	321
Other oilseeds	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	0	0	0	0	0	0
Peanuts	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	175	175	175	175	175	175
Total	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	1,753	3,544	5,778	5,754	5,098	4,186
Loan deficiency payments												
Corn	0	0	1,002	1,992	2,352	1,099	0	0	156	158	4	0
Sorghum	0	0	57	149	81	5	2	11	38	61	39	18
Barley	0	0	79	37	67	16	5	23	27	27	28	18
Oats	0	0	19	28	44	3	0	35	42	38	32	33
Wheat	0	0	414	889	781	168	10	0	92	328	328	212
Upland cotton	0	3	303	685	152	744	433	348	262	178	130	132
Rice	0	0	1	161	278	308	238	204	189	186	170	166
Soybeans	0	0	882	2,106	2,245	3,154	16	17	227	114	36	0
Other oilseeds	0	0	23	164	212	87	2	3	3	5	6	7
Peanuts	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	75	69	74	76	77	78
Total	0	3	2,780	6,211	6,212	5,584	781	710	1,110	1,171	850	664

Appendix table 3.1. Continued

	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03F	2003/04F	2004/05F	2005/06F	2006/07F	2007/08F
	Million dollars											
Marketing loan gains												
Corn	0	98	379	410	197	86	0	0	18	18	0	0
Sorghum	0	1	4	4	1	0	0	0	1	2	1	1
Barley	0	2	4	1	1	0	0	2	2	3	3	2
Oats	0	0	0	0	0	0	0	1	1	1	1	1
Wheat	0	16	62	47	30	5	1	47	48	41	32	19
Upland cotton	0	26	230	815	50	46	57	28	16	9	7	6
Rice	0	0	13	183	150	200	207	222	222	212	216	213
Soybeans	0	16	337	218	257	277	0	2	9	4	0	0
Other oilseeds	0	0	8	8	6	2	0	0	0	0	0	0
Peanuts	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	26	53	62	68	69	71
Total	0	159	1,037	1,686	692	616	291	355	379	358	329	313
Certificate exchange gains												
Corn	0	0	0	3	31	3	0	0	0	0	0	0
Sorghum	0	0	0	0	1	0	0	0	0	0	0	0
Barley	0	0	0	0	1	0	0	0	0	0	0	0
Oats	0	0	0	0	0	0	0	0	0	0	0	0
Wheat	0	0	0	0	13	2	0	0	0	2	2	1
Upland cotton	0	0	0	36	360	1,746	521	250	141	84	60	49
Rice	0	0	0	57	169	206	218	198	184	177	163	154
Soybeans	0	0	0	2	33	17	0	0	0	0	0	0
Other oilseeds	0	0	0	1	8	0	0	0	0	0	0	0
Peanuts	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	0	0	0	0	0	0
Total	0	0	0	99	616	1,974	739	448	325	263	225	204
Total marketing loan benefits												
Corn	0	98	1,381	2,405	2,580	1,188	0	0	174	176	4	0
Sorghum	0	1	61	153	83	5	2	11	39	63	40	19
Barley	0	2	83	38	69	16	5	25	29	30	31	20
Oats	0	0	19	28	44	3	0	36	43	39	33	34
Wheat	0	16	476	936	824	175	11	47	140	371	362	232
Upland cotton	0	29	533	1,536	562	2,536	1,011	626	419	271	197	187
Rice	0	0	14	401	597	714	663	624	595	575	549	533
Soybeans	0	16	1,219	2,326	2,535	3,448	16	19	236	118	36	0
Other oilseeds	0	0	31	173	226	89	2	3	3	5	6	7
Peanuts	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	101	122	136	144	146	149
Total	0	162	3,817	7,996	7,520	8,174	1,811	1,513	1,814	1,792	1,404	1,181
Total payments												
Corn	1,745	3,482	5,321	7,494	7,475	5,240	1,984	3,036	4,349	4,351	3,741	3,299
Sorghum	201	339	488	707	616	450	196	259	366	420	367	316
Barley	137	115	262	268	290	201	95	146	186	187	188	155
Oats	9	8	32	44	60	16	4	45	64	60	54	55
Wheat	1,940	1,413	2,717	3,826	3,605	2,474	1,155	1,419	2,426	2,911	2,902	2,645
Upland cotton	699	626	1,486	2,763	1,750	3,534	2,845	2,460	2,007	1,651	1,489	1,384
Rice	455	448	730	1,330	1,494	1,464	1,394	1,355	1,326	1,306	1,280	1,264
Soybeans	0	16	1,219	2,764	3,010	3,850	744	1,168	1,685	1,467	1,285	1,049
Other oilseeds	0	0	31	195	250	109	35	36	36	38	39	40
Peanuts	0	0	0	55	56	62	341	362	376	384	386	389
Total	5,186	6,447	12,286	19,446	18,606	17,400	8,793	10,286	12,821	12,775	11,731	10,596

N.A. = Not applicable. F = Forecast.

Source: Historical data from USDA's Farm Service Agency and forecasts from USDA's Farm Service Agency Commodity Estimates Book FY 2004 President's Budget.

Appendix table 3.2. Crop-year prices for crops eligible for direct and counter-cyclical payments and marketing loan benefits, 1996/97-2007/08¹

	Units	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03F	2003/04F	2004/05F	2005/06F	2006/07F	2007/08F
Corn	\$/bu.	2.71	2.43	1.94	1.82	1.85	1.97	2.40	2.20	2.10	2.10	2.15	2.20
Grain sorghum	\$/bu.	2.34	2.21	1.66	1.57	1.89	1.94	2.45	2.10	2.00	1.95	2.00	2.05
Barley	\$/bu.	2.74	2.38	1.98	2.13	2.11	2.22	2.60	2.35	2.30	2.30	2.30	2.35
Oats	\$/bu.	1.96	1.60	1.10	1.12	1.10	1.59	1.80	1.35	1.25	1.25	1.30	1.30
Wheat	\$/bu.	4.30	3.38	2.65	2.48	2.62	2.78	3.80	3.25	2.95	2.85	2.85	2.90
Upland cotton	Cents/lb.	69.3	65.2	60.2	45.0	49.8	29.8	N.F.	N.F.	N.F.	N.F.	N.F.	N.F.
Rice	\$/cwt.	9.96	9.70	8.89	5.93	5.61	4.25	3.85	3.82	3.88	3.95	4.05	4.18
Soybeans	\$/bu.	7.35	6.47	4.93	4.63	4.54	4.38	5.40	5.15	5.00	5.05	5.10	5.20
Peanuts	\$/ton	562	566	568	508	548	468	360	348	346	348	352	360

F = Forecast

N.F. = Not forecast.

¹USDA is prohibited by law from forecasting upland cotton prices.

Source: Historical data from USDA National Agricultural Statistics Service and forecasts from USDA Farm Service Agency Commodity Estimates Book, FY 2004 President's Budget

Appendix table 3.3. Cash farm income by calendar year

	1996	1997	1998	1999	2000	2001	2002	2003F	2004F	2005F	2006F	2007F
	Billion dollars											
Cash receipts	199.3	207.7	196.0	187.5	193.7	202.8	192.1	200.5	205.8	209.4	214.6	221.3
Crops	106.3	111.2	101.9	91.9	94.1	96.4	98.6	101.6	103.4	104.3	106.7	110.0
Livestock	92.9	96.5	94.1	95.6	99.6	106.4	93.5	98.9	102.4	105.1	107.9	111.4
Direct government payments	7.3	7.5	12.4	21.5	22.9	20.7	11.8	17.6	15.6	17.5	16.8	14.4
Farm-related income	11.0	12.1	13.9	15.0	13.8	14.9	15.8	16.9	17.4	17.8	18.3	18.8
Gross cash income	217.7	227.3	222.3	224.0	230.4	238.5	219.7	234.9	238.8	244.6	249.6	254.5
Cash expenses	159.9	166.9	165.5	166.9	172.0	178.8	175.9	183.6	187.1	190.1	195.3	199.7
Net cash income	57.7	60.4	56.8	57.1	58.4	59.7	43.8	51.3	51.7	54.5	54.4	54.8

F = Forecast.

Source: USDA Economic Research Service and USDA Agricultural Baseline Projections to 2012, Staff Report WAOB-2003-1

Appendix table 3.4. Direct government payments by calendar year

	1996	1997	1998	1999	2000	2001	2002	2003F	2004F	2005F	2006F	2007F
	Billion dollars											
Total direct payments	7.3	7.5	12.4	21.5	22.9	20.7	11.8	17.6	15.6	17.5	16.8	14.4
Production flexibility contract	6.0	6.1	6.0	5.0	5.0	4.0	3.0	N.A.	N.A.	N.A.	N.A.	N.A.
Direct payments	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	0.4	9.2	5.2	5.2	5.2	5.2
Counter-cyclical payments	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	0.2	2.5	4.1	5.4	5.2	3.6
Loan deficiency payments	0	0	1.8	5.9	6.4	5.5	2.1	1.6	1.5	1.8	1.4	0.9
Marketing loan gains¹	0	0	0.2	0.9	1.1	0.7	0.5	0.8	0.6	0.5	0.4	0.4
Compensation to peanut quota holders	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	1.0	0.3	0.2	0.2	0.2	0
Milk income loss payments	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	0.9	0.6	0.5	0.4	0	0
Conservation payments	1.8	1.7	1.5	1.5	1.6	1.8	1.8	2.0	²	²	²	²
Emergency assistance payments³	N.A.	N.A.	2.8	7.8	8.5	8.4	0.2	0	0	0	0	0
Miscellaneous payments	-0.4	-0.3	0.1	0.4	0.2	0.3	1.8	0.5	3.4	3.8	4.3	4.2

F = Forecast.

N.A. = Not applicable.

¹Includes marketing loan benefits realized from using commodity certificates.

²Conservation payments included in miscellaneous payments after 2003.

³Includes disaster assistance and market loss assistance payments.

Source: USDA Economic Research Service and USDA Agricultural Baseline Projections to 2012, Staff Report WAOB-2003-1

Appendix table 3.5. Government payments, number of farms, and net cash income by State, 1999-2001 calendar-year average¹

State	Production flexibility contracts	Loan deficiency payments	Marketing loan gains ²	Emergency assistance ³	Total payments	State Rank	Number of farms	Payments per farm	State Rank	Net cash income	Payments as a percent of income	State Rank
	Thous. dol.	Thous. dol.	Thous. dol.	Thous. dol.	Thous. dol.	Number	Number	Dollars	Number	Thous. dol.	Percent	Number
Alabama	32,945	29,542	3,006	99,860	165,353	27	47,000	3,518	30	1,528,968	10.8	38
Alaska	101	0	0	565	666	50	580	1,149	45	17,703	3.8	47
Arizona	35,887	15,696	1,400	48,294	101,277	32	7,500	13,504	11	880,640	11.5	37
Arkansas	227,529	211,336	68,085	324,526	831,477	9	48,000	17,322	7	1,914,026	43.4	13
California	171,279	84,392	55,773	314,501	625,945	13	87,500	7,154	19	5,168,544	12.1	33
Colorado	78,637	67,043	4,541	120,911	271,132	23	29,500	9,191	14	1,073,364	25.3	20
Connecticut	758	1,093	0	9,048	10,900	42	3,900	2,795	34	165,698	6.6	45
Delaware	3,957	11,050	370	6,858	22,237	39	2,600	8,553	15	180,486	12.3	30
Florida	6,724	6,199	526	56,475	69,925	35	44,000	1,589	42	2,669,526	2.6	50
Georgia	66,552	84,733	6,298	208,860	366,442	18	50,000	7,329	18	2,363,474	15.5	26
Hawaii	0	26	0	4,607	4,633	46	5,500	842	49	123,597	3.7	48
Idaho	57,904	37,851	3,329	87,111	186,196	26	24,500	7,600	17	1,099,883	16.9	25
Illinois	390,642	781,351	71,950	525,610	1,769,553	2	78,000	22,687	3	1,846,513	95.8	1
Indiana	191,334	358,778	42,492	275,848	868,452	8	64,000	13,570	10	1,129,365	76.9	3
Iowa	444,490	705,013	169,339	604,687	1,923,529	1	95,000	20,248	5	2,994,150	64.2	7
Kansas	337,014	317,265	13,875	455,794	1,123,948	6	64,000	17,562	6	1,624,651	69.2	5
Kentucky	47,848	80,874	3,266	162,514	294,503	22	90,000	3,272	32	1,709,520	17.2	24
Louisiana	120,187	98,384	19,454	182,410	420,434	16	29,500	14,252	9	642,204	65.5	6
Maine	724	2,243	3	5,289	8,259	45	6,800	1,215	44	127,600	6.5	46
Maryland	13,141	33,417	1,147	25,871	73,576	34	12,400	5,934	24	498,823	14.7	28
Massachusetts	493	726	11	8,291	9,521	44	6,100	1,561	43	66,999	14.2	29
Michigan	81,030	115,066	12,211	144,278	352,585	20	52,000	6,780	21	668,723	52.7	11
Minnesota	265,534	456,145	136,857	421,754	1,280,291	5	79,000	16,206	8	1,846,218	69.3	4
Mississippi	114,923	97,620	23,838	186,549	422,930	15	43,000	9,836	13	988,403	42.8	14
Missouri	146,684	260,478	31,486	252,024	690,672	10	109,000	6,336	22	1,154,529	59.8	9
Montana	104,602	56,074	3,225	196,257	360,159	19	27,600	13,049	12	609,845	59.1	10
Nebraska	331,821	434,381	72,053	464,143	1,302,398	4	54,000	24,118	2	2,092,093	62.3	8
Nevada	751	191	0	2,504	3,446	47	3,000	1,149	46	110,257	3.1	49
New Hampshire	362	657	0	2,382	3,401	48	3,100	1,097	47	29,362	11.6	35
New Jersey	2,244	4,111	225	9,297	15,877	40	9,600	1,654	41	233,570	6.8	44
New Mexico	16,255	10,550	364	39,312	66,480	36	15,200	4,374	29	744,694	8.9	39
New York	25,201	17,593	2,855	77,333	122,981	28	38,000	3,236	33	1,016,603	12.1	34
North Carolina	54,265	101,362	3,731	178,709	338,067	21	57,000	5,931	25	2,932,394	11.5	36
North Dakota	207,139	282,606	20,476	389,974	900,194	7	30,300	29,709	1	1,109,115	81.2	2
Ohio	131,507	270,062	22,474	210,033	634,076	12	80,000	7,926	16	1,368,612	46.3	12
Oklahoma	125,664	48,306	3,410	233,510	410,890	17	85,000	4,834	28	1,265,128	32.5	17
Oregon	31,087	10,697	871	48,709	91,364	33	40,000	2,284	37	504,009	18.1	23
Pennsylvania	19,520	20,361	1,385	66,770	108,036	31	59,000	1,831	39	1,258,052	8.6	40
Rhode Island	26	28	0	615	669	49	700	956	48	9,546	7.0	43
South Carolina	25,053	26,705	1,933	67,429	121,121	29	24,000	5,047	27	611,511	19.8	22
South Dakota	135,951	263,959	45,897	238,870	684,677	11	32,500	21,067	4	1,834,065	37.3	16
Tennessee	46,549	58,577	20,473	114,043	239,642	24	90,000	2,663	35	591,428	40.5	15
Texas	403,438	263,818	18,651	917,764	1,603,671	3	226,000	7,096	20	5,358,079	29.9	18
Utah	6,105	3,404	269	16,565	26,343	38	15,500	1,700	40	340,035	7.7	41
Vermont	1,206	2,357	6	10,725	14,295	41	6,700	2,134	38	186,568	7.7	42
Virginia	18,123	33,011	2,334	60,395	113,863	30	49,000	2,324	36	762,737	14.9	27
Washington	76,262	32,035	4,507	122,707	235,510	25	40,000	5,888	26	991,481	23.8	21
West Virginia	1,802	1,422	158	6,918	10,299	43	20,500	502	50	84,550	12.2	32
Wisconsin	103,648	132,431	15,392	208,069	459,540	14	77,000	5,968	23	1,649,912	27.9	19
Wyoming	6,764	4,914	156	18,390	30,225	37	9,200	3,285	31	245,477	12.3	31
United States	4,711,660	5,935,933	910,102	8,233,963	19,791,657		2,172,280	9,111		58,422,687	33.9	

¹Conservation payments are excluded from government payments since the 2002 Act does not direct the Commission to study those payments.

²Includes certificate exchange gains.

³Includes disaster assistance and marketing loss assistance payments.

Source: USDA Economic Research Service

Appendix B

Supplemental Tables for Chapter 4

Appendix table 4.1. Payment reduction and producers affected by the \$40,000 payment limitation on production flexibility contract payments, 2000¹

	Total	Wheat	Rice	Upland cotton	Corn	Grain sorghum	Barley	Oats	
U.S. total	Reduction, dollars	82,648,742	14,783,906	10,291,772	22,579,642	25,659,595	5,751,064	3,555,533	27,230
	Producers	12,298	4,158	1,554	2,735	6,345	3,838	2,475	992
	Dollars per producer	6,721	3,556	6,623	8,256	4,044	1,498	1,437	27
Alabama	Reduction, dollars	157,813	6,933	0	111,716	32,232	6,844	0	88
	Producers	73	22	0	48	36	19	0	4
	Dollars per producer	2,162	315	0	2,327	895	360	0	22
Alaska	Reduction, dollars	0	0	0	0	0	0	0	0
	Producers	0	0	0	0	0	0	0	0
	Dollars per producer	0	0	0	0	0	0	0	0
Arizona	Reduction, dollars	1,915,887	126,008	0	1,731,381	26,716	11,956	19,824	2
	Producers	183	36	0	163	73	86	117	2
	Dollars per producer	10,469	3,500	0	10,622	366	139	169	1
Arkansas	Reduction, dollars	4,029,354	220,313	2,356,307	1,188,458	80,611	183,496	0	169
	Producers	806	190	489	267	90	346	0	23
	Dollars per producer	4,999	1,160	4,819	4,451	896	530	0	7
California	Reduction, dollars	19,588,144	1,859,660	3,996,672	11,686,884	1,329,630	114,313	600,001	984
	Producers	1,146	320	485	497	487	236	479	30
	Dollars per producer	17,093	5,811	8,241	23,515	2,730	484	1,253	33
Colorado	Reduction, dollars	2,633,492	1,113,562	0	0	1,361,308	96,284	61,525	813
	Producers	253	167	0	0	126	88	115	22
	Dollars per producer	10,409	6,668	0	0	10,804	1,094	535	37
Connecticut	Reduction, dollars	0	0	0	0	0	0	0	0
	Producers	0	0	0	0	0	0	0	0
	Dollars per producer	0	0	0	0	0	0	0	0
Delaware	Reduction, dollars	140,304	4,475	0	0	117,048	3,646	15,135	0
	Producers	19	7	0	0	17	5	11	0
	Dollars per producer	7,384	639	0	0	6,885	729	1,376	0
Florida	Reduction, dollars	1,037,436	243	939,472	48,484	46,558	2,637	0	42
	Producers	19	6	5	11	12	6	0	3
	Dollars per producer	54,602	41	187,894	4,408	3,880	440	0	14
Georgia	Reduction, dollars	1,273,973	70,228	0	793,054	386,565	22,380	1537	209
	Producers	330	87	0	196	211	106	18	32
	Dollars per producer	3,861	807	0	4,046	1,832	211	85	7
Idaho	Reduction, dollars	1,461,803	1,036,789	0	0	31,380	0	392,986	648
	Producers	193	142	0	0	23	0	156	27
	Dollars per producer	7,574	7,301	0	0	1,364	0	2,519	24
Illinois	Reduction, dollars	3,446,069	97,413	0	0	3,316,539	31,900	82	135
	Producers	709	142	0	0	684	68	8	33
	Dollars per producer	4,860	686	0	0	4,849	469	10	4

Appendix table 4.1 Continued

	Total	Wheat	Rice	Upland cotton	Corn	Grain sorghum	Barley	Oats	
Indiana	Reduction, dollars	1,733,416	34,003	0	0	1,698,215	604	491	103
	Producers	380	101	0	0	369	7	5	13
	Dollars per producer	4,562	337	0	0	4,602	86	0	8
Iowa	Reduction, dollars	2,949,912	6,889	0	0	2,940,414	1,388	120	1,101
	Producers	659	26	0	0	654	22	4	77
	Dollars per producer	4,476	265	0	0	4,496	63	30	14
Kansas	Reduction, dollars	4,848,030	1,439,751	0	0	1,862,865	1,495,515	49,222	677
	Producers	1,029	615	0	0	420	763	264	100
	Dollars per producer	4,711	2,341	0	0	4,435	1,960	186	7
Kentucky	Reduction, dollars	323,963	29,902	0	0	291,091	2,768	199	3
	Producers	121	46	0	0	108	21	3	1
	Dollars per producer	2,677	650	0	0	2,695	132	66	3
Louisiana	Reduction, dollars	3,076,164	72,442	1,397,921	1,320,801	157,534	127,263	0	203
	Producers	452	44	201	188	92	140	0	7
	Dollars per producer	6,806	1,646	6,955	7,026	1,712	909	0	29
Maine	Reduction, dollars	0	0	0	0	0	0	0	0
	Producers	0	0	0	0	0	0	0	0
	Dollars per producer	0	0	0	0	0	0	0	0
Maryland	Reduction, dollars	129,515	6,107	0	0	114,317	24	9,067	0
	Producers	43	14	0	0	36	1	21	0
	Dollars per producer	3,012	436	0	0	3,175	0	432	0
Massachusetts	Reduction, dollars	0	0	0	0	0	0	0	0
	Producers	0	0	0	0	0	0	0	0
	Dollars per producer	0	0	0	0	0	0	0	0
Michigan	Reduction, dollars	724,610	31,635	0	0	685,658	0	6,626	691
	Producers	141	51	0	0	129	0	24	23
	Dollars per producer	5,139	620	0	0	5,315	0	276	30
Minnesota	Reduction, dollars	1,679,309	491,451	0	0	989,321	0	197,342	1,195
	Producers	361	140	0	0	276	0	123	71
	Dollars per producer	4,652	3,510	0	0	3,584	0	1,604	17
Mississippi	Reduction, dollars	1,937,993	66,589	543,469	1,253,336	18,122	56,397	0	80
	Producers	505	120	160	343	77	179	0	25
	Dollars per producer	3,838	555	3,397	3,654	235	315	0	3
Missouri	Reduction, dollars	1,155,678	207,604	134,509	94,932	488,900	229,094	86	553
	Producers	350	122	33	51	198	186	3	15
	Dollars per producer	3,302	1,702	4,076	1,861	2,469	1,232	29	37
Montana	Reduction, dollars	3,106,250	1,855,964	0	0	21,071	183	1,225,483	3,549
	Producers	246	175	0	0	11	4	209	54
	Dollars per producer	12,627	10,606	0	0	1,916	46	5,864	66

Appendix table 4.1. Continued

	Total	Wheat	Rice	Upland cotton	Corn	Grain sorghum	Barley	Oats	
Nebraska	Reduction, dollars	3,652,234	174,820	0	0	3,222,856	238,867	13,514	2,177
	Producers	718	163	0	0	585	250	43	76
	Dollars per producer	5,087	1,073	0	0	5,509	955	314	29
Nevada	Reduction, dollars	69,541	26,929	0	0	0	0	42,597	15
	Producers	5	3	0	0	0	0	5	1
	Dollars per producer	13,908	8,976	0	0	0	0	8,519	15
New Hampshire	Reduction, dollars	0	0	0	0	0	0	0	0
	Producers	0	0	0	0	0	0	0	0
	Dollars per producer	0	0	0	0	0	0	0	0
New Jersey	Reduction, dollars	12,941	1,122	0	0	11,648	0	169	2
	Producers	3	2	0	0	3	0	2	1
	Dollars per producer	4,314	561	0	0	3,883	0	85	2
New Mexico	Reduction, dollars	507,556	61,614	0	47,081	312,803	80,474	5,581	3
	Producers	52	9	0	19	25	37	7	3
	Dollars per producer	9,761	6,846	0	2,478	12,512	2,175	797	1
New York	Reduction, dollars	118,435	941	0	0	114,694	0	2,777	23
	Producers	22	6	0	0	22	0	11	5
	Dollars per producer	5,383	157	0	0	5,213	0	252	5
North Carolina	Reduction, dollars	728,106	52,326	0	283,902	379,884	6,421	5,276	297
	Producers	189	82	0	94	165	39	23	8
	Dollars per producer	3,852	638	0	3,020	2,302	165	229	37
North Dakota	Reduction, dollars	1,253,594	681,028	0	0	280,785	355	289,873	1,553
	Producers	360	235	0	0	102	6	242	57
	Dollars per producer	3,482	2,898	0	0	2,753	59	1,198	27
Ohio	Reduction, dollars	530,022	16,256	0	0	513,434	258	19	55
	Producers	164	42	0	0	156	1	4	8
	Dollars per producer	3,232	387	0	0	3,291	258	5	7
Oklahoma	Reduction, dollars	1,039,061	489,464	0	184,008	161,319	199,863	4,072	335
	Producers	182	147	0	24	43	84	40	24
	Dollars per producer	5,709	3,330	0	7,667	3,752	2,379	102	14
Oregon	Reduction, dollars	1,046,498	822,730	0	0	112,211	990	110,272	295
	Producers	99	93	0	0	14	1	82	12
	Dollars per producer	10,571	8,847	0	0	8,015	990	1,345	25
Pennsylvania	Reduction, dollars	133,210	6,669	0	0	125,172	636	596	137
	Producers	21	10	0	0	21	1	7	11
	Dollars per producer	6,343	667	0	0	5,961	636	85	12
Rhode Island	Reduction, dollars	0	0	0	0	0	0	0	0
	Producers	0	0	0	0	0	0	0	0
	Dollars per producer	0	0	0	0	0	0	0	0

Appendix table 4.1. Continued

		Total	Wheat	Rice	Upland cotton	Corn	Grain sorghum	Barley	Oats
South Carolina	Reduction, dollars	237,838	15,902	0	69,438	149,649	1,643	1,183	23
	Producers	72	26	0	30	58	20	11	5
	Dollars per producer	3,303	612	0	2,315	2,580	82	108	5
South Dakota	Reduction, dollars	1,848,585	651,337	0	0	871,592	168,980	150,715	5,961
	Producers	264	142	0	0	150	82	122	74
	Dollars per producer	7,002	4,587	0	0	5,811	2,061	1,235	81
Tennessee	Reduction, dollars	395,214	35,357	0	262,477	85,719	11,655	0	6
	Producers	205	60	0	118	83	54	0	4
	Dollars per producer	1,928	589	0	2,224	1,033	216	0	2
Texas	Reduction, dollars	10,042,024	1,045,114	923,422	3,500,819	1,870,138	2,653,198	46,159	3,174
	Producers	1,520	345	181	681	567	972	109	75
	Dollars per producer	6,607	3,029	5,102	5,141	3,298	2,730	423	42
Utah	Reduction, dollars	52,191	19,086	0	0	3,398	0	29,697	10
	Producers	5	2	0	0	4	0	5	2
	Dollars per producer	10,438	9,543	0	0	850	0	5,939	5
Vermont	Reduction, dollars	0	0	0	0	0	0	0	0
	Producers	0	0	0	0	0	0	0	0
	Dollars per producer	0	0	0	0	0	0	0	0
Virginia	Reduction, dollars	309,283	31,606	0	2,871	264,450	992	9,277	87
	Producers	34	19	0	5	32	6	15	2
	Dollars per producer	9,097	1,663	0	574	8,264	165	618	44
Washington	Reduction, dollars	2,426,768	1,848,432	0	0	318,725	18	259,397	196
	Producers	204	160	0	0	30	1	150	13
	Dollars per producer	11,896	11,553	0	0	10,624	18	1,729	15
West Virginia	Reduction, dollars	1,900	582	0	0	1,318	0	0	0
	Producers	2	2	0	0	2	0	0	0
	Dollars per producer	950	291	0	0	659	0	0	0
Wisconsin	Reduction, dollars	878,151	12,307	0	0	860,599	22	3,587	1,636
	Producers	153	34	0	0	151	1	36	49
	Dollars per producer	5,740	362	0	0	5,699	22	100	33
Wyoming	Reduction, dollars	16,475	12,323	0	0	3,106	0	1,046	0
	Producers	6	3	0	0	3	0	1	0
	Dollars per producer	2,746	4,108	0	0	1,035	0	1,046	0

¹ Since a producer may grow several crops, summing the number of producers reaching the payment limit across crops greatly overstates the total number of producers affected by payment limits.

Source: USDA Farm Service Agency

Appendix table 4.2. Payment reduction and producers affected by the \$40,000 payment limitation on production flexibility contract payments, 2001¹

	Total	Wheat	Rice	Upland cotton	Corn	Grain sorghum	Barley	Oats	
U.S. total	Reduction, dollars	38,078,198	6,906,399	3,720,550	12,361,974	11,560,095	2,167,329	1,350,031	11,820
	Producers	5,929	2,157	590	1,468	3,113	1,597	1,088	499
	Dollars per producer	6,422	3,202	6,306	8,421	3,713	1,357	1,241	24
Alabama	Reduction, dollars	53,542	2,097	0	37,519	10,125	3,800	0	1
	Producers	48	10	0	34	24	14	0	1
	Dollars per producer	1,115	210	0	1,104	422	271	0	1
Alaska	Reduction, dollars	0	0	0	0	0	0	0	0
	Producers	0	0	0	0	0	0	0	0
	Dollars per producer	0	0	0	0	0	0	0	0
Arizona	Reduction, dollars	1,025,503	49,048	0	961,626	7,165	2,010	5,654	0
	Producers	90	15	0	88	40	26	41	0
	Dollars per producer	11,394	3,270	0	10,928	179	77	138	0
Arkansas	Reduction, dollars	1,615,477	103,139	878,015	567,971	16,627	49,696	0	29
	Producers	391	96	181	164	24	106	0	6
	Dollars per producer	4,132	1,074	4,851	3,463	693	469	0	5
California	Reduction, dollars	10,906,990	1,083,274	1,188,659	7,560,493	652,659	66,741	354,247	917
	Producers	624	218	212	328	290	129	302	24
	Dollars per producer	17,479	4,969	5,607	23,050	2,251	517	1,173	38
Colorado	Reduction, dollars	1,461,934	584,293	0	0	787,267	62,311	27,705	358
	Producers	145	96	0	0	71	36	53	9
	Dollars per producer	10,082	6,086	0	0	11,088	1,731	523	40
Connecticut	Reduction, dollars	622	0	0	0	622	0	0	0
	Producers	1	0	0	0	1	0	0	0
	Dollars per producer	622	0	0	0	622	0	0	0
Delaware	Reduction, dollars	39,743	1,754	0	0	36,079	429	1,481	0
	Producers	8	2	0	0	8	1	4	0
	Dollars per producer	4,968	877	0	0	4,510	429	370	0
Florida	Reduction, dollars	809,213	283	746,073	14,817	42,919	5,101	0	20
	Producers	12	3	6	3	8	7	0	1
	Dollars per producer	67,434	94	124,346	4,939	5,365	729	0	20
Georgia	Reduction, dollars	378,066	22,119	0	218,449	129,634	7,383	197	284
	Producers	160	49	0	87	97	43	3	16
	Dollars per producer	2,363	451	0	2,511	1,336	172	66	18
Idaho	Reduction, dollars	756,730	559,089	0	0	11,239	0	186,015	387
	Producers	89	75	0	0	18	0	70	22
	Dollars per producer	8,503	7,455	0	0	624	0	2,657	18
Illinois	Reduction, dollars	1,425,308	39,794	0	0	1,377,373	7,949	48	144
	Producers	359	87	0	0	347	24	5	26
	Dollars per producer	3,970	457	0	0	3,969	331	10	6

Appendix table 4.2. Continued

		Total	Wheat	Rice	Upland cotton	Corn	Grain sorghum	Barley	Oats
Indiana	Reduction, dollars	534,874	7,365	0	0	527,037	416	0	56
	Producers	152	31	0	0	148	4	0	8
	Dollars per producer	3,519	238	0	0	3,561	104	0	7
Iowa	Reduction, dollars	1,368,089	2,685	0	0	1,363,986	917	3	498
	Producers	310	30	0	0	306	13	1	56
	Dollars per producer	4,413	90	0	0	4,457	71	3	9
Kansas	Reduction, dollars	1,821,262	576,212	0	0	776,714	456,398	11,685	253
	Producers	490	325	0	0	201	331	89	46
	Dollars per producer	3,717	1,773	0	0	3,864	1,379	131	6
Kentucky	Reduction, dollars	138,085	6,401	0	0	130,766	765	149	4
	Producers	57	20	0	0	53	15	2	1
	Dollars per producer	2,423	320	0	0	2,467	51	75	4
Louisiana	Reduction, dollars	1,207,685	4,086	396,882	742,420	31,013	33,274	0	10
	Producers	216	26	87	104	45	52	0	2
	Dollars per producer	5,591	157	4,562	7,139	689	640	0	5
Maine	Reduction, dollars	0	0	0	0	0	0	0	0
	Producers	0	0	0	0	0	0	0	0
	Dollars per producer	0	0	0	0	0	0	0	0
Maryland	Reduction, dollars	28,763	1,048	0	0	27,203	0	501	11
	Producers	21	11	0	0	21	0	8	1
	Dollars per producer	1,370	95	0	0	1,295	0	63	11
Massachusetts	Reduction, dollars	0	0	0	0	0	0	0	0
	Producers	0	0	0	0	0	0	0	0
	Dollars per producer	0	0	0	0	0	0	0	0
Michigan	Reduction, dollars	363,163	10,959	0	0	351,029	0	974	201
	Producers	56	18	0	0	52	0	7	6
	Dollars per producer	6,485	609	0	0	6,751	0	139	34
Minnesota	Reduction, dollars	626,724	184,658	0	0	386,504	0	55,178	384
	Producers	193	78	0	0	140	0	62	31
	Dollars per producer	3,247	2,367	0	0	2,761	0	890	12
Mississippi	Reduction, dollars	587,754	16,479	127,540	410,096	8,672	24,935	0	32
	Producers	210	51	32	153	20	49	0	4
	Dollars per producer	2,799	323	3,986	2,680	434	509	0	8
Missouri	Reduction, dollars	502,688	124,993	29,701	30,043	210,581	106,775	223	372
	Producers	176	69	7	19	125	79	3	12
	Dollars per producer	2,856	1,811	4,243	1,581	1,685	1,352	74	31
Montana	Reduction, dollars	934,174	603,693	0	0	244	141	329,198	898
	Producers	92	68	0	0	4	1	72	15
	Dollars per producer	10,154	8,878	0	0	61	141	4,572	60

Appendix table 4.2. Continued

	Total	Wheat	Rice	Upland cotton	Corn	Grain sorghum	Barley	Oats	
Nebraska	Reduction, dollars	1,816,762	84,050	0	0	1,677,909	49,072	5,023	708
	Producers	321	75	0	0	271	74	17	27
	Dollars per producer	5,660	1,121	0	0	6,192	663	295	26
Nevada	Reduction, dollars	44,418	14,798	0	0	0	0	29,620	0
	Producers	4	3	0	0	0	0	4	0
	Dollars per producer	11,105	4,933	0	0	0	0	7,405	0
New Hampshire	Reduction, dollars	0	0	0	0	0	0	0	0
	Producers	0	0	0	0	0	0	0	0
	Dollars per producer	0	0	0	0	0	0	0	0
New Jersey	Reduction, dollars	5,443	762	0	0	4,586	0	94	1
	Producers	3	3	0	0	2	0	1	1
	Dollars per producer	1,814	254	0	0	2,293	0	94	1
New Mexico	Reduction, dollars	301,910	51,268	0	25,170	158,893	62,457	4,110	12
	Producers	24	11	0	14	12	15	5	3
	Dollars per producer	12,580	4,661	0	1,798	13,241	4,164	822	4
New York	Reduction, dollars	38,247	220	0	0	37,350	0	675	2
	Producers	6	3	0	0	5	0	3	1
	Dollars per producer	6,375	73	0	0	7,470	0	225	2
North Carolina	Reduction, dollars	356,164	19,151	0	169,204	161,489	3,391	2,720	209
	Producers	98	35	0	53	67	19	8	5
	Dollars per producer	3,634	547	0	3,193	2,410	178	340	42
North Dakota	Reduction, dollars	334,627	168,935	0	0	103,277	14	62,023	378
	Producers	127	77	0	0	55	3	78	21
	Dollars per producer	2,635	2,194	0	0	1,878	5	795	18
Ohio	Reduction, dollars	196,573	6,616	0	0	189,710	0	203	44
	Producers	92	30	0	0	82	0	3	3
	Dollars per producer	2,137	221	0	0	2,314	0	68	15
Oklahoma	Reduction, dollars	422,949	196,227	0	89,798	87,490	47,904	1,389	141
	Producers	91	70	0	11	20	43	10	11
	Dollars per producer	4,648	2,803	0	8,163	4,375	1,114	139	13
Oregon	Reduction, dollars	528,300	413,260	0	0	63,736	637	50,650	17
	Producers	45	41	0	0	9	1	38	4
	Dollars per producer	11,740	10,080	0	0	7,082	637	1,333	4
Pennsylvania	Reduction, dollars	72,932	2,523	0	0	69,777	0	528	104
	Producers	12	6	0	0	12	0	4	8
	Dollars per producer	6,078	421	0	0	5,815	0	132	13
Rhode Island	Reduction, dollars	0	0	0	0	0	0	0	0
	Producers	0	0	0	0	0	0	0	0
	Dollars per producer	0	0	0	0	0	0	0	0

Appendix table 4.2. Continued

		Total	Wheat	Rice	Upland cotton	Corn	Grain sorghum	Barley	Oats
South Carolina	Reduction, dollars	143,476	23,824	0	54,361	62,619	1,961	646	65
	Producers	55	27	0	30	48	10	5	17
	Dollars per producer	2,609	882	0	1,812	1,305	196	129	4
South Dakota	Reduction, dollars	901,960	324,796	0	0	433,310	85,502	55,001	3,351
	Producers	127	69	0	0	80	41	51	47
	Dollars per producer	7,102	4,707	0	0	5,416	2,085	1,078	71
Tennessee	Reduction, dollars	118,349	7,514	0	79,140	26,704	4,991	0	0
	Producers	98	19	0	62	41	30	0	0
	Dollars per producer	1,208	395	0	1,276	651	166	0	0
Texas	Reduction, dollars	4,024,400	347,252	353,680	1,398,029	824,484	1,082,180	17,298	1,477
	Producers	703	181	65	315	231	417	43	35
	Dollars per producer	5,725	1,919	5,441	4,438	3,569	2,595	402	42
Utah	Reduction, dollars	46,533	23,558	0	0	2,560	0	20,392	23
	Producers	6	5	0	0	2	0	6	4
	Dollars per producer	7,756	4,712	0	0	1,280	0	3,399	6
Vermont	Reduction, dollars	0	0	0	0	0	0	0	0
	Producers	0	0	0	0	0	0	0	0
	Dollars per producer	0	0	0	0	0	0	0	0
Virginia	Reduction, dollars	171,512	13,095	0	2,838	152,242	116	3,208	13
	Producers	31	18	0	3	27	6	9	2
	Dollars per producer	5,533	728	0	946	5,639	19	356	7
Washington	Reduction, dollars	1,569,524	1,205,302	0	0	242,820	15	121,340	47
	Producers	97	87	0	0	21	1	67	7
	Dollars per producer	16,181	13,854	0	0	11,563	15	1,811	7
West Virginia	Reduction, dollars	1,978	149	0	0	1,781	48	0	0
	Producers	7	7	0	0	7	7	0	0
	Dollars per producer	283	21	0	0	254	7	0	0
Wisconsin	Reduction, dollars	375,216	2,098	0	0	371,526	0	1,223	369
	Producers	79	10	0	0	77	0	13	16
	Dollars per producer	4,750	210	0	0	4,825	0	94	23
Wyoming	Reduction, dollars	20,536	17,532	0	0	2,374	0	630	0
	Producers	3	2	0	0	1	0	1	0
	Dollars per producer	6,845	8,766	0	0	2,374	0	630	0

¹ Since a producer may grow several crops, summing the number of producers reaching the payment limit across crops greatly overstates the total number of producers affected by payment limits.

Source: USDA Farm Service Agency

Appendix table 4.3. Number of producers receiving production flexibility contract payments, 2000

	Total	Wheat	Rice	Upland cotton	Corn	Grain sorghum	Barley	Oats
U.S. total	1,215,706	777,014	33,235	124,528	863,795	324,277	191,230	381,883
Alabama	17,960	10,480	2	6,814	13,218	7,004	111	1,919
Alaska	54	11					49	29
Arizona	1,273	950		1,191	408	551	652	127
Arkansas	23,033	18,631	12,737	7,654	3,072	14,045	12	2,372
California	11,042	7,389	3,431	3,885	4,495	1,463	4,108	1,104
Colorado	17,311	15,293			7,087	4,699	7,861	3,625
Connecticut	368	12			366	10	4	6
Delaware	1,015	767			914	302	541	34
Florida	4,350	2,203	36	913	3,755	1,347	2	994
Georgia	20,201	15,025		8,347	16,275	7,922	1,454	5,193
Idaho	13,499	12,199			3,455	51	11,513	2,781
Illinois	117,569	65,025			115,784	14,758	1,139	18,844
Indiana	59,297	38,028			58,746	1,418	706	8,491
Iowa	96,685	10,584			96,502	1,502	1,265	52,124
Kansas	98,407	95,737		105	31,040	82,560	17,175	27,373
Kentucky	47,311	20,056	3	2	45,917	4,897	1,803	1,555
Louisiana	24,556	9,320	11,731	8,214	6,538	7,317	5	1,418
Maine	1,125	77			672		265	578
Maryland	3,881	2,917			3,674	612	1,798	499
Massachusetts	466	9			464	9	7	27
Michigan	28,094	21,216			26,940	276	4,315	14,754
Minnesota	55,006	28,828			50,884	340	13,844	36,810
Mississippi	17,471	9,463	1,166	8,783	9,146	7,676	19	972
Missouri	58,523	48,746	1,151	3,617	45,645	29,335	2,273	10,218
Montana	19,295	18,329			1,824	107	16,612	6,699
Nebraska	67,088	42,210		3	55,212	32,134	4,891	28,446
Nevada	313	228			82	5	241	141
New Hampshire	277				277	3	4	4
New Jersey	741	521			673	85	299	204
New Mexico	3,265	2,323		1,241	1,017	2,101	689	450
New York	10,317	3,706			10,197	94	1,967	5,954
North Carolina	24,399	17,013		5,663	22,563	5,014	3,628	4,972
North Dakota	37,113	36,605			14,805	962	30,240	21,878
Ohio	48,351	39,754			46,966	287	1,178	15,531
Oklahoma	40,383	39,621	10	7,525	3,296	13,076	2,549	9,290
Oregon	6,860	6,572			1,163	28	4,779	2,385
Pennsylvania	11,719	5,893			11,619	542	3,568	7,969
Rhode Island	39				39	3		
South Carolina	10,145	7,702	1	2,666	8,334	2,213	1,291	3,004
South Dakota	35,442	24,876			30,595	8,761	16,551	28,019
Tennessee	29,880	16,734	11	8,290	24,287	9,185	698	916
Texas	83,831	52,343	3,021	49,332	29,000	60,225	2,950	14,825
Utah	2,728	2,085			1,257	89	2,133	865
Vermont	1,158	48			1,154	3	101	190
Virginia	13,428	8,165		897	12,437	2,486	3,755	2,044
Washington	12,742	12,472			1,232	26	10,381	1,442
West Virginia	2,489	619			2,451	65	304	815
Wisconsin	42,885	11,339			42,517	747	10,667	33,704
Wyoming	3,152	1,689			1,235	61	1,887	1,672

Source: USDA Farm Service Agency

Appendix table 4.4. Number of producers receiving production flexibility contract payments, 2001

	Total	Wheat	Rice	Upland cotton	Corn	Grain sorghum	Barley	Oats
U.S. total	1,177,366	753,178	32,917	121,832	835,768	314,678	185,904	358,576
Alabama	17,716	10,331	2	6,754	12,983	6,892	110	1,801
Alaska	43	7					43	19
Arizona	1,250	922		1,175	428	546	638	128
Arkansas	22,647	18,244	12,540	7,558	3,061	13,840	7	2,257
California	10,914	7,374	3,370	3,809	4,506	1,449	4,111	1,048
Colorado	16,763	14,805			6,921	4,496	7,600	3,370
Connecticut	350	10			349	8	4	6
Delaware	998	764			898	301	537	34
Florida	4,248	2,181	28	933	3,707	1,328	2	961
Georgia	19,973	14,870		8,331	15,981	7,786	1,469	4,920
Idaho	13,216	11,938			3,386	47	11,255	2,571
Illinois	113,548	63,141			111,808	14,406	1,129	17,473
Indiana	57,114	36,701			56,591	1,403	703	7,780
Iowa	92,190	10,229			92,012	1,490	1,215	48,762
Kansas	95,199	92,622		106	29,988	79,826	16,782	25,380
Kentucky	45,781	19,260	3	3	44,419	4,712	1,740	1,428
Louisiana	24,052	9,118	11,735	7,931	6,321	7,161	5	1,319
Maine	1,107	74			666		267	557
Maryland	3,819	2,865		1	3,616	592	1,759	476
Massachusetts	468	7			466	6	7	19
Michigan	27,474	20,635			26,377	276	4,244	13,928
Minnesota	53,056	27,942			49,143	332	13,453	34,866
Mississippi	17,124	9,177	1,139	8,614	8,933	7,503	21	906
Missouri	56,684	47,173	1,165	3,563	44,255	28,449	2,251	9,450
Montana	18,698	17,753			1,837	101	16,023	6,406
Nebraska	64,392	40,509		3	52,852	30,851	4,811	26,539
Nevada	338	239			82	7	262	142
New Hampshire	278				278	3	4	4
New Jersey	717	517			648	83	297	196
New Mexico	3,094	2,194		1,201	962	1,993	683	405
New York	9,776	3,553			9,662	84	1,893	5,528
North Carolina	24,122	16,869		5,634	22,260	5,023	3,648	4,738
North Dakota	35,638	35,165			14,577	979	28,860	20,714
Ohio	46,605	38,185			45,348	287	1,180	14,449
Oklahoma	39,101	38,331	6	7,309	3,171	12,737	2,521	8,838
Oregon	6,687	6,405			1,112	28	4,641	2,200
Pennsylvania	11,522	5,725			11,422	528	3,501	7,657
Rhode Island	34				33	2		
South Carolina	9,866	7,524	1	2,652	8,070	2,186	1,271	2,868
South Dakota	33,950	23,952			29,356	8,526	15,997	26,606
Tennessee	29,538	16,479	10	8,394	23,876	8,963	694	848
Texas	80,869	50,167	2,980	47,605	28,002	58,074	2,790	13,857
Utah	2,732	2,100			1,268	98	2,144	833
Vermont	1,122	49			1,118	4	93	171
Virginia	13,222	8,063		869	12,255	2,441	3,729	1,927
Washington	12,605	12,339			1,186	23	10,231	1,359
West Virginia	2,445	589			2,410	64	295	739
Wisconsin	41,604	10,952			41,285	756	10,243	31,811
Wyoming	3,050	1,670			1,194	57	1,808	1,579

Source: USDA Farm Service Agency

Appendix table 4.5. Total payments received and reduction in payments due to the \$40,000 payment limitation on production flexibility contract payments, 2000

	Total	Wheat	Rice	Upland cotton	Corn	Grain sorghum	Barley	Oats	
U.S. total	Payment reduction	82,648,742	14,783,906	10,291,772	22,579,642	25,659,595	5,751,064	3,555,533	27,230
	Payment received	5,066,319,393	1,337,251,240	433,112,471	574,723,052	2,350,049,045	256,619,460	106,790,290	7,773,836
	% reduction	1.61	1.09	2.32	3.78	1.08	2.19	3.22	0.35
Alabama	Payment reduction	157,813	6,933	0	111,716	32,232	6,844	0	88
	Payment received	35,241,833	5,041,000	63	23,816,127	5,389,045	962,858	4,685	28,055
	% reduction	0.45	0.14	0.00	0.47	0.59	0.71	0.00	0.31
Alaska	Payment reduction	0	0	0	0	0	0	0	0
	Payment received	109,691	872	0	0	0	0	107,966	853
	% reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arizona	Payment reduction	1,915,887	126,008	0	1,731,381	26,716	11,956	19,824	2
	Payment received	38,165,887	4,483,077	0	31,977,403	1,107,315	243,301	350,327	4,464
	% reduction	4.78	2.73	0.00	5.14	2.36	4.68	5.36	0.04
Arkansas	Payment reduction	4,029,354	220,313	2,356,307	1,188,458	80,611	183,496	0	169
	Payment received	242,529,720	26,479,908	166,242,659	39,355,963	1,792,407	8,611,111	267	47,405
	% reduction	1.63	0.83	1.40	2.93	4.30	2.09	0.00	0.36
California	Payment reduction	19,588,144	1,859,660	3,996,672	11,686,884	1,329,630	114,313	600,001	984
	Payment received	182,293,653	24,213,771	85,783,438	61,138,339	7,754,414	281,637	3,075,379	46,675
	% reduction	9.70	7.13	4.45	16.05	14.64	28.87	16.32	2.06
Colorado	Payment reduction	2,633,492	1,113,562	0	0	1,361,308	96,284	61,525	813
	Payment received	84,899,799	48,899,436	0	0	29,940,574	3,312,085	2,702,451	45,254
	% reduction	3.01	2.23	0.00	0.00	4.35	2.82	2.23	1.76
Connecticut	Payment reduction	0	0	0	0	0	0	0	0
	Payment received	811,581	707	0	0	810,127	657	30	60
	% reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Delaware	Payment reduction	140,304	4,475	0	0	117,048	3,646	15,135	0
	Payment received	4,188,673	849,894	0	0	2,961,078	85,890	291,636	175
	% reduction	3.24	0.52	0.00	0.00	3.80	4.07	4.93	0.00
Florida	Payment reduction	1,037,436	243	939,472	48,484	46,558	2,637	0	42
	Payment received	7,400,378	897,715	394,936	3,514,863	2,335,923	241,091	4	15,846
	% reduction	12.30	0.03	70.40	1.36	1.95	1.08	0.00	0.26
Georgia	Payment reduction	1,273,973	70,228	0	793,054	386,565	22,380	1537	209
	Payment received	71,665,022	14,203,342	0	40,722,723	15,356,054	1,193,375	107,818	81,710
	% reduction	1.75	0.49	0.00	1.91	2.46	1.84	1.41	0.26
Idaho	Payment reduction	1,461,803	1,036,789	0	0	31,380	0	392,986	648
	Payment received	62,491,006	48,839,529	0	0	2,000,847	9,482	11,605,473	35,675
	% reduction	2.29	2.08	0.00	0.00	1.54	0.00	3.28	1.78
Illinois	Payment reduction	3,446,069	97,413	0	0	3,316,539	31,900	82	135
	Payment received	418,533,546	34,069,432	0	0	380,233,236	4,010,999	42,004	177,875
	% reduction	0.82	0.29	0.00	0.00	0.86	0.79	0.19	0.08

Appendix table 4.5. Continued

		Total	Wheat	Rice	Upland cotton	Corn	Grain sorghum	Barley	Oats
Indiana	Payment reduction	1,733,416	34,003	0	0	1,698,215	604	491	103
	Payment received	206,611,406	17,694,643	0	0	188,615,259	217,385	29,423	54,696
	% reduction	0.83	0.19	0.00	0.00	0.89	0.28	1.64	0.19
Iowa	Payment reduction	2,949,912	6,889	0	0	2,940,414	1,388	120	1,101
	Payment received	479,956,064	1,618,697	0	0	477,267,362	139,539	57,592	872,874
	% reduction	0.61	0.42	0.00	0.00	0.61	0.98	0.21	0.13
Kansas	Payment reduction	4,848,030	1,439,751	0	0	1,862,865	1,495,515	49,222	677
	Payment received	358,949,618	217,953,060	0	37,370	57,548,247	81,269,583	1,913,994	227,365
	% reduction	1.33	0.66	0.00	0.00	3.14	1.81	2.51	0.30
Kentucky	Payment reduction	323,963	29,902	0	0	291,091	2,768	199	3
	Payment received	51,731,384	9,588,037	14,712	5,481	41,071,918	808,771	235,306	7,159
	% reduction	0.62	0.31	0.00	0.00	0.70	0.34	0.08	0.04
Louisiana	Payment reduction	3,076,164	72,442	1,397,921	1,320,801	157,534	127,263	0	203
	Payment received	127,547,136	4,922,731	67,738,786	46,348,356	5,102,419	3,416,967	145	17,733
	% reduction	2.35	1.45	2.02	2.77	2.99	3.59	0.00	1.13
Maine	Payment reduction	0	0	0	0	0	0	0	0
	Payment received	767,332	8,574	0	0	648,964	0	75,150	34,644
	% reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maryland	Payment reduction	129,515	6,107	0	0	114,317	24	9,067	0
	Payment received	14,171,229	2,686,114	0	336	10,850,746	158,993	471,221	3,819
	% reduction	0.91	0.23	0.00	0.00	1.04	0.02	1.89	0.00
Massachusetts	Payment reduction	0	0	0	0	0	0	0	0
	Payment received	521,403	690	0	0	520,227	247	57	182
	% reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Michigan	Payment reduction	724,610	31,635	0	0	685,658	0	6,626	691
	Payment received	86,884,990	14,499,174	0	0	71,724,097	18,634	394,673	248,412
	% reduction	0.83	0.22	0.00	0.00	0.95	0.00	1.65	0.28
Minnesota	Payment reduction	1,679,309	491,451	0	0	989,321	0	197,342	1,195
	Payment received	287,371,918	61,243,926	0	0	215,164,222	11,726	9,971,447	980,597
	% reduction	0.58	0.80	0.00	0.00	0.46	0.00	1.94	0.12
Mississippi	Payment reduction	1,937,993	66,589	543,469	1,253,336	18,122	56,397	0	80
	Payment received	122,040,725	9,365,241	34,391,966	71,769,256	3,560,305	2,939,433	312	14,212
	% reduction	1.56	0.71	1.56	1.72	0.51	1.88	0.00	0.56
Missouri	Payment reduction	1,155,678	207,604	134,509	94,932	488,900	229,094	86	553
	Payment received	158,955,121	42,891,904	14,387,241	12,864,551	70,070,113	18,555,088	116,782	69,441
	% reduction	0.72	0.48	0.93	0.73	0.69	1.22	0.07	0.79
Montana	Payment reduction	3,106,250	1,855,964	0	0	21,071	183	1,225,483	3,549
	Payment received	114,734,132	92,910,098	0	0	1,602,320	12,806	20,039,712	169,196
	% reduction	2.64	1.96	0.00	0.00	1.30	1.41	5.76	2.05

Appendix table 4.5. Continued

		Total	Wheat	Rice	Upland cotton	Corn	Grain sorghum	Barley	Oats
Nebraska	Payment reduction	3,652,234	174,820	0	0	3,222,856	238,867	13,514	2,177
	Payment received	358,840,558	51,311,654	0	57	264,256,162	42,023,427	800,663	448,595
	% reduction	1.01	0.34	0.00	0.00	1.20	0.57	1.66	0.48
Nevada	Payment reduction	69,541	26,929	0	0	0	0	42,597	15
	Payment received	837,478	555,548	0	0	34,530	5,599	237,121	4,680
	% reduction	7.67	4.62	0.00	0.00	0.00	0.00	15.23	0.32
New Hampshire	Payment reduction	0	0	0	0	0	0	0	0
	Payment received	379,339	0	0	0	378,685	376	269	9
	% reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
New Jersey	Payment reduction	12,941	1,122	0	0	11,648	0	169	2
	Payment received	2,386,314	402,738	0	0	1,910,348	9,269	61,323	2,636
	% reduction	0.54	0.28	0.00	0.00	0.61	0.00	0.27	0.08
New Mexico	Payment reduction	507,556	61,614	0	47,081	312,803	80,474	5,581	3
	Payment received	17,610,721	6,048,459	0	3,559,687	3,268,871	4,458,918	270,189	4,597
	% reduction	2.80	1.01	0.00	1.31	8.73	1.77	2.02	0.07
New York	Payment reduction	118,435	941	0	0	114,694	0	2,777	23
	Payment received	26,842,714	2,806,923	0	0	23,744,867	3,448	148,658	138,818
	% reduction	0.44	0.03	0.00	0.00	0.48	0.00	1.83	0.02
North Carolina	Payment reduction	728,106	52,326	0	283,902	379,884	6,421	5,276	297
	Payment received	57,192,644	10,361,722	0	18,728,592	27,232,254	482,031	337,371	50,673
	% reduction	1.26	0.50	0.00	1.49	1.38	1.31	1.54	0.58
North Dakota	Payment reduction	1,253,594	681,028	0	0	280,785	355	289,873	1,553
	Payment received	223,952,369	173,605,785	0	0	19,906,706	78,679	29,405,013	956,186
	% reduction	0.56	0.39	0.00	0.00	1.39	0.45	0.98	0.16
Ohio	Payment reduction	530,022	16,256	0	0	513,434	258	19	55
	Payment received	140,318,789	26,241,185	0	0	113,846,788	25,329	45,673	159,814
	% reduction	0.38	0.06	0.00	0.00	0.45	1.01	0.04	0.03
Oklahoma	Payment reduction	1,039,061	489,464	0	184,008	161,319	199,863	4,072	335
	Payment received	135,062,522	111,610,380	165,946	13,163,968	3,520,278	6,307,048	190,999	103,903
	% reduction	0.76	0.44	0.00	1.38	4.38	3.07	2.09	0.32
Oregon	Payment reduction	1,046,498	822,730	0	0	112,211	990	110,272	295
	Payment received	33,064,812	29,260,140	0	0	992,783	13,020	2,741,559	57,310
	% reduction	3.07	2.73	0.00	0.00	10.15	7.07	3.87	0.51
Pennsylvania	Payment reduction	133,210	6,669	0	0	125,172	636	596	137
	Payment received	20,780,681	1,642,704	0	0	18,642,537	65,835	295,992	133,613
	% reduction	0.64	0.40	0.00	0.00	0.67	0.96	0.20	0.10
Rhode Island	Payment reduction	0	0	0	0	0	0	0	0
	Payment received	26,340	0	0	0	26,234	106	0	0
	% reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Appendix table 4.5. Continued

		Total	Wheat	Rice	Upland cotton	Corn	Grain sorghum	Barley	Oats
South Carolina	Payment reduction	237,838	15,902	0	69,438	149,649	1,643	1,183	23
	Payment received	26,664,507	6,631,000	48	10,369,699	9,277,814	220,975	122,292	42,679
	% reduction	0.88	0.24	0.00	0.67	1.59	0.74	0.96	0.05
South Dakota	Payment reduction	1,848,585	651,337	0	0	871,592	168,980	150,715	5,961
	Payment received	147,688,971	58,073,590	0	0	75,921,425	5,611,361	6,686,430	1,396,165
	% reduction	1.24	1.11	0.00	0.00	1.13	2.92	2.20	0.43
Tennessee	Payment reduction	395,214	35,357	0	262,477	85,719	11,655	0	6
	Payment received	50,378,729	9,466,287	128,495	23,179,542	15,847,620	1,701,518	49,941	5,326
	% reduction	0.78	0.37	0.00	1.12	0.54	0.68	0.00	0.11
Texas	Payment reduction	10,042,024	1,045,114	923,422	3,500,819	1,870,138	2,653,198	46,159	3,174
	Payment received	436,354,972	79,665,715	63,864,180	172,523,649	50,857,472	68,783,716	381,840	278,399
	% reduction	2.25	1.29	1.43	1.99	3.55	3.71	10.78	1.13
Utah	Payment reduction	52,191	19,086	0	0	3,398	0	29,697	10
	Payment received	6,611,325	4,299,457	0	0	987,525	16,081	1,298,515	9,747
	% reduction	0.78	0.44	0.00	0.00	0.34	0.00	2.24	0.10
Vermont	Payment reduction	0	0	0	0	0	0	0	0
	Payment received	1,303,640	7,274	0	0	1,287,322	10	7,377	1,657
	% reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Virginia	Payment reduction	309,283	31,606	0	2,871	264,450	992	9,277	87
	Payment received	19,197,005	4,892,599	0	1,647,091	11,586,501	275,704	783,852	11,258
	% reduction	1.59	0.64	0.00	0.17	2.23	0.36	1.17	0.77
Washington	Payment reduction	2,426,768	1,848,432	0	0	318,725	18	259,397	196
	Payment received	81,501,506	69,751,846	0	0	2,523,102	1,750	9,204,138	20,670
	% reduction	2.89	2.58	0.00	0.00	11.22	1.02	2.74	0.94
West Virginia	Payment reduction	1,900	582	0	0	1,318	0	0	0
	Payment received	1,944,945	149,695	0	0	1,750,229	5,350	34,777	4,894
	% reduction	0.10	0.39	0.00	0.00	0.08	0.00	0.00	0.00
Wisconsin	Payment reduction	878,151	12,307	0	0	860,599	22	3,587	1,636
	Payment received	111,367,681	3,044,134	0	0	106,767,990	24,611	810,499	720,447
	% reduction	0.78	0.40	0.00	0.00	0.80	0.09	0.44	0.23
Wyoming	Payment reduction	16,475	12,323	0	0	3,106	0	1046	0
	Payment received	7,437,584	4,060,833	0	0	2,053,782	3,641	1,281,946	37,382
	% reduction	0.22	0.30	0.00	0.00	0.15	0.00	0.08	0.00

Source: USDA Farm Service Agency

Appendix table 4.6. Total payments received and reduction in payments due to the \$40,000 payment limitation on production flexibility contract payments, 2001

	Total	Wheat	Rice	Upland cotton	Corn	Grain sorghum	Barley	Oats	
U.S. total	Payment reduction	38,078,198	6,906,399	3,720,550	12,361,974	11,560,095	2,167,329	1,350,031	11,820
	Payment received	4,101,876,505	1,076,644,654	352,287,202	474,226,968	1,895,388,781	209,303,121	87,960,797	6,064,982
	% reduction	0.92	0.64	1.05	2.54	0.61	1.02	1.51	0.19
Alabama	Payment reduction	53,542	2,097	0	37,519	10,125	3,800	0	1
	Payment received	28,699,585	4,042,041	51	19,523,571	4,329,633	778,494	4,058	21,737
	% reduction	0.19	0.05	0.00	0.19	0.23	0.49	0.00	0.00
Alaska	Payment reduction	0	0	0	0	0	0	0	0
	Payment received	90,829	702	0	0	0	0	89,475	652
	% reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arizona	Payment reduction	1,025,503	49,048	0	961,626	7,165	2,010	5,654	0
	Payment received	32,375,176	3,765,728	0	27,175,964	916,392	204,250	309,013	3,829
	% reduction	3.07	1.29	0.00	3.42	0.78	0.97	1.80	0.00
Arkansas	Payment reduction	1,615,477	103,139	878,015	567,971	16,627	49,696	0	29
	Payment received	197,203,236	21,372,342	134,827,994	32,511,241	1,456,278	6,997,901	215	37,265
	% reduction	0.81	0.48	0.65	1.72	1.13	0.71	0.00	0.08
California	Payment reduction	10,906,990	1,083,274	1,188,659	7,560,493	652,659	66,741	354,247	917
	Payment received	152,201,721	19,830,271	70,524,188	52,255,828	6,671,131	251,235	2,632,434	36,634
	% reduction	6.69	5.18	1.66	12.64	8.91	20.99	11.86	2.44
Colorado	Payment reduction	1,461,934	584,293	0	0	787,267	62,311	27,705	358
	Payment received	68,441,943	39,213,975	0	0	24,295,890	2,682,473	2,214,282	35,323
	% reduction	2.09	1.47	0.00	0.00	3.14	2.27	1.24	1.00
Connecticut	Payment reduction	622	0	0	0	622	0	0	0
	Payment received	638,261	561	0	0	637,140	488	24	48
	% reduction	0.10	0.00	0.00	0.00	0.10	0.00	0.00	0.00
Delaware	Payment reduction	39,743	1,754	0	0	36,079	429	1,481	0
	Payment received	3,411,620	674,795	0	0	2,419,231	69,730	247,725	139
	% reduction	1.15	0.26	0.00	0.00	1.47	0.61	0.59	0.00
Florida	Payment reduction	809,213	283	746,073	14,817	42,919	5,101	0	20
	Payment received	5,979,713	719,804	313,900	2,879,711	1,860,332	193,580	4	12,382
	% reduction	11.92	0.04	70.39	0.51	2.26	2.57	0.00	0.16
Georgia	Payment reduction	378,066	22,119	0	218,449	129,634	7,383	197	284
	Payment received	58,356,968	11,373,627	0	33,394,214	12,466,654	969,975	88,743	63,755
	% reduction	0.64	0.19	0.00	0.00	1.03	0.76	0.22	0.44
Idaho	Payment reduction	756,730	559,089	0	0	11,239	0	186,015	387
	Payment received	51,058,448	39,798,197	0	0	1,606,100	7,667	9,618,568	27,916
	% reduction	1.46	1.39	0.00	0.00	0.69	0.00	1.90	1.37
Illinois	Payment reduction	1,425,308	39,794	0	0	1,377,373	7,949	48	144
	Payment received	337,326,257	27,363,418	0	0	306,559,325	3,230,481	34,227	138,806
	% reduction	0.42	0.15	0.00	0.00	0.45	0.25	0.14	0.10

Appendix table 4.6. Continued

		Total	Wheat	Rice	Upland cotton	Corn	Grain sorghum	Barley	Oats
Indiana	Payment reduction	534,874	7,365	0	0	527,037	416	0	56
	Payment received	166,783,404	14,278,720	0	0	152,256,729	172,704	25,376	49,875
	% reduction	0.32	0.05	0.00	0.00	0.34	0.24	0.00	0.11
Iowa	Payment reduction	1,368,089	2,685	0	0	1,363,986	917	3	498
	Payment received	386,170,274	1,295,085	0	0	384,038,415	110,675	46,887	679,212
	% reduction	0.35	0.21	0.00	0.00	0.35	0.82	0.01	0.07
Kansas	Payment reduction	1,821,262	576,212	0	0	776,714	456,398	11,685	253
	Payment received	290,762,452	175,620,946	0	30,520	47,075,591	66,274,651	1,583,334	177,410
	% reduction	0.62	0.33	0.00	0.00	1.62	0.68	0.73	0.14
Kentucky	Payment reduction	138,085	6,401	0	0	130,766	765	149	4
	Payment received	41,495,574	7,641,841	11,881	4,477	33,001,151	637,732	192,905	5,587
	% reduction	0.33	0.08	0.00	0.00	0.39	0.12	0.08	0.07
Louisiana	Payment reduction	1,207,685	4,086	396,882	742,420	31,013	33,274	0	10
	Payment received	103,486,596	3,991,279	54,772,131	37,750,690	4,170,049	2,788,318	119	14,010
	% reduction	1.15	0.10	0.72	1.93	0.74	1.18	0.00	0.07
Maine	Payment reduction	0	0	0	0	0	0	0	0
	Payment received	609,905	6,928	0	0	516,330	0	59,750	26,897
	% reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maryland	Payment reduction	28,763	1,048	0	0	27,203	0	501	11
	Payment received	11,416,796	2,146,788	0	276	8,749,138	126,169	391,435	2,990
	% reduction	0.25	0.05	0.00	0.00	0.31	0.00	0.13	0.37
Massachusetts	Payment reduction	0	0	0	0	0	0	0	0
	Payment received	408,192	482	0	0	407,340	198	47	125
	% reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Michigan	Payment reduction	363,163	10,959	0	0	351,029	0	974	201
	Payment received	69,942,558	11,675,377	0	0	57,731,117	14,947	326,616	194,501
	% reduction	0.52	0.09	0.00	0.00	0.60	0.00	0.30	0.10
Minnesota	Payment reduction	626,724	184,658	0	0	386,504	0	55,178	384
	Payment received	231,681,126	49,348,514	0	0	173,429,632	9,485	8,130,995	762,499
	% reduction	0.27	0.37	0.00	0.00	0.22	0.00	0.67	0.05
Mississippi	Payment reduction	587,754	16,479	127,540	410,096	8,672	24,935	0	32
	Payment received	99,520,200	7,481,289	27,983,348	58,819,814	2,848,176	2,376,088	254	11,231
	% reduction	0.59	0.22	0.45	0.69	0.30	1.04	0.00	0.28
Missouri	Payment reduction	502,688	124,993	29,701	30,043	210,581	106,775	223	372
	Payment received	128,468,551	34,453,551	11,713,537	10,544,762	56,546,532	15,060,035	95,968	54,167
	% reduction	0.39	0.36	0.25	0.28	0.37	0.70	0.23	0.68
Montana	Payment reduction	934,174	603,693	0	0	244	141	329,198	898
	Payment received	93,053,761	74,943,525	0	0	1,307,371	10,314	16,659,325	133,226
	% reduction	0.99	0.80	0.00	0.00	0.02	1.35	1.94	0.67

Appendix table 4.6. Continued

		Total	Wheat	Rice	Upland cotton	Corn	Grain sorghum	Barley	Oats
Nebraska	Payment reduction	1,816,762	84,050	0	0	1,677,909	49,072	5,023	708
	Payment received	289,699,044	41,259,595	0	48	213,414,427	34,017,985	656,728	350,261
	% reduction	0.62	0.20	0.00	0.00	0.78	0.14	0.76	0.20
Nevada	Payment reduction	44,418	14,798	0	0	0	0	29,620	0
	Payment received	701,828	462,804	0	0	26,392	4,534	204,465	3,633
	% reduction	5.95	3.10	0.00	0.00	0.00	0.00	12.65	0.00
New Hampshire	Payment reduction	0	0	0	0	0	0	0	0
	Payment received	302,884	0	0	0	302,354	303	221	6
	% reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
New Jersey	Payment reduction	5,443	762	0	0	4,586	0	94	1
	Payment received	1,887,292	318,812	0	0	1,510,402	7,211	48,902	1,965
	% reduction	0.29	0.24	0.00	0.00	0.30	0.00	0.19	0.05
New Mexico	Payment reduction	301,910	51,268	0	25,170	158,893	62,457	4,110	12
	Payment received	14,354,172	4,871,568	0	2,899,865	2,732,011	3,628,127	218,994	3,607
	% reduction	2.06	1.04	0.00	0.86	5.50	1.69	1.84	0.33
New York	Payment reduction	38,247	220	0	0	37,350	0	675	2
	Payment received	21,478,838	2,253,991	0	0	18,991,965	2,736	122,411	107,735
	% reduction	0.18	0.01	0.00	0.00	0.20	0.00	0.55	0.00
North Carolina	Payment reduction	356,164	19,151	0	169,204	161,489	3,391	2,720	209
	Payment received	46,416,225	8,362,831	0	15,360,521	21,987,012	390,624	279,315	35,922
	% reduction	0.76	0.23	0.00	1.09	0.73	0.86	0.96	0.58
North Dakota	Payment reduction	334,627	168,935	0	0	103,277	14	62,023	378
	Payment received	181,402,771	140,227,538	0	0	16,156,869	64,494	24,207,447	746,423
	% reduction	0.18	0.12	0.00	0.00	0.64	0.02	0.26	0.05
Ohio	Payment reduction	196,573	6,616	0	0	189,710	0	203	44
	Payment received	112,914,453	21,105,084	0	0	91,626,645	20,765	37,493	124,466
	% reduction	0.17	0.03	0.00	0.00	0.21	0.00	0.54	0.04
Oklahoma	Payment reduction	422,949	196,227	0	89,798	87,490	47,904	1,389	141
	Payment received	109,160,742	89,859,535	134,035	10,815,541	2,896,501	5,216,587	157,355	81,188
	% reduction	0.39	0.22	0.00	0.82	2.93	0.91	0.87	0.17
Oregon	Payment reduction	528,300	413,260	0	0	63,736	637	50,650	17
	Payment received	26,845,502	23,710,890	0	0	827,034	9,755	2,253,069	44,754
	% reduction	1.93	1.71	0.00	0.00	7.16	6.13	2.20	0.04
Pennsylvania	Payment reduction	72,932	2,523	0	0	69,777	0	528	104
	Payment received	16,512,167	1,295,504	0	0	14,824,130	52,495	237,669	102,369
	% reduction	0.44	0.19	0.00	0.00	0.47	0.00	0.22	0.10
Rhode Island	Payment reduction	0	0	0	0	0	0	0	0
	Payment received	20,199	0	0	0	20,130	69	0	0
	% reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Appendix table 4.6. Continued

		Total	Wheat	Rice	Upland cotton	Corn	Grain sorghum	Barley	Oats
South Carolina	Payment reduction	143,476	23,824	0	54,361	62,619	1,961	646	65
	Payment received	21,393,104	5,265,128	39	8,402,336	7,422,022	172,685	97,894	33,000
	% reduction	0.67	0.45	0.00	0.64	0.84	1.12	0.66	0.20
South Dakota	Payment reduction	901,960	324,796	0	0	433,310	85,502	55,001	3,351
	Payment received	119,093,955	46,686,557	0	0	61,262,422	4,554,042	5,499,544	1,091,390
	% reduction	0.75	0.69	0.00	0.00	0.70	1.84	0.99	0.31
Tennessee	Payment reduction	118,349	7,514	0	79,140	26,704	4,991	0	0
	Payment received	40,740,543	7,612,209	103,787	18,905,835	12,702,059	1,371,921	40,558	4,174
	% reduction	0.29	0.10	0.00	0.42	0.21	0.36	0.00	0.00
Texas	Payment reduction	4,024,400	347,252	353,680	1,398,029	824,484	1,082,180	17,298	1,477
	Payment received	355,776,745	63,843,901	51,902,311	141,606,900	41,325,828	56,555,449	326,325	216,031
	% reduction	1.12	0.54	0.68	0.98	1.96	1.88	5.03	0.68
Utah	Payment reduction	46,533	23,558	0	0	2,560	0	20,392	23
	Payment received	5,283,909	3,411,349	0	0	792,825	12,721	1,059,390	7,624
	% reduction	0.87	0.69	0.00	0.00	0.32	0.00	1.89	0.30
Vermont	Payment reduction	0	0	0	0	0	0	0	0
	Payment received	1,043,727	5,938	0	0	1,030,472	11	6,026	1,280
	% reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Virginia	Payment reduction	171,512	13,095	0	2,838	152,242	116	3,208	13
	Payment received	15,523,058	3,948,096	0	1,344,854	9,352,397	223,934	644,943	8,834
	% reduction	1.09	0.33	0.00	0.21	1.60	0.05	0.49	0.15
Washington	Payment reduction	1,569,524	1,205,302	0	0	242,820	15	121,340	47
	Payment received	64,751,625	55,283,862	0	0	2,070,365	1,375	7,380,112	15,911
	% reduction	2.37	2.13	0.00	0.00	10.50	1.08	1.62	0.29
West Virginia	Payment reduction	1,978	149	0	0	1,781	48	0	0
	Payment received	1,563,857	121,106	0	0	1,406,398	4,606	27,935	3,812
	% reduction	0.13	0.12	0.00	0.00	0.13	1.03	0.00	0.00
Wisconsin	Payment reduction	375,216	2,098	0	0	371,526	0	1,223	369
	Payment received	89,427,994	2,440,992	0	0	85,745,166	20,131	660,345	561,360
	% reduction	0.42	0.09	0.00	0.00	0.43	0.00	0.18	0.07
Wyoming	Payment reduction	20,536	17,532	0	0	2,374	0	630	0
	Payment received	5,998,725	3,257,578	0	0	1,667,278	2,971	1,041,877	29,021
	% reduction	0.34	0.54	0.00	0.00	0.14	0.00	0.06	0.00

Source: USDA Farm Service Agency

Appendix C

Supplemental Tables for Chapter 5

Appendix table 5.1. Reduction (increase above current limits) in payments under alternative limits on 2000-crop PFC payments

State	\$30,000 limit			\$20,000 limit		
	Payment reduction	Payment reduction	Producers affected	Payment reduction	Payment reduction	Producers affected
	Dollar value	Percent		Dollar value	Percent	
Alabama	1,215,823	3.45	1.09	4,461,670	12.66	2.78
Arizona	4,452,673	11.67	46.82	12,255,048	32.11	77.38
Arkansas	24,775,102	10.22	16.86	76,165,216	31.40	27.97
California	27,925,046	15.32	32.23	71,159,496	39.04	46.18
Colorado	4,768,455	5.62	3.90	14,528,115	17.11	8.07
Connecticut	0	0.00	0.00	12,161	1.50	0.54
Delaware	341,676	8.16	4.24	881,572	21.05	6.70
Florida	383,257	5.18	1.26	1,137,087	15.37	2.80
Georgia	6,050,763	8.44	4.09	16,359,358	22.83	6.80
Idaho	3,783,797	6.05	3.70	10,431,207	16.69	6.93
Illinois	12,414,212	2.97	1.47	38,838,134	9.28	3.47
Indiana	7,381,428	3.57	1.81	23,490,625	11.37	4.12
Iowa	12,167,919	2.54	1.82	40,243,933	8.38	4.69
Kansas	18,157,366	5.06	2.51	52,894,370	14.74	5.09
Kentucky	1,881,932	3.64	0.53	5,266,431	10.18	1.06
Louisiana	10,711,883	8.40	6.35	32,490,380	25.47	11.95
Maine	0	0.00	0.00	0	0.00	0.00
Maryland	770,971	5.44	2.58	2,083,395	14.70	4.69
Massachusetts	0	0.00	0.00	0	0.00	0.00
Michigan	2,860,656	3.29	1.44	8,761,513	10.08	3.28
Minnesota	7,413,337	2.58	2.03	25,717,139	8.95	5.48
Mississippi	12,874,083	10.55	11.00	38,794,050	31.79	19.89
Missouri	6,815,228	4.29	1.69	19,877,463	12.51	3.31
Montana	5,919,779	5.16	4.24	17,972,746	15.66	9.16
Nebraska	14,606,437	4.07	3.14	46,830,708	13.05	7.49
Nevada	100,000	11.94	3.19	216,152	25.81	4.15
New Hampshire	0	0.00	0.00	0	0.00	0.00
New Jersey	44,443	1.86	1.08	144,522	6.06	1.89
New Mexico	931,249	5.29	3.98	2,774,062	15.75	8.18
New York	522,154	1.95	0.73	1,634,445	6.09	1.67
North Carolina	3,311,274	5.79	1.79	9,154,849	16.01	3.33
North Dakota	8,039,255	3.59	3.44	28,695,735	12.81	9.07
Ohio	3,197,990	2.28	0.97	10,898,204	7.77	2.49
Oklahoma	3,853,624	2.85	1.47	13,150,443	9.74	3.85
Oregon	2,089,753	6.32	4.17	5,813,899	17.58	7.38
Pennsylvania	334,311	1.61	0.38	943,482	4.54	0.79
Rhode Island	0	0.00	0.00	0	0.00	0.00
South Carolina	1,580,212	5.93	2.25	4,785,513	17.95	4.46
South Dakota	5,043,660	3.42	1.94	14,927,521	10.11	4.37
Tennessee	3,301,400	6.55	1.53	9,627,274	19.11	3.13
Texas	35,542,881	8.15	6.04	103,021,610	23.61	10.89
Utah	146,464	2.22	0.81	429,453	6.50	2.16
Vermont	0	0.00	0.00	0	0.00	0.00
Virginia	634,948	3.31	0.67	1,807,667	9.42	1.45
Washington	4,265,183	5.23	5.05	14,303,010	17.55	11.68
West Virginia	25,570	1.31	0.12	77,507	3.99	0.36
Wisconsin	2,999,933	2.69	0.92	8,657,989	7.77	1.94
Wyoming	137,663	1.85	0.63	429,645	5.78	1.52
Total	263,773,790	5.21	3.09	792,144,799	15.64	6.21

Source: USDA Farm Service Agency

Appendix table 5.2. 3,000-acre, two-person, Midwest corn/soybean farm

	Planted acres	Updated base	Actual yield	Updated yield	Program yield	Market price	
Corn	1,500	1,500	150 bushels/ac	140 bushels/ac	115 bushels/ac	\$1.90 per bushel	
Soybeans	1,500	1,500	45 bushels/ac	42 bushels/ac	35 bushels/ac	\$4.50 per bushel	
				Reduced limits and cap on loan benefits ²			
	No payment limit	With current payment limits	Reduced direct and counter-cyclical limits ¹	No change in operation	Reduce plantings by 20%	Cash rent out 20%	Landlord idles land
Market receipts	731,250	731,250	731,250	731,250	585,000	585,000	0
Government payments	265,533	265,533	264,843	264,843	239,868	220,637	139,968
Fixed	60,690	60,690	60,000	60,000	60,000	56,763	60,000
Counter-cyclical	79,968	79,968	79,968	79,968	79,968	63,974	79,968
Loan deficiency	124,875	124,875	124,875	124,875	99,900	99,900	0
Gross income	996,783	996,783	996,093	996,093	824,868	805,637	139,968
Operating expense	376,500	376,500	376,500	376,500	301,200	301,200	30,000
Capital replacement	186,000	186,000	186,000	186,000	148,800	148,800	0
Other costs	61,500	61,500	61,500	61,500	61,500	61,500	21,000
Total listed expenses	624,000	624,000	624,000	624,000	511,500	511,500	51,000
Cash rent	0	0	0	0	0	72,000	0
Residual return	372,783	372,783	372,093	372,093	313,368	366,137	88,968
Residual return per acre	124	124	124	124	104	122	30

¹ Payment limits reduced to \$30,000 per person for direct payments and \$50,000 per person for counter-cyclical payments.

² Payment limits reduced to \$30,000 per person for direct payments and \$50,000 per person for counter-cyclical payments with marketing loan benefits, including loan forfeitures and certificate gains, limited to \$75,000 per person.

Source: Commission estimates

Appendix table 5.3. 4,500-acre, two-person, Northern Plains wheat and barley farm

	Planted acres	Updated base	Actual yield	Updated yield	Program yield	Market price	
Wheat	3,000	3,000	33 bushels/ac	32 bushels/ac	29 bushels/ac	\$2.70/bushel	
Barley	1,500	1,500	55 bushels/ac	52 bushels/ac	44 bushels/ac	\$2.10/bushel	
				Reduced limits and cap on loan benefits ²			
	No payment limit	With current payment limits	Reduced direct and counter-cyclical limits ¹	No change in operation	Reduce plantings by 20%	Cash rent out 20%	Landlord idles land
Market receipts	440,550	440,550	440,550	440,550	352,440	352,440	0
Government payments	144,521	144,521	144,521	144,521	132,971	115,617	86,771
Fixed	51,326	51,326	51,326	51,326	51,326	41,061	51,326
Counter-cyclical	35,445	35,445	35,445	35,445	35,445	28,356	35,445
Loan deficiency	57,750	57,750	57,750	57,750	46,200	46,200	0
Gross income	585,071	585,071	585,071	585,071	485,411	468,057	86,771
Operating expense	238,500	238,500	238,500	238,500	190,800	190,800	45,000
Capital replacement	192,000	192,000	192,000	192,000	153,600	153,600	0
Other costs	49,500	49,500	49,500	49,500	49,500	49,500	18,000
Total listed expenses	480,000	480,000	480,000	480,000	393,900	393,900	63,000
Cash rent	0	0	0	0	0	27,000	0
Residual return	105,071	105,071	105,071	105,071	91,511	101,157	23,771
Residual return per acre	23	23	23	23	20	22	5

¹ Payment limits reduced to \$30,000 per person for direct payments and \$50,000 per person for counter-cyclical payments.

² Payment limits reduced to \$30,000 per person for direct payments and \$50,000 per person for counter-cyclical payments with marketing loan benefits, including loan forfeitures and certificate gains, limited to \$75,000 per person.

Source: Commission estimates

Appendix table 5.4. 3,000-acre, two-person, Mississippi cotton farm

	Planted acres	Updated base	Actual yield	Updated yield	Program yield	Market price	
Upland cotton	3,000	3,000	770 pounds	770 pounds	770 pounds	0.45	
	Reduced limits and cap on loan benefits ²						
	No payment limit	With current payment limits	Reduced direct and counter-cyclical limits ¹	No change in operation	Reduce plantings by 20%	Cash rent 20%	Landlord idles land
Market receipts	1,039,500	1,039,500	1,039,500	1,039,500	831,600	831,600	0
Government payments	677,754	487,200	437,200	310,000	310,000	310,000	160,000
Fixed	130,965	80,000	60,000	60,000	60,000	60,000	60,000
Counter-cyclical	269,589	130,000	100,000	100,000	100,000	100,000	100,000
Loan deficiency	277,200	277,200	277,200	150,000	150,000	150,000	0
Gross income	1,717,254	1,526,700	1,476,700	1,349,500	1,141,600	1,141,600	160,000
Operating expense	939,000	939,000	939,000	939,000	751,200	751,200	30,000
Capital replacement	363,000	363,000	363,000	363,000	290,400	290,400	0
Other costs	99,000	99,000	99,000	99,000	99,000	99,000	45,000
Total listed expenses	1,401,000	1,401,000	1,401,000	1,401,000	1,140,600	1,140,600	75,000
Cash rent	0	0	0	0	0	33,000	0
Residual return	316,254	125,700	75,700	-51,500	1,000	34,000	85,000
Residual return per acre	105	42	25	-17	0	11	28

¹ Payment limits reduced to \$30,000 per person for direct payments and \$50,000 per person for counter-cyclical payments.

² Payment limits reduced to \$30,000 per person for direct payments and \$50,000 per person for counter-cyclical payments with marketing loan benefits, including loan forfeitures and certificate gains, limited to \$75,000 per person.

Source: Commission estimates

Appendix table 5.5. 2,000-acre, two-person, Delta rice farm

	Planted acres	Base acres	Actual yield	Updated yield	Program yield	Market price	
Rice	2,000	2,000	55 cwt.	51 cwt.	41 cwt.	\$4.30/cwt.	
	Reduced limits and cap on loan benefits ²						
	No payment limit	With current payment limits	Reduced direct and counter-cyclical limits ¹	No change in operation	Reduce plantings by 20%	Cash rent 20%	Landlord idles land
Market receipts	473,000	473,000	473,000	473,000	378,400	378,400	0
Government payments	576,350	479,500	429,500	310,000	310,000	310,000	160,000
Fixed	163,795	80,000	60,000	60,000	60,000	60,000	60,000
Counter-cyclical	143,055	130,000	100,000	100,000	100,000	100,000	100,000
Loan deficiency	269,500	269,500	269,500	150,000	150,000	150,000	0
Gross income	1,049,350	952,500	902,500	783,000	688,400	688,400	160,000
Operating expense	616,000	616,000	616,000	616,000	492,800	492,800	20,000
Capital replacement	168,000	168,000	168,000	168,000	134,400	134,400	0
Other costs	86,000	86,000	86,000	86,000	86,000	86,000	34,000
Total listed expenses	870,000	870,000	870,000	870,000	713,200	713,200	54,000
Cash rent	0	0	0	0	0	30,800	0
Residual return	179,350	82,500	32,500	-87,000	-24,800	6,000	106,000
Residual return per acre	90	41	16	-44	-12	3	53

¹ Payment limits reduced to \$30,000 per person for direct payments and \$50,000 per person for counter-cyclical payments.

² Payment limits reduced to \$30,000 per person for direct payments and \$50,000 per person for counter-cyclical payments with marketing loan benefits, including loan forfeitures and certificate gains, limited to \$75,000 per person.

Source: Commission estimates

Appendix table 5.6. 1,000-acre, two-person, Georgia peanut farm

	Planted acres	Base acres	Actual yield	Updated yield	Program yield	Market price	
Peanuts	1,000	1,000	1.5 tons/ac	1.5 tons/ac	1.5 tons/ac	\$320/ton	
				Reduced limits and cap on loan benefits ²			
	No payment limit	With current payment limits	Reduced direct and counter-cyclical limits ¹	No change in operation	Reduce plantings by 20%	Cash rent out 20%	Landlord idles land
Market receipts	480,000	480,000	480,000	480,000	384,000	384,000	0
Government payments	261,000	258,400	228,400	228,400	211,900	202,720	145,900
Fixed	45,900	45,900	45,900	45,900	45,900	36,720	45,900
Counter-cyclical	132,600	130,000	100,000	100,000	100,000	100,000	100,000
Loan deficiency	82,500	82,500	82,500	82,500	66,000	66,000	0
Gross income	741,000	738,400	708,400	708,400	595,900	586,720	145,900
Operating expense	390,000	390,000	390,000	390,000	312,000	312,000	10,000
Capital replacement	118,000	118,000	118,000	118,000	94,400	94,400	0
Other costs	38,000	38,000	38,000	38,000	38,000	38,000	14,000
Total listed expenses	546,000	546,000	546,000	546,000	444,400	444,400	24,000
Cash rent	0	0	0	0	0	7,000	0
Residual return	195,000	192,400	162,400	162,400	151,500	149,320	121,900
Residual return per acre	195	192	162	162	152	149	122

¹ Payment limits reduced to \$30,000 per person for direct payments and \$50,000 per person for counter-cyclical payments.

² Payment limits reduced to \$30,000 per person for direct payments and \$50,000 per person for counter-cyclical payments with marketing loan benefits, including loan forfeitures and certificate gains, limited to \$75,000 per person.

Source: Commission estimates

List of Figures and Tables

Chapter 1. Overview of Payments and Payment Limitations

Table 1.1.	Comparison of payment rates for the production flexibility contract and direct payment programs . . . . .	.21
Table 1.2.	Target prices for the counter-cyclical payment program . . . . .	.22
Table 1.3.	National marketing assistance loan rates . . . . .	.23
Table 1.4.	Current payment limitations for direct and counter-cyclical payments and marketing assistance loans . . . . .	.27

Chapter 2. Administering Payment Eligibility and Limit Rules

No figures or tables

Chapter 3. Level and Distribution of Payments

Figure 3.1.	Payments to crop producers, 1996-2001 . . . . .	.42
Figure 3.2.	Distribution of payments by crop, 1996-2001 . . . . .	.43
Figure 3.3.	Projected payments to crop producers, 2002-07 . . . . .	.44
Figure 3.4.	Prices received for major crops, 1996-07 . . . . .	.44
Figure 3.5.	Marketing assistance loan benefits, 1996-2007 . . . . .	.47
Table 3.1.	Crop forfeitures and estimated forfeiture gains, 1999-2001 crops . . . . .	.49
Table 3.2.	Distribution of production flexibility contract payments by size of payment, 2001 . . . . .	.49
Table 3.3.	Distribution of loan deficiency payments and marketing loan gains by size of payment, 2001 . . . . .	.50
Table 3.4.	Certificate exchange gains by State, 2001 crops . . . . .	.51
Table 3.5.	Distribution of certificate exchange gains by size of payment, 2001 . . . . .	.52
Figure 3.6.	Net cash farm income and government payments, 1996-2007 . . . . .	.54
Table 3.6.	Number of farms, average government payments (excluding conservation), and the contribution of payments to farm income by farm typology, 2001 . . . . .	.56
Table 3.7.	Characteristics of all farms and farms receiving government payments (excluding conservation), 2001 . . . . .	.57
Table 3.8.	Characteristics of farms receiving payments (excluding conservation) by size of payment, 2001 . . . . .	.59
Table 3.9.	Distribution of farms, production, and government payments (excluding conservation) by size of payment, 2001 . . . . .	.61
Table 3.10.	Distribution of farms, production, and government payments (excluding conservation) by sales class, 2001 . . . . .	.61
Table 3.11.	Distribution of farms, production, and government payments (excluding conservation) by net worth, 2001 . . . . .	.61

Chapter 4. General Effects of Current Payment Limitations

Table 4.1.	Payment reduction and producers affected by the \$40,000 payment limitation on PFC payments	.65
Figure 4.1.	Estimated reduction in direct and counter-cyclical payments (current payment limits)	.66
Figure 4.2.	Reduction in PFC payments by commodity (\$40,000 limit)	.68
Figure 4.3.	Percentage of producers having PFC payments reduced (\$40,000 limit)	.68
Table 4.2.	Distribution of farms by acres harvested, 1997	.70
Table 4.3.	Payments per base acre and base acreage of various crops needed to reach payment limit on direct payments, 2002-07 crops	.70
Table 4.4.	Maximum counter-cyclical payments per base acre and base acreage of various crops needed to reach payment limit on counter-cyclical payments, 2002-07 crops	.71
Table 4.5.	Maximum support per base acre in relation to variable cost of production, 2003	.72
Figure 4.4.	Reduction in PFC payments by State, 2000 (\$40,000 limit)	.73
Figure 4.5.	Reduction in PFC payments by State, 2001 (\$40,000 limit)	.73
Figure 4.6.	Percentage reduction in PFC payments by State, 2000 (\$40,000 limit)	.74
Figure 4.7.	Percentage reduction in PFC payments by State, 2001 (\$40,000 limit)	.74
Table 4.6.	Number of FSA farms categorized by the number of producers per farm	.77
Table 4.7.	Annual government and producer costs of implementing farm program payment limits	.79
Table 4.8.	Certificate exchange gains by crop year	.82
Table 4.9.	Effects of loan forfeiture on farm income and CCC costs (cotton example)	.84
Table 4.10.	Effects of loan forfeiture on farm income and CCC costs (corn example)	.84

Chapter 5. Effects of Further Payment Limitations

Table 5.1.	Estimated annual reduction (increase above current limits) in payments under various payment limits, assuming no further restructuring	.91
Figure 5.1.	Reduction in payments under \$30,000 limit on 2000-crop PFC payments	.92
Figure 5.2.	Reduction in payments under \$20,000 limit on 2000-crop PFC payments	.93
Table 5.2.	Effects of alternative payment limits and various example farms	.95
Table 5.3.	FAPRI estimated average impacts of stricter payment limitations	.97
Figure 5.3.	Payment limit decisions for an owner-operator	.98
Figure 5.4.	Payment limit decisions for a tenant	.99

Figure 5.5.	Payment limit decisions for a tenant share-rent landowner	100
Figure 5.6.	Average value of U.S. farm real estate and direct government payments, 1960-2002	104
Figure 5.7.	Average value per acre of farm real estate, January 1, 2002	105
Figure 5.8.	Percentage of producers having payments reduced under \$30,000 limit on 2000-crop PFC payments	108
Figure 5.9.	Percentage of producers having payments reduced under \$20,000 limit on 2000-crop PFC payments	108
Figure 5.10.	Government payments as a percentage of cropland value, 2001	109
Table 5.4.	FAPRI's estimates of stricter payment limitations on land values and rental rates	110
Table 5.5.	Contribution of the food and fiber system (FFS) to the U.S. economy, 2001	115
Figure 5.11.	Farm income as a share of personal income, 1970-2001	115
Figure 5.12.	Nonmetro countries with at least 10 percent of income from farming . . .	116
Table 5.6.	Farm program payments as a share of State nonmetro personal income, 2001	117
Figure 5.13.	Percentage reduction in payments under \$30,000 limit on 2000-crop PFC payments	118
Figure 5.14.	Percentage reduction in payments under \$20,000 limit on 2000-crop PFC payments	119
Figure 5.15.	Rural population loss, 1990-2000, and farm program payments, 1999-2000 average	120
Table 5.7.	Cotton and fruit and vegetable production in leading cotton producing States, 2001	127

Appendix A. Supplemental Tables for Chapter 3

Appendix table 3.1.	Government payments by type and commodity, crop years 1996-2007	132
Appendix table 3.2.	Crop-year prices for crops eligible for direct and counter-cyclical payments and marketing loans benefits, 1996/97-2007/08	134
Appendix table 3.3.	Farm income by calendar year	134
Appendix table 3.4.	Direct government payments by calendar year	134
Appendix table 3.5.	Government payments, number of farms, and net cash income by State, 1999-2001 calendar-year average	135

Appendix B. Supplemental Tables for Chapter 4

Appendix table 4.1.	Payment reduction and producers affected by the \$40,000 payment limitation on production flexibility contract payments, 2000	137
Appendix table 4.2.	Payment reduction and producers affected by the \$40,000 payment limitation on production flexibility contract payments, 2001	141
Appendix table 4.3.	Number of producers receiving production flexibility contract payments, 2000	145
Appendix table 4.4.	Number of producers receiving production flexibility contract payments, 2001	146
Appendix table 4.5.	Total payments received and reduction in payments due to the \$40,000 payment limitation on production flexibility contract payments, 2000	147
Appendix table 4.6.	Total payments received and reduction in payments due to the \$40,000 payment limitation on production flexibility contract payments, 2001	151

Appendix C. Supplemental Tables for Chapter 5

Appendix table 5.1.	Reduction (increase above current limits) in payments under alternative limits on 2000-crop PFC payments	155
Appendix table 5.2.	3,000-Acre, two-person, Midwest corn/soybean farm	156
Appendix table 5.3.	4,500-Acre, two-person, Northern Plains wheat and barley farm	156
Appendix table 5.4.	3,000-Acre, two-person, Mississippi cotton farm	157
Appendix table 5.5.	2,000-Acre, two-person, Delta rice farm	157
Appendix table 5.6.	1,000-Acre, two-person, Georgia peanut farm	158