Agricultural Outlook Forum 2002 Presented: Thursday, February 21, 2002

FARM INCOME, FINANCE, AND CREDIT OUTLOOK FOR 2002

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Introduction

Since Congress was debating the fate of the next Farm Bill as USDA prepared its financial outlook for 2002, current law guided the level of direct payments. Without predicting changes in the commodity title of the Bill or any new emergency assistance, government payments are calculated to be $10.7 billion for 2002. Boosted by emergency assistance and loan deficiency payments (LDPs), government payments have exceeded $20 billion in each of the last 3 years (figure 1). The emergency assistance payments were the result of separate legislative initiatives enacted in 1999, 2000, and 2001 in response to the economic adversity that farmers were facing. Loan deficiency payments, which are intended to be counter-cyclical with commodity prices, are determined by established formulas, with the primary determinant being the gap between trigger prices and market prices for eligible commodities. As a result of higher prices projected for several of the major program crops, LDPs are expected to decline by 25 percent in 2002.

Even with our hypothesized reduction in government payments, the overall financial state of the U.S. agricultural sector is sound, as evidenced by continuing increases in asset values and equity levels. In the face of relatively low commodity prices, the farm business balance sheet has shown steady gains throughout 1999-2001. During this 3-year span, total government payments contributed more than $65 billion to the incomes of farmland owners, supporting farm incomes and farmland values. In contrast, investors in U.S. equity markets have witnessed increasing market volatility and lost much net worth, especially since March 2000. Farmland owners, however, from the beginning of 1999 through the end of 2001, have benefited from a $111-billion increase in farm equity, driven largely by a $116-billion rise in farm real estate values (figure 2).

Net cash income before government payments is expected to increase for the third straight year and exceed $40 billion for the first time since 1998 (figure 3). Improvement in market earnings is being driven by increases in both crop and livestock receipts. In 2002 livestock receipts will have improved by over $10 billion and crop receipts $5 billion from their respective 1998 and 1999 lows. Cash receipts are expected to be up about $1 billion for both feed grains and oil crops. Among the major crops, cotton and rice are the only ones with prospects of lower 2002 cash receipts. Relatively low feed costs, strong domestic demand, and gains in export sales have encouraged higher pork and beef output. Receipts from sales of dairy products are forecast to retract by $2.3 billion in 2002, but that follows a $4.1 billion gain last year.

Relative stability in production expenses is also a contributing factor to higher net incomes before considering government payments. The major crop-related expenses (seeds, fertilizer, and pesticides) are forecast to be $26.9 billion in 2002, 1.6 percent below 2001. Fertilizer prices are slated to fall about

5 percent, while small increases will likely occur in seed and pesticide prices. Fuel costs are a major factor in the net incomes of farmers producing crops that require frequent cultivation and/or drying, such as corn. After jumping $1.6 billion (29 percent) in 2000 as a result of a rise in crude oil prices, fuel expenses are forecast down 7 percent in 2001 and another 2 percent in 2002. Feed represents one of the largest input costs to livestock producers. Following a 7-percent increase in 2001, feed expenses are forecast to rise 8 percent in 2002.

Income Prospects Reflect Farm Diversity

The projected 15-percent decline in farm sector net cash income for 2002, assuming current government payments, is not likely to be evenly distributed across all farm operations. The impacts on individual operations will depend on their mix of crop and livestock enterprises, the extent to which government payments contribute to gross income, and the relative importance of expense items that are forecast to increase, such as feed and labor, versus those expected to decline, such as fertilizer and interest.

Among these factors, the level of government payments will have the largest impact on the economic outlook for 2002. The 50-percent drop in government payments assuming no emergency assistance will most negatively impact incomes on those operations where payments represent a significant source of income (figure 4). These include farm businesses that specialize in the production of wheat (30 percent of gross cash income), corn and other cash grains and soybeans (at least 20 percent of gross cash income). Regional dependence on government payments also varies a great deal and generally reflects the concentration of program commodity production (figure 5). Average net cash income is expected to fall in each region in 2002. The smallest declines occur in the Basin and Range and Fruitful Rim regions where there are relatively large concentrations of specialty crop and beef production. Regions with the largest expected declines in net cash income include the Mississippi Portal where cotton and rice are dominant commodities and the Northern Great Plains where wheat is the principal crop.

Sensitivity of the financial condition of farm businesses to level of government payments

An analysis of alternative amounts of government payments was performed in order to gauge the sensitivity of the micro-level forecasts to new government spending programs. Total direct payments were incrementally increased by $1 billion up to a total of $10 billion more than authorized by current law. Limiting the analysis to commercial farms (i.e., excluding rural residential farms) permits more focused study of the impact of changes in government payments on those farms generating the bulk of U.S agricultural production.

Table 1 shows how projected net cash income changes relative to the 2001 forecast for an additional $5 billion and $10 billion in government payments. For all farm businesses, $5 billion in additional government payments which are assumed to be distributed as they have been historically, would change the outlook for net cash income relative to 2001 from a decline of 18 percent to a decline of 8 percent. Adding $10 billion to government payments, which brings the level of total payments near the amount paid in 2001, would result in average net cash incomes for farm businesses that are nearly 2 percent higher than in 2001.

Resource Region

Direct government payments have historically been associated with production of program commodities, and, therefore, have not been evenly distributed across all U.S. regions and types of farms. Farms in the Heartland, Northern Great Plains, and Prairie Gateway regions have traditionally been large producers of program crops, and have received a large share of the payments. Farm operators responding to USDA's 2000 farm-level surveys indicated that these regions accounted for 42 percent of all U.S. commercial farms, but received 68 percent of government payments.

Not surprisingly, the sensitivity analysis suggests that farms in these regions would be the prime beneficiaries of increased levels of government payments distributed to current recipients. In the Northern Plains, 2002 average net cash income is currently projected to be 34 percent below 2001. However, providing an additional $10 billion in government payments would produce an average net cash income in this region that is 13 percent above 2001. Similar results occur in the Heartland, where average net cash income would rise 12 percent due to additional payments, compared to the currently projected 21 percent decline, and in the Prairie Gateway, where the current 20 percent income decline would change to a 13 percent gain.

Farm Type

Since direct government payments are largely tied to production of program crops, farms producing those commodities are the principal recipients of payments. Crop farms account for 49 percent of all U.S. commercial farms, but received 76 percent of government payments. But not all crop farms benefit equally. The 26 percent of farms classified as wheat, corn, soybean, and mixed grain operations jointly receive 60 percent of all payments, while the 10 percent of farms producing specialty crops receive less than 3 percent of payments.

Among all farm types, only specialty crop and beef producers are projected to see 2002 average net cash incomes rise from 2001. While specialty crop income gains of 6 percent are expected assuming current payment levels, a $10-billion increase in payments would result in only a 9-percent increase. Average net cash incomes of beef producers are expected to rise 4 percent in 2002, and, since beef operations traditionally receive about 11 percent of government payments, increasing payments by $10 billion would generate a 25-percent net income gain.

Given current government payment levels, corn producers are expected to see a 28- percent net cash income decline from 2001. The sensitivity analysis suggests that adding $10 billion in government payments would result in average net cash incomes of corn producers rising 32 percent in 2002. Similar improvements in average net cash income are obtained for producers of wheat (from a currently projected 53-percent decline to a 14-percent increase with $10 billion in additional payments), mixed grains (from a 38-percent decline to an 18-percent increase), and soybeans (from a 32-percent decline to a 21-percent increase).

Livestock producers typically do not receive proportional benefits from government payments. More than half of all farms are livestock operations, and they received less than one-fourth of the payments. Dairy farms are projected to generate 2002 average net cash income 35 percent below 2001 levels. Dairy receipts were at record levels in 2001 and the decline in 2002 is driven by the expectation of lower milk prices. Since dairies traditionally receive little benefit from direct government payments, adding $10 billion would still result in average net cash incomes falling by 29 percent.

Government Payments and Ability to Service Debt

About 21 percent of all U.S. commercial farms are expected to experience debt repayment problems in 2002 based on the relationship between business earnings and debt service commitments (figure 6). Since many of these operations carry much more debt than they can service with current income, increasing government payments by $10 billion is projected to only reduce this number to 19 percent. Of course, many of these operations rely on off-farm sources of income to service debt, so the severity of repayment problems depends a great deal on the financial outlook for the general economy. The additional payments would have the greatest impact in the Northern Great Plains, where 28 percent of farms are projected to have repayment difficulty. About 23 percent of farms in this region would have repayment problems after an infusion of an additional $10 billion in payments. Similarly, increased payments would lower the number of Heartland region operations experiencing repayment problems from 24 percent to less than 21 percent.

Wheat and corn growers are projected to have the largest percentage of producers with repayment difficulties in 2002 (figure 7). The number of wheat producers experiencing repayment problems would rise, in the absence of additional government payments, from 27 percent in 2001 to 37 percent in 2002. An additional $10 billion in payments would reduce this to 29 percent. The share of corn producers with repayment problems is projected to rise from 27 percent in 2001 to 30 percent in 2002, but an additional $10 billion in funding would result in loan service problems for only 23 percent of corn producers.

Financial Condition of Farm Operator Households

After rising each year in the late 1990s, farm household income leveled off last year and is expected to decline very slightly this year. However, this minimal drop is much less than the decline expected for the average U.S. family household. At 1 percent, the decline in average farm household income is not equally distributed across all farm households. The most recent data (2000) show that about 55 percent of farm operator households receive off-farm income earned by the farm operator, spouse, or both. Off-farm income can be any combination of wages and salaries, net income from non-farm businesses, interest, dividends, transfer payments such as Social Security or pensions, or other sources such as royalties or rents.

How off-farm incomes of farm households will be affected by changes in the national economy depends heavily on the source of their income, and the speed and extent of the current economic recovery. In 2000, about 80 percent of operators (70 percent of spouses) who worked off farm reported an average workweek of more than 35 hours. If their primary occupation has been directly affected by the economic slowdown, they have likely faced greater income reductions than other farmers who earn a much larger share of total household income from farming.

In order to identify the sensitivity of farm households to changes in the outlook for farming and the economic status of the general economy, four groups were identified based on their relative diversity of income sources. All farm operator households, including commercial and rural residential farms, are included in this analysis. Fewer than one in four of all U.S. farm households have more than 20 percent of income earned by the farm business (figure 8). Farming is the primary source of household income (80 percent or more) for only about 12 percent of farm households. These farms account for 52 percent of total production and received 42 percent of direct government payments. Another 13 percent of farms have proportionate levels of farm and off-farm earnings. This group accounts for 26 percent of farm output and 32 percent of total direct payments.

Off-farm wages and salaries represent the primary source of income for 45 percent of farm households. Off-farm job opportunities vary by region. In the Northeast where there are durable manufacturing good plants, the recent slowdown in demand for products such as machinery, equipment, autos, and trucks will be felt by farmers and/or spouses who may have jobs in these industries. In the more rural Midwest, farmers and spouses may more commonly be working in retail trade and services, where layoffs or cutbacks may be less severe than in manufacturing. Across the country, U.S. Labor Department survey data are showing employment growth in health services but declines in transportation and no change in construction. Many smaller farms are located in the South, which has seen its textile industry eroded by overseas competition. Spouses or operators working in medical services or in teaching will likely see little if any decrease in earnings as these professions tend to be recession proof in the short run. However, the food and beverage sector has been hit hard by current economic conditions, certainly in the hotel and motel businesses, and those farm households receiving wages and salaries from this sector will likely be hit in 2002.

Another 30 percent of farm households derive most of their income from interest, dividends, and other non-farm businesses. Recent drops in interest rates have benefited borrowers, but hurt those most dependent on interest and dividends as a source of income. This most likely would affect older farmers who are retired or nearing retirement and who are more dependent on interest income from investments to supplement Social Security or other savings.

When compared with other groups, farms that are most dependent on farming had the lowest average household income (figure 9). At $35,800, they also had income that was below the average for non-farm farm households while other groups, who do not rely as much on farming as a source of income, had average incomes that exceeded those of non-farm households. On average, income from farming was negative for households where earnings from off-farm jobs and investments were the dominant sources of income.

Outlook for Agricultural Lenders

Total farm business debt is anticipated to exceed $196 billion by the end of 2002, up from about $193 billion in 2001, and surpassing its record high level of $193.8 billion set in 1984. Farm business debt will have increased almost $55 billion from the beginning of 1994 through year-end 2002, growing at an average annualized rate of 3.7 percent. While attaining a record level in 2002, growth in farm business debt is projected to slow to 2 percent in 2002, following an estimated 4.8-percent increase in 2001.

Anecdotal evidence suggests that farmers may be accessing a portion of their recent equity gains from farmland appreciation in the process of refinancing farm debt. As a cash conserving measure, some farmers are refinancing annual production debt, which would normally be repaid at the end of the growing season. These short-term loans are often being rolled over as longer-term debt, with land providing the additional security required by lenders. Furthermore, some operators, responding to tax incentives, are converting nondeductible personal debt to tax-deductible farm business debt.

The Farm Credit System (FCS) and commercial banks supply almost 70 percent of the farm business credit. Aggressive expansion of Farm Credit System lending is contributing to the anticipated rise in farm debt in 2001. Annual changes through the end of the third quarter suggest that FCS debt levels can be expected to rise by more than 12 percent in 2001. Assuming more conservative lending practices dictated by uncertainty concerning future government payment levels, the rate of gain is anticipated to slow to about 2 percent in 2002. Bank lending is expected to grow slightly above 2 percent in 2002, following 3-percent growth last year. Enactment of a new Farm Bill will reduce uncertainty about future payments, and will likely result in loan balances rising at faster rates than those projected in the current scenario.

Lenders have traditionally supported expanding government payments, since the additional income provides borrowers with increased means to service debt. Given the relatively low commodity prices prevailing in recent years, many lenders have factored payments more heavily in evaluating individual creditworthiness. However, not all payments go to indebted farmers. Data collected in the 2000 Agricultural Resource Management Survey indicate that 45 percent of all commercial farm operations had no outstanding debt as of December 31, 2000 (figure 10). These debt-free operations received almost 16 percent of all government payments.

Of those reporting year-end loan balances, about 28 percent indicated that commercial banks were their primary lender, providing more than half of all credit used. Bank borrowers received more than 38 percent of government payments. The 11 percent of operators identifying FCS as primary lender received 17 percent of government payments, while the 3 percent relying on USDA's Farm Service Agency's (FSA) direct lending programs as primary lender accounted for 3 percent of payments. The remaining 13 percent of farm operators obtained credit from multiple lenders, with none providing more than half of existing debt. These operations received 16 percent of payments.

Government payments accounted for 7 percent of the 2000 gross cash income reported by debt-free operators. FSA borrowers were the most reliant on government payments, with 15 percent of gross cash income coming in the form of payments. About 10 percent of gross cash income for all other indebted farms came from government payments.

In the absence of additional funding, farms with no debt are expected to fare better than average indebted farms in 2002, with an expected decline in net cash income of 11 percent, compared to average declines of 21-23 percent for most indebted farms (figure 11). The sensitivity analysis suggests that adding $10 billion in payments would result in average net cash income on debt-free farms rising more than 2 percent. FSA borrowers, on average, would benefit most from an additional $10 billion in payments, as average incomes would rise almost 6 percent above 2001 levels. Improvements in average net cash income are obtained for banks borrowers (from a currently projected 23-percent decline to a 2-percent increase with $10 billion in additional payments), and for multiple lender customers (from a 22-percent decline to a 3-percent increase). Even with an additional $10 billion in payments, average net cash income of FCS borrowers would be slightly below 2001, compared to a currently projected 21-percent decline.

About 37 percent of indebted U.S. commercial farms are expected to experience debt repayment problems in 2002 (figure 12). Since many of these operations carry heavy debt loads, increasing government payments by $10 billion is projected to only reduce this number to 33 percent. The additional payments would have the greatest impact on the 36 percent of FCS borrowers projected to have repayment difficulty. About 28 percent of FCS borrowers farms would have repayment problems after an infusion of an additional $10 billion in payments. Similarly, increased payments would lower the number of bank borrowers experiencing repayment problems from 37 percent to about 33 percent.

Summary and Conclusions

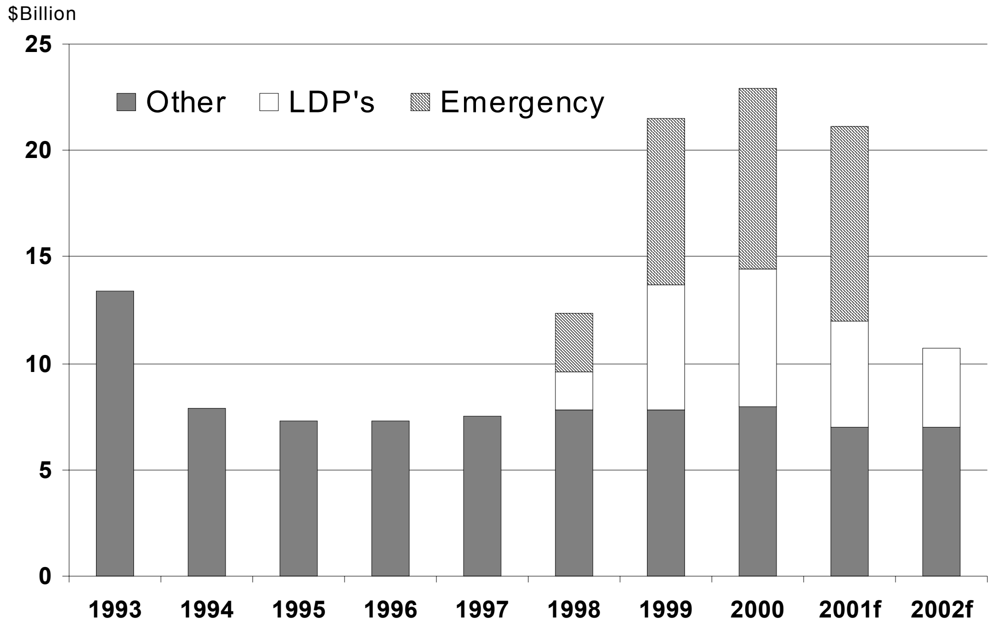
While the improvement in market conditions for most agricultural commodities that began in 2001 is likely to continue through 2002, the current forecast for farm income reflects the uncertainty concerning the level of government payments in 2002 and beyond. In the absence of additional government payments above current legislated levels, farms producing traditional farm program commodities--wheat, corn, soybeans, cotton, rice, and mixed grains, are likely to experience relatively low market returns and rising financial stress in 2002. Additional payments, of the magnitude necessary to equal the previous years aggregate amount, would not only dispel cash flow problems, but would increase the likelihood of even higher incomes than in 2001 for many program commodity producers. At the same time, farms that are not dependent on government programs as a source of income, would not see much change in their financial outlook, even with an additional $10 billion in payments. The benefits of additional payments would be even more unevenly beneficial to debt repayment problems. Many farms with incomes well below what is necessary to service current debt are not program participants and must rely on off-farm sources of income to meet principal and interest payments on farm loans. Uncertainty about economic conditions in the general economy also has an importance influence on the financial outcome for farm families in 2002. Earnings from off the farm are the predominant source of income for three out of four farm households. The stability of wage and salary income from off-farm employment is critical to whether or not the diversity of household income sources is effective in buffering against uncertainty in farm income. Lenders confronting this unique environment of dual uncertainty are appreciably cautious. The current distribution of debt across lenders suggests that most are diversified to the extent that concern over financial conditions in the general economy may have a more substantial impact on lending in 2002 than uncertainty regarding the level of government payments.

Table 1. Farm business average net cash income forecasts with alternative government payment levels

	2002f	2002/ 1996-2000 average	2002f/ 2001f	2002f + $5 bil. / 2001f	2002f + $10 bil. / 2001f	Share of U.S farm businesses
	$1,000 per farm			*Percent*		
All farm businesses 1/	31.7	-23.4	-18.3	-8.0	1.8	100.0
Resource region:						
Heartland	28.4	-33.3	-21.3	-4.4	11.6	25.2
Northern Crescent	42.2	-0.2	-19.9	-14.8	-10.1	14.1
Northern Great Plains	20.1	-52.5	-33.9	-9.8	12.6	7.6
Prairie Gateway	25.2	-28.4	-19.5	-4.2	10.4	13.5
Eastern Uplands	11.8	-15.7	-13.2	-8.8	-4.6	11.0
Southern Seaboard	25.0	-9.1	-15.5	-9.6	-3.8	7.7
Fruitful Rim	66.8	-20.5	-10.6	-7.2	-4.0	12.7
Basin and Range	33.0	-0.6	-3.2	4.2	11.4	4.4
Mississippi Portal	12.5	-73.8	-52.1	-24.3	2.1	3.7
Commodity specialization:						
Mixed grain	21.5	-52.0	-37.7	-8.9	18.1	9.1
Wheat	14.3	-60.2	-53.4	-18.5	14.5	2.9
Corn	22.5	-49.6	-27.7	3.0	32.0	9.9
Soybeans	13.6	-54.1	-32.3	-4.9	20.9	4.5
Tobacco, cotton, and peanuts	24.7	-44.4	-30.2	-15.4	-1.4	4.2
Other crops	25.0	-23.3	-17.5	-4.3	8.2	8.6
Specialty crops	74.2	-21.1	6.0	7.5	8.9	9.6
Beef cattle	14.3	-8.9	3.6	14.4	24.8	30.0
Hogs	64.0	-10.6	-22.4	-16.2	-10.4	2.1
Poultry	128.2	34.9	-5.0	-4.6	-4.2	2.8
Dairy	67.4	-8.4	-35.1	-31.9	-28.9	8.8
Other livestock	14.3	68.2	-14.9	-8.2	-1.8	7.5

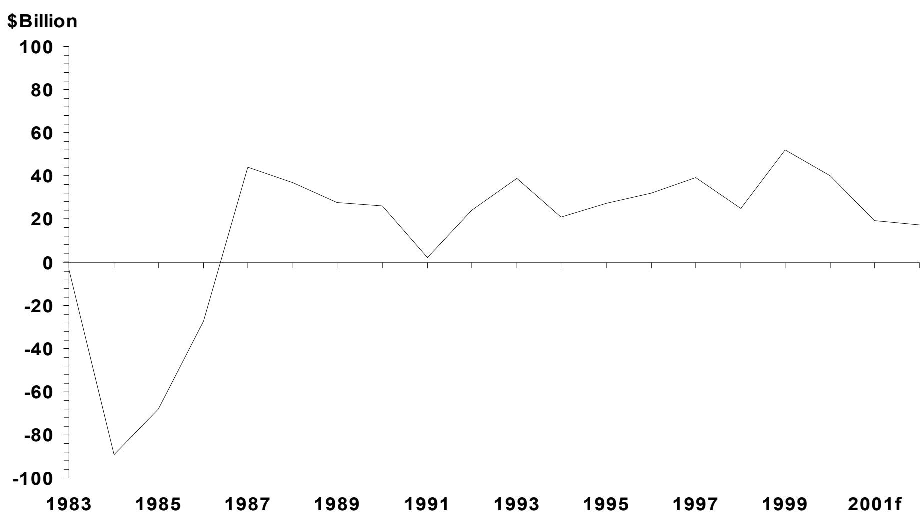
1/ Includes Farming, low-sales, farming, high-sales, large family, very large family, and nonfamily farm typology grou
f = forecast, assuming only currently legislated government payments.

Figure 1. Calendar year direct government payments, 1993-2002f



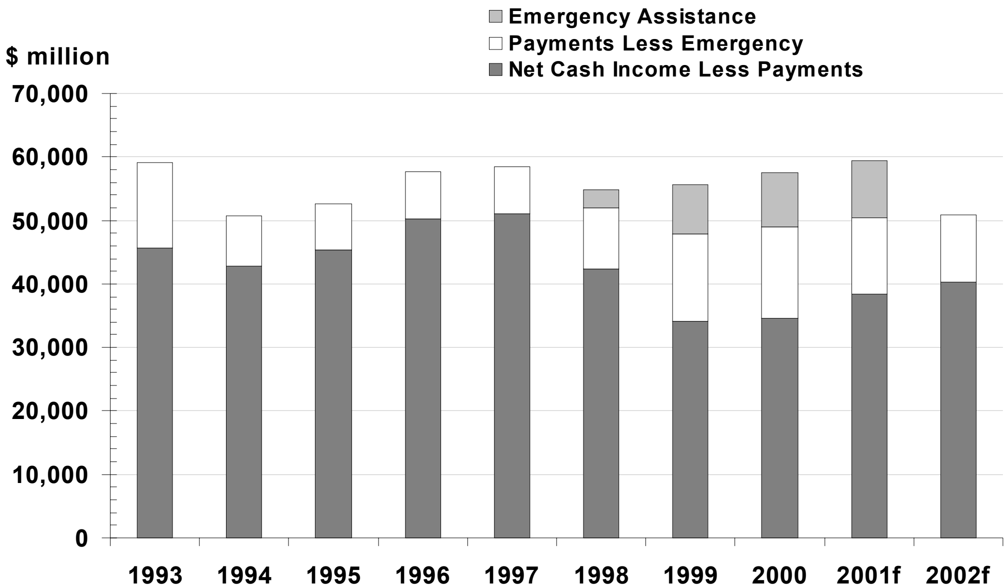
f = forecast based on currently legislated government payments

Figure 2. Annual change in farm sector equity



f = forecast based on currently legislated government payments

Figure 3. Farm sector net cash income, 1993-2002f



f = forecast based on currently legislated government payments

Figure 4. Distribution of farms and government payments for crop farms, 2000

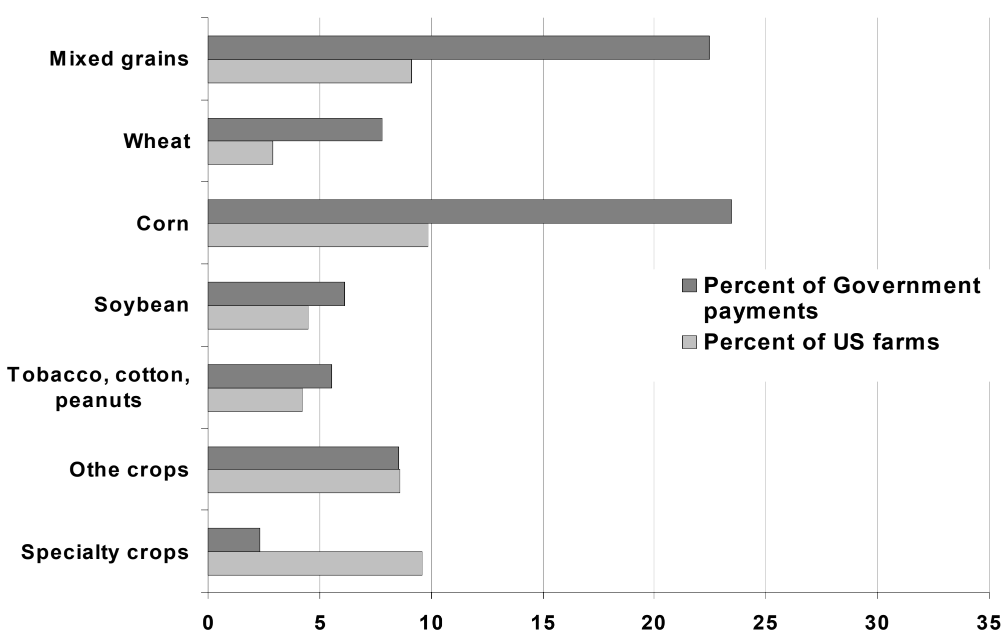


Figure 4. Continued--Distribution of farms and government payments for livestock farms, 2000

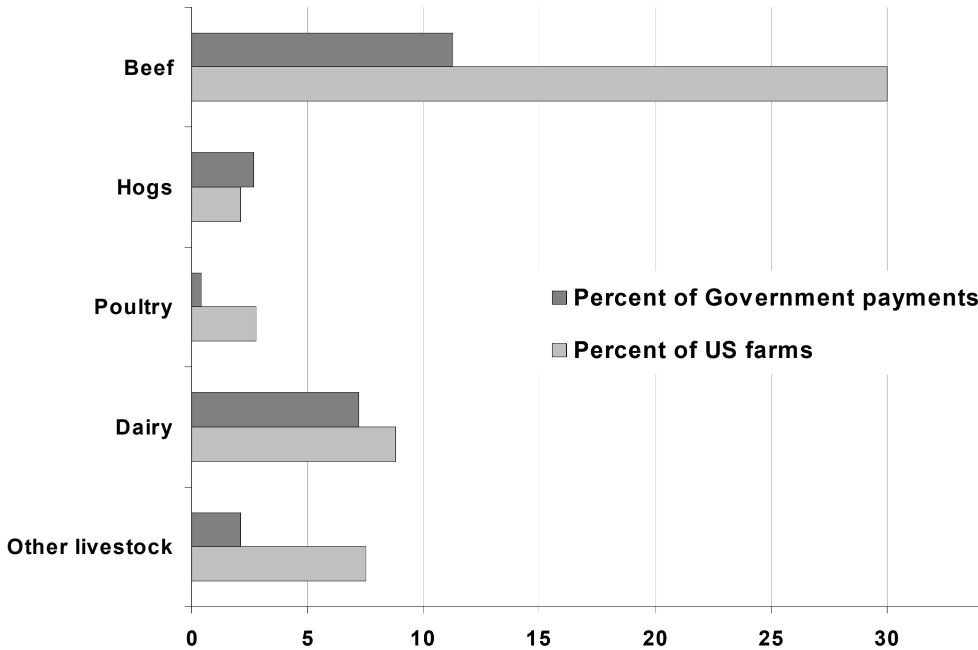


Figure 5. Distribution of farms and government payments by resource region, 2000

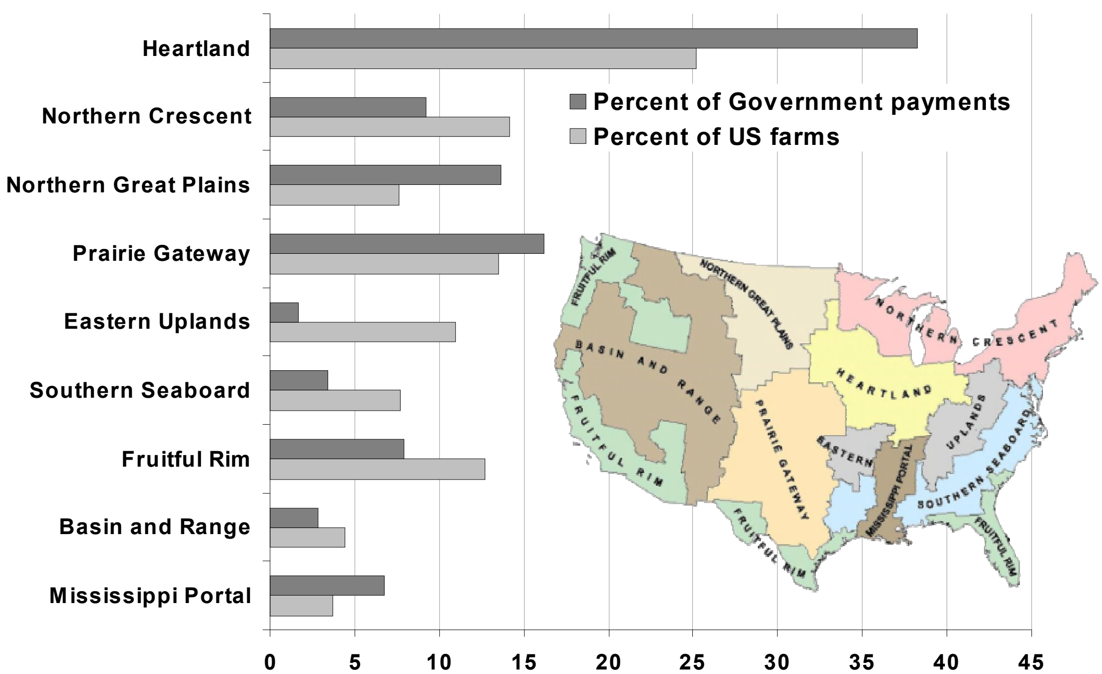
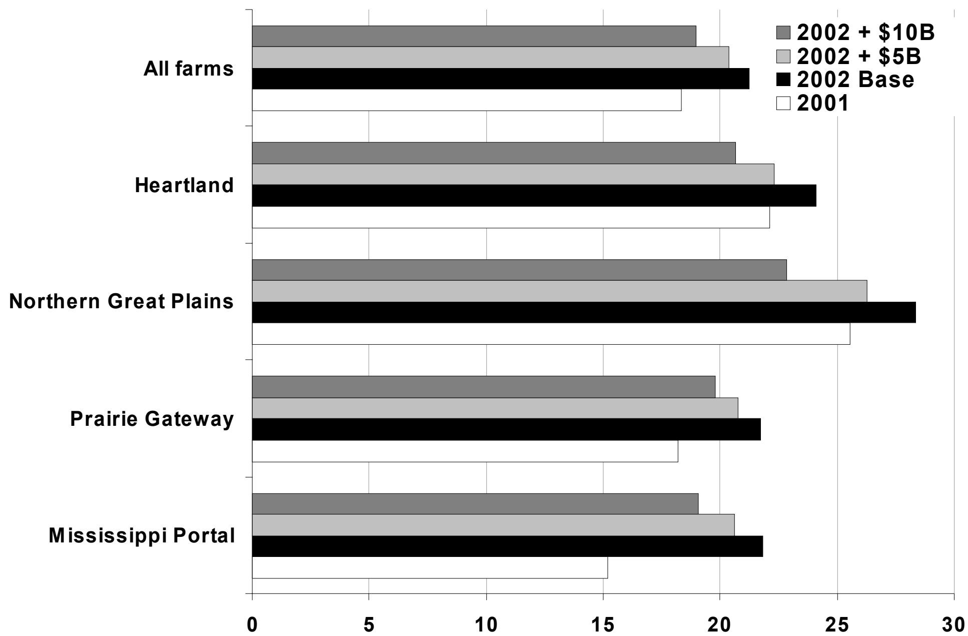
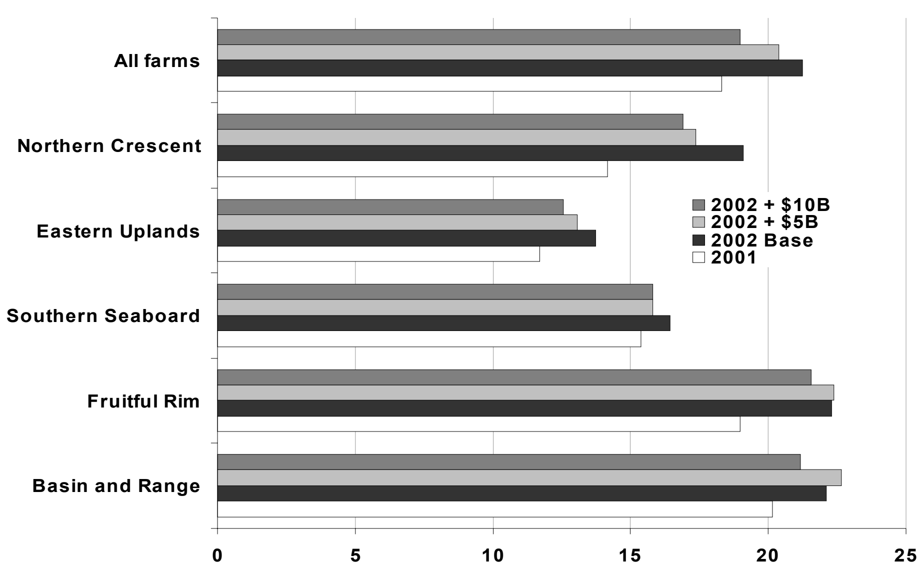


Figure 6. Distribution of farm businesses with debt repayment problems (DRCU > 1.2) by resource region



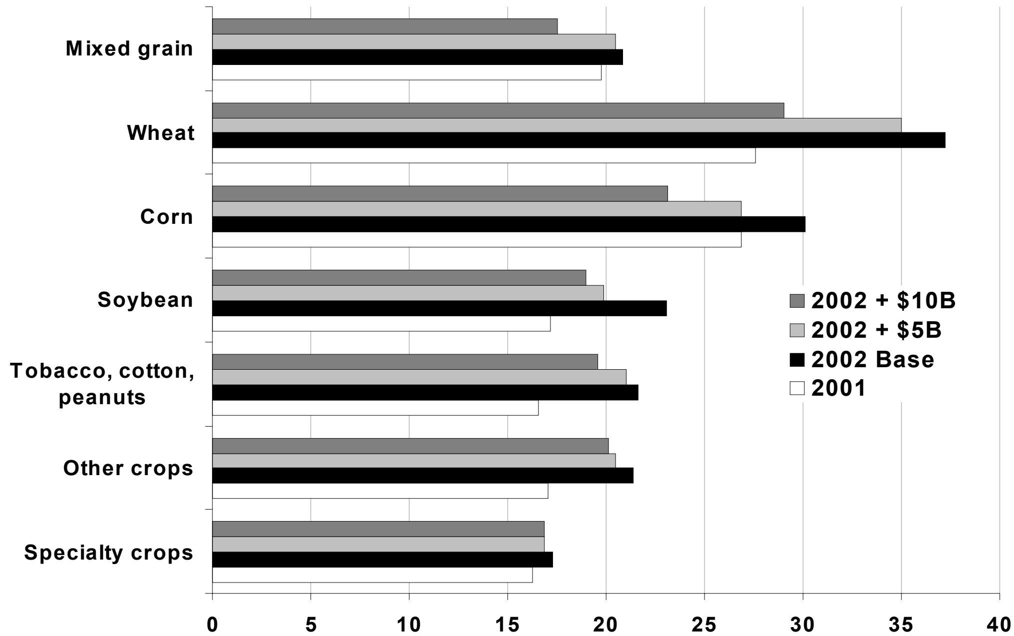
Note: Base includes only currently legislated government payments

Figure 6. Continued-- Distribution of farm businesses with debt repayment problems (DRCU > 1.2) by resource region



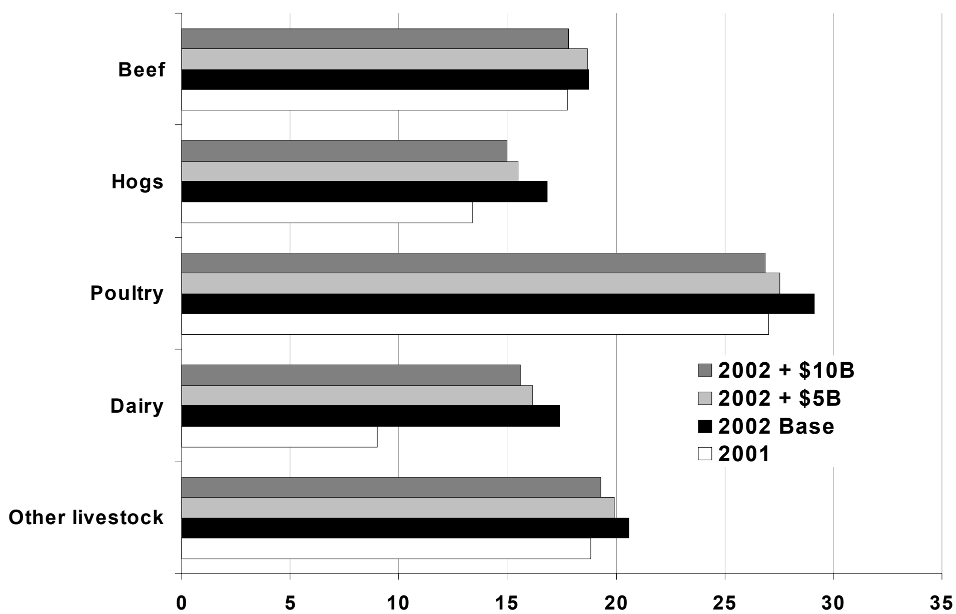
Note: Base includes only currently legislated government payments

Figure 7. Distribution of crop farm businesses with debt repayment problems (DRCU > 1.2)



Note: Base includes only currently legislated government payments

Figure 7. Continued-- Distribution of livestock farm businesses with debt repayment problems (DRCU > 1.2)



Note: Base includes only currently legislated government payments

Figure 8. **Distribution of farm households by income source, 2000**

Figure 9. **Components of farm operator household income by major source, 2000**

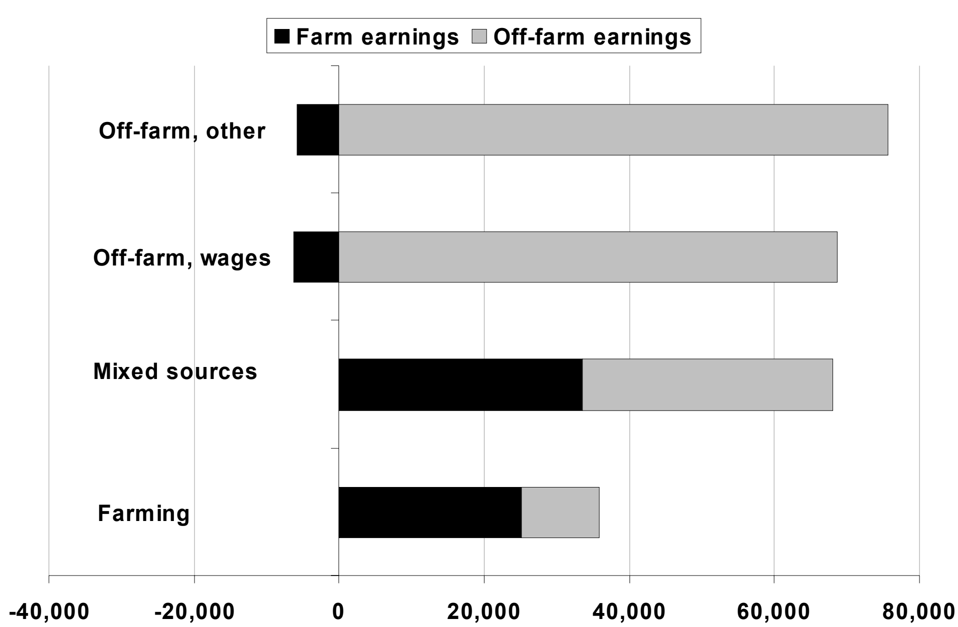


Figure 10. Distribution of farms and government payments by lender, 2000

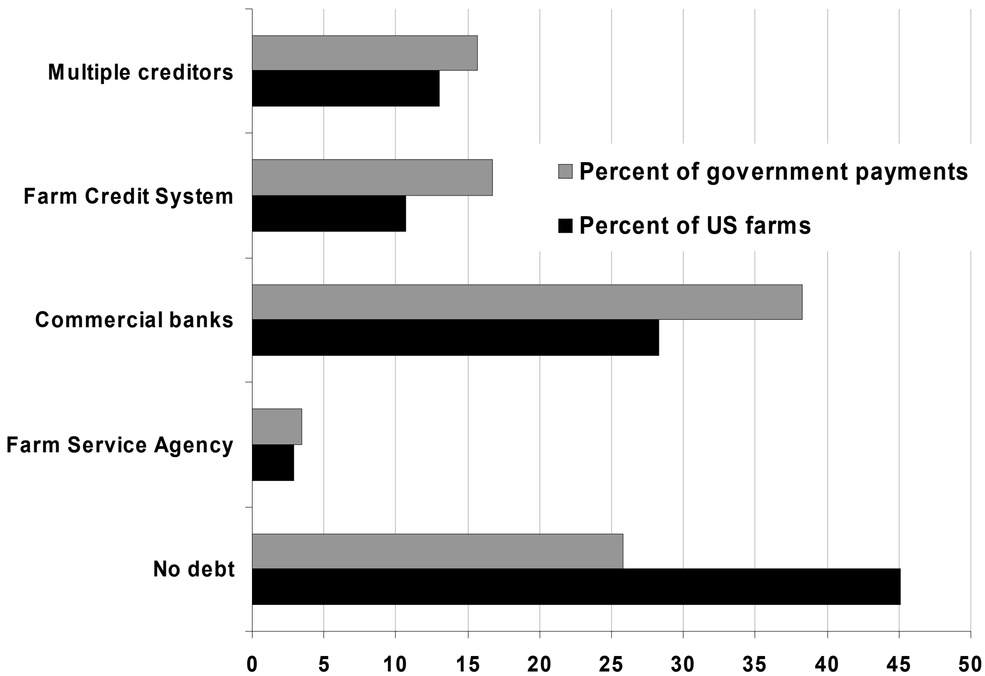
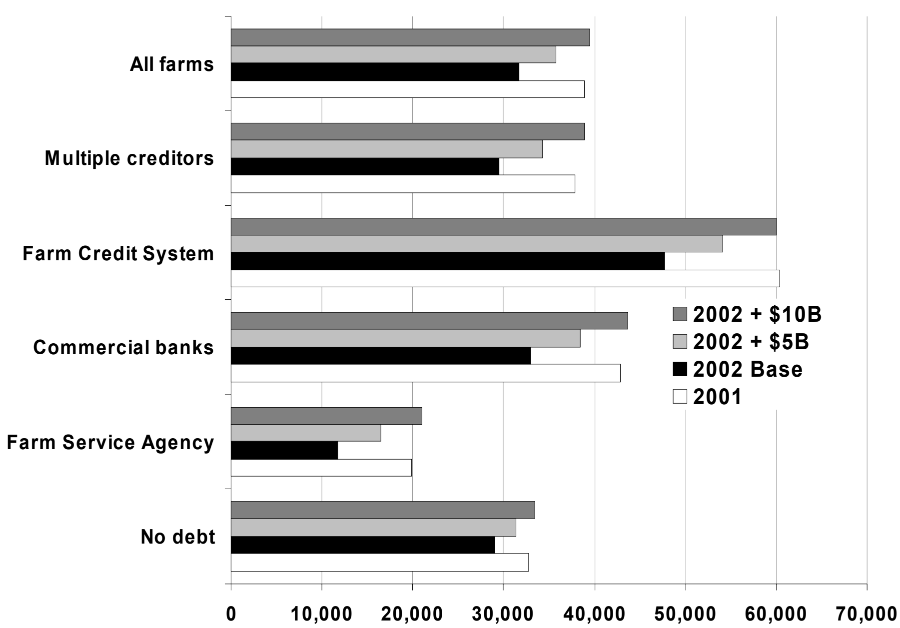
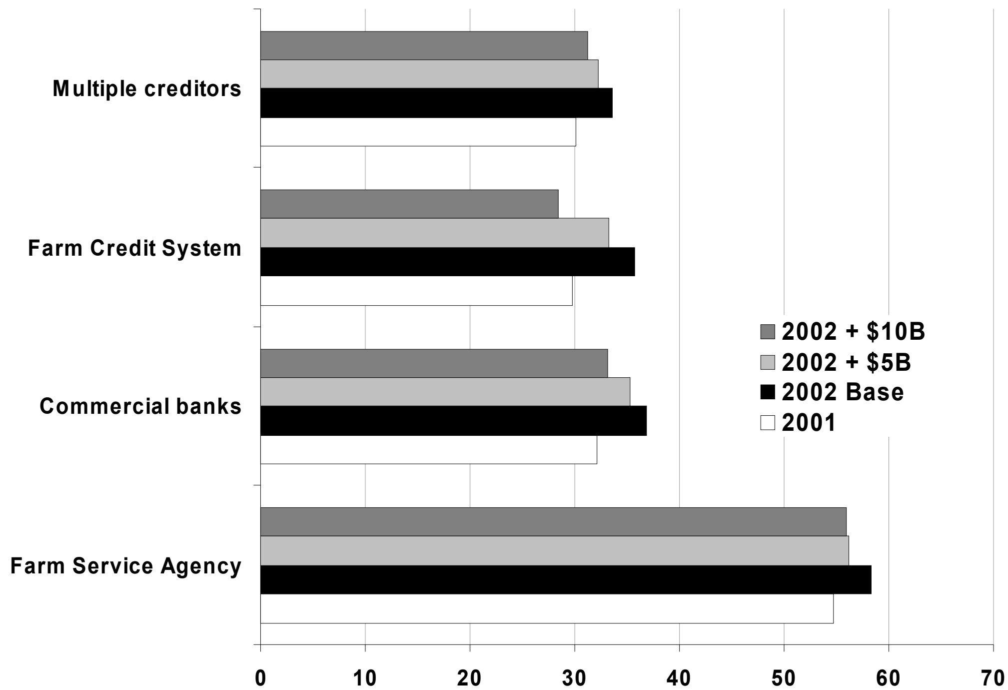


Figure 11. Average net cash income by lender



Note: Base includes only currently legislated government payments

Figure 12. Distribution of farms with debt repayment problems by lender (based on DRCU > 1.2 estimated using net cash income)



Note: Base includes only currently legislated government payments