

**REPRESENTATIVE FARMS ECONOMIC
OUTLOOK FOR THE JANUARY
2000 FAPRI/AFPC BASELINE**

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Executive Summary

The primary objective of the analysis is to determine the representative crop and livestock farms' economic viability throughout the next five years 2000-2004. The representative farm economic data is developed in cooperation with panels of producers to describe and simulate representative crop, livestock, and dairy farms. Projected prices, policy variables, and input inflation rates are obtained from the Food and Agricultural Policy Research Institute (FAPRI) January 2000 Baseline.

- # Thirty-one of the 43 crop farms have more than a 50 percent chance of cash flow deficits over the 2000-2004 period. Currently, low crop prices and the prospect for a slow recovery are the major factors behind the poor cash flow performance of the crop farms.
- # Eleven of the 15 feedgrain farms have probabilities greater than 50 percent that they will experience cash flow problems in 2000-2004. Four of the 15 will likely have probabilities greater than 50 of having to externally refinance cash flow deficits. Seven of the 15 farms have probabilities greater than 50 percent of losing real net worth between 1999 and 2004. In summary, the financial condition of the 15 feedgrain farms is rated as follows: eight are poor, three are marginal, and four are in good financial condition by 2004.
- # Five of the 10 wheat farms have a greater than 50 percent probability they will experience cash flow problems in 2000-2004, yet only four farms have high probabilities of refinancing from external sources. In summary, five of the 10 wheat farms are likely to be in poor financial condition by 2004, one is marginal, and four are in good financial condition.
- # Eight of the 9 cotton farms are projected to have greater than a 50 percent chance of cash flow deficits in 2000-2004. Six of the 9 will face high probabilities of externally refinancing deficits. Seven of the 9 cotton farms will be in poor financial condition by 2004, one is marginal, and one is in good financial condition.
- # Seven of the 9 rice farms are projected to have greater than a 50 percent chance of cash flow deficits over the 2000-2004 planning horizon. Six of the farms will likely have high probabilities of externally refinancing deficits and seven face high probabilities of losing real net worth. Overall, seven farms will be in poor financial shape, and two will be in good shape by 2004.
- # In general, the dairy farms appear in good financial shape over the 2000-2004 period. Low feed costs and higher cattle prices tend to offset lower milk prices. Only eight of the 26 farms have high probabilities of cash flow deficits. In summary, six of the 26 dairy farms are classified in poor financial condition, three are marginal, and 17 are in good financial condition by 2004.
- # Increasing cattle prices over the planning horizon help to improve the financial viability of cattle operations. One of the four cattle operations will likely be in poor financial condition in 2004, and three are in good financial shape.
- # Higher hog prices following the low prices in 1998 and 1999 improve the financial condition of the representative hog farms over the recent past. Three of the 6 farms are expected to have high probabilities of cash flow deficits over the 2000-2004 planning horizon. In summary, one of the 6 farms is classified as being in poor financial condition in 2004, two are marginal, and three are in good financial condition.

Definition of Output Variables

- ➡ **Probability of Cash Flow Deficit** - chance that net cash farm income is less than family living, principal payments, taxes and machinery replacement costs.
- ➡ **Probability of Refinancing Deficits** - chance that deficits are greater than cash reserves and must be financed externally.
- ➡ **Probability of Losing Real Net Worth** - chance that net worth, adjusted for inflation, is less than net worth at the end of 1999.
- ➡ **Net Income Adjustment** - NIA is the annual increase or decrease in net cash farm income necessary to shift the farm from a marginal or bad financial position to one classified as good.

Financial Risk for Feed Grain Farms

Farm Name	P(Cash Flow Deficit)	P(Refinance Deficit)	P(Real Net Worth Declines)
	2000-2004	2000-2004	2000-2004
IAG950	32 - 60	9 - 27	22 - 52
IAG2400	35 - 56	3 - 16	32 - 32
NEG900	46 - 43	1 - 2	42 - 15
NEG1300	15 - 33	1 - 1	33 - 20
MOCG1700	20 - 49	1 - 1	29 - 22
MOCG3300	35 - 52	1 - 1	41 - 32
MONG1400	99 - 99	99 - 99	75 - 94
TXNP1600	49 - 67	26 - 51	46 - 51
TXNP6700	52 - 53	1 - 12	49 - 36
TXBG2000	97 - 99	97 - 99	87 - 97
TXBG2500	56 - 72	1 - 9	60 - 71
TNG900	99 - 99	99 - 99	46 - 92
TNG2400	24 - 72	1 - 29	25 - 40
SCG1500	51 - 69	32 - 42	51 - 61
SCG3500	25 - 35	1 - 5	24 - 17

< 25%

25-50%

>50%

Financial Risk for Wheat Farms

Farm Name	P(Cash Flow Deficit)	P(Refinance Deficit)	P(Real Net Worth Declines)
	2000-2004	2000-2004	2000-2004
WAW1500	88 - 96	84 - 91	74 - 82
WAW4250	69 - 82	18 - 62	59 - 64
NDW1760	51 - 46	2 - 18	56 - 49
NDW4850	59 - 49	1 - 11	60 - 36
KSSW1385	65 - 54	1 - 13	54 - 56
KSSW3180	1 - 20	1 - 1	9 - 1
KSNW2325	73 - 89	34 - 83	74 - 82
KSNW4300	75 - 83	6 - 63	70 - 90
COW2700	55 - 9	1 - 1	11 - 1
COW5440	25 - 22	1 - 1	31 - 5

< 25%

25-50%

> 50%

Financial Risk for Cotton Farms

Farm Name	P(Cash Flow Deficit)	P(Refinance Deficit)	P(Real Net Worth Declines)
	2000-2004	2000-2004	2000-2004
CAC2000	82 - 94	6 - 86	86 - 98
CAC6000	65 - 65	20 - 42	65 - 59
TXSP1682	95 - 84	95 - 74	44 - 45
TXSP3697	35 - 39	2 - 4	34 - 11
TXRP2500	88 - 95	88 - 87	67 - 83
TXBC1400	44 - 67	1 - 13	46 - 39
TXCB1700	99 - 99	99 - 99	93 - 98
TNC1675	99 - 98	99 - 98	60 - 93
TNC3800	61 - 80	59 - 71	61 - 71

< 25%

25-50%

>50%

Financial Risk for Rice Farms

Farm Name	P(Cash Flow Deficit)	P(Refinance Deficit)	P(Real Net Worth Declines)
	2000-2004	2000-2004	2000-2004
CAR424	99 - 99	78 - 99	99 - 99
CAR1365	85 - 99	14 - 99	96 - 99
TXR2118	44 - 85	1 - 10	67 - 84
TXR3750	70 - 90	1 - 51	64 - 85
MOR1900	99 - 99	99 - 99	99 - 99
MOR4000	88 - 99	64 - 99	86 - 99
ARR2645	27 - 36	1 - 1	29 - 13
ARR3400	22 - 37	1 - 1	19 - 4
LAR1100	96 - 99	85 - 99	93 - 99

< 25%

25-50%

>50%

Crop Farm Summary

☞ Feedgrain farms

- 11 of 15 in cash flow problems
- 4 of 15 likely forced to refinance
- 7 of 15 lose real net worth

☞ Wheat farms

- 5 of 10 in cash flow problems
- 4 of 10 likely forced to refinance
- 5 of 10 lose real net worth

☞ Cotton farms

- 8 of 9 in cash flow problems
- 6 of 9 likely forced to refinance
- 6 of 9 lose real net worth

☞ Rice farms

- 7 of 9 in severe cash flow problems
- 6 of 9 likely forced to refinance
- 7 of 9 lose real net worth

☞ Crop farms in cash flow problems

- 31 of 43 suffer cash flow deficit
- 27 of 43 poor financial position
- 5 of 43 marginal financial position
- 11 of 43 good financial position

Financial Risk for Dairy Farms

Farm Name	P(Cash Flow Deficit)	P(Refinance Deficit)	P(Real Net Worth Declines)
	2000-2004	2000-2004	2000-2004
CAD1710	1 - 1	1 - 1	1 - 1
NMD2000	44 - 67	44 - 49	29 - 39
WAD185	8 - 38	1 - 1	5 - 3
WAD900	9 - 48	1 - 1	12 - 6
IDD750	12 - 21	1 - 1	10 - 2
IDD2100	1 - 1	1 - 1	1 - 1
TXCD400	99 - 99	99 - 99	63 - 91
TXCD825	1 - 1	1 - 1	1 - 1
TXED310	29 - 62	21 - 42	27 - 35
TXED750	14 - 38	1 - 4	16 - 16
WID70	47 - 45	1 - 11	27 - 10
WID600	22 - 48	1 - 1	21 - 9
MIED200	34 - 58	1 - 22	29 - 37
MICD140	30 - 82	7 - 51	39 - 70

< 25%

25-50%

> 50%

Financial Risk for Dairy Farms

Farm Name	P(Cash Flow Deficit)	P(Refinance Deficit)	P(Real Net Worth Declines)
	2000-2004	2000-2004	2000-2004
NYWD800	6 - 19	1 - 1	10 - 1
NYWD1200	3 - 9	1 - 1	4 - 1
NYCD110	1 - 4	1 - 1	2 - 1
NYCD400	1 - 1	1 - 1	1 - 1
VTD134	87 - 60	87 - 49	21 - 16
VTD350	8 - 34	1 - 6	13 - 6
MOD85	99 - 99	99 - 99	46 - 65
MOD330	2 - 7	1 - 1	3 - 1
GAND200	69 - 81	69 - 64	37 - 49
GASD700	2 - 5	1 - 1	4 - 1
FLND500	1 - 2	1 - 1	1 - 1
FLSD1800	36 - 45	36 - 28	22 - 21

< 25%

25-50%

> 50%

Financial Risk for Ranches Specializing in Beef

Farm Name	P(Cash Flow Deficit)	P(Refinance Deficit)	P(Real Net Worth Declines)
	2000-2004	2000-2004	2000-2004
MTB400	2 - 10	1 - 1	1 - 1
WYB300	99 - 99	99 - 99	12 - 1
COB250	9 - 4	9 - 1	1 - 1
MOB150	83 - 38	83 - 32	37 - 17

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Financial Risk for Hog Farms

Farm Name	P(Cash Flow Deficit)	P(Refinance Deficit)	P(Real Net Worth Declines)
	2000-2004	2000-2004	2000-2004
ILH180	19 - 60	1 - 1	17 - 6
ILH650	13 - 33	1 - 1	10 - 1
INH200	99 - 99	99 - 99	77 - 98
INH1200	99 - 68	99 - 60	33 - 9
NCH350	10 - 20	1 - 1	12 - 1
NCH13268	5 - 13	1 - 1	7 - 1

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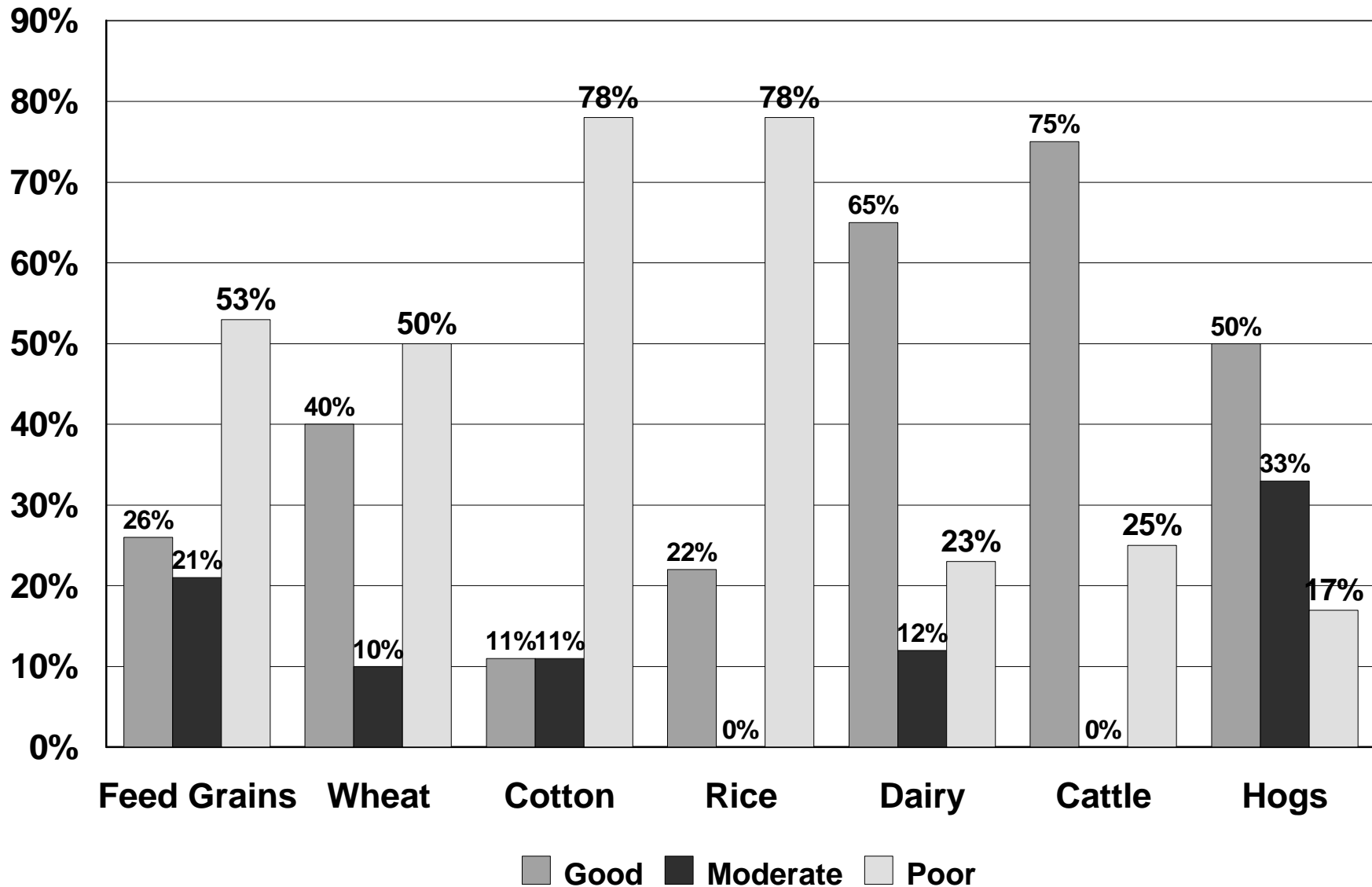
Dairy and Livestock Summary

- ☞ Dairy farms
 - 6 of 26 poor financial position
 - 3 of 26 marginal financial position
 - 17 of 26 good financial position

- ☞ Cattle operations
 - 1 of 4 poor financial position
 - 0 of 4 marginal financial position
 - 3 of 4 good financial position

- ☞ Hog farms
 - 1 of 6 poor financial position
 - 2 of 6 marginal financial position
 - 3 of 6 good financial position

Summary of Overall Economic Viability for Representative Crop, Dairy and Livestock Farms, 2000-2004



REPRESENTATIVE FARMS ECONOMIC OUTLOOK FOR THE JANUARY 2000 FAPRI/AFPC BASELINE

The farm level economic impacts of projected long term prices under the Federal Agriculture Improvement and Reform Act of 1996 (FAIR) on representative crop and livestock operations are projected in this report. For this report the FAIR Act will be referred to as the 1996 Farm Bill. The analysis was conducted over the 1996-2004 planning horizon using FLIPSIM, AFPC's whole farm simulation model. Data to simulate farming operations in the nation's major production regions came from two sources:

- # Producer panel cooperation to develop economic information to describe and simulate representative crop, livestock, and dairy farms.
- # Projected prices, policy variables, and input inflation rates from the Food and Agricultural Policy Research Institute (FAPRI) January 2000 Baseline.

The primary objective of the analysis is to determine the farms' economic viability by region and commodity throughout the life of the 1996 Farm Bill and beyond.

The FLIPSIM policy simulation model incorporates the historical risk faced by farmers for prices and production. This report presents the results of the January 2000 Baseline in a risk context using selected simulated probabilities and ranges for annual net cash farm income values. The probability of a farm experiencing annual cash flow deficits and the probability of having to externally refinance cash flow deficits are provided to show the financial risk faced by the representative farms. The probability of a farm losing real net worth is included as an indicator of the equity risk facing farms through the year 2004.

This report is organized into ten sections. The first section summarizes the process used to develop the representative farms and the key assumptions utilized for the farm level analysis. The second section summarizes the FAPRI January 2000 Baseline and the policy and price assumptions used for the representative farm analyses. The third through sixth sections present the results of the simulation analyses for feed grain, wheat, cotton, and rice farms. The seventh through ninth sections summarize simulation results for dairy, cattle and hog farms. Two appendices constitute the final section of the report. Appendix A provides tables to summarize the physical and financial characteristics for each of the representative farms. Appendix B provides the names of producers, land grant faculty, and industry leaders who cooperated in the panel interview process.

Panel Process

AFPC has developed and maintains data to simulate more than 80 representative crop and livestock farms chosen from major production areas across the United States (Figure 1). Characteristics for each of the farms in terms of location, size, crop mix, assets, and average receipts are summarized in Appendix A. The location of these farms is primarily the result of discussions with staffers for the House and Senate Agriculture Committees. Information necessary to simulate the economic activity on these representative farms is developed from panels of producers using a consensus building interview process. Normally two farms are developed in each region using separate panels of producers: one is representative of moderate size full-time farm operations, and the second panel usually represents farms two to three times larger.

Figure 1. Representative Farms and Ranches



The data collected from the panel farms are analyzed in the whole farm simulation model (FLIPSIM) developed by AFPC. The producer panels are provided pro-forma financial statements for their representative farm and are asked to verify the accuracy of simulated results for the past year and the reasonableness of a four to five year projection. Each panel must approve of the model's ability to reasonably reflect the economic activity on their representative farm prior to using the farm for policy analyses.

Most of the farms used in the analysis have been updated with the panels through 1999. All of the crop farms are assumed to begin 1996 with 20 percent intermediate- and long-term debt, based on information provided by ERS-USDA and the panel members. Initial debt levels in 1996 for dairy farms were set at 30 percent; initial debt levels for beef cattle ranches were 1 percent for land and 5 percent for cattle and machinery; and initial debt levels for hog farms were 45 percent. The debt levels the farms have at the outset of 2000 are based on simulating the farms using actual local yields and prices for 1996, 1997, 1998 and 1999.

Key Assumptions

- # All farms classified as moderate scale are the size (acres or number of livestock) considered to be representative of a majority of full-time commercial farming operations in the study area. In many regions, a second farm, two to three times larger than the moderate scale farm is developed as an indicator of size economies.
- # Dairy, hog, and cattle herd sizes are held constant for all farms over the 1996-2004 planning horizon.
- # The farm was structured so government payment limits were not effective at reducing contract payments and loan deficiency payments.
- # Minimum family living withdrawals were assumed at a base rate of 10 percent of gross receipts or \$25,000 annually, whichever is lower. Actual family living withdrawals are determined by historical consumption patterns. Therefore, as the farm's profitability increases so does the level of family living withdrawals.
- # The farm is subject to owner/operator federal (income and self-employment) and state income taxes as a sole proprietor, based on the current tax provisions.
- # No off-farm-related income including family employment was included in the analyses. Therefore, the farm reflects only the ability of the farm to provide for family living and capital replacement.
- # Farm program parameters, average annual prices, crop and livestock yield trends, interest rates, and input cost inflation (deflation) are based on the January 2000 FAPRI Baseline which assumes implementation of the 1996 Farm Bill through 2004.
- # Contract payments for participating cotton, wheat, feed grain, and rice producers are made based on 85 percent of their historical base acreage times farm program yield times a contract payment rate. The contract payment rate is included in the January 2000 FAPRI Baseline.
- # The farms are assumed to be enrolled in the production flexibility program and take full advantage of the flexibility provisions in the 1996 Farm Bill (within the current crop mix). PFC payments are held constant in 2003 and 2004 at their 2002 levels. Crop mix changes after 1999 were estimated based on projected net returns for each of the enterprises currently produced on the farms. During the

update process most of the crop farm panels indicated that they would flex out of their current crop mix, but only if expected net returns per acre from the change exceeded \$40, due to rotation and/or other cultural concerns.

- # Marketing loan provisions for cotton, rice, wheat, feed grains, and soybeans were authorized in the 1996 Farm Bill and are assumed to be in place for the farm level analysis.
- # The farm level simulation model incorporates price and yield risk faced by farmers. Historical yield variability for crops and production for livestock (sale weights and milk/cow) over the past ten years are assumed to prevail for the planning horizon. Market prices for crops and feedstuffs are assumed to be more variable than over the past ten years due to the 1996 Farm Bill provisions, based on recent research by FAPRI. The assumed increase in relative price variability is: 57 percent for feed grains, 40 percent for wheat, 57 percent for soybeans, 34 percent for cotton, 10 percent for rice, 10 percent for cattle and hogs and 50 percent for milk. Random prices are appropriately correlated based on historical correlations, among crop and livestock prices, both within year and across years.
- # To simulate the historical portion of the planning horizon (1996-1999) crop yields were held constant based on actual values obtained from the producers. Average yields for 2000-2004 were simulated based on the average yields provided by the producers and the historical yield variability for the farm. Prices were held constant at producer provided values for 1996-1999. FAPRI's January Baseline prices were localized for the farms and used as the average prices for 2000-2004.
- # The 1996 Farm Bill eliminated the dairy assessments after 1996 and provides for a reduction in the milk support price starting in 1997. Each year the dairy support price falls 15 cents per hundred weight until the support price reaches \$9.90 per hundred weight in 1999. Support price remains at \$9.90/cwt. in 2000 and is eliminated thereafter.
- # Market loss assistance payments and disaster provisions passed in late 1998 and again in 1999 have been incorporated.
- # All farms are assumed to carry MPCl at the 50/100 level.

FAPRI January 2000 Baseline

Projected crop prices for FAPRI's January 2000 Baseline are summarized in Table 1. Corn prices decline from the high of \$2.71/bu. in 1996 to a low of \$1.85/bu. in 1999, but are projected to increase marginally until they reach \$2.25/bu. in 2004. Wheat prices have declined to \$2.55/bu. in 1999, but are expected to increase through 2004 when wheat prices are projected at \$3.25/bu. Cotton prices continue their decline until 1999 reaching a low of \$0.4594/lb. and then increase gradually to \$0.5433/lb. in 2004. Rice prices have declined from the \$9.96/cwt. level realized in 1996 to \$6.36/cwt. in 1999, but are expected to recover to \$7.56/cwt. by 2004.

Assumed loan rates and projected annual contract (AMTA) payment rates, net of 1995 deficiency repayments in 1996 and 1997, are also summarized in Table 1. The farms growing contract commodities were assumed to have accepted the 1995 advance deficiency payments and had the repayments offset against 1996 contract payments for wheat, barley, oats, and upland cotton and the 1997 contract payments for corn and soybeans. The assumed contract or AMTA payment rates for 1998 and 1999 reflect the increase for the 1998 and 1999 market loss assistance payments authorized in those years. Annual contract payments for 2002 are assumed to remain constant for 2003 and 2004.

Projected livestock prices for FAPRI's January 2000 Baseline are summarized in Table 2. Beef cattle prices are projected to increase throughout most of the planning horizon after the drought induced decline in 1998. Actual feeder cattle prices were \$61.31 and \$81.34/cwt. for 1996 and 1997, but declined to \$77.70/cwt. in 1998. Following this one year adjustment prices increased in 1999 to \$82.68/cwt. The recovery of beef prices is projected to continue through 2003, reaching \$93.87/cwt. Hog prices declined after 1996 reaching a low of \$34.00/cwt. in 1999. Hog prices are projected to recover to \$43.52/cwt. in 2002 and then fall to \$40.58/cwt. in 2004. Annual milk prices for the 12 states, where representative dairy farms are located, are summarized in Table 2. The U.S. all milk price increased dramatically in 1998 to \$15.41/cwt. but is projected to decrease to \$12.65/cwt. by 2002 and increase slightly to \$12.80/cwt. by 2004.

Projected annual rates of change for variable cash expenses are presented in Table 3. The rate of change in input prices and interest rates come from FAPRI's January 2000 Baseline which relies on WEFA's macroeconomic projections. Annual interest rates paid for long- and intermediate-term loans and earned for savings are also summarized in Table 3. Assumed annual rates of change in land values over the 2000-2004 period are provided by the FAPRI Baseline and indicate a decrease in nominal land values for 2000-2004 (Table 3).

Definitions of Variables in the Summary Tables

- # **Overall Financial Position 2000-2004** -- As a means of summarizing the representative farms economic efficiency, liquidity, and solvency position AFPC classifies each farm as being in either a good, marginal or poor position. AFPC assumes a farm is in a good financial position when it has less than a 25 percent chance of: a cash flow deficit, externally having to refinance, and losing real net worth. If the probabilities of these events is between 25 and 50 percent the farm is classified as marginal. A probability of greater than 50 percent places the farm in a poor financial position.
- # **Net Income Adjustment (NIA), 2000-2004** -- NIA is the annual increase or decrease in net cash farm income necessary to insure the farm maintains or achieves a good financial position. A positive NIA indicates the additional annual net income needed to move the farm from a marginal or poor position to a good position. A negative NIA indicates the largest possible annual loss in net income the farm can endure and still maintain its good financial position.
- # **Annual Change in Real Net Worth, 2000-2004** -- annualized percentage change in the operator's net

Table 1. FAPRI January 1999 Baseline Projections of Crop Prices, Loan Rates, and AMTA Payment Rates, 1996-2004

	1996	1997	1998	1999	2000	2001	2002	2003	2004
Crop Prices									
Corn (\$/bu.)	2.71	2.43	1.94	1.85	2.07	2.16	2.16	2.23	2.25
Wheat (\$/bu.)	4.30	3.38	2.65	2.55	2.81	3.06	3.13	3.25	3.25
Cotton (\$/lb.)	0.6930	0.6520	0.6020	0.4594	0.4698	0.4789	0.5003	0.5216	0.5433
Sorghum (\$/bu.)	2.34	2.21	1.66	1.60	1.81	1.90	1.92	1.98	2.00
Soybeans (\$/bu.)	7.35	6.47	4.93	4.77	4.24	4.49	4.94	5.00	5.17
Barley (\$/bu.)	2.74	2.38	1.98	2.05	2.10	2.18	2.20	2.26	2.27
Oats (\$/bu.)	1.96	1.60	1.10	1.11	1.18	1.21	1.22	1.26	1.27
Rice (\$/cwt.)	9.96	9.70	8.83	6.36	6.65	6.93	7.18	7.39	7.56
Soybean Meal (\$/ton)	260.40	175.10	131.50	145.90	130.40	135.60	146.20	148.10	152.10
All Hay (\$/ton)	95.80	102.50	85.10	75.90	77.00	79.00	79.50	80.10	80.90
All Peanuts (cents/lb.)	28.10	28.30	28.40	26.10	25.80	27.20	27.00	26.80	26.90
Additional Peanuts (cents/lb.)	19.00	19.30	17.00	17.70	17.50	18.60	18.40	18.30	18.30
Loan Rates									
Corn (\$/bu.)	1.89	1.89	1.89	1.89	1.89	1.89	1.75	1.75	1.81
Wheat (\$/bu.)	2.58	2.58	2.58	2.58	2.58	2.58	2.41	2.41	2.55
Cotton (\$/lb.)	0.5192	0.5192	0.5192	0.5192	0.5192	0.5192	0.5000	0.5000	0.5000
Sorghum (\$/bu.)	1.81	1.76	1.74	1.74	1.74	1.74	1.61	1.61	1.67
Soybeans (\$/bu.)	4.97	5.26	5.26	5.26	5.26	5.26	4.92	4.92	4.92
Barley (\$/bu.)	1.55	1.57	1.56	1.56	1.59	1.59	1.47	1.47	1.52
Oats (\$/bu.)	1.03	1.11	1.11	1.13	1.13	1.13	1.05	1.04	1.08
Rice (\$/cwt.)	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
AMTA Payment Rates									
Corn (\$/bu.)	0.25	0.49	0.56	0.73	0.33	0.27	0.26	0.26	0.26
Wheat (\$/bu.)	0.87	0.63	0.99	1.27	0.59	0.47	0.46	0.46	0.46
Cotton (\$/lb.)	0.0890	0.0760	0.1230	0.1570	0.0710	0.0570	0.0560	0.0560	0.0560
Sorghum (\$/bu.)	0.32	0.54	0.68	0.87	0.40	0.32	0.31	0.31	0.31
Barley (\$/bu.)	0.33	0.28	0.43	0.54	0.25	0.20	0.20	0.20	0.20
Oats (\$/bu.)	0.03	0.03	0.05	0.06	0.03	0.02	0.02	0.02	0.02
Rice (\$/cwt.)	2.77	2.71	4.37	5.68	2.60	2.10	2.04	2.04	2.04

Source: Food and Agricultural Policy Research Institute (FAPRI) at the University of Missouri-Columbia and Iowa State University.

Table 2. FAPRI January 1999 Baseline Projections of Livestock and Milk Prices, 1996-2004

	1996	1997	1998	1999	2000	2001	2002	2003	2004
Cattle Prices									
Feeder Cattle (\$/cwt)	61.31	81.34	77.70	82.68	88.89	91.78	93.38	93.87	90.73
Fat Cattle (\$/cwt)	65.05	66.32	61.48	65.55	70.03	73.73	75.57	76.16	74.57
Culled Cows (\$/cwt)	30.33	34.27	36.19	38.25	41.40	43.42	44.27	44.84	43.23
Hog Prices									
Barrows/Gilts (\$/cwt)	56.53	54.30	34.72	34.00	38.21	42.35	43.52	42.78	40.58
Culled Sows (\$/cwt)	44.61	44.51	24.28	19.27	25.65	28.00	29.75	28.98	27.65
Milk Prices -- National and State									
All Milk Price (\$/cwt)	14.75	13.36	15.41	14.29	12.85	12.53	12.65	12.78	12.80
California (\$/cwt)	13.66	12.62	15.01	13.70	11.87	12.12	12.22	12.30	12.33
Florida (\$/cwt)	18.00	16.50	18.20	17.78	16.29	15.67	15.80	15.92	15.95
Georgia (\$/cwt)	16.30	14.70	16.60	16.24	14.67	14.11	14.24	14.36	14.39
Idaho (\$/cwt)	13.90	12.30	14.50	12.94	11.46	11.16	11.33	11.51	11.55
Michigan (\$/cwt)	15.00	13.60	15.30	14.87	13.46	12.87	13.03	13.21	13.25
Missouri (\$/cwt)	15.10	13.70	15.60	14.81	13.40	12.76	12.92	13.10	13.14
New Mexico (\$/cwt)	13.80	12.90	14.80	13.85	12.50	12.09	12.24	12.40	12.43
New York (\$/cwt)	14.90	13.40	15.40	14.49	13.14	12.63	12.79	12.97	13.00
Texas (\$/cwt)	15.10	13.70	15.70	15.07	13.77	13.14	13.30	13.49	13.52
Vermont (\$/cwt)	15.30	14.30	16.00	15.46	14.83	13.72	13.50	13.67	13.71
Washington (\$/cwt)	14.50	13.20	15.40	14.23	12.81	12.23	12.40	12.61	12.65
Wisconsin (\$/cwt)	14.75	13.33	15.50	13.95	12.41	12.26	12.40	12.52	12.56

Source: Food and Agricultural Policy Research Institute (FAPRI) at the University of Missouri-Columbia and Iowa State University.

Table 3. FAPRI January 1999 Baseline Assumed Rates of Change in Input Prices, Annual Interest Rates, and Annual Changes in Land Values, 1997-2004

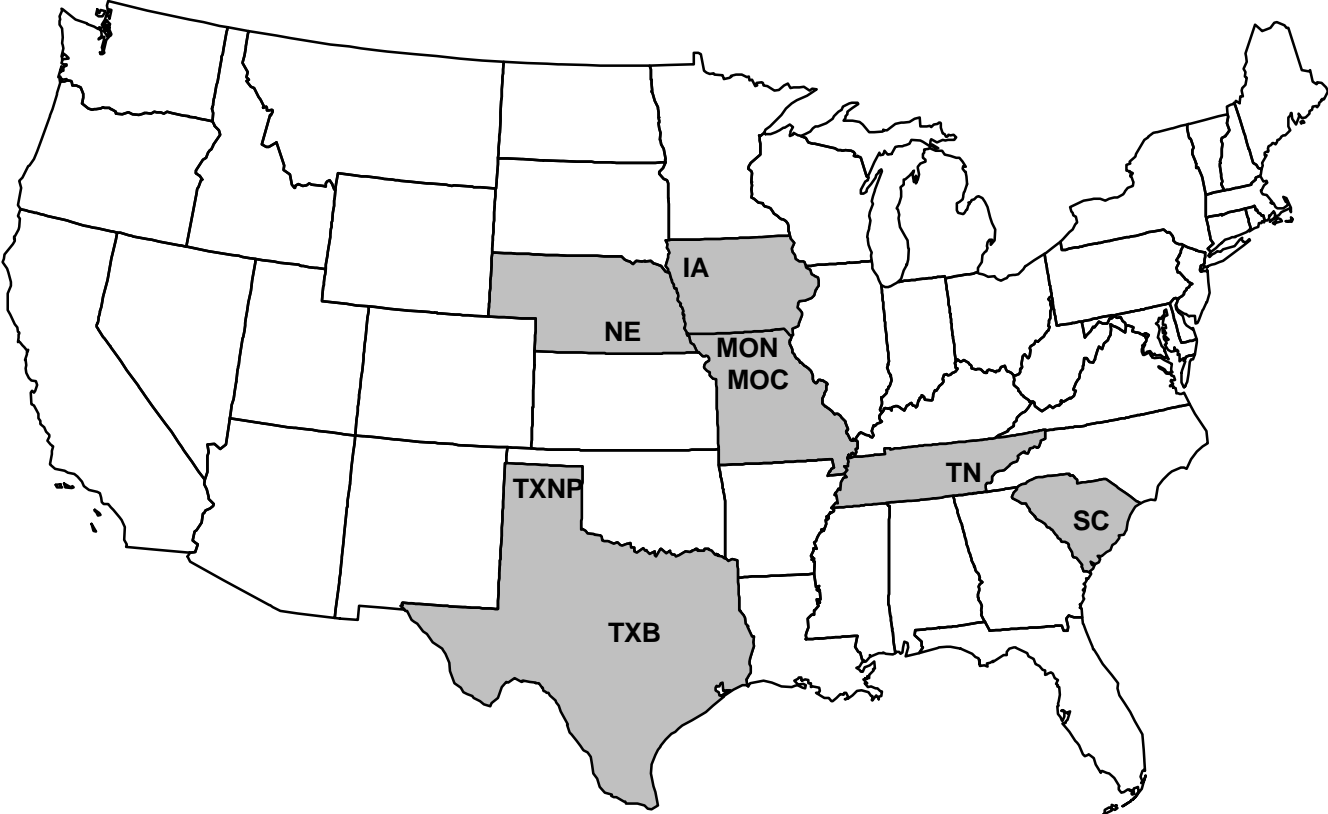
	1997	1998	1999	2000	2001	2002	2003	2004
Annual Rate of Change for Input Prices Paid								
Seed Prices (%)	7.73	4.56	-1.40	-0.26	2.13	1.65	1.50	1.72
Fertilizer Prices (%)	-1.76	-10.32	-0.14	4.94	-0.27	1.60	1.39	1.48
Chemical Prices (%)	-2.01	1.82	0.44	-0.15	2.40	2.21	2.11	2.10
Machinery Prices (%)	2.47	2.97	0.24	0.37	1.54	1.44	1.45	1.46
Fuel and Lube Prices (%)	0.49	-6.48	6.88	7.69	-0.53	1.81	1.55	1.65
Labor (%)	8.48	3.91	3.76	5.26	4.71	3.98	3.75	4.19
Other Input Prices (%)	-0.06	-2.48	-0.73	3.21	1.52	1.95	2.22	2.25
Non-Feed Dairy Costs (%)	2.69	-0.71	0.48	1.00	0.38	0.58	0.60	0.77
Non-Feed Beef Costs (%)	1.04	-1.03	-0.46	3.38	1.59	2.04	2.32	2.35
Non-Feed Hog Costs (%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual Change in Consumer Price Index (%)	2.34	1.56	2.11	2.48	2.54	2.33	2.50	2.53
Annual Interest Rates								
Long-Term (%)	7.69	7.10	7.45	7.53	7.33	7.23	7.12	7.01
Intermediate-Term (%)	8.44	8.35	7.98	8.45	8.45	8.45	8.45	8.45
Savings Account (%)	4.44	4.35	3.98	4.45	4.45	4.45	4.45	4.45
Annual Rate of Change for U.S. Land Prices (%)	4.40	5.18	1.85	-0.96	-0.83	-2.15	-1.65	-0.49

Source: Food and Agricultural Policy Research Institute (FAPRI) at the University of Missouri-Columbia and Iowa State University.

worth from January 1, 2000 through December 31, 2004, after adjusting for inflation. This value reflects the real annualized increase or decrease in net worth or equity for the farm over the planning horizon including changes in real estate values.

- # **Cost to Receipts Ratio, 2000-2004** -- average ratio of total cash expenses to total receipts (from all sources). Cash expenses include interest costs, fixed cash costs, and variable costs but exclude principal payments, depreciation, income taxes, and family living expenses. Total receipts include crop and livestock receipts plus government payments and insurance indemnities.
- # **Government Payments/Receipts, 2000-2004** – sum of all farm program payments (AMTA and marketing loan deficiency payments) divided by total receipts received from the market plus contract payments, marketing loans, crop insurance indemnities, and other farm related income.
- # **Total Cash Receipts** -- sum of cash receipts from all sources, including market sales, AMTA (or contract) payments, CCC loans, marketing loan deficiency payments, crop insurance indemnities, and other farm related income. The values in the tables are the average total receipts for each year in the planning horizon.
- # **Net Cash Farm Income** -- equals total cash receipts minus all cash expenses. Net cash farm income is used to pay family living expenses, principal payments, income taxes, self employment taxes, and machinery replacement costs. The values in the tables are the averages for each year in the planning horizon.
- # **Probability of a Cash Flow Deficit** -- is the number of times out of 100 that the farm's annual net cash farm income does not exceed cash requirements for family living, principal payments, taxes (income and self-employment), and actual machinery replacement expenses (not depreciation). This probability is reported for each year of the planning horizon to indicate whether the cash flow risk for a farm increases or decreases over the planning horizon.
- # **Ending Cash Reserves** -- equals total cash on hand at the end of the year. Ending cash equals beginning cash reserves plus net cash farm income and interest earned on cash reserves less principal payments, federal taxes (income and self employment), state income taxes, family living withdrawals, and actual machinery replacement costs (not depreciation).
- # **Probability of Refinancing Deficits** -- is the number of times out of 100 that cash flow deficits are greater than available cash reserves. This probability is reported for each year of the planning horizon to indicate whether the financial risk for a farm increases or decreases over the planning horizon.
- # **Nominal Net Worth** -- equity at the end of each year equals total assets including land minus total debt from all sources. Net worth is not adjusted for inflation and averages are reported for each year in the planning horizon.
- # **Probability of Losing Real Net Worth** -- is the number of times out of 100 that real net worth is less than the net worth for the farm at the beginning of 2000. The probability is reported for each year of the planning horizon to indicate whether the equity risk is increasing or decreasing from the base year of 1999.

FIGURE 2. REPRESENTATIVE FARMS PRODUCING FEED GRAINS AND OILSEEDS



Feedgrain and Oilseed Farm Impacts

- # With corn prices ranging between \$2.07 to 2.25/bushel over the 2000-2004 period, the cash flow position of the feedgrain farms is troublesome. Eleven of the fifteen farms are projected to experience greater than a 50 percent probability of a cash flow deficit by 2004. The MOCG1700 farm approaches a 50 percent probability and the remaining 3 farms are projected to experience a cash flow deficit in excess of 25 percent of the time by 2004. Therefore, all feedgrain farms are experiencing moderate to substantial cash flow problems over the study period.
- # Four of the feedgrain farms (moderate scale operations MONG1400, TXNP1600, TXBG2000, and TNG900) cannot cover cash flow deficits from farm wealth and will have to refinance from outside sources over 50 percent of the time by 2004. Three other farms (IAG950, TNG2400, and SCG1500) are projected to have to seek external refinancing over 25 percent of the time. The remaining eight farms appear capable of drawing on current farm assets to cover cash flow deficits.
- # In terms of the ability to maintain firm wealth, only four of the farms (NEG900, NEG1300, MOCG1700 and SCG3500) experience less than a 25 percent chance of declining real net worth when measured over the 2000-2004 study period. Four of the farms experience a loss in real wealth in between 25 and 50 percent of the time by 2004. Farms experiencing a greater than 50 percent chance in a loss in real net worth by 2004 include TXNP1600 (51%), IAG950 (52%), SCG1500 (61%), TXBG2500 (71%), TNG900 (92%), MONG1400 (94%) and TXBG2000 (97%).
- # Overall eight of the fifteen farms are projected to have substantial financial and economic problems (classified as being in poor financial shape) without additional aid (Tables 4 and 5). Three farms are marginal and only four appear capable of being successful without additional aid.
- # The annual net income adjustment (NIA) necessary to shift the feedgrain farms classified as being in poor and marginal financial shape to a classification of good is summarized in Figure 3. The Texas Blackland grain farms (TXBG2000 and TXBG2500) require a 23.7 and 11.5 percent increase in annual receipts over the 2000-2004 period. In contrast the large South Carolina farm (SCG3500) could suffer a 2.5 percent decrease in receipts and maintain a good financial position through 2004.

Table 4. Implications of the 1996 Farm Bill and the January 2000 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Feed Grains and Oilseeds

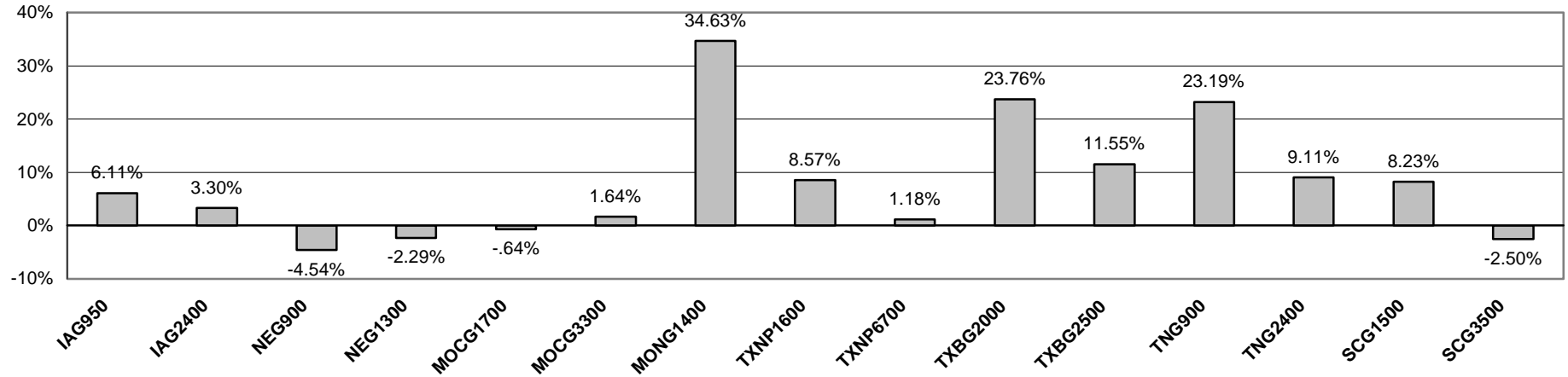
	IAG950	IAG2400	NEG900	NEG1300	MOCG1700	MOCG3300	MONG1400
Overall Financial Position 2000-2004 Ranking	POOR	MARGINAL	GOOD	GOOD	GOOD	MARGINAL	POOR
NIA to Maintain or Achieve a Good Fin. Position (\$1,000)	16.67	19.87	-15.20	-10.93	-2.34	11.41	136.08
NIA to Maintain or Achieve a Good Fin. Position (% Rec.)	6.11	3.30	-4.54	-2.29	-0.64	1.64	34.63
Annual Change Real Net Worth (%) 2000-2004 Average	0.00	1.26	2.94	2.05	1.07	0.74	-4.66
Cost to Receipts Ratio (%) 2000-2004 Average	76.00	76.30	63.92	66.55	63.91	67.49	101.32
Govt Payments/Receipts (%) 2000-2004 Average	16.47	16.55	16.22	15.05	14.96	16.56	9.63
Total Cash Receipts (\$1000)							
1996	351.85	753.72	408.97	569.17	475.94	821.39	502.38
1997	297.38	639.58	402.56	550.11	429.12	772.09	574.89
1998	222.79	480.43	296.28	403.87	338.57	634.90	366.44
1999	268.96	598.24	320.99	436.88	350.20	643.91	344.97
2000	266.87	588.61	327.74	463.54	361.25	684.94	380.38
2001	272.06	599.90	333.48	475.86	366.88	694.00	390.24
2002	268.26	591.97	327.58	466.31	363.46	686.27	391.61
2003	275.96	609.49	339.88	481.85	375.73	706.57	399.31
2004	281.47	621.68	347.08	495.55	377.44	710.37	403.26
Net Cash Farm Income (\$1000)							
1996	143.53	359.64	195.11	236.46	276.91	408.71	103.40
1997	94.70	234.98	190.40	231.45	221.08	355.22	139.63
1998	31.03	59.71	94.89	100.96	140.83	231.17	20.10
1999	74.36	169.91	116.12	137.38	137.23	215.79	10.68
2000	71.54	155.66	122.70	160.39	141.22	251.04	25.42
2001	77.78	165.07	131.64	175.07	139.92	249.25	24.88
2002	72.30	153.03	127.84	167.15	137.11	233.09	13.74
2003	73.96	165.68	140.58	176.24	150.67	250.23	12.98
2004	74.56	170.04	136.95	179.44	144.11	248.34	4.86
Prob. of a Cash Flow Deficit (%)							
2000	32	35	46	15	20	35	99
2001	35	30	48	13	24	38	99
2002	56	49	27	24	48	50	99
2003	58	45	35	23	42	49	99
2004	60	56	43	33	49	52	99
Ending Cash Reserves (\$1000)							
1996	63.50	164.17	90.42	105.36	127.84	175.86	-10.87
1997	83.16	202.57	147.70	192.67	218.68	311.71	4.46
1998	42.89	142.58	153.89	189.47	243.05	353.45	-70.31
1999	51.62	161.69	159.37	203.62	292.66	395.06	-132.94
2000	57.33	177.40	173.61	251.67	334.71	441.85	-216.48
2001	71.02	212.12	192.09	305.67	371.90	466.96	-290.54
2002	70.76	216.43	221.31	347.19	393.19	473.59	-388.29
2003	65.63	227.69	252.24	387.50	420.91	480.24	-488.70
2004	53.43	215.61	272.60	416.00	438.54	479.55	-600.49
Prob. of Refinancing Deficits (%)							
2000	9	3	1	1	1	1	99
2001	10	2	1	1	1	1	99
2002	16	7	1	1	1	1	99
2003	21	7	1	1	1	1	99
2004	27	16	2	1	1	1	99
Nominal Net Worth (\$1000)							
1996	834.16	1,376.39	836.87	1,112.93	1,707.27	2,881.65	1,566.77
1997	894.99	1,500.69	928.90	1,217.36	1,870.41	3,154.21	1,705.13
1998	911.52	1,525.43	964.89	1,242.52	1,993.62	3,369.46	1,658.68
1999	948.27	1,588.88	993.53	1,272.63	2,067.40	3,466.99	1,630.33
2000	968.33	1,617.42	1,015.17	1,295.21	2,101.25	3,503.00	1,575.43
2001	981.71	1,663.65	1,045.72	1,333.08	2,131.53	3,542.35	1,526.20
2002	970.85	1,658.78	1,084.16	1,349.56	2,133.17	3,532.17	1,430.06
2003	956.26	1,675.03	1,111.88	1,376.61	2,155.72	3,550.66	1,340.07
2004	952.11	1,695.73	1,144.37	1,408.56	2,187.01	3,610.72	1,255.89
Prob. of Losing Real Net Worth (%)							
2000	22	32	42	33	29	41	75
2001	24	24	30	25	15	30	75
2002	37	33	17	24	19	34	88
2003	47	35	14	23	23	35	93
2004	52	32	15	20	22	32	94

Table 5. Implications of the 1996 Farm Bill and the January 2000 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Feed Grains and Oilseeds

	TXNP1600	TXNP6700	TXBG2000	TXBG2500	TNG900	TNG2400	SCG1500	SCG3500
Overall Financial Position 2000-2004 Ranking	POOR	MARGINAL	POOR	POOR	POOR	POOR	POOR	GOOD
NIA to Maintain or Achieve a Good Fin. Position (\$1,000)	38.99	20.16	81.44	35.79	65.92	65.02	40.43	-38.54
NIA to Maintain or Achieve a Good Fin. Position (% Rec.)	8.57	1.18	23.76	11.55	23.19	9.11	8.23	-2.50
Annual Change Real Net Worth (%) 2000-2004 Average	-0.09	2.42	-16.34	-1.50	-6.65	0.94	-1.11	3.13
Cost to Receipts Ratio (%) 2000-2004 Average	86.44	83.05	100.89	89.11	93.80	82.21	85.00	76.60
Govt Payments/Receipts (%) 2000-2004 Average	11.61	10.93	15.89	10.26	11.63	13.90	13.62	11.17
Total Cash Receipts (\$1000)								
1996	375.74	1,992.49	219.74	263.48	323.03	875.77	652.76	1,893.11
1997	328.06	1,716.06	489.47	472.31	322.15	818.64	671.64	1,777.72
1998	333.22	1,302.49	328.24	467.27	231.86	585.79	343.25	1,029.26
1999	407.55	1,606.13	357.26	401.20	213.87	539.89	426.61	1,191.25
2000	438.24	1,632.67	331.51	317.98	297.24	743.72	477.65	1,519.23
2001	445.60	1,686.42	340.94	317.33	278.09	696.05	484.05	1,504.81
2002	451.31	1,679.48	336.12	311.02	274.74	691.89	485.62	1,510.84
2003	465.81	1,746.91	349.26	323.83	283.10	712.39	498.05	1,571.75
2004	473.14	1,787.84	355.97	279.40	287.91	724.67	510.85	1,601.86
Net Cash Farm Income (\$1000)								
1996	100.64	749.72	-73.83	-10.58	82.54	333.33	220.43	817.72
1997	67.08	514.70	165.07	192.08	81.57	287.33	237.34	694.66
1998	21.17	99.56	26.22	197.34	-4.13	58.10	-33.01	5.67
1999	72.34	300.21	48.26	136.21	-25.25	10.90	52.82	135.56
2000	89.72	284.46	14.77	57.22	49.35	192.05	88.53	397.05
2001	94.04	330.83	14.16	56.05	29.17	140.00	91.14	378.99
2002	91.52	309.40	4.57	46.20	19.42	123.91	86.20	375.84
2003	93.58	353.72	9.42	55.55	17.59	140.94	86.37	415.05
2004	95.92	369.41	0.83	34.09	15.48	139.54	91.45	434.56
Prob. of a Cash Flow Deficit (%)								
2000	49	52	97	56	99	24	51	25
2001	57	47	96	60	96	50	51	31
2002	55	52	99	51	97	68	55	32
2003	69	51	99	52	99	61	63	37
2004	67	53	99	72	99	72	69	35
Ending Cash Reserves (\$1000)								
1996	46.22	368.18	-114.35	-54.94	22.79	181.09	84.96	387.91
1997	64.72	559.21	-0.06	60.62	41.53	342.07	183.51	650.75
1998	30.08	397.58	-26.83	168.57	-17.29	293.86	67.13	422.51
1999	36.55	462.77	-36.60	239.68	-78.16	222.19	30.35	309.54
2000	35.32	471.24	-83.87	240.49	-72.91	304.22	28.72	410.57
2001	33.54	522.74	-137.56	235.34	-92.96	297.85	43.91	467.43
2002	30.99	527.26	-192.75	230.82	-130.96	249.23	47.71	543.15
2003	13.47	548.64	-230.53	231.95	-189.83	223.15	38.66	624.62
2004	-5.43	576.87	-309.99	202.85	-256.50	175.83	29.04	716.26
Prob. of Refinancing Deficits (%)								
2000	26	1	97	1	99	1	32	1
2001	32	2	96	1	96	4	28	2
2002	38	8	99	1	96	15	33	6
2003	46	9	99	3	98	22	38	7
2004	51	12	99	9	99	29	42	5
Nominal Net Worth (\$1000)								
1996	372.60	2,001.97	222.56	630.29	548.41	1,308.87	803.85	2,683.57
1997	385.16	2,247.01	337.65	788.72	596.66	1,506.93	935.38	3,056.59
1998	353.27	2,187.55	312.52	924.52	563.93	1,510.69	862.36	2,987.95
1999	358.27	2,279.25	308.23	956.79	504.09	1,437.52	855.78	2,984.75
2000	360.50	2,308.46	265.50	950.16	504.48	1,511.15	855.73	3,107.84
2001	367.89	2,391.46	219.35	946.16	481.73	1,523.27	878.32	3,213.15
2002	360.91	2,424.35	162.60	925.68	436.82	1,491.67	857.05	3,297.58
2003	356.36	2,477.99	126.76	915.44	387.62	1,508.80	826.18	3,363.93
2004	358.19	2,565.89	56.66	888.58	337.85	1,511.09	811.78	3,465.93
Prob. of Losing Real Net Worth (%)								
2000	46	49	87	60	46	25	51	24
2001	38	33	92	61	60	28	42	22
2002	44	30	96	65	76	38	53	21
2003	48	33	95	72	85	39	60	19
2004	51	36	97	71	92	40	61	17

Figure 3. Feed Grain and Oilseed Farms

Minimum Annual Percentage Change in Receipts, 2000-2004, Needed to Achieve or Maintain a Good Overall Financial Position



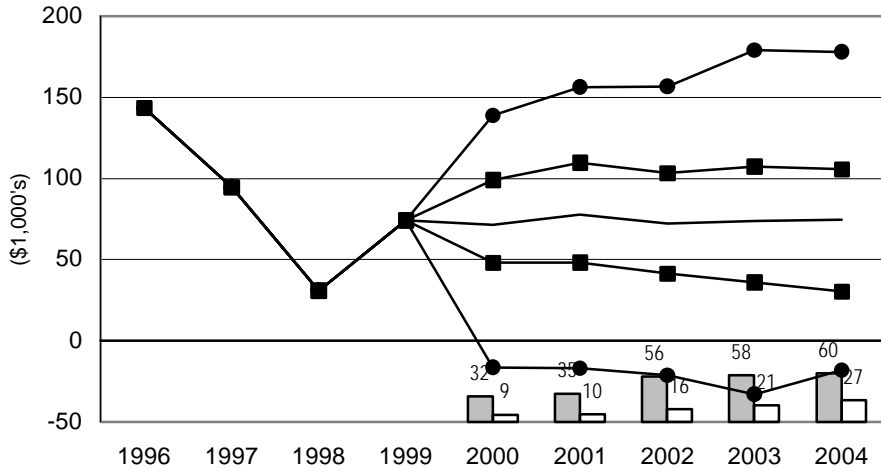
Economic and Financial Position Over the Period, 2000-2004, for all Feed Grain and Oilseed Farms



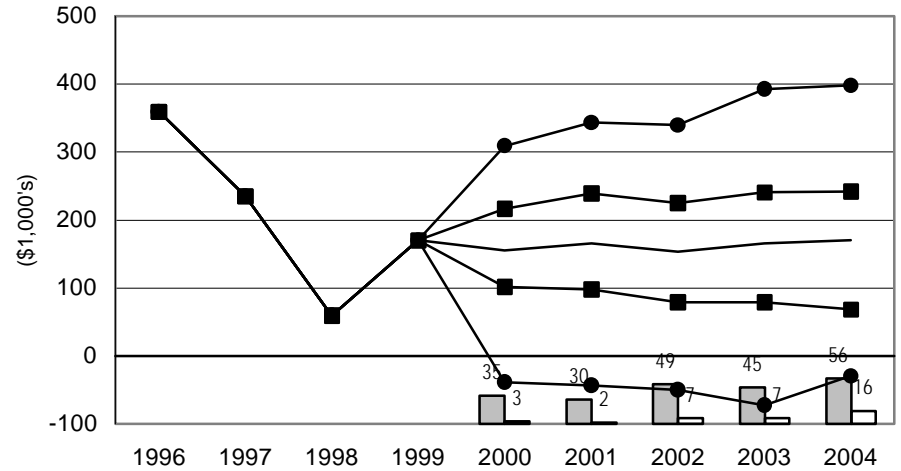
**Figure 4. Net Cash Farm Income and Probabilities of a Cash Flow Deficit and Refinancing:
Feed Grain and Oilseed Farms**

— Mean NCFI ■ 25 & 75 Percentile NCFI ● 5 & 95 Percentile NCFI ■ Prob. of Cash Flow Deficit □ Prob. of Refinancing

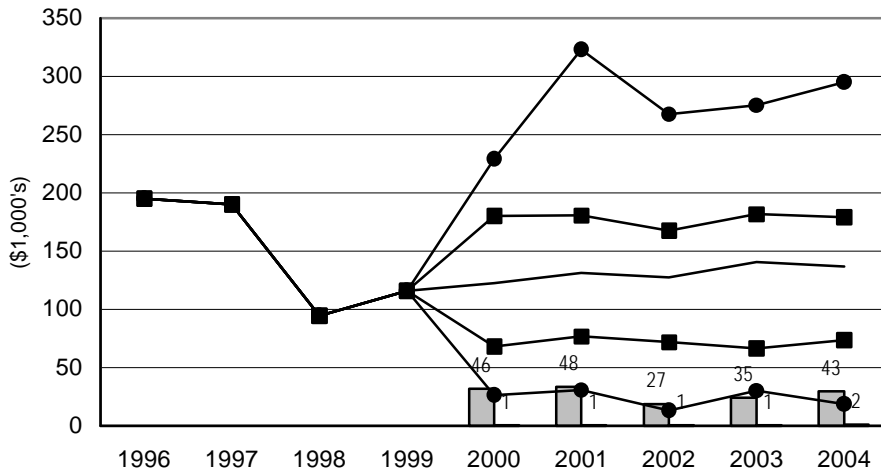
IAG950 Iowa Grain Farm



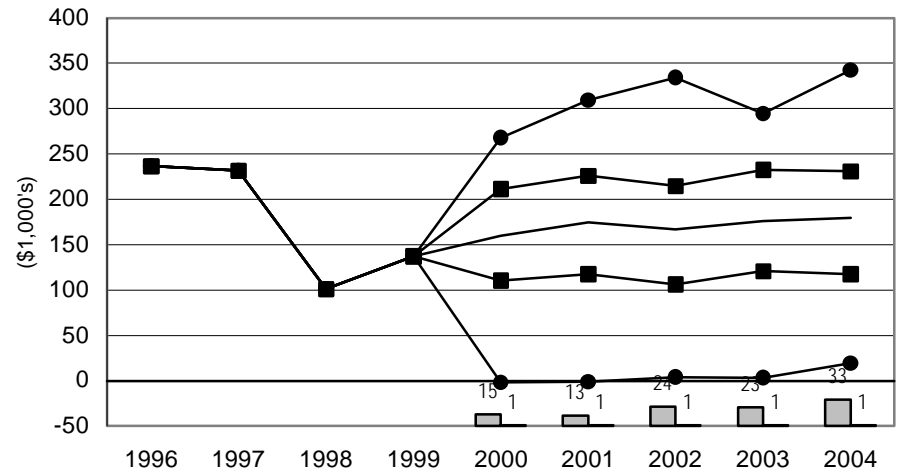
IAG2400 Large Iowa Grain Farm



NEG900 Nebraska Grain Farm



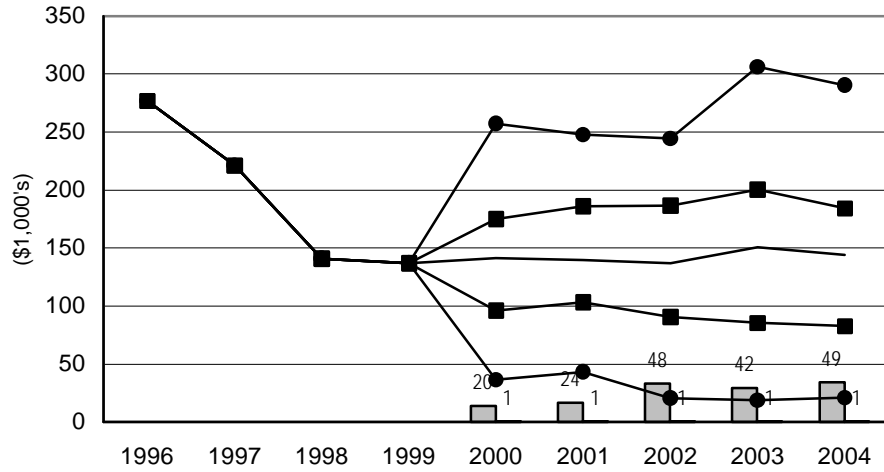
NEG1300 Large Nebraska Grain Farm



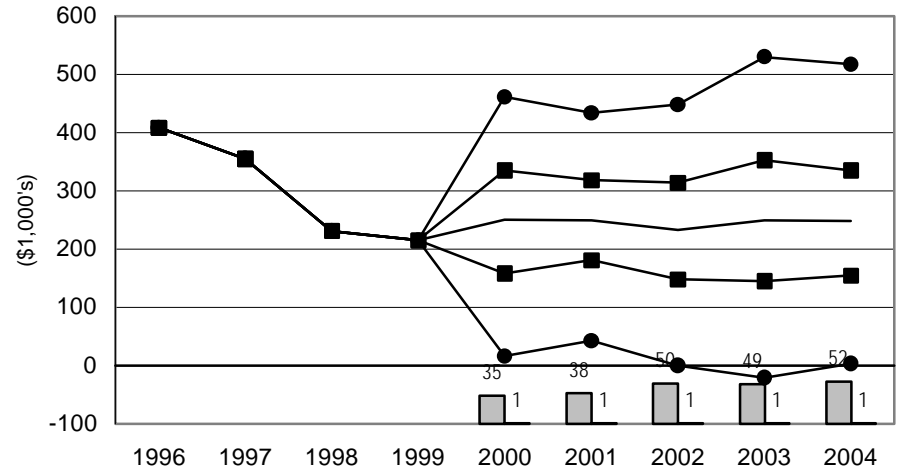
**Figure 5. Net Cash Farm Income and Probabilities of a Cash Flow Deficit and Refinancing:
Feed Grain and Oilseed Farms**

— Mean NCFI ■ 25 & 75 Percentile NCFI ● 5 & 95 Percentile NCFI ▒ Prob. of Cash Flow Deficit □ Prob. of Refinancing

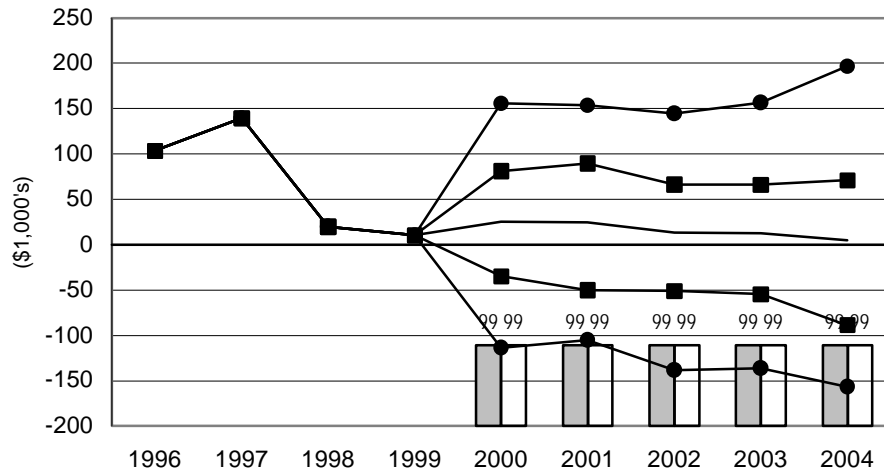
MOCG1700 Central Missouri Grain Farm



MOCG3300 Large Central Missouri Grain Farm



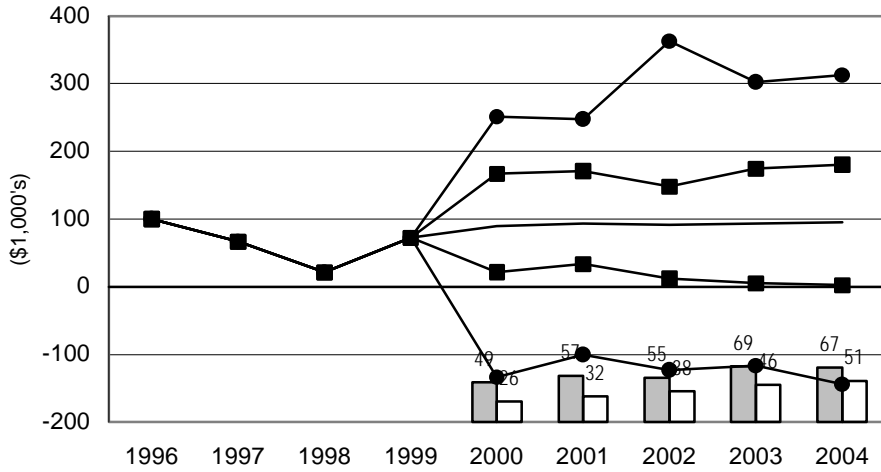
MONG1400 Northwest Missouri Grain Farm



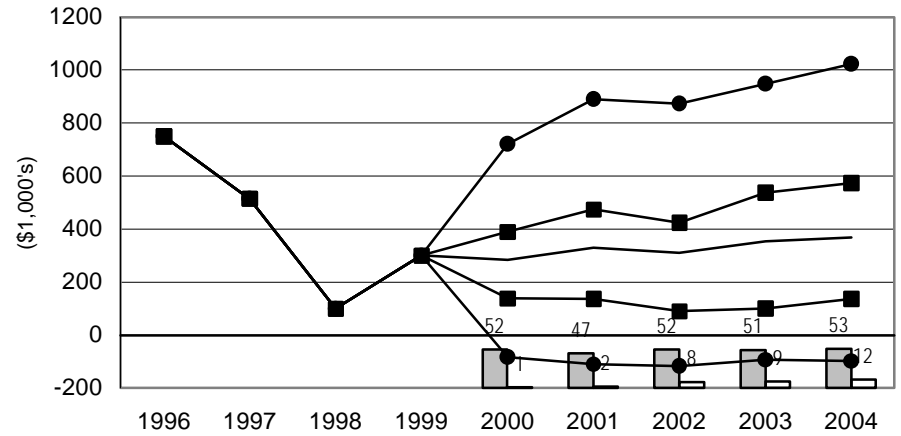
**Figure 6. Net Cash Farm Income and Probabilities of a Cash Flow Deficit and Refinancing:
Feed Grain and Oilseed Farms**

— Mean NCFI ■ 25 & 75 Percentile NCFI ● 5 & 95 Percentile NCFI ▒ Prob. of Cash Flow Deficit □ Prob. of Refinancing

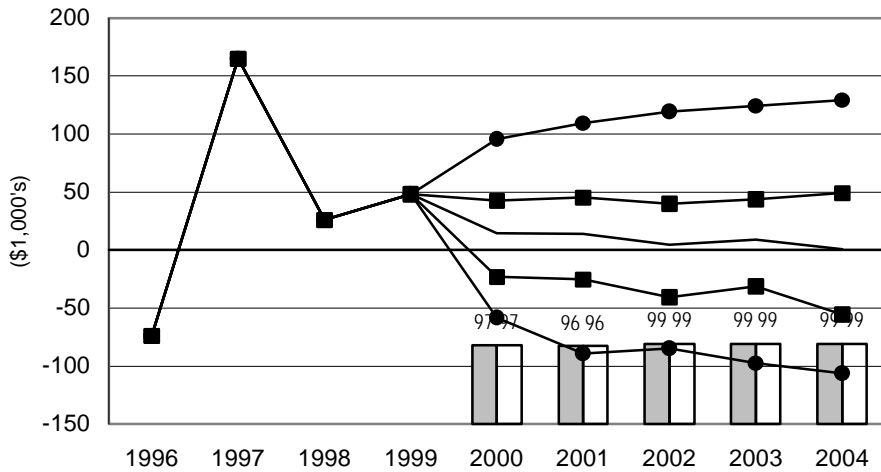
TXNP1600 Texas Northern Plains Grain Farm



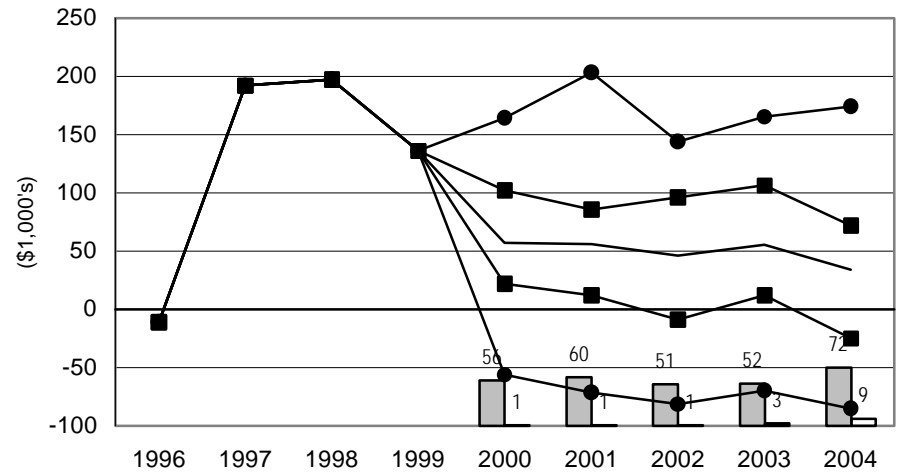
TXNP6700 Large Texas Northern Plains Grain Farm



TXBG2000 Texas Blacklands Grain Farm



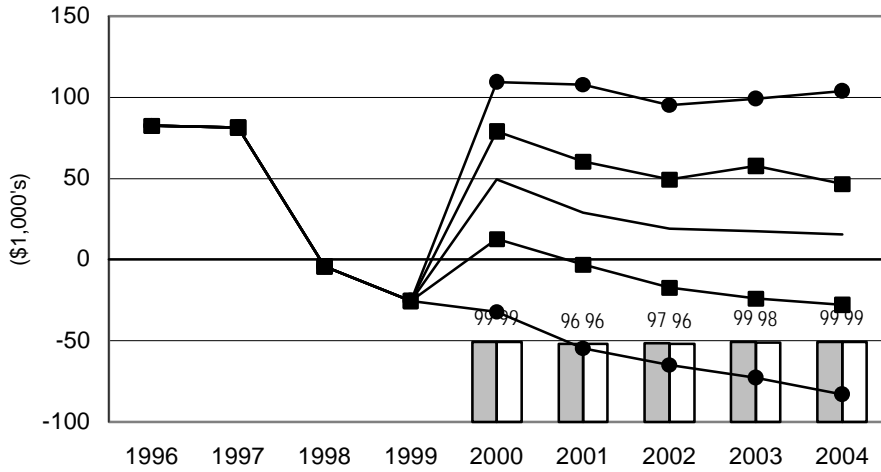
TXBG2500 Texas Blacklands Grain Farm



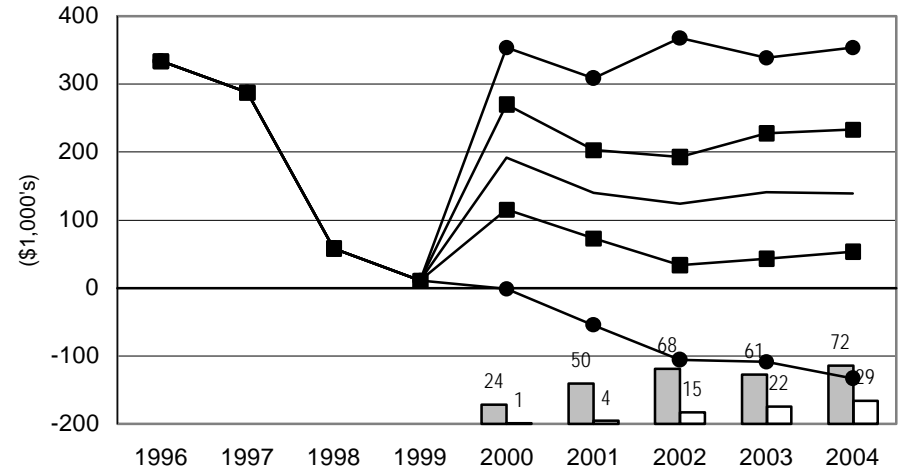
**Figure 7. Net Cash Farm Income and Probabilities of a Cash Flow Deficit and Refinancing:
Feed Grain and Oilseed Farms**

— Mean NCFI ■ 25 & 75 Percentile NCFI ● 5 & 95 Percentile NCFI ▒ Prob. of Cash Flow Deficit □ Prob. of Refinancing

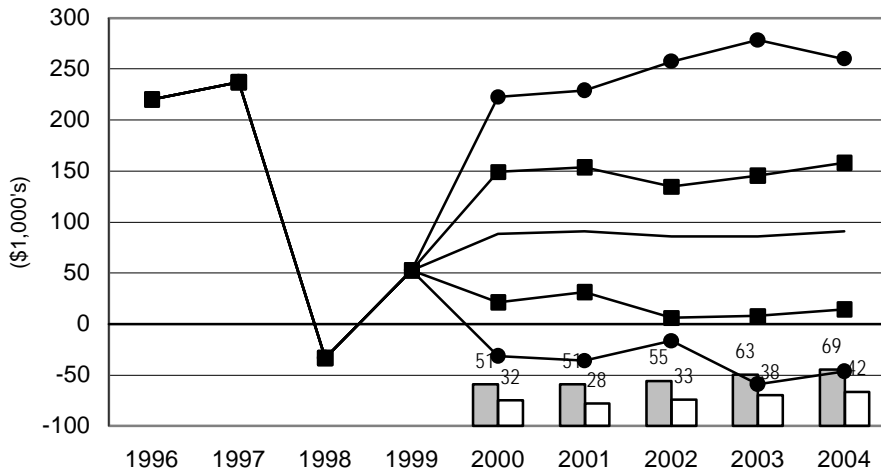
TNG900 Tennessee Grain Farm



TNG2400 Large Tennessee Grain Farm



SCG1500 South Carolina Grain Farm



SCG3500 Large South Carolina Grain Farm

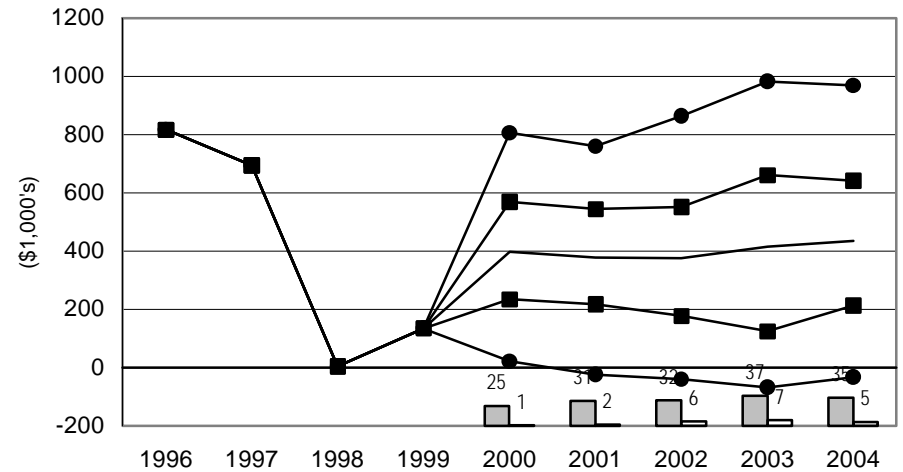
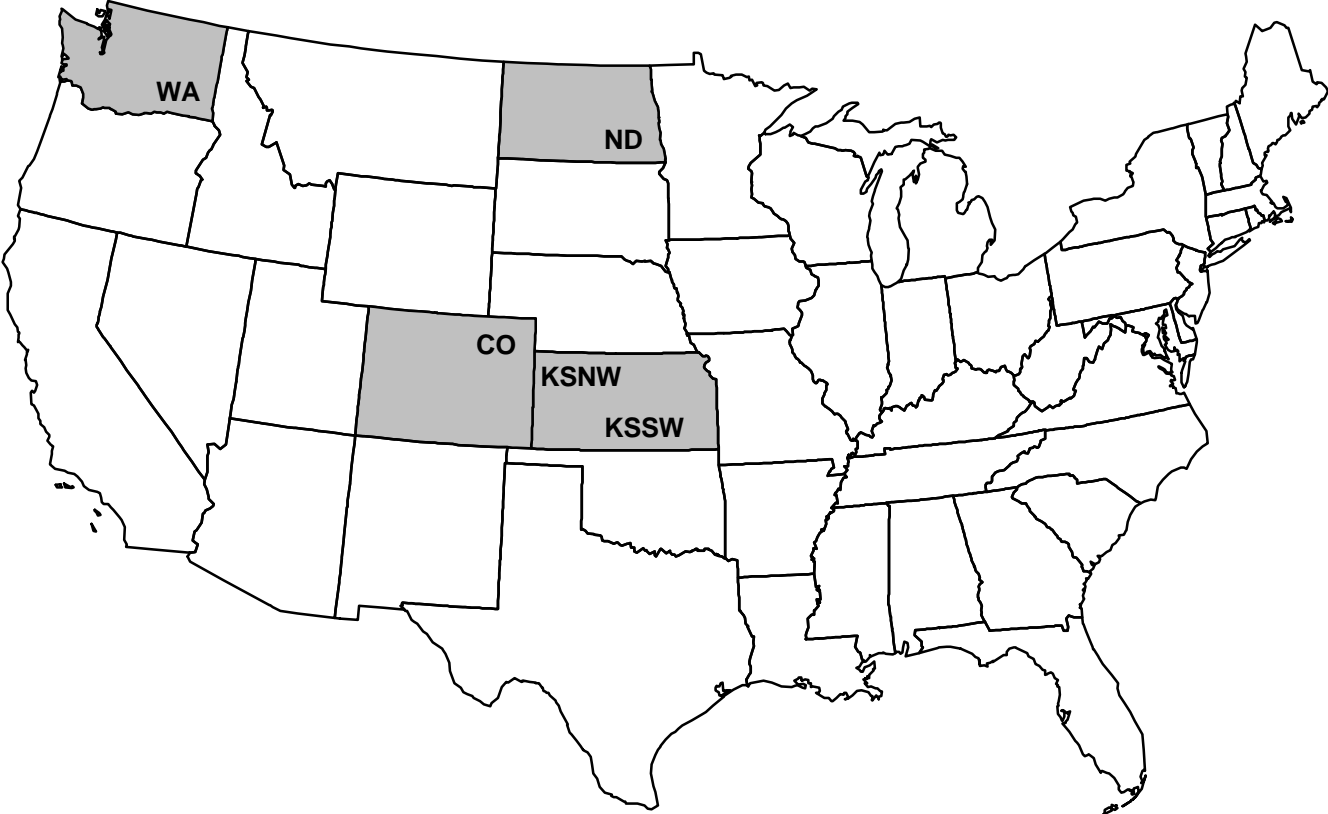


FIGURE 8. REPRESENTATIVE FARMS PRODUCING WHEAT



Wheat Farm Impacts

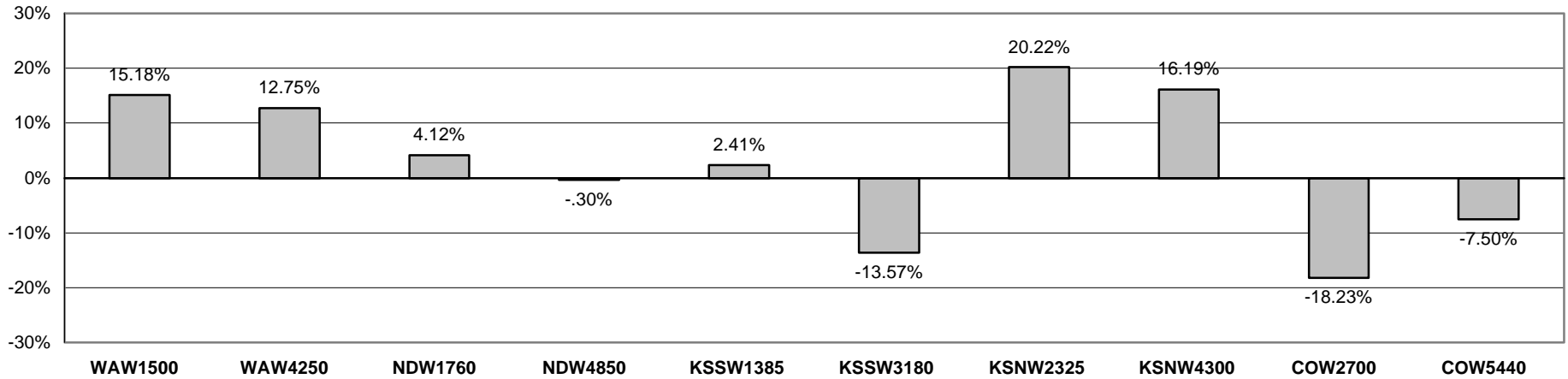
- # With season average wheat prices projected to range between \$2.81/bushel in 2000 and \$3.25/bushel in 2004, one half of the ten wheat farms are projected to experience a cash flow deficit in excess of 50 percent by 2004. The two North Dakota farms experience modest improvement in their ability to cash flow but still are projected to have a deficit 46 to 49 percent of the time in 2004. The two Colorado farms see the probability of a cash flow deficit drop as wheat prices increase. The large South Kansas farm (KSSW3180) experiences an increase in its probability of a cash flow deficit but still remains below 25 percent by 2004.
- # A majority of the wheat farms (6 of 10) are able to address the cash flow deficits by using current assets. However, the Washington and Northwest Kansas farms, are projected to have to receive external refinancing over 50 percent of the time by 2004.
- # Only three of the ten wheat farms (KSSW3180, COW2700, and COW5440) appear capable of increasing real firm wealth over the 2000-2004 period. The North Dakota operations are projected to lose real equity from 36 to 49 percent of time by 2004. The Washington, moderate South Kansas and the Northwest Kansas farms are projected to lose real equity in over 50 percent of the simulations.
- # In summary, both Colorado farms, the large North Dakota and the large Southern Kansas farms are in good financial shape and appear to be able to cope through 2004 without additional assistance. The moderate scale North Dakota operation is marginal while the Washington, moderate South Kansas, and Northwest Kansas farms will likely have to receive additional financial help.
- # The annual net income adjustment (NIA) necessary to shift the farms in a marginal or poor financial position to a good position is summarized in Table 6 and Figure 9. The two Washington wheat farms need a 12 to 15 percent increase in receipts each year, 2000-2004, while the moderate size North Dakota farm needs a 4 percent increase in receipts. In contrast, the farms in a good position could suffer losses in receipts of 0.3 to 18 percent and maintain their position.

Table 6. Implications of the 1996 Farm Bill and the January 2000 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Wheat.

	WAW1500	WAW4250	NDW1760	NDW4850	KSSW1385	KSSW3180	KSNW2325	KSNW4300	COW2700	COW5440
Overall Financial Position										
2000-2004 Ranking	POOR	POOR	MARGINAL	GOOD	POOR	GOOD	POOR	POOR	GOOD	GOOD
NIA to Maintain or Achieve a Good Fin. Position (\$1,000)	53.85	114.14	9.95	-2.18	3.49	-52.67	46.72	79.40	-41.76	-34.70
NIA to Maintain or Achieve a Good Fin. Position (% Rec.)	15.18	12.75	4.12	-0.30	2.41	-13.57	20.22	16.19	-18.23	-7.50
Annual Change Real Net Worth (%)										
2000-2004 Average	-2.42	-0.84	0.22	0.44	-0.10	4.98	-2.88	-2.94	5.57	2.25
Cost to Receipts Ratio (%)										
2000-2004 Average	85.24	82.38	76.03	76.24	60.15	55.98	87.04	89.12	55.58	60.74
Govt Payments/Receipts (%)										
2000-2004 Average	10.18	10.14	12.43	9.12	19.24	14.65	13.41	12.84	10.84	9.94
Total Cash Receipts (\$1000)										
1996	479.03	1,444.02	268.05	972.42	126.90	331.68	253.35	514.14	237.23	331.90
1997	450.13	1,026.69	216.89	932.36	233.82	567.05	281.00	590.59	175.24	306.64
1998	315.44	791.65	234.93	753.81	149.34	382.30	285.30	453.62	192.30	382.59
1999	256.38	685.59	238.37	678.83	154.27	331.09	247.45	515.80	268.63	508.33
2000	344.49	868.87	231.52	677.35	141.34	377.24	224.70	474.47	221.03	446.62
2001	352.65	888.35	238.96	704.01	143.81	385.02	227.08	483.51	225.15	454.34
2002	352.04	890.91	240.36	734.69	142.74	382.61	229.74	489.30	228.85	459.97
2003	361.48	909.82	247.86	754.79	147.84	397.44	234.27	498.45	234.44	475.57
2004	363.21	918.20	249.68	773.67	148.61	398.55	239.33	506.63	236.12	477.12
Net Cash Farm Income (\$1000)										
1996	204.02	776.28	107.10	444.51	42.93	111.68	78.91	147.43	131.43	126.93
1997	167.06	355.81	56.82	410.21	142.38	345.80	104.27	205.62	67.92	85.49
1998	38.79	101.84	67.39	234.19	62.52	179.22	113.07	84.12	78.46	137.27
1999	-16.93	3.95	71.02	171.45	71.58	130.19	67.12	115.77	146.44	237.93
2000	57.32	170.36	61.89	164.94	58.15	175.96	44.16	71.08	96.45	173.73
2001	63.80	195.07	68.29	191.39	59.39	178.89	46.09	72.77	101.52	180.34
2002	61.42	193.72	69.38	215.70	58.36	174.03	46.03	72.06	106.18	185.32
2003	68.47	190.08	66.86	217.30	64.18	185.61	41.07	70.57	112.16	203.22
2004	65.75	181.10	65.52	227.71	65.30	182.84	40.65	70.03	113.69	207.00
Prob. of a Cash Flow Deficit (%)										
2000	88	69	51	59	65	1	73	75	55	25
2001	91	69	47	44	70	13	74	60	5	29
2002	92	71	36	49	66	7	87	71	14	33
2003	90	80	63	51	70	23	96	75	17	35
2004	96	82	46	49	54	20	89	83	9	22
Ending Cash Reserves (\$1000)										
1996	89.43	356.93	43.44	224.14	0.57	44.03	16.24	54.51	42.92	41.72
1997	153.13	437.77	51.12	406.61	58.46	220.61	41.31	139.54	50.40	32.98
1998	120.75	364.93	64.73	439.66	64.33	292.44	67.67	137.42	61.29	50.16
1999	12.17	181.45	77.32	407.21	73.94	321.69	47.06	149.41	113.95	119.74
2000	-51.65	142.46	77.36	386.80	69.30	404.62	20.50	107.93	117.58	156.23
2001	-92.63	94.89	78.22	394.46	63.32	466.33	-8.30	90.40	154.06	185.14
2002	-134.01	32.59	90.61	406.72	59.69	541.53	-48.27	52.06	189.72	219.74
2003	-158.73	-54.00	80.73	424.45	52.63	617.29	-108.89	-3.60	228.21	259.15
2004	-186.16	-126.60	85.14	435.96	56.04	683.55	-142.69	-57.85	271.21	309.98
Prob. of Refinancing Deficits (%)										
2000	84	18	2	1	1	1	34	6	1	1
2001	86	32	10	3	3	1	55	16	1	1
2002	90	40	9	6	4	1	71	32	1	1
2003	88	58	16	8	11	1	86	46	1	1
2004	91	62	18	11	13	1	83	63	1	1
Nominal Net Worth (\$1000)										
1996	1,147.92	3,188.90	341.71	1,618.26	440.46	864.44	819.04	1,170.65	502.49	1,597.61
1997	1,238.77	3,428.83	344.93	1,834.39	518.69	1,064.41	888.79	1,297.64	531.23	1,644.99
1998	1,249.45	3,506.66	358.55	1,931.05	542.70	1,149.16	910.48	1,340.94	570.21	1,744.16
1999	1,179.52	3,405.94	370.77	1,959.55	562.36	1,191.12	915.39	1,392.22	647.17	1,863.36
2000	1,150.16	3,390.26	368.67	1,939.11	564.41	1,253.86	890.75	1,360.60	675.99	1,893.35
2001	1,119.84	3,383.68	372.44	1,968.15	565.02	1,309.03	869.11	1,332.96	722.24	1,932.68
2002	1,073.55	3,320.55	373.67	1,982.42	557.22	1,372.27	833.31	1,284.85	749.34	1,966.53
2003	1,049.56	3,284.11	375.31	1,992.00	550.66	1,431.44	799.76	1,236.41	784.13	2,009.26
2004	1,041.19	3,275.82	376.45	2,011.07	561.93	1,494.02	786.65	1,192.63	830.82	2,081.87
Prob. of Losing Real Net Worth (%)										
2000	74	59	56	60	54	9	74	70	11	31
2001	76	52	48	46	52	4	79	78	1	19
2002	83	59	47	38	57	1	80	83	1	17
2003	86	67	46	38	68	2	86	86	1	10
2004	82	64	49	36	56	1	82	90	1	5

Figure 9. Wheat Farms

Minimum Annual Percentage Change in Receipts, 2000-2004, Needed to Achieve or Maintain a Good Overall Financial Position



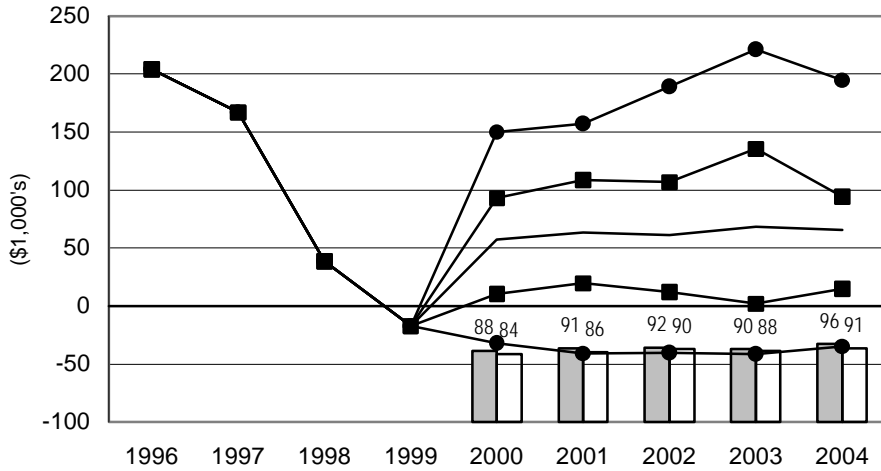
Economic and Financial Position Over the Period, 2000-2004, for all Wheat Farms



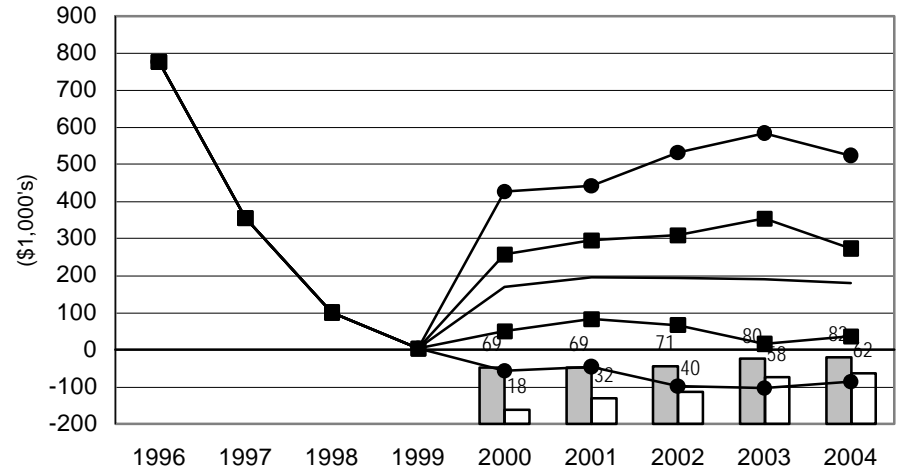
Figure 10. Net Cash Farm Income and Probabilities of a Cash Flow Deficit and Refinancing: Wheat Farms

— Mean NCFI ■ 25 & 75 Percentile NCFI ● 5 & 95 Percentile NCFI ▒ Prob. of Cash Flow Deficit □ Prob. of Refinancing

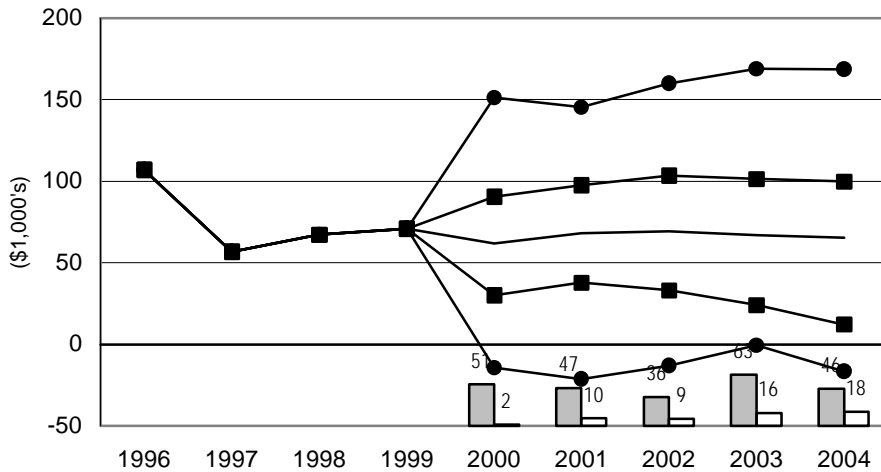
WAW1500 Washington Wheat Farm



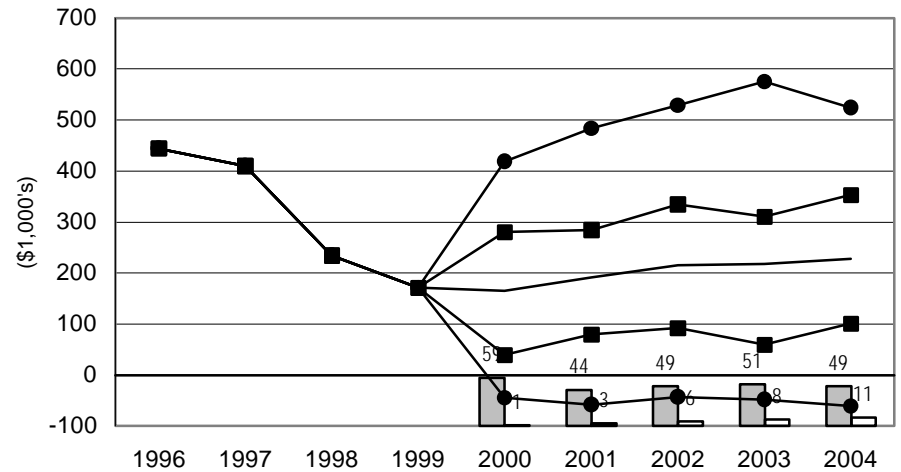
WAW4250 Large Washington Wheat Farm



NDW1760 North Dakota Wheat Farm



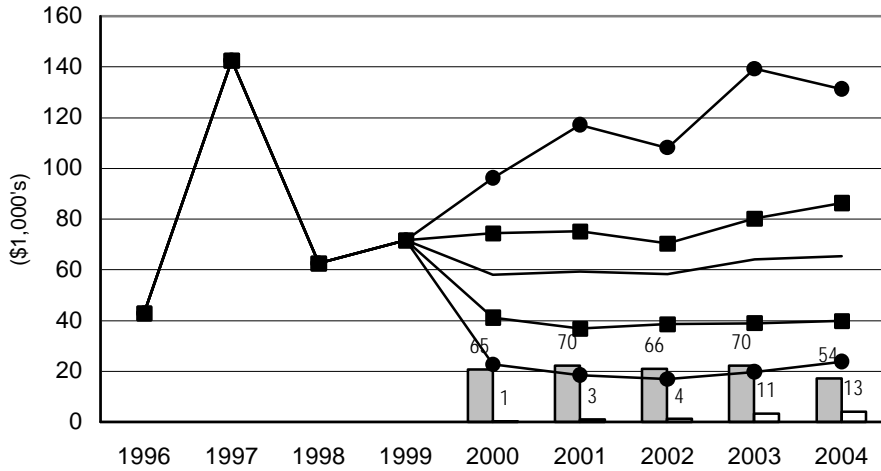
NDW4850 Large North Dakota Wheat Farm



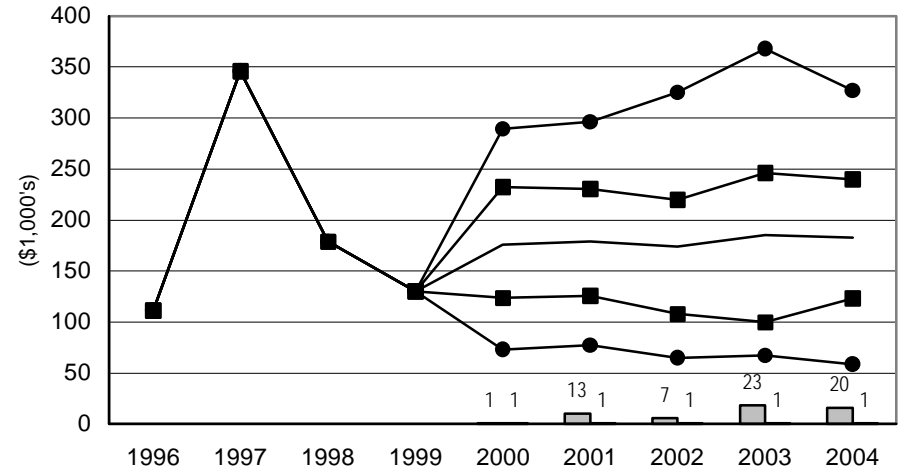
**Figure 11. Net Cash Farm Income and Probabilities of a Cash Flow Deficit and Refinancing:
Wheat Farms**

— Mean NCFI ■ 25 & 75 Percentile NCFI ● 5 & 95 Percentile NCFI ▒ Prob. of Cash Flow Deficit □ Prob. of Refinancing

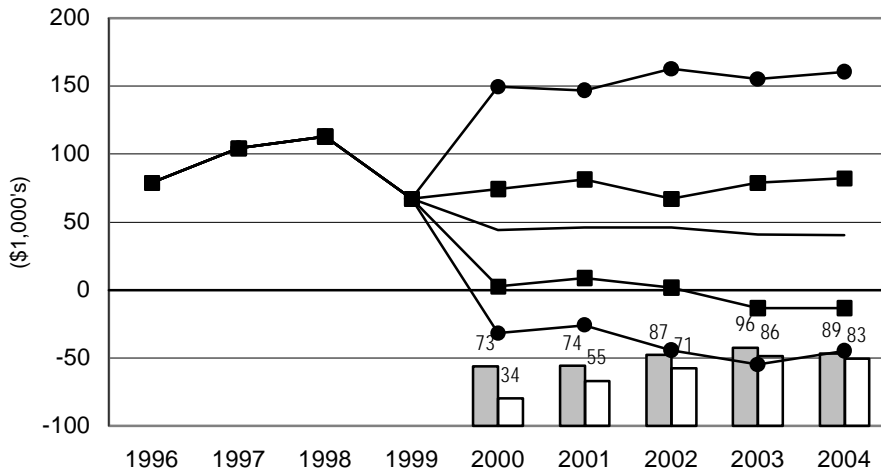
KSSW1385 Central Kansas Wheat Farm



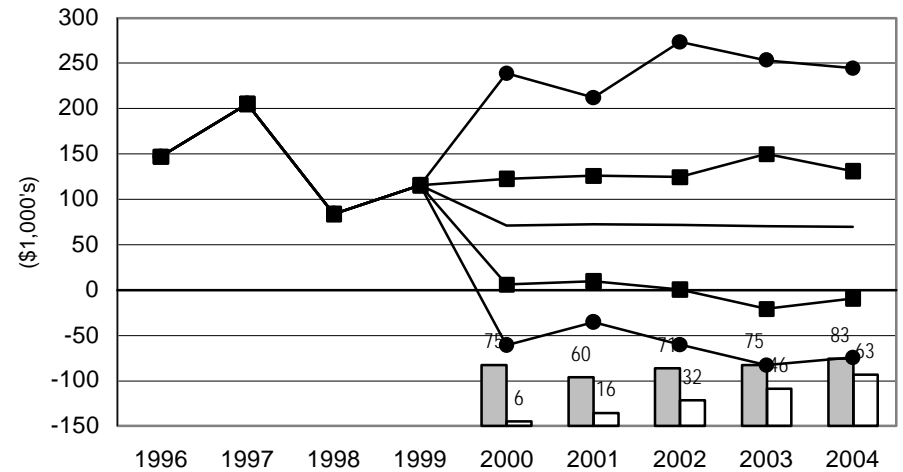
KSSW3180 Large Central Kansas Wheat Farm



KSNW2325 Northwest Kansas Wheat Farm



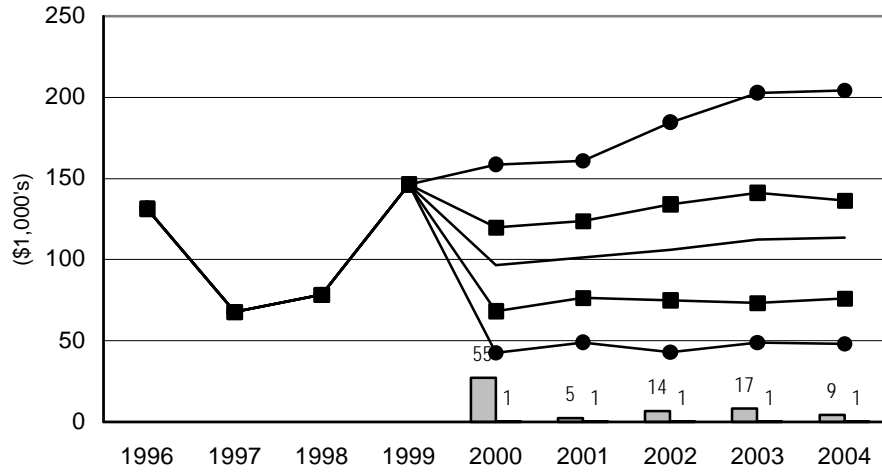
KNSW4300 Large Northwest Kansas Wheat Farm



**Figure 12. Net Cash Farm Income and Probabilities of a Cash Flow Deficit and Refinancing:
Wheat Farms**

— Mean NCFI ■ 25 & 75 Percentile NCFI ● 5 & 95 Percentile NCFI ▒ Prob. of Cash Flow Deficit □ Prob. of Refinancing

COW2700 Colorado Wheat Farm



COW5440 Large Colorado Wheat Farm

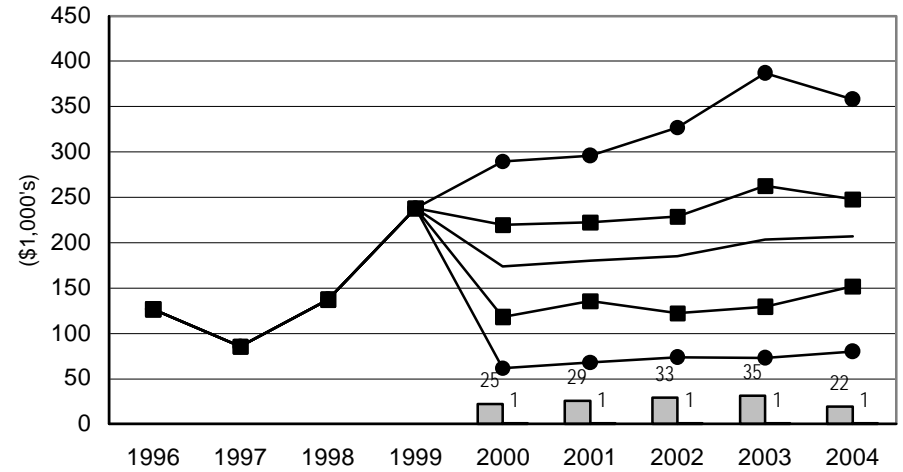


FIGURE 13. REPRESENTATIVE FARMS PRODUCING COTTON



Cotton Farm Impacts

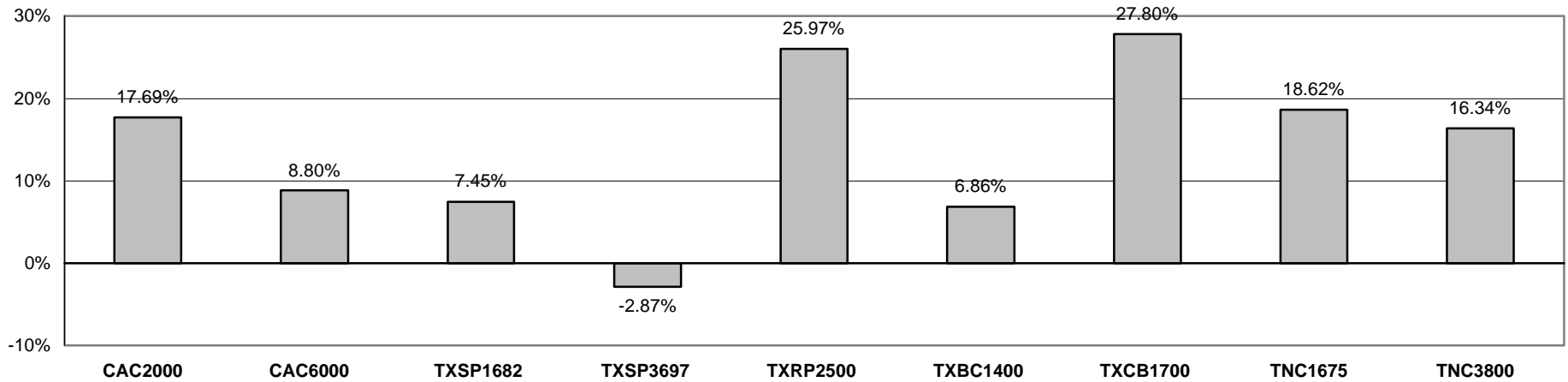
- # As a result of relatively low projected cotton prices ranging from 47¢/lb. in 2000 to 54¢/lb. by 2004, all nine cotton farms experience cash flow problems. With the exception of the large Texas Southern Plains farm the probability of experiencing a cash flow deficit in 2004 ranges from 65 percent for the large California operation (CAC6000) to 99 percent for the Texas Coastal Bend (TXCB1700). Even the large Texas Southern Plains farm (TXSP3697) experiences a cash flow deficit in 39 percent of the simulations.
- # Six of the nine cotton farms will likely have trouble refinancing the cash flow deficits from current assets. The probability that these farms will have to seek external refinancing by 2004 ranges from 71 percent for the large Tennessee farm (TNC3800) to 99 percent or more for the Texas Coastal Bend farm (TXCB1700). The large Texas Southern Plain (TXSP3697) and the Texas Blacklands (TXBC1400) appear capable of covering cash flow deficits from current assets. With a 42 percent probability of refinancing in 2004, the large California farm (CAC6000) is vulnerable.
- # Eight of the nine farms experience significant probabilities of losing real net worth over the study period. The probability of declining farm wealth by 2004 exceeds 55 percent for 6 of the farms, while approaching 40 percent for the TXSP1682 and TXBC1400. Only the TXSP3697 operation appears capable of maintaining firm wealth over 89 percent of the simulations.
- # Overall, seven of the nine cotton farms are in poor financial shape and will likely require additional assistance to remain economically viable over the 2000-2004 study period. The Texas Blacklands farm is marginal, while the large Texas Southern Plains farm appears capable of coping during the period.
- # The annual net income adjustments (NIA) in Table 7 and Figure 14, indicate that cash receipts in 2000-2004 need to be increased 7-28 percent annually to move the farms in a poor financial position to a good financial position. The one farm that is in a good financial position (TXSP3697) would move to a marginal position if its cash receipts fell by more than 2.9 percent each year.

Table 7. Implications of the 1996 Farm Bill and the January 2000 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Cotton.

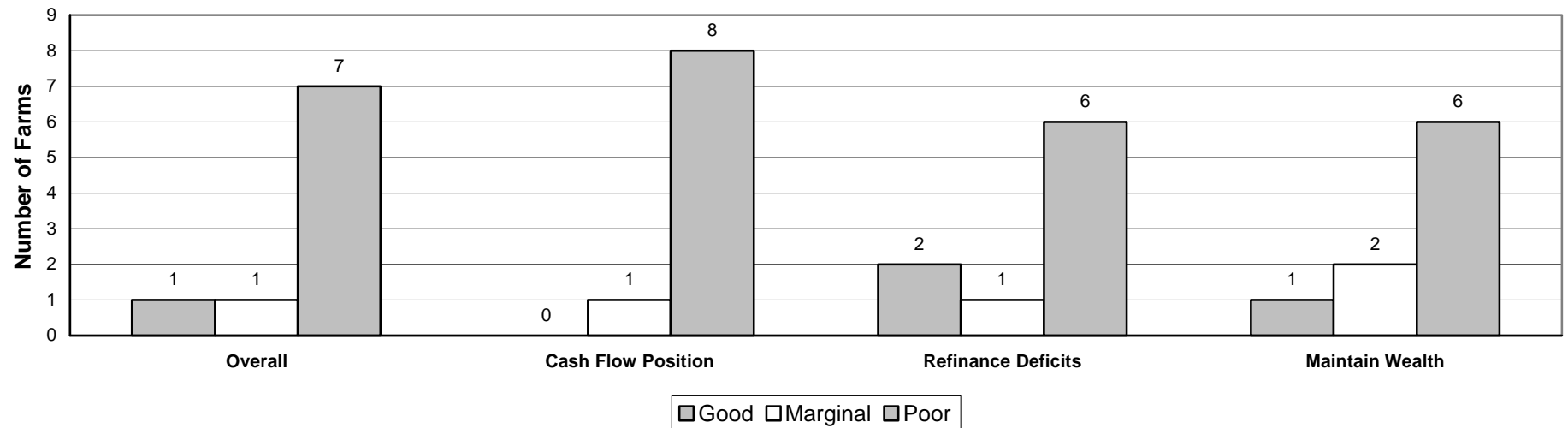
	CAC2000	CAC6000	TXSP1682	TXSP3697	TXRP2500	TXBC1400	TXCB1700	TNC1675	TNC3800
Overall Financial Position									
2000-2004 Ranking	POOR	POOR	POOR	GOOD	POOR	MARGINAL	POOR	POOR	POOR
NIA to Maintain or Achieve a Good Fin. Position (\$1,000)	244.67	672.09	37.78	-28.55	58.94	16.34	99.29	101.72	217.68
NIA to Maintain or Achieve a Good Fin. Position (% Rec.)	17.69	8.80	7.45	-2.87	25.97	6.86	27.80	18.62	16.34
Annual Change Real Net Worth (%)									
2000-2004 Average	-4.02	-2.22	0.91	4.76	-13.56	0.59	-22.69	-9.04	-2.91
Cost to Receipts Ratio (%)									
2000-2004 Average	100.16	101.06	82.06	76.86	102.30	73.75	111.46	97.28	101.03
Govt Payments/Receipts (%)									
2000-2004 Average	9.67	4.56	8.85	11.96	17.89	13.21	16.92	14.70	13.79
Total Cash Receipts (\$1000)									
1996	1,560.08	8,160.15	198.65	733.22	179.37	146.08	225.36	534.25	1,429.58
1997	1,517.12	7,637.64	298.88	995.70	231.96	287.92	424.91	589.20	1,436.25
1998	1,541.37	7,764.75	186.27	687.31	153.60	198.40	268.00	522.07	1,290.11
1999	1,562.99	8,019.24	528.39	1,066.90	232.46	297.26	581.29	377.34	1,110.16
2000	1,362.41	7,405.29	490.47	960.25	214.87	231.20	347.56	542.24	1,273.08
2001	1,373.19	7,592.54	500.15	979.65	223.07	235.00	350.16	527.96	1,296.78
2002	1,374.62	7,635.49	506.18	988.25	223.73	235.09	351.96	534.90	1,313.41
2003	1,392.00	7,734.11	514.32	1,013.15	232.48	242.00	362.38	553.05	1,357.97
2004	1,413.05	7,830.40	525.14	1,038.44	240.48	248.32	373.60	573.69	1,418.85
Net Cash Farm Income (\$1000)									
1996	244.52	943.71	11.10	82.33	12.51	-19.61	-56.58	45.98	253.48
1997	229.30	608.51	73.57	292.01	49.81	117.51	77.75	112.08	285.63
1998	260.40	755.63	-10.11	46.24	-11.27	32.49	-26.01	42.59	143.46
1999	280.94	760.69	156.11	385.90	54.17	119.05	156.05	-91.90	-17.08
2000	42.62	55.47	93.38	234.96	16.25	63.44	-4.20	41.91	97.66
2001	34.52	251.33	96.14	248.53	26.88	65.68	-12.63	14.90	92.48
2002	15.58	250.56	99.53	254.42	24.15	66.49	-22.51	6.34	84.71
2003	6.82	232.58	104.73	266.44	20.73	72.44	-26.83	38.18	179.03
2004	0.47	201.66	102.99	274.40	16.34	65.74	-36.07	46.88	201.87
Prob. of a Cash Flow Deficit (%)									
2000	82	65	95	35	88	44	99	99	61
2001	89	65	82	40	88	50	99	99	79
2002	84	56	78	32	85	28	99	98	78
2003	92	67	78	37	90	29	99	99	78
2004	94	65	84	39	95	67	99	98	80
Ending Cash Reserves (\$1000)									
1996	104.33	394.64	-60.88	-19.14	-25.86	-57.45	-97.78	-7.75	119.54
1997	181.28	587.94	-63.64	118.53	-14.40	9.70	-62.72	28.56	240.74
1998	262.66	865.21	-144.88	37.45	-65.78	0.65	-132.87	13.60	230.52
1999	338.50	1,145.26	-68.01	226.55	-52.62	49.11	-40.00	-126.82	29.96
2000	242.45	805.74	-77.41	271.35	-75.57	54.48	-99.92	-156.96	-84.03
2001	75.68	637.78	-73.00	308.42	-91.17	58.85	-175.28	-242.74	-255.32
2002	-74.46	440.87	-69.68	368.80	-108.91	76.27	-251.85	-317.03	-377.45
2003	-252.57	239.14	-70.79	419.40	-142.87	97.26	-339.69	-375.47	-433.38
2004	-433.13	17.72	-83.01	482.29	-204.25	87.50	-444.43	-435.10	-503.77
Prob. of Refinancing Deficits (%)									
2000	6	20	95	2	88	1	99	99	59
2001	31	32	81	2	84	1	99	99	70
2002	58	38	78	2	81	3	99	98	70
2003	77	40	74	5	87	4	98	99	68
2004	86	42	74	4	87	13	99	98	71
Nominal Net Worth (\$1000)									
1996	3,132.00	9,721.52	471.33	1,005.33	261.29	411.28	281.71	690.68	3,222.56
1997	3,350.08	10,485.11	491.04	1,178.06	266.58	489.30	320.80	736.52	3,423.86
1998	3,613.92	11,457.18	432.41	1,150.74	222.07	488.71	258.91	738.62	3,544.16
1999	3,779.80	12,055.54	526.00	1,383.58	246.40	541.61	358.54	603.18	3,409.59
2000	3,666.52	11,690.92	530.21	1,431.24	220.37	546.20	297.30	577.06	3,310.98
2001	3,530.77	11,525.17	538.60	1,493.63	196.26	551.34	225.83	511.47	3,188.06
2002	3,351.30	11,177.32	543.63	1,572.87	168.08	553.31	141.30	426.80	3,036.61
2003	3,172.11	10,902.88	547.91	1,629.56	127.57	561.21	52.32	373.18	2,966.01
2004	3,033.16	10,762.18	552.14	1,720.08	79.69	559.95	-48.43	331.77	2,926.23
Prob. of Losing Real Net Worth (%)									
2000	86	65	44	34	67	46	93	60	61
2001	92	66	46	28	67	42	97	82	69
2002	97	62	46	18	77	42	99	91	70
2003	98	61	45	19	80	38	98	90	68
2004	98	59	45	11	83	39	98	93	71

Figure 14. Cotton Farms

Minimum Annual Percentage Change in Receipts, 2000-2004, Needed to Achieve or Maintain a Good Overall Financial Position



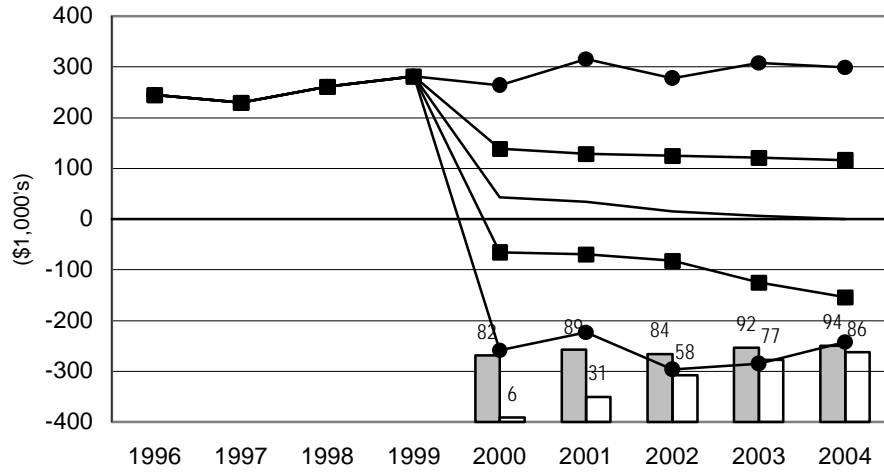
Economic and Financial Position Over the Period, 2000-2004, for all Cotton Farms



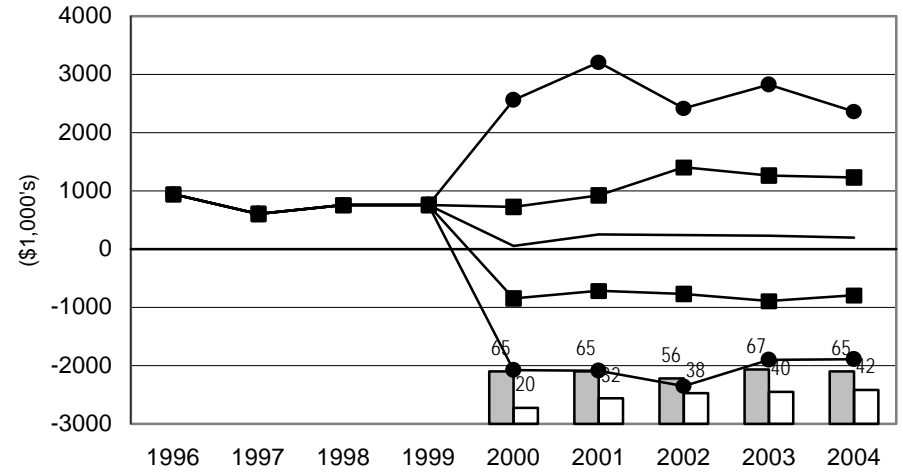
**Figure 15. Net Cash Farm Income and Probabilities of a Cash Flow Deficit and Refinancing:
Cotton Farms**

— Mean NCFI ■ 25 & 75 Percentile NCFI ● 5 & 95 Percentile NCFI ■ Prob. of Cash Flow Deficit □ Prob. of Refinancing

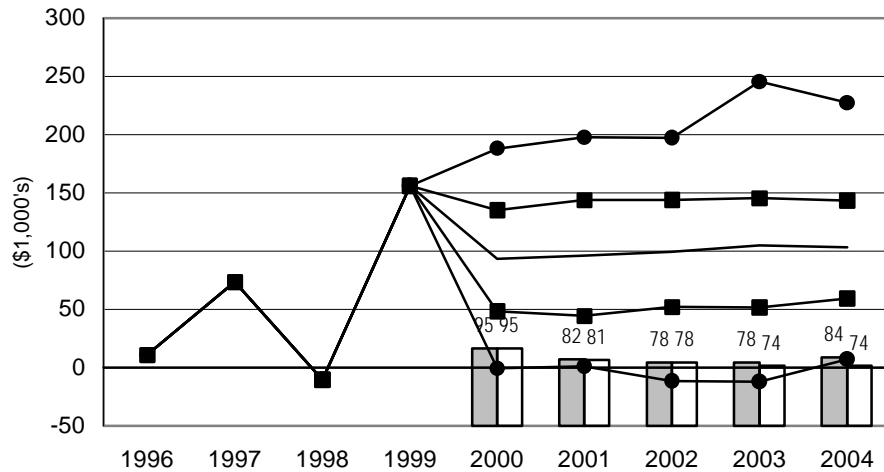
CAC2000 California Cotton Farm



CAC6000 Large California Cotton Farm



TXSP1682 Texas Southern Plains Cotton Farm



TXSP3697 Large Texas Southern Plains Cotton Farm

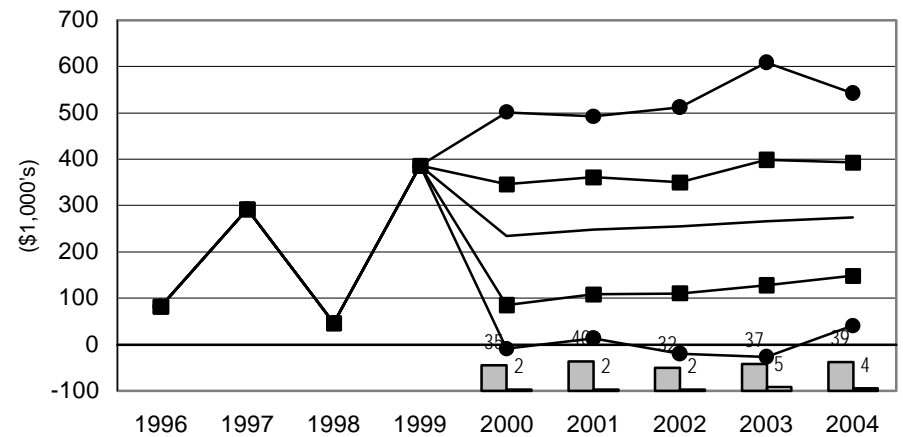
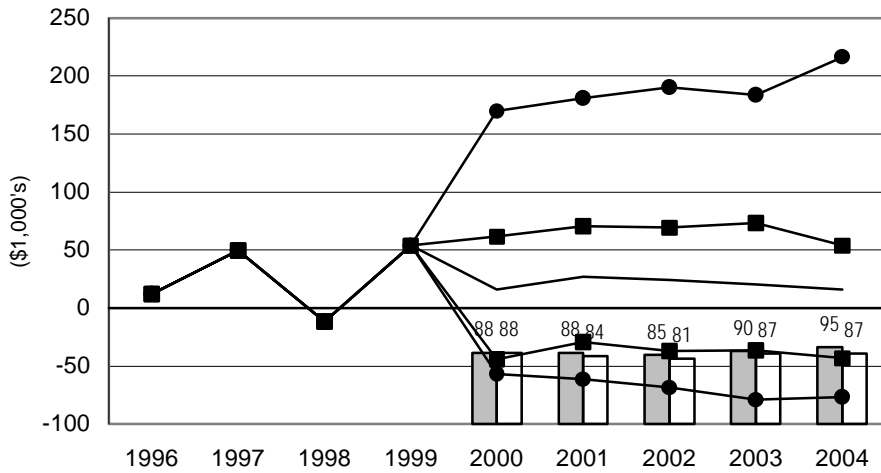


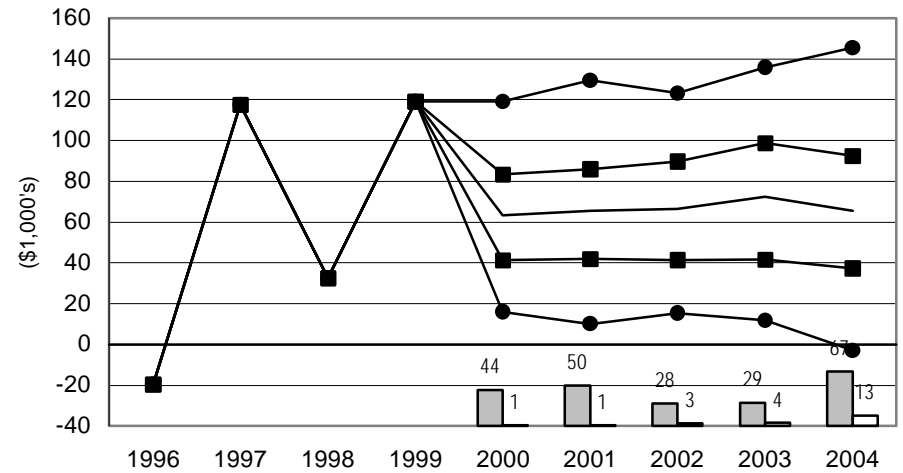
Figure 16. Net Cash Farm Income and Probabilities of a Cash Flow Deficit and Refinancing: Cotton Farms

— Mean NCFI ■ 25 & 75 Percentile NCFI ● 5 & 95 Percentile NCFI ▒ Prob. of Cash Flow Deficit □ Prob. of Refinancing

TXRP2500 Texas Rolling Plains Cotton Farm



TXBC1400 Texas Blacklands Cotton Farm



TXCB1700 Texas Coastal Bend Cotton Farm

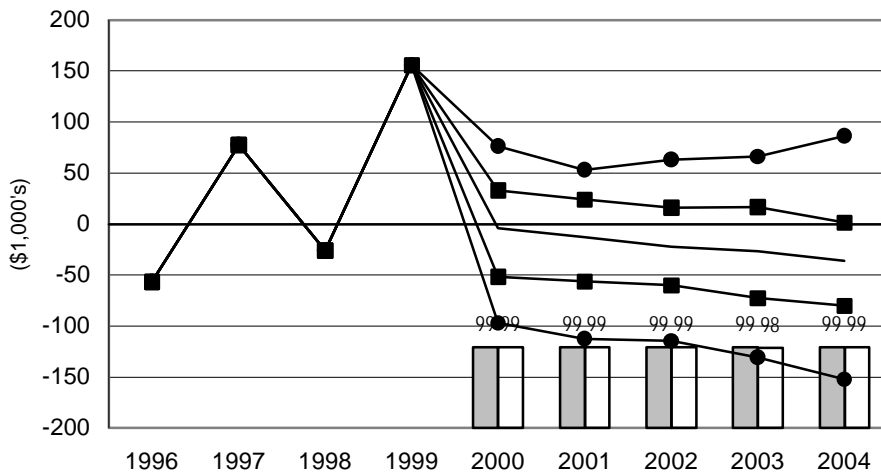
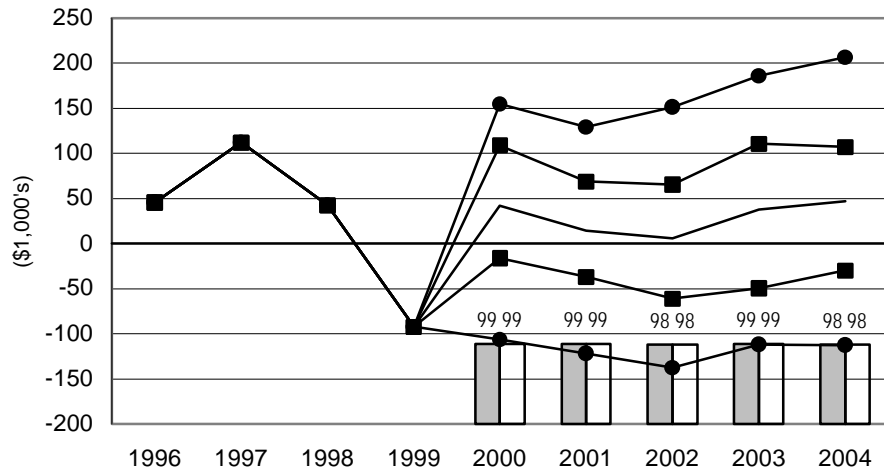


Figure 17. Net Cash Farm Income and Probabilities of a Cash Flow Deficit and Refinancing: Cotton Farms

— Mean NCFI
■ 25 & 75 Percentile NCFI
● 5 & 95 Percentile NCFI
▒ Prob. of Cash Flow Deficit
□ Prob. of Refinancing

TNC1675 Tennessee Cotton Farm



TNC3800 Large Tennessee Cotton Farm

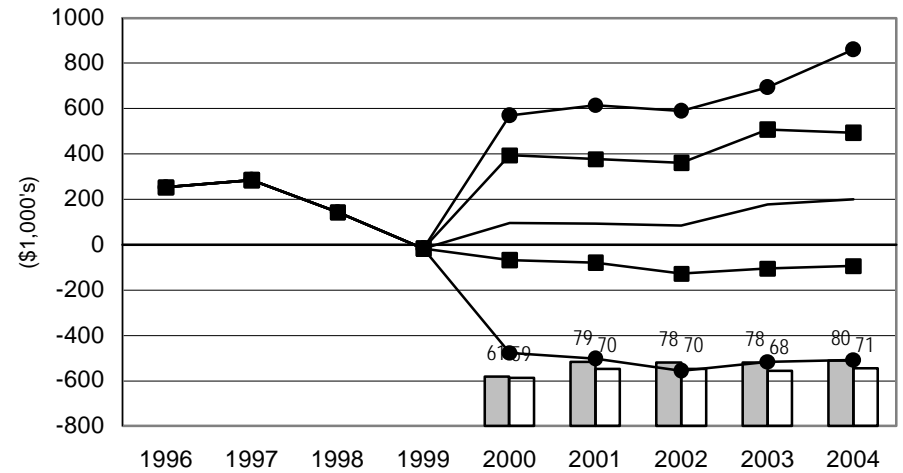


FIGURE 18. REPRESENTATIVE FARMS PRODUCING RICE



Rice Farm Impacts

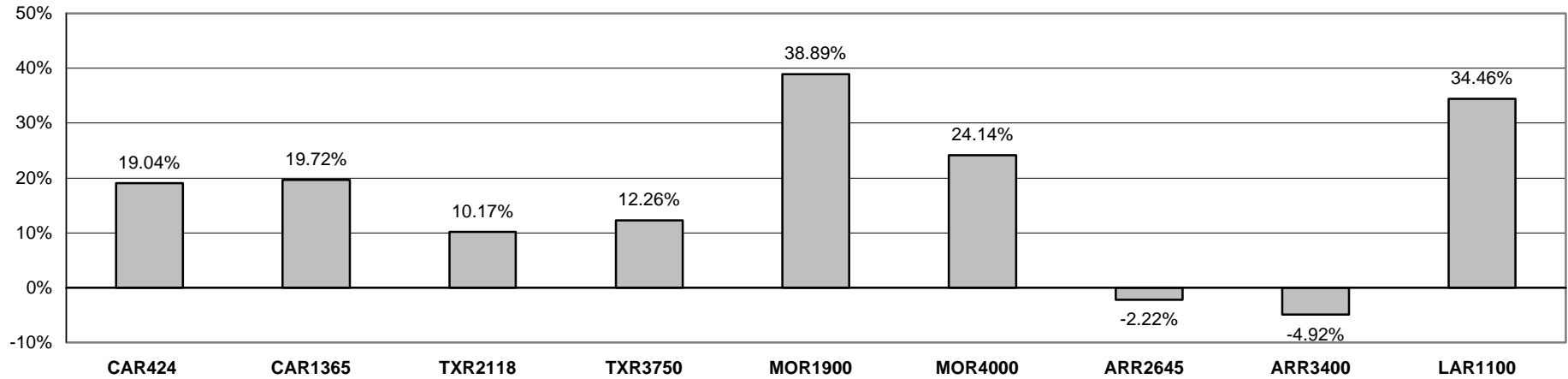
- # As with cotton, relatively low rice prices ranging from \$6.65/cwt. to \$7.56/cwt. over the 2000-2004 study period contribute to cash flow problems for all nine rice farms. Seven of the nine farms have greater than an 85 percent chance of experiencing a cash flow deficit by 2004. The two Arkansas rice farms are better off but still vulnerable, experiencing cash deficits in more than one-third of the simulations.
- # Only the two Arkansas and the moderate Texas Farm (TXR2118) appear to be able to finance their cash flow deficits from current assets. The large Texas farm (TXR3750) is vulnerable (51 percent chance of needing external refinancing), while the other five operations are virtually guaranteed that they will have to refinance operating debt by 2004.
- # Only the two Arkansas farms appear capable of increasing real wealth without additional assistance. The other seven farms face at least an 84 percent chance that they will lose real equity over the 2000-2004 study period.
- # In summary, only the two Arkansas farms can likely survive the next five years without additional assistance. The California, Texas, Missouri and Louisiana farms will have to have additional help if prices remain as low as forecasted in the January 2000 FAPRI Baseline.
- # The annual net income adjustments (NIA) for shifting the rice farms in a poor financial position to a good financial position are in Table 8 and Figure 19. To move the California rice farms to a good financial position would require a 19 percent increase in annual cash receipts. The Texas rice farms would need a 10 to 12 percent increase in annual receipts. The Arkansas farms would likely lose their good financial position if their receipts fell as little as 2 to 5 percent (ARR2645 and ARR3400, respectively).

Table 8. Implications of the 1996 Farm Bill and the January 2000 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Rice.

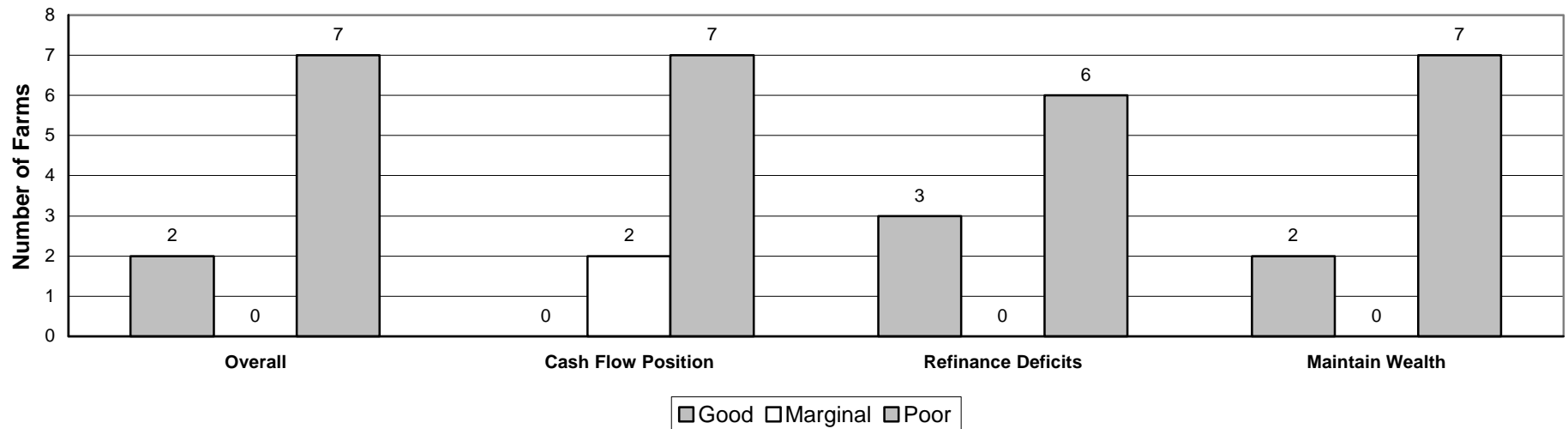
	CAR424	CAR1365	TXR2118	TXR3750	MOR1900	MOR4000	ARR2645	ARR3400	LAR1100
Overall Financial Position									
2000-2004 Ranking	POOR	POOR	POOR	POOR	POOR	POOR	GOOD	GOOD	POOR
NIA to Maintain or Achieve a Good Fin. Position (\$1,000)	56.41	180.90	40.47	142.72	216.87	393.16	-14.03	-41.29	93.82
NIA to Maintain or Achieve a Good Fin. Position (% Rec.)	19.04	19.72	10.17	12.26	38.89	24.14	-2.22	-4.92	34.46
Annual Change Real Net Worth (%)									
2000-2004 Average	-6.90	-8.19	-3.13	-3.43	-15.06	-5.50	1.62	2.06	-27.19
Cost to Receipts Ratio (%)									
2000-2004 Average	93.94	104.74	86.72	97.08	113.25	100.93	72.35	65.59	104.69
Govt Payments/Receipts (%)									
2000-2004 Average	23.82	24.09	24.85	22.66	18.74	17.37	19.13	24.26	20.82
Total Cash Receipts (\$1000)									
1996	324.76	1,012.62	482.24	1,371.09	691.50	2,007.29	842.25	1,118.92	342.00
1997	331.15	1,033.89	469.94	1,351.99	656.63	1,912.23	746.14	1,005.37	318.44
1998	342.82	1,064.18	471.40	1,342.81	587.04	1,705.28	589.71	834.74	292.50
1999	299.67	916.21	462.11	1,311.94	565.14	1,636.81	703.32	1,019.96	285.97
2000	299.31	925.24	401.84	1,170.99	551.96	1,598.26	616.03	828.84	269.55
2001	292.28	904.49	392.47	1,147.11	550.80	1,609.06	623.80	826.89	267.03
2002	293.62	909.14	394.03	1,156.27	551.36	1,612.48	626.36	827.28	270.87
2003	297.21	920.87	399.37	1,171.19	560.63	1,645.93	638.00	849.55	275.03
2004	299.22	927.41	401.65	1,176.47	573.80	1,678.33	649.87	861.53	278.66
Net Cash Farm Income (\$1000)									
1996	73.86	129.00	139.40	274.56	133.71	493.90	381.56	564.88	98.10
1997	70.61	125.45	131.13	264.08	103.85	385.67	295.10	458.49	75.70
1998	93.09	196.10	142.61	274.35	36.94	197.37	151.35	301.63	48.39
1999	50.77	61.99	138.04	257.75	12.55	127.93	262.46	496.40	39.99
2000	32.25	14.31	72.98	91.08	-27.94	44.69	172.61	301.26	10.72
2001	23.07	-10.78	63.23	62.05	-46.86	32.61	180.85	298.70	4.54
2002	17.83	-24.27	58.57	47.83	-66.25	3.54	182.29	297.10	-1.40
2003	16.45	-60.27	49.86	45.30	-83.44	0.96	185.15	302.32	-12.66
2004	12.99	-88.42	47.38	18.22	-99.13	-18.33	189.58	310.24	-21.37
Prob. of a Cash Flow Deficit (%)									
2000	99	85	44	70	99	88	27	22	96
2001	99	94	69	74	99	98	32	33	97
2002	99	98	67	85	99	98	31	25	99
2003	99	99	82	80	99	99	35	43	99
2004	99	99	85	90	99	99	36	37	99
Ending Cash Reserves (\$1000)									
1996	20.71	54.49	57.18	115.59	44.04	254.25	193.47	264.63	33.49
1997	26.49	95.30	102.21	231.22	63.33	393.46	318.45	435.80	48.70
1998	41.88	163.72	147.63	317.52	3.88	341.26	335.78	501.01	38.92
1999	23.55	122.10	186.24	395.03	-98.34	194.33	414.91	657.26	12.81
2000	-14.40	67.63	191.18	356.81	-226.06	-58.30	448.76	720.90	-47.97
2001	-65.63	-12.32	188.92	302.89	-393.12	-381.62	487.13	780.33	-119.24
2002	-120.62	-112.72	183.59	205.63	-605.73	-707.41	520.63	847.71	-206.50
2003	-176.83	-317.51	154.87	132.61	-828.12	-1,028.92	551.27	879.66	-316.25
2004	-227.58	-536.25	120.63	-2.46	-1,059.52	-1,379.84	591.55	936.36	-417.68
Prob. of Refinancing Deficits (%)									
2000	78	14	1	1	99	64	1	1	85
2001	99	45	1	7	99	93	1	1	96
2002	99	79	1	19	99	97	1	1	99
2003	99	99	4	34	99	99	1	1	99
2004	99	99	10	51	99	99	1	1	99
Nominal Net Worth (\$1000)									
1996	535.53	1,548.40	446.51	1,535.57	1,192.59	4,369.77	1,478.88	2,374.12	242.58
1997	563.88	1,643.58	497.32	1,728.70	1,235.70	4,643.85	1,652.68	2,638.19	258.85
1998	607.64	1,785.95	554.83	1,905.75	1,216.95	4,807.56	1,734.98	2,814.26	255.23
1999	607.44	1,792.07	603.15	2,045.74	1,149.07	4,781.06	1,847.75	3,049.61	243.39
2000	575.26	1,710.67	599.41	2,017.21	1,016.43	4,563.06	1,876.38	3,115.52	186.88
2001	535.14	1,610.34	590.88	1,979.17	861.69	4,323.86	1,908.70	3,200.92	131.77
2002	488.18	1,472.89	574.94	1,882.77	671.18	3,999.25	1,927.44	3,258.71	64.77
2003	437.27	1,264.98	538.83	1,820.90	484.52	3,730.18	1,951.81	3,304.36	-5.40
2004	399.55	1,062.81	510.84	1,702.27	285.12	3,479.63	2,006.01	3,377.01	-87.83
Prob. of Losing Real Net Worth (%)									
2000	99	96	67	64	99	86	29	19	93
2001	99	99	70	66	99	95	25	8	95
2002	99	99	74	76	99	98	25	8	98
2003	99	99	78	80	99	99	18	7	99
2004	99	99	84	85	99	99	13	4	99

Figure 19. Rice Farms

Minimum Annual Percentage Change in Receipts, 2000-2004, Needed to Achieve or Maintain a Good Overall Financial Position



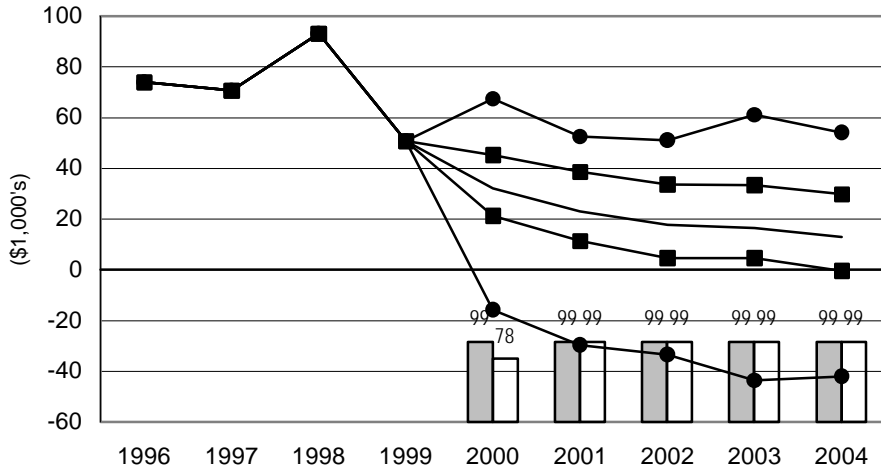
Economic and Financial Position Over the Period, 2000-2004, for all Rice Farms



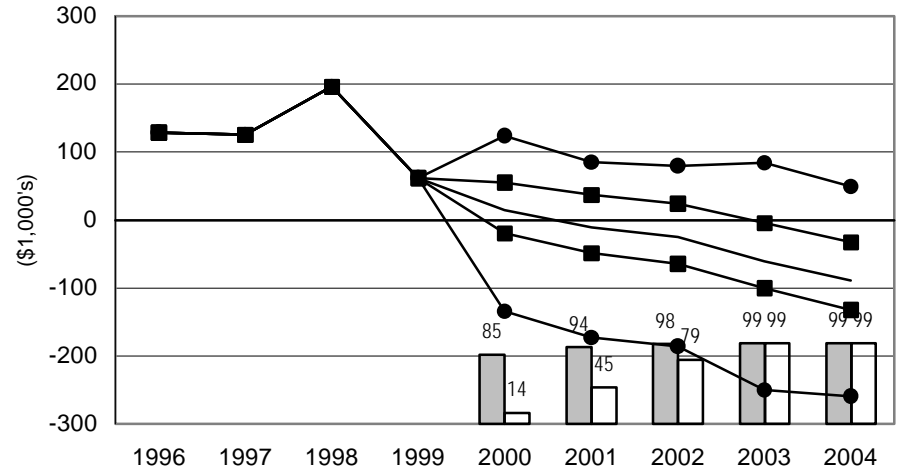
**Figure 20. Net Cash Farm Income and Probabilities of a Cash Flow Deficit and Refinancing:
Rice Farms**

— Mean NCFI ■ 25 & 75 Percentile NCFI ● 5 & 95 Percentile NCFI ▒ Prob. of Cash Flow Deficit □ Prob. of Refinancing

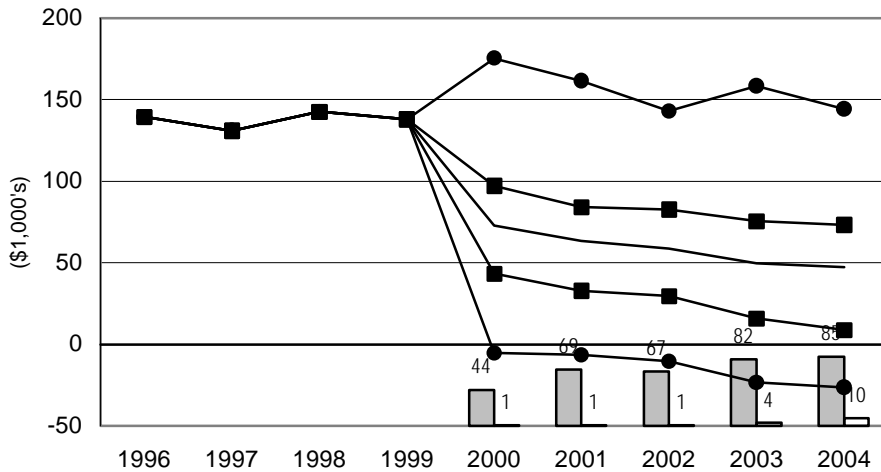
CAR424 California Rice Farm



CAR1365 Large California Rice Farm



TXR2118 Texas Rice Farm



TXR3750 Large Texas Rice Farm

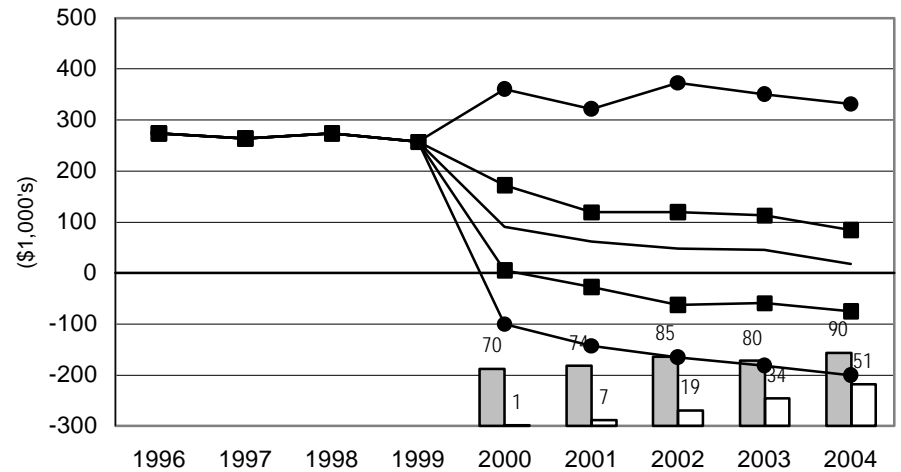
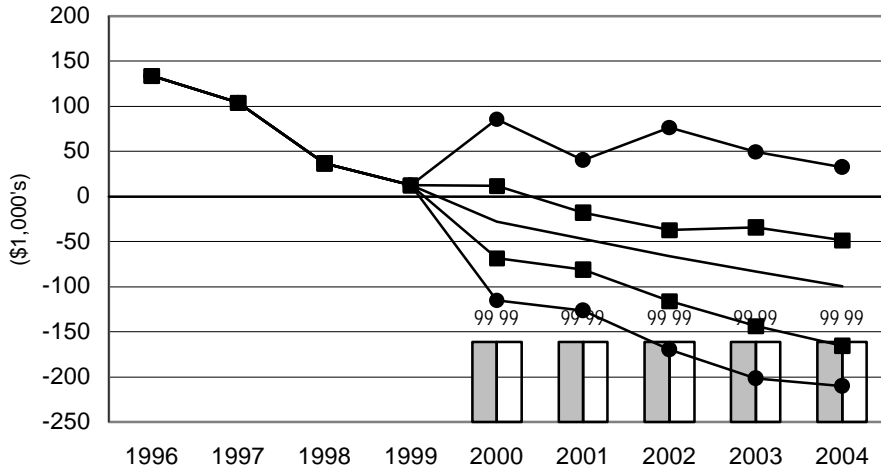


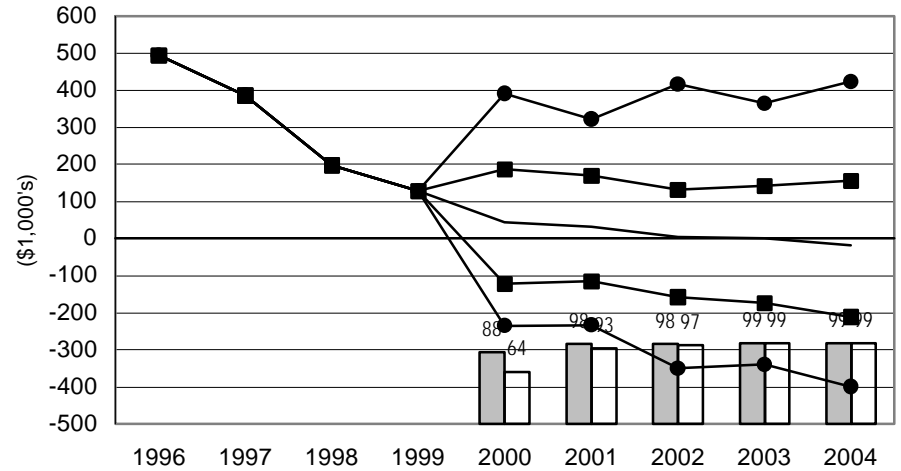
Figure 21. Net Cash Farm Income and Probabilities of a Cash Flow Deficit and Refinancing: Rice Farms

— Mean NCFI ■ 25 & 75 Percentile NCFI ● 5 & 95 Percentile NCFI ▒ Prob. of Cash Flow Deficit □ Prob. of Refinancing

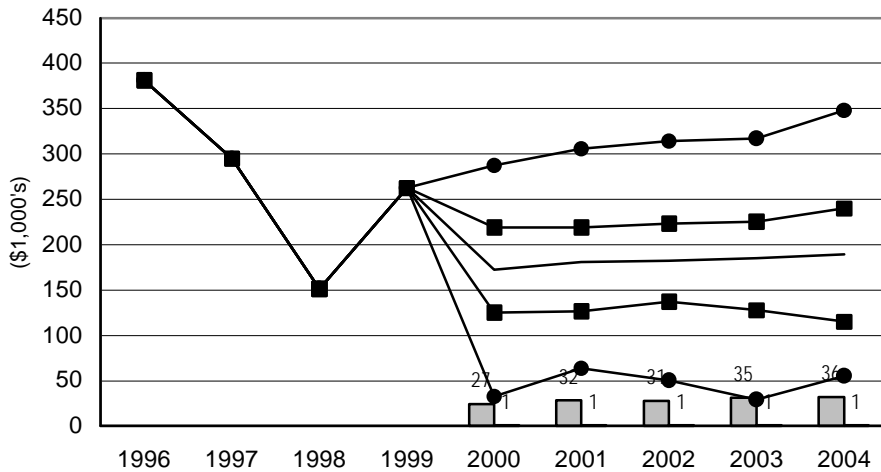
MOR1900 Missouri Rice Farm



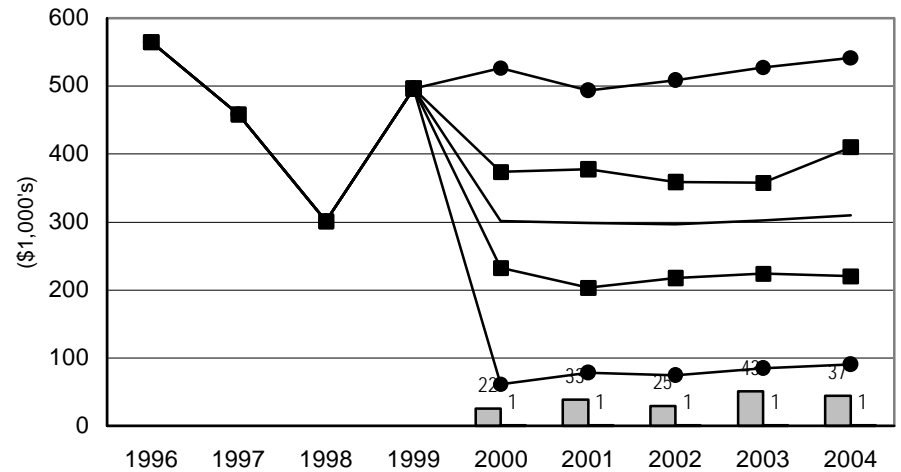
MOR4000 Large Missouri Rice Farm



ARR2645 Arkansas Rice Farm



ARR3400 Large Arkansas Rice Farm



**Figure 22. Net Cash Farm Income and Probabilities of a Cash Flow Deficit and Refinancing:
Rice Farms**

— Mean NCFI ■ 25 & 75 Percentile NCFI ● 5 & 95 Percentile NCFI ▒ Prob. of Cash Flow Deficit □ Prob. of Refinancing

LAR1100 Louisiana Rice Farm

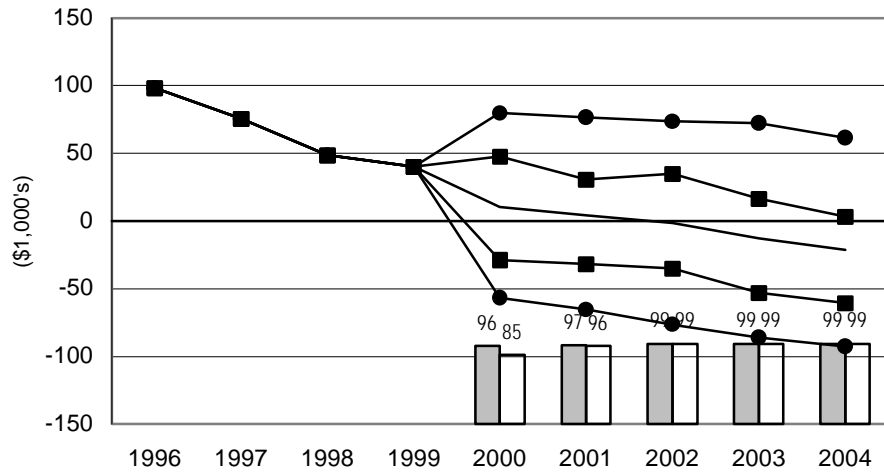
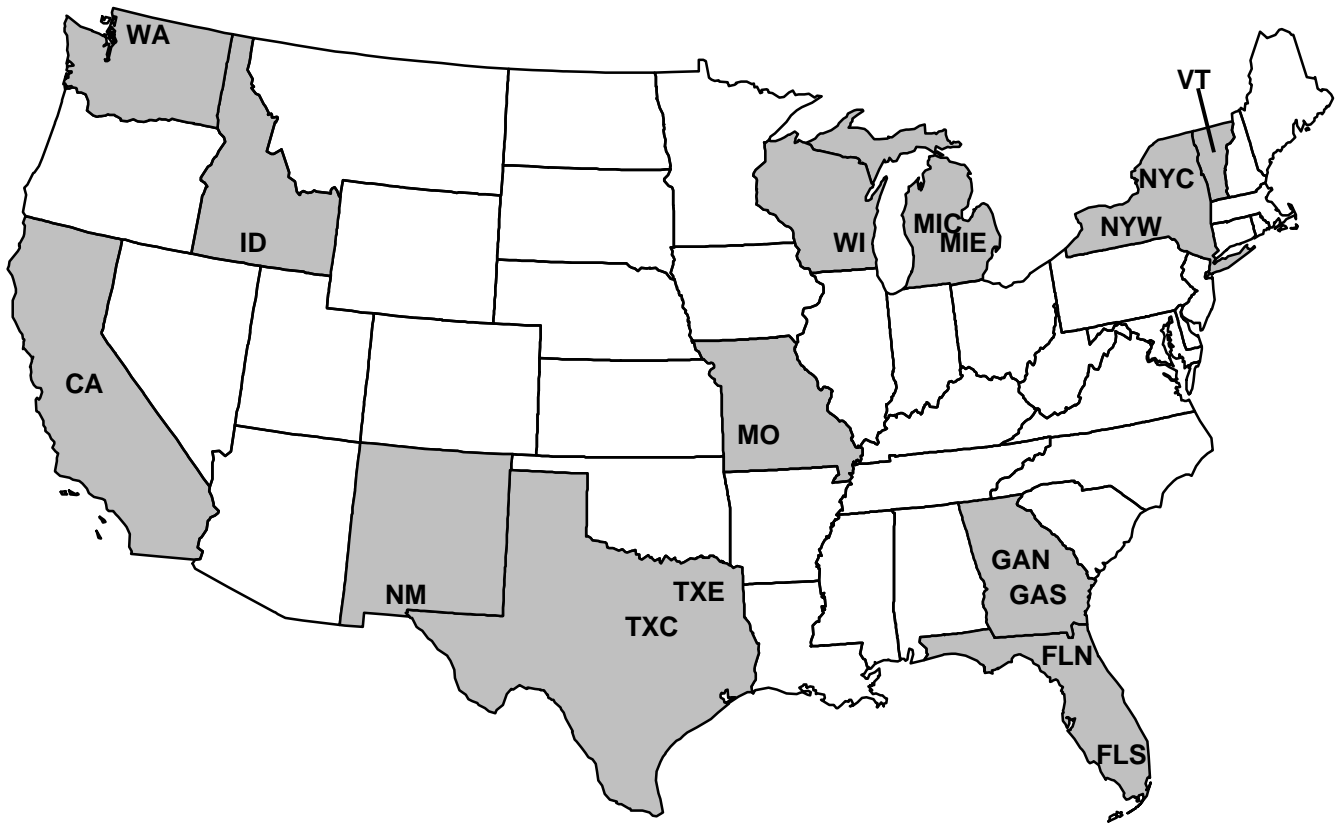


FIGURE 23. REPRESENTATIVE FARMS PRODUCING MILK



Dairy Impacts

- # All but four of the 26 representative dairy farms increase real net worth over the 1996-2004 study period. The annual average increase in real net worth ranges from 0.69 percent on the Eastern Michigan (MIED200) to over 14 percent on the 825 cow large Central Texas dairy (TXCD825) (Figures 24-25). The strong increase in real net worth on the dairy farms is, in large part, due to the over 4 percent increase in cull cattle prices over the period, and the sharp increase in the value of replacement stock.
- # Only four of the 26 dairies (TXCD400, MICD140, MOD85 and GAND200) experience a high (greater than 40 percent) probability of losing real net worth in 2004. The probability of losing real net worth is more than 15 percent for an additional 6 dairies (Tables 9-11).
- # The combination of low feed prices in the 1997-1999 crop years and high milk prices in 1998 allow the dairies to recover from the reverse situation in earlier years. Net cash farm income sharply rebounds in 1998 (Figures 26-32). Increased receipts allow seven of the dairies (NMD2000, TXED310, TXED750, MICD140, VTD350, FLND500 and FLSD1800) to rebound from negative ending cash reserve positions in 1997 (Tables 9-11). Four of the dairies (TXCD400, VTD134, MOD85, FLD1650, GAND200) are not able to reverse their cash flow deficit positions with the rebound in receipts and incomes.
- # Fifteen of the dairies have a 25 percent or greater probability of a cash flow deficit in 2004, meaning that expenses and other cash flow requirements exceeded cash receipts in that year. Another two dairies have a probability of cash flow deficit between 17 and 25 percent in 2004.
- # The dairy industry continues to experience a significant increase in milk price volatility. Volatile milk and feed prices result in significant income risk for these dairy farms.
- # Seventeen of the 26 dairy farms are classified as being in a good overall financial position. Three dairies are in a marginal financial position and six are in poor overall financial shape by 2004 (Figure 25). Those farms in poor shape (NMD2000, TXCD400, TXED310, MIED200, MICD140, VTD134, MOD85, and GAND200) are likely to suffer cash flow deficits more than 50 percent of the time over the next four years (Tables 9-11).
- # The annual net income adjustment (NIA) for the dairy farms are included in Tables 9 - 11 and Figures 24 and 25. The NIA values indicate the annual increase in net income to move a farm from a moderate or poor financial position to a good position, or the annual decrease in income that a good farm could sustain and still remain in a good position. For example, a 4.3 percent increase in receipts for the NMD2000 dairy would shift it from poor to good. The six dairies classified in a poor financial position would likely be in a good position if their receipts were increased 1.2 to 18.8 percent (Figures 24 and 25).

Table 9. Implications of the 1996 Farm Bill and the January 2000 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Milk.

	CAD1710	NMD2000	WAD185	WAD900	IDD750	IDD2100	TXCD400	TXCD825	TXED310	TXED750
Overall Financial Position										
2000-2004 Ranking	GOOD	POOR	GOOD	GOOD	GOOD	GOOD	POOR	GOOD	POOR	GOOD
NIA to Maintain or Achieve a Good Fin. Position (\$1,000)	-912.38	247.77	-15.21	-18.39	-170.79	-1,305.93	181.37	-643.98	31.62	-49.39
NIA to Maintain or Achieve a Good Fin. Position (% Rec.)	-17.15	4.35	-2.29	-0.60	-7.55	-20.80	16.81	-17.70	3.98	-2.50
Annual Change Real Net Worth (%)										
2000-2004 Average	7.83	0.76	5.63	4.45	5.95	10.05	-11.42	14.53	1.12	3.40
Cost to Receipts Ratio (%)										
2000-2004 Average	73.77	95.85	75.10	86.21	83.09	68.57	105.07	71.03	89.49	84.43
Govt Payments/Receipts (%)										
2000-2004 Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Cash Receipts (\$1000)										
1996	5,234.79	5,428.85	757.40	3,335.89	2,396.11	6,553.85	1,066.89	3,510.82	776.45	1,999.79
1997	4,985.00	5,264.05	711.53	3,138.77	2,204.74	6,002.07	1,087.18	3,292.78	738.64	1,870.74
1998	6,032.22	6,036.95	832.55	3,679.25	2,561.71	7,247.72	1,031.05	3,314.40	867.46	2,158.42
1999	5,527.40	5,347.53	653.16	3,186.02	2,258.36	6,287.90	991.44	3,335.21	845.06	2,096.85
2000	5,036.45	5,592.89	656.54	3,103.32	2,201.02	6,111.04	1,069.13	3,602.54	787.07	1,956.86
2001	5,225.67	5,505.37	639.07	2,944.12	2,185.77	6,058.92	1,040.70	3,510.21	765.27	1,904.62
2002	5,346.17	5,683.53	658.81	3,035.80	2,258.66	6,262.88	1,071.23	3,612.63	788.22	1,961.07
2003	5,465.45	5,806.90	676.44	3,117.73	2,322.52	6,443.52	1,099.88	3,709.18	809.75	2,013.40
2004	5,533.25	5,898.23	685.41	3,159.50	2,345.56	6,516.68	1,115.04	3,758.65	821.53	2,041.44
Net Cash Farm Income (\$1000)										
1996	878.05	-12.33	210.30	391.91	405.46	1,719.60	-40.93	712.51	14.79	193.63
1997	685.88	-313.44	165.16	136.88	239.01	1,213.21	-36.61	484.25	-18.61	101.17
1998	2,150.17	833.15	343.56	898.23	690.38	2,842.04	-31.57	652.68	150.44	502.07
1999	1,703.20	278.54	204.58	425.77	435.22	2,135.26	-48.99	838.75	171.26	529.71
2000	1,257.52	474.99	187.77	591.17	405.35	2,003.08	4.66	1,118.08	113.20	381.80
2001	1,426.94	238.66	162.09	405.67	378.83	1,928.27	-41.71	1,001.19	81.33	301.19
2002	1,447.46	281.40	167.95	430.40	403.04	2,018.71	-48.18	1,055.82	88.23	316.94
2003	1,469.97	273.53	168.92	443.11	419.44	2,097.98	-60.06	1,102.34	94.28	332.69
2004	1,444.72	226.59	168.64	410.23	411.13	2,073.97	-82.91	1,097.29	90.53	325.78
Prob. of a Cash Flow Deficit (%)										
2000	1	44	8	9	12	1	99	1	29	14
2001	1	61	17	27	18	2	99	1	55	24
2002	1	63	28	35	23	1	99	1	52	28
2003	1	61	36	29	33	2	99	1	56	30
2004	1	67	38	48	21	1	99	1	62	38
Ending Cash Reserves (\$1000)										
1996	325.45	-148.05	93.09	145.12	167.84	803.46	-94.87	337.55	-41.85	28.47
1997	518.85	-606.76	151.51	111.19	238.10	1,263.25	-188.05	524.04	-119.15	-21.11
1998	1,621.78	-98.84	324.56	565.57	589.78	2,737.09	-279.20	823.85	-56.56	199.78
1999	2,470.40	-79.35	410.83	734.71	763.91	3,774.57	-390.46	1,237.99	9.79	443.28
2000	3,098.05	50.38	490.19	1,040.63	947.40	4,778.30	-439.57	1,859.70	40.14	608.75
2001	3,833.26	-11.18	550.58	1,208.84	1,104.35	5,714.28	-535.62	2,410.68	38.56	713.49
2002	4,595.95	-43.95	606.54	1,383.91	1,253.45	6,680.89	-640.42	2,997.61	39.23	826.56
2003	5,379.90	-91.19	651.57	1,573.00	1,381.35	7,686.66	-771.08	3,612.47	37.65	937.83
2004	6,154.56	-206.31	699.54	1,692.26	1,573.22	8,856.91	-941.91	4,234.15	24.41	1,027.60
Prob. of Refinancing Deficits (%)										
2000	1	44	1	1	1	1	99	1	21	1
2001	1	47	1	1	1	1	99	1	29	1
2002	1	50	1	1	1	1	99	1	33	1
2003	1	47	1	1	1	1	99	1	42	4
2004	1	49	1	1	1	1	99	1	42	4
Nominal Net Worth (\$1000)										
1996	6,548.78	3,840.78	850.27	3,577.02	2,336.99	6,982.49	1,024.20	2,911.73	764.90	2,475.87
1997	7,083.12	3,640.47	938.44	3,711.14	2,568.93	7,894.04	977.53	3,237.44	734.71	2,531.15
1998	8,753.95	4,241.78	1,134.23	4,261.45	3,017.42	9,875.95	1,015.30	4,017.86	818.33	2,820.47
1999	9,762.04	4,821.46	1,239.13	4,473.37	3,362.98	11,195.97	927.60	4,045.81	1,033.07	3,430.20
2000	10,494.99	5,085.94	1,329.15	4,819.07	3,625.83	12,440.71	895.63	4,732.07	1,082.11	3,631.02
2001	11,303.00	5,123.92	1,400.75	4,997.57	3,840.98	13,562.58	806.72	5,314.44	1,093.66	3,753.91
2002	12,083.37	5,154.95	1,472.48	5,184.60	4,039.62	14,686.07	703.33	5,914.55	1,101.25	3,860.86
2003	12,880.14	5,158.59	1,537.75	5,377.29	4,232.10	15,849.08	572.94	6,429.97	1,109.77	3,966.82
2004	13,637.96	5,024.50	1,594.57	5,491.12	4,381.45	16,893.18	399.47	7,013.94	1,095.15	4,028.88
Prob. of Losing Real Net Worth (%)										
2000	1	29	5	12	10	1	63	1	27	16
2001	1	30	2	7	3	1	83	1	29	11
2002	1	30	1	7	2	1	84	1	24	12
2003	1	37	1	5	2	1	89	1	37	10
2004	1	39	3	6	2	1	91	1	35	16

Table 10. Implications of the 1996 Farm Bill and the January 2000 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Milk.

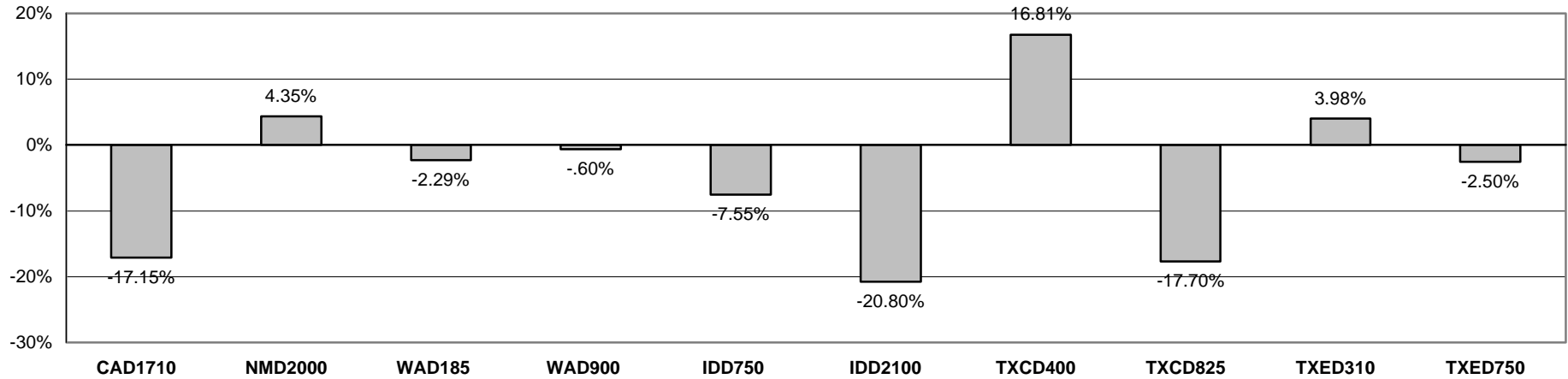
	WID70	WID600	MIED200	MICD140	NYWD800	NYWD1200	NYCD110	NYCD400	VTD134	VTD350
Overall Financial Position										
2000-2004 Ranking	GOOD	GOOD	MARGINAL	POOR	GOOD	GOOD	GOOD	GOOD	MARGINAL	GOOD
NIA to Maintain or Achieve a Good Fin. Position (\$1,000)	-2.41	-50.48	17.69	36.01	-214.79	-471.79	-38.98	-250.96	4.87	-28.10
NIA to Maintain or Achieve a Good Fin. Position (% Rec.)	-1.02	-2.71	2.63	7.88	-7.55	-10.97	-10.05	-17.36	1.23	-2.26
Annual Change Real Net Worth (%)										
2000-2004 Average	2.68	3.51	0.69	-0.66	6.32	7.97	7.51	10.02	2.81	3.74
Cost to Receipts Ratio (%)										
2000-2004 Average	72.19	85.85	85.75	84.85	80.97	79.97	65.98	64.34	80.31	82.56
Govt Payments/Receipts (%)										
2000-2004 Average	0.00	0.00	0.14	0.15	0.00	0.00	0.00	0.00	0.00	0.00
Total Cash Receipts (\$1000)										
1996	227.61	1,938.04	682.21	458.18	3,007.16	4,370.39	378.10	1,328.85	384.16	1,220.07
1997	213.18	1,798.46	639.29	433.98	2,690.78	4,084.71	351.31	1,235.03	377.71	1,190.74
1998	233.14	2,104.71	728.70	489.88	3,034.29	4,665.47	404.93	1,423.18	432.74	1,252.45
1999	249.10	1,956.36	631.48	428.00	2,696.62	4,088.48	364.60	1,347.71	409.95	1,241.41
2000	228.38	1,798.85	666.07	452.25	2,803.71	4,241.97	381.41	1,421.77	409.77	1,288.86
2001	229.99	1,809.36	648.21	441.78	2,757.39	4,162.47	375.93	1,403.32	386.26	1,210.03
2002	236.17	1,860.54	666.69	453.74	2,834.90	4,281.38	386.97	1,440.15	387.22	1,212.76
2003	242.89	1,914.62	686.08	466.63	2,901.45	4,382.43	395.80	1,474.51	397.66	1,246.21
2004	245.56	1,938.85	694.30	470.91	2,930.36	4,429.51	399.46	1,488.06	402.10	1,263.17
Net Cash Farm Income (\$1000)										
1996	48.46	313.54	76.91	48.78	601.11	855.44	101.54	337.91	27.72	102.96
1997	49.98	247.77	59.97	39.43	306.76	575.46	75.51	233.43	4.92	54.09
1998	87.32	634.63	166.74	111.76	786.42	1,304.87	152.95	488.73	101.90	213.67
1999	92.90	535.77	84.76	59.81	516.82	792.85	122.76	450.53	102.14	220.46
2000	63.16	303.68	116.12	80.14	576.67	918.87	134.06	523.71	87.74	293.01
2001	63.13	259.93	93.21	64.62	524.56	819.63	126.80	499.14	80.12	207.48
2002	68.38	279.40	100.87	69.76	550.51	878.72	133.11	518.82	74.67	194.37
2003	72.60	304.97	105.66	75.35	570.17	909.17	136.49	535.95	78.52	211.67
2004	73.96	288.46	102.70	66.02	555.52	878.24	137.64	527.76	78.03	209.34
Prob. of a Cash Flow Deficit (%)										
2000	47	22	34	30	6	3	1	1	87	8
2001	56	36	52	61	8	4	1	1	72	20
2002	50	40	54	68	15	4	2	1	68	43
2003	52	35	55	72	8	5	1	1	60	31
2004	45	48	58	82	19	9	4	1	60	34
Ending Cash Reserves (\$1000)										
1996	4.13	148.29	19.79	-0.76	285.90	437.81	26.06	122.41	-28.37	2.38
1997	5.19	243.01	20.75	-13.32	354.42	659.74	35.22	173.66	-84.02	-49.31
1998	27.76	586.20	84.41	27.08	733.22	1,318.11	92.63	385.53	-59.60	15.38
1999	49.35	858.10	93.81	24.45	929.07	1,663.76	127.11	575.95	-46.00	68.69
2000	52.53	977.67	120.93	37.06	1,171.63	2,102.99	178.35	822.91	-25.03	165.09
2001	53.04	1,059.19	123.72	30.89	1,381.32	2,484.54	218.31	1,053.37	-18.09	209.35
2002	56.37	1,140.90	123.82	19.99	1,595.74	2,901.51	258.28	1,287.35	-13.70	233.88
2003	60.80	1,246.19	127.03	11.04	1,827.82	3,345.19	301.57	1,533.27	-7.95	268.73
2004	67.90	1,312.22	129.24	-15.87	2,033.32	3,746.26	338.82	1,755.18	-4.69	299.23
Prob. of Refinancing Deficits (%)										
2000	1	1	1	7	1	1	1	1	87	1
2001	4	1	8	22	1	1	1	1	71	2
2002	6	1	11	32	1	1	1	1	61	3
2003	9	1	16	42	1	1	1	1	53	2
2004	11	1	22	51	1	1	1	1	49	6
Nominal Net Worth (\$1000)										
1996	420.00	2,152.31	1,331.24	1,099.24	3,038.26	4,182.56	473.55	1,706.71	423.40	1,493.83
1997	448.57	2,342.14	1,386.16	1,148.57	3,281.03	4,658.50	517.76	1,842.05	424.94	1,565.88
1998	499.67	2,757.52	1,487.45	1,175.85	3,769.84	5,472.71	588.82	2,099.94	473.02	1,668.79
1999	553.77	3,189.96	1,520.68	1,178.45	4,061.97	5,969.27	699.12	2,417.60	515.36	1,767.82
2000	570.52	3,357.42	1,560.54	1,191.80	4,375.91	6,535.81	765.22	2,679.89	552.30	1,913.98
2001	587.09	3,466.00	1,574.39	1,189.80	4,641.12	7,010.84	817.96	2,924.71	570.91	1,985.69
2002	597.57	3,574.10	1,573.02	1,177.76	4,889.10	7,486.29	870.82	3,168.15	579.86	2,025.02
2003	612.92	3,694.45	1,579.82	1,169.20	5,147.80	7,986.76	924.16	3,417.62	590.80	2,076.65
2004	630.67	3,765.01	1,579.30	1,144.12	5,366.54	8,380.55	965.49	3,643.95	590.09	2,106.89
Prob. of Losing Real Net Worth (%)										
2000	27	21	29	39	10	4	2	1	21	13
2001	16	13	30	42	2	1	1	1	18	4
2002	11	10	30	51	1	1	1	1	12	6
2003	10	8	35	56	1	1	1	1	13	4
2004	10	9	37	70	1	1	1	1	16	6

Table 11. Implications of the 1996 Farm Bill and the January 2000 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Milk.

	MOD85	MOD330	GAND200	GASD700	FLND500	FLSD1800
Overall Financial Position						
2000-2004 Ranking	POOR	GOOD	POOR	GOOD	GOOD	MARGINAL
NIA to Maintain or Achieve a Good Fin. Position (\$1,000)	45.50	-152.16	30.58	-330.45	-307.72	24.97
NIA to Maintain or Achieve a Good Fin. Position (% Rec.)	18.75	-15.37	4.94	-13.48	-18.34	0.45
Annual Change Real Net Worth (%)						
2000-2004 Average	-1.32	9.33	-0.26	7.09	13.03	3.55
Cost to Receipts Ratio (%)						
2000-2004 Average	84.40	62.59	89.74	72.42	68.93	84.85
Govt Payments/Receipts (%)						
2000-2004 Average	0.00	0.00	0.00	0.00	0.00	0.00
Total Cash Receipts (\$1000)						
1996	217.90	905.72	693.67	2,445.95	1,808.51	5,539.64
1997	205.41	872.23	578.76	2,298.05	1,718.95	5,287.12
1998	232.86	1,019.00	660.50	2,558.04	1,894.54	5,831.92
1999	230.13	939.31	669.14	2,288.16	1,583.17	5,270.12
2000	240.22	980.64	613.33	2,420.76	1,656.05	5,511.87
2001	234.48	954.85	601.40	2,383.68	1,630.93	5,427.08
2002	241.03	982.37	615.82	2,438.54	1,670.44	5,560.71
2003	247.65	1,010.58	629.36	2,490.26	1,703.90	5,674.15
2004	249.75	1,020.96	636.97	2,521.07	1,729.29	5,759.33
Net Cash Farm Income (\$1000)						
1996	-3.77	201.54	15.26	605.76	52.38	527.35
1997	-11.39	143.46	5.81	437.88	-35.42	164.23
1998	41.86	333.83	98.24	810.69	473.02	1,091.02
1999	48.91	310.77	108.72	570.44	305.15	700.58
2000	45.17	382.01	72.14	705.28	561.22	936.27
2001	39.07	364.80	75.39	660.80	525.02	811.78
2002	39.65	375.40	70.96	684.15	525.70	858.80
2003	39.75	385.47	63.97	696.94	515.93	884.29
2004	37.78	384.55	56.81	697.36	520.11	925.88
Prob. of a Cash Flow Deficit (%)						
2000	99	2	69	2	1	36
2001	99	3	63	2	1	47
2002	99	1	68	5	1	45
2003	99	2	73	4	1	44
2004	99	7	81	5	2	45
Ending Cash Reserves (\$1000)						
1996	-45.07	48.75	-32.39	243.42	-47.51	-60.87
1997	-100.74	53.67	-75.60	381.98	-177.43	-392.30
1998	-111.94	173.34	-55.45	726.85	53.10	-116.16
1999	-121.10	266.98	-28.41	928.48	173.78	-116.07
2000	-132.35	416.24	-24.73	1,229.11	462.05	46.44
2001	-149.77	555.40	-20.81	1,499.19	732.35	128.20
2002	-170.26	697.38	-23.88	1,774.07	1,000.89	234.79
2003	-186.99	843.03	-35.31	2,045.15	1,256.22	359.25
2004	-207.94	974.63	-58.07	2,321.97	1,520.64	502.38
Prob. of Refinancing Deficits (%)						
2000	99	1	69	1	1	36
2001	99	1	54	1	1	34
2002	99	1	55	1	1	35
2003	99	1	62	1	1	35
2004	99	1	64	1	1	28
Nominal Net Worth (\$1000)						
1996	488.46	1,208.87	950.08	3,113.53	1,592.50	3,898.99
1997	464.27	1,274.06	958.07	3,324.01	1,518.33	3,754.02
1998	483.45	1,434.47	1,019.27	3,723.57	1,792.11	4,194.81
1999	548.38	1,702.83	1,072.79	3,973.91	1,945.28	4,317.72
2000	551.77	1,877.45	1,087.56	4,297.87	2,252.79	4,545.55
2001	550.11	2,042.73	1,098.66	4,581.56	2,536.42	4,682.19
2002	537.29	2,200.50	1,095.72	4,855.06	2,805.76	4,807.04
2003	528.49	2,364.33	1,084.41	5,137.20	2,967.71	4,956.44
2004	514.17	2,507.51	1,063.45	5,404.04	3,225.44	5,105.24
Prob. of Losing Real Net Worth (%)						
2000	46	3	37	4	1	22
2001	51	1	36	1	1	25
2002	50	1	36	1	1	18
2003	64	1	43	1	1	20
2004	65	1	49	1	1	21

Figure 24. Dairy Farms

Minimum Annual Percentage Change in Receipts, 2000-2004, Needed to Achieve or Maintain a Good Overall Financial Position



Minimum Annual Percentage Change in Receipts, 2000-2004, Needed to Achieve or Maintain a Good Overall Financial Position

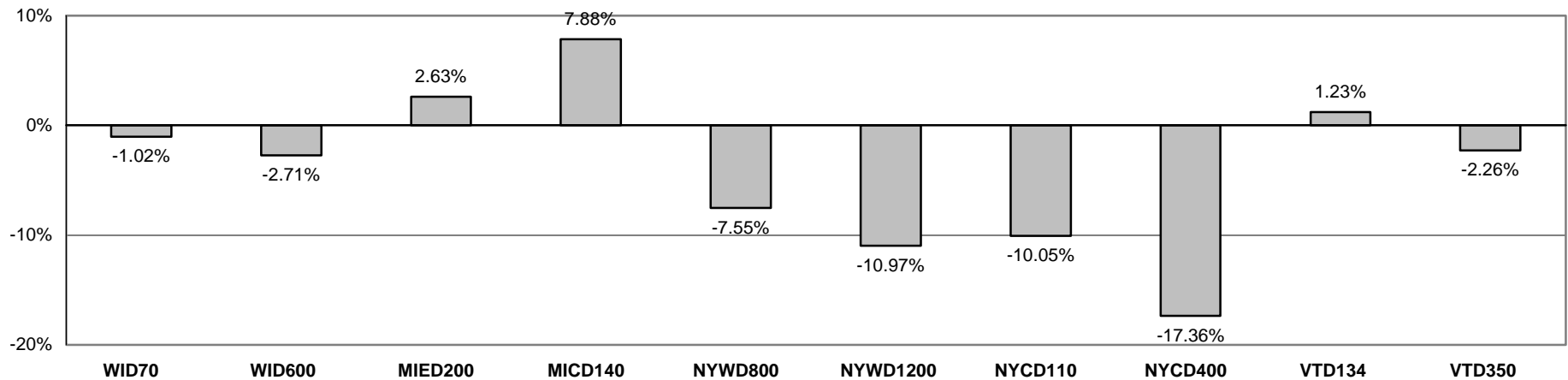
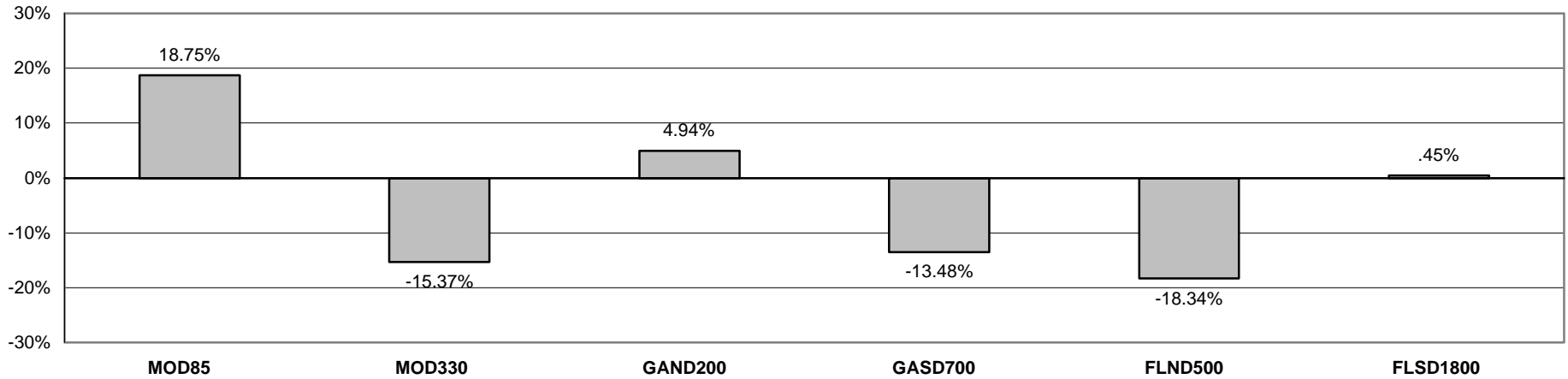
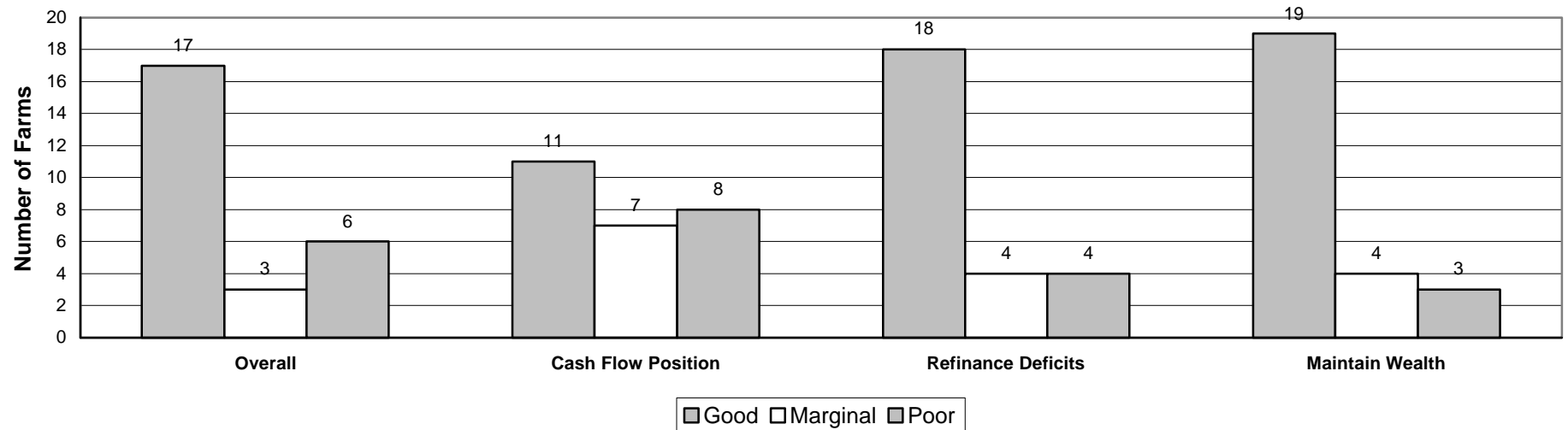


Figure 25. Dairy Farms

Minimum Annual Percentage Change in Receipts, 2000-2004, Needed to Achieve or Maintain a Good Overall Financial Position



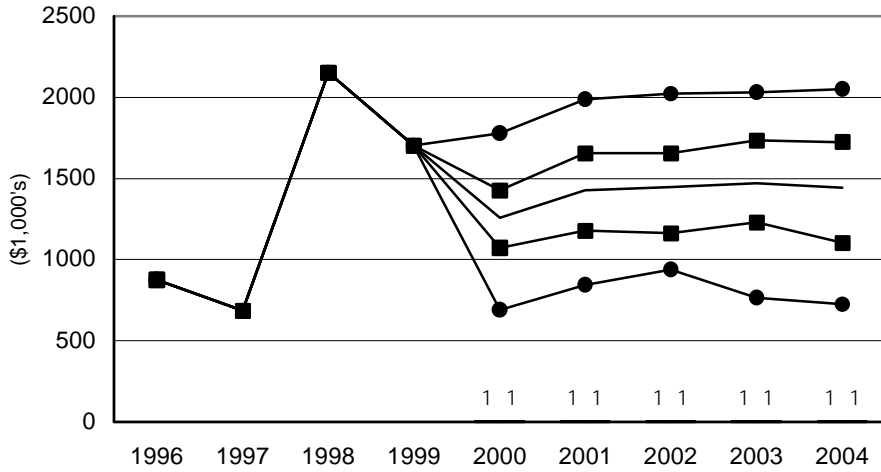
Economic and Financial Position Over the Period, 2000-2004, for all Dairy Farms



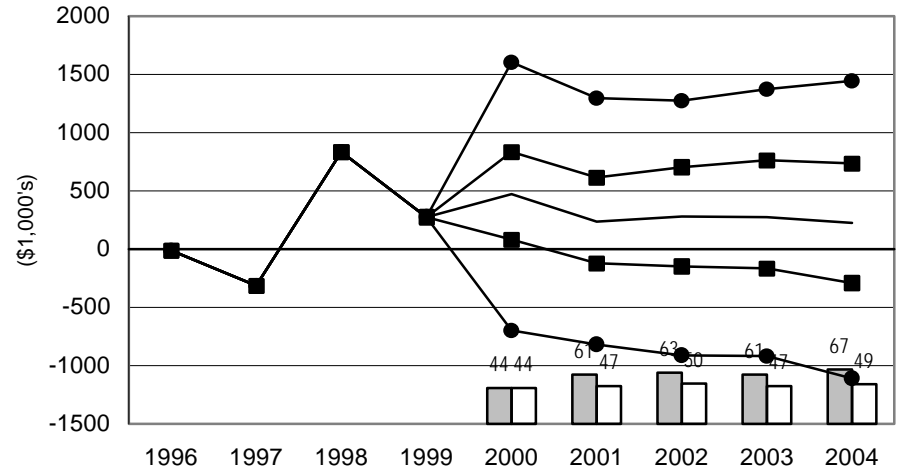
**Figure 26. Net Cash Farm Income and Probabilities of a Cash Flow Deficit and Refinancing:
Dairy Farms**

— Mean NCFI ■ 25 & 75 Percentile NCFI ● 5 & 95 Percentile NCFI ■ Prob. of Cash Flow Deficit □ Prob. of Refinancing

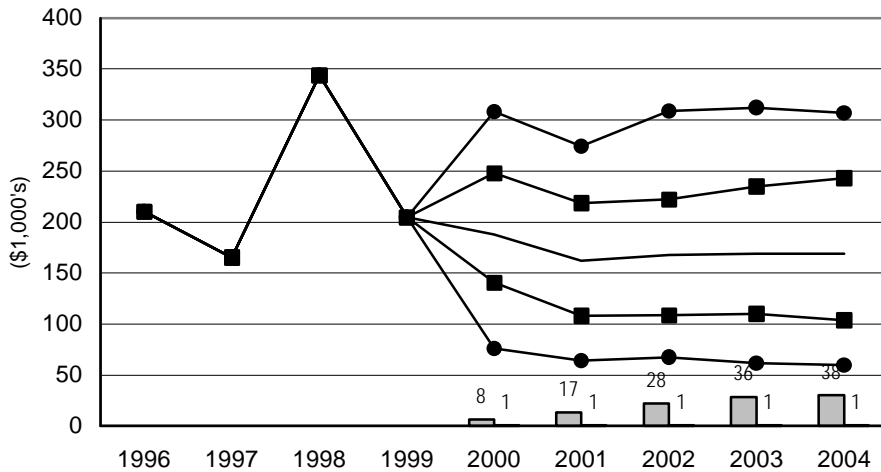
CAD1710 California Dairy Farm



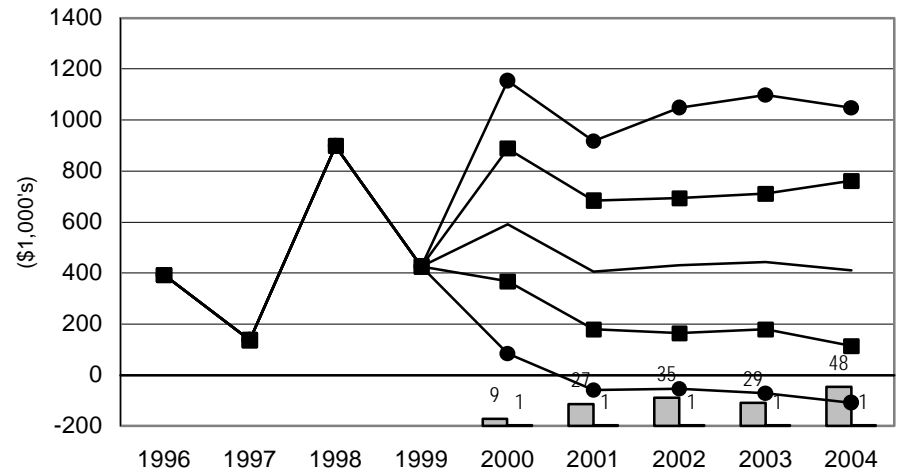
NMD2000 New Mexico Dairy Farm



WAD185 Washington Dairy Farm



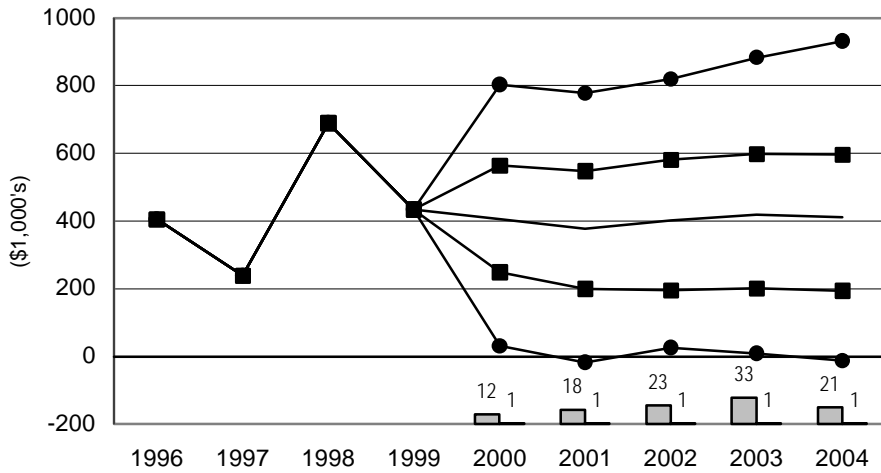
WAD900 Large Washington Dairy Farm



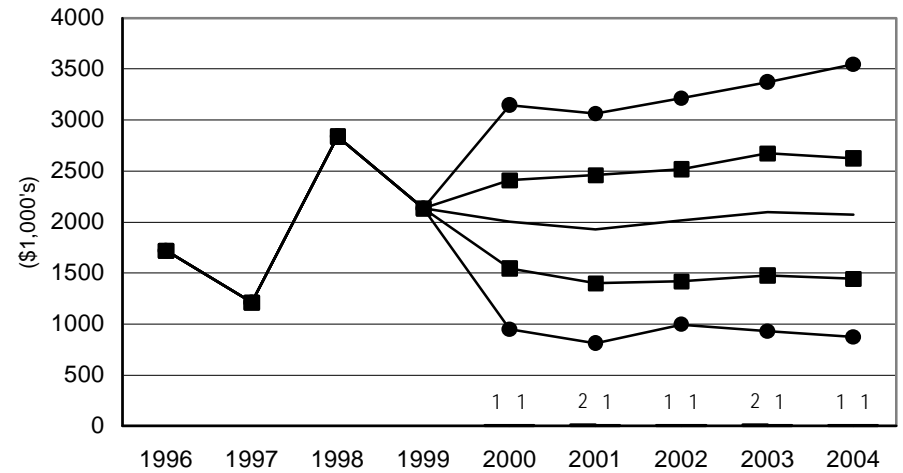
**Figure 27. Net Cash Farm Income and Probabilities of a Cash Flow Deficit and Refinancing:
Dairy Farms**

— Mean NCFI ■ 25 & 75 Percentile NCFI ● 5 & 95 Percentile NCFI ▒ Prob. of Cash Flow Deficit □ Prob. of Refinancing

IDD750 Idaho Dairy Farm



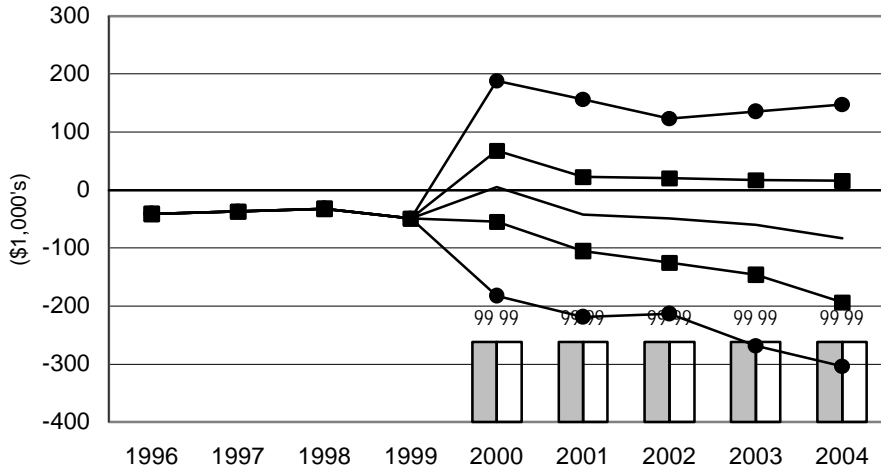
IDD2100 Large Idaho Dairy Farm



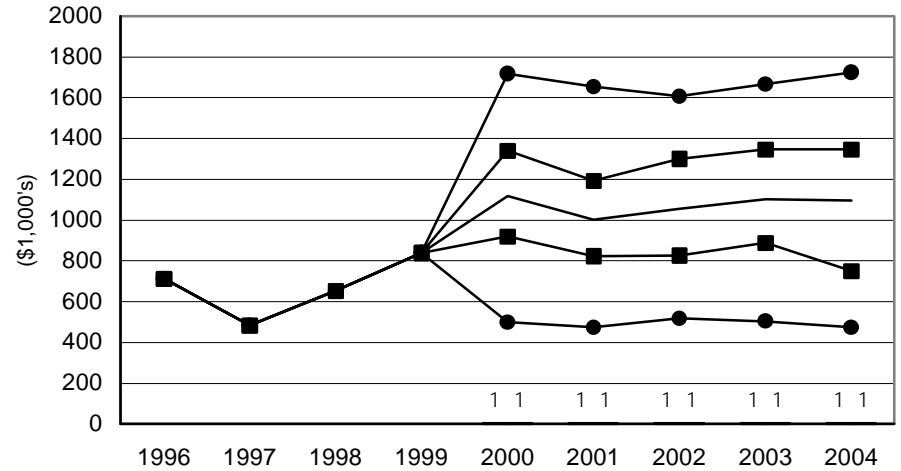
**Figure 28. Net Cash Farm Income and Probabilities of a Cash Flow Deficit and Refinancing:
Dairy Farms**

— Mean NCFI ■ 25 & 75 Percentile NCFI ● 5 & 95 Percentile NCFI ▒ Prob. of Cash Flow Deficit □ Prob. of Refinancing

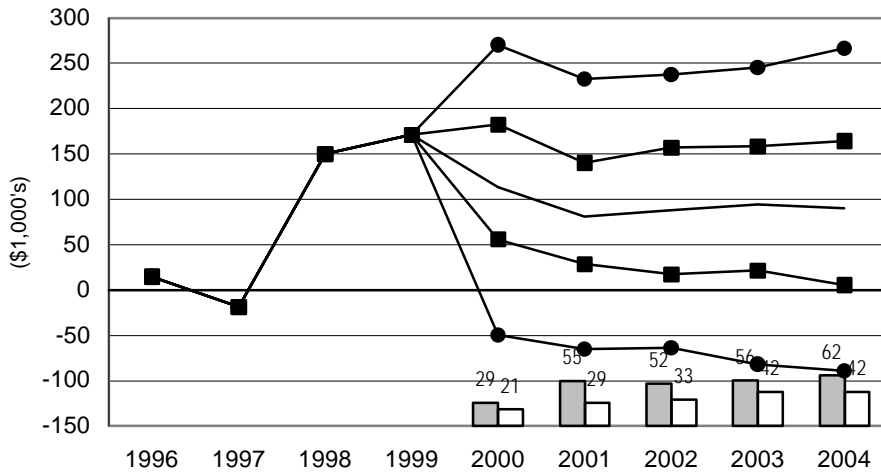
TXCD400 Central Texas Dairy Farm



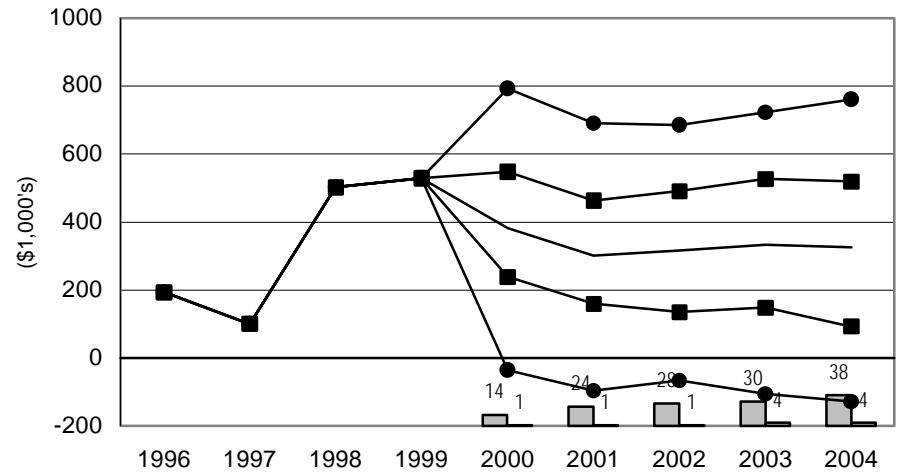
TXCD825 Large Central Texas Dairy Farm



TXED310 East Texas Dairy Farm



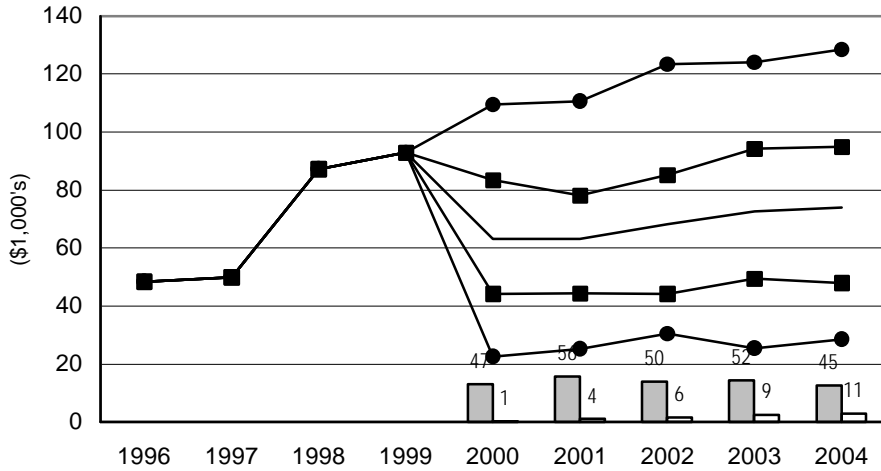
TXED750 Large East Texas Dairy Farm



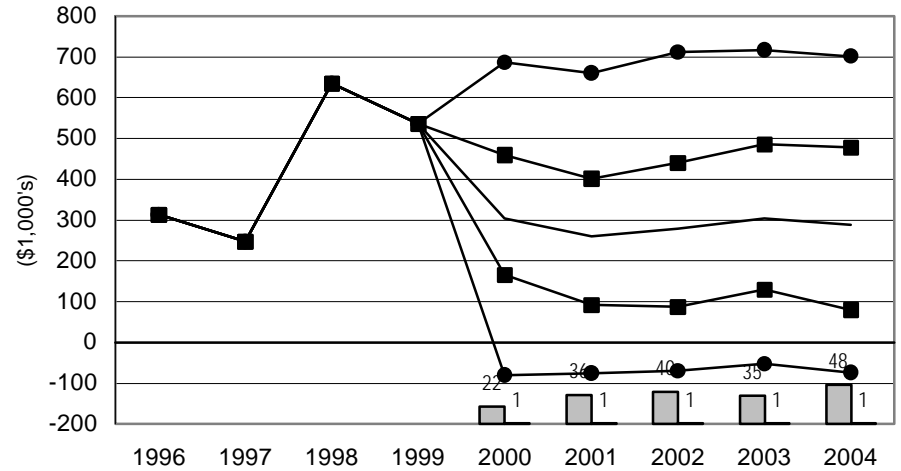
**Figure 29. Net Cash Farm Income and Probabilities of a Cash Flow Deficit and Refinancing:
Dairy Farms**

— Mean NCFI ■ 25 & 75 Percentile NCFI ● 5 & 95 Percentile NCFI ▒ Prob. of Cash Flow Deficit □ Prob. of Refinancing

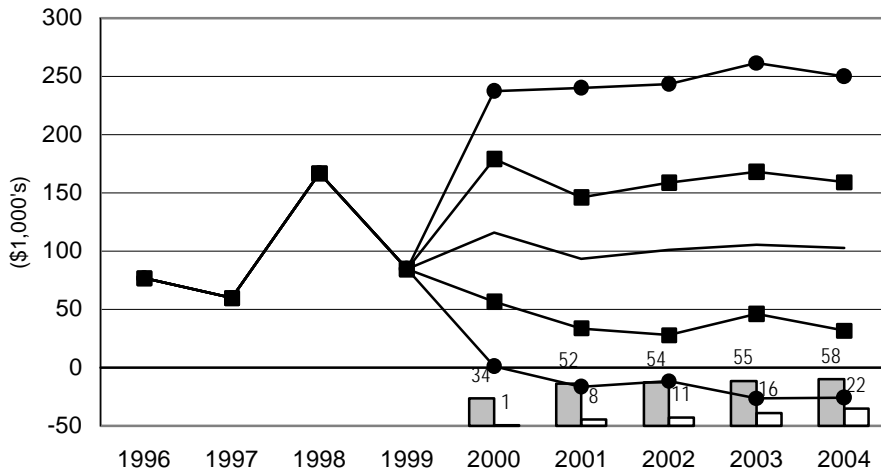
WID70 Wisconsin Dairy Farm



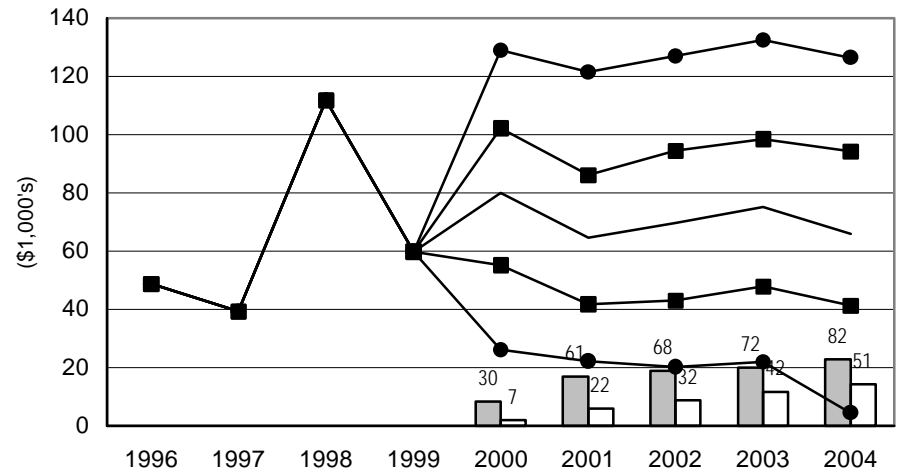
WID600 Wisconsin Dairy Farm



MIED200 Eastern Michigan Dairy Farm



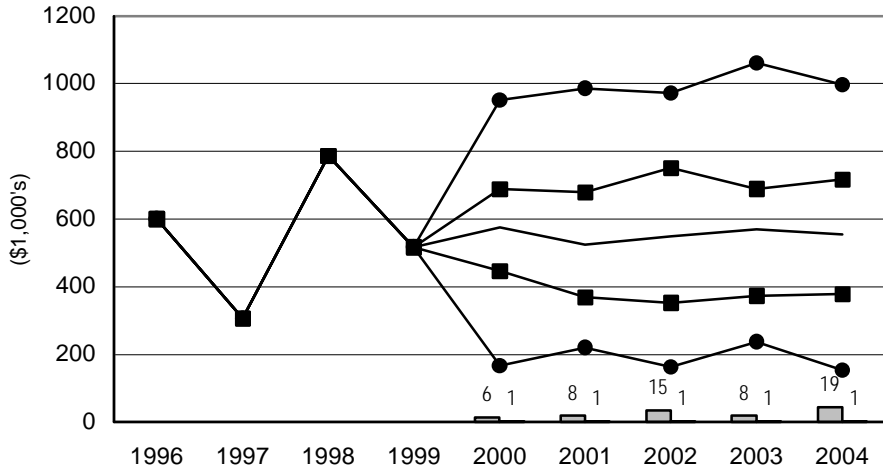
MICD140 Central Michigan Dairy Farm



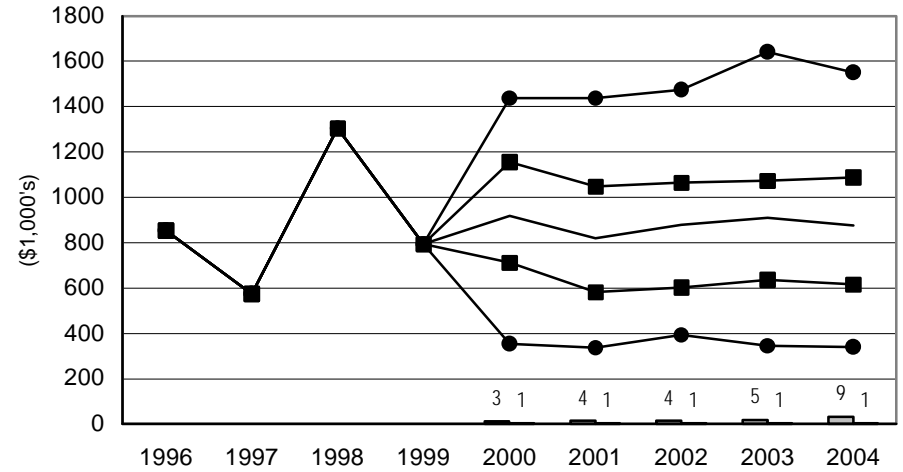
**Figure 30. Net Cash Farm Income and Probabilities of a Cash Flow Deficit and Refinancing:
Dairy Farms**

— Mean NCFI ■ 25 & 75 Percentile NCFI ● 5 & 95 Percentile NCFI ▒ Prob. of Cash Flow Deficit □ Prob. of Refinancing

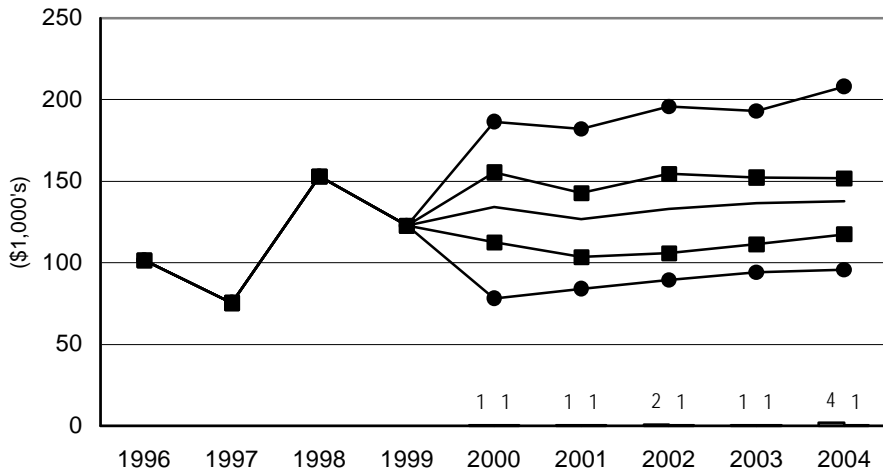
NYWD800 Western New York Dairy Farm



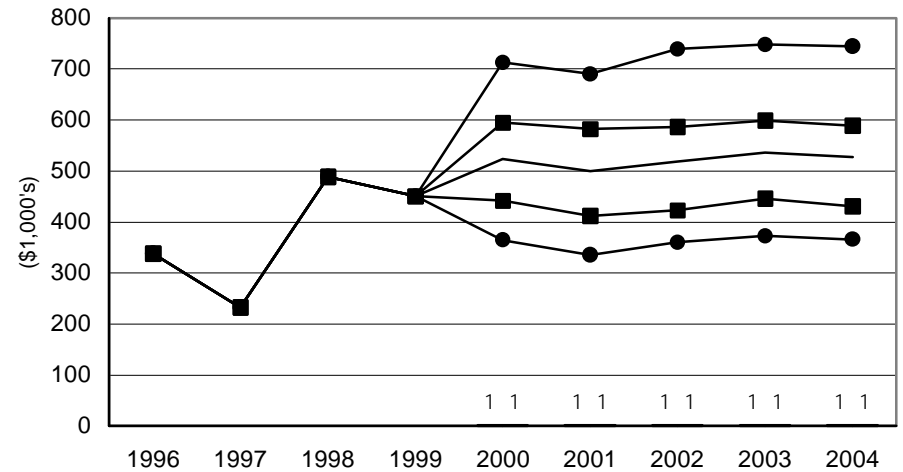
NYWD1200 Large Western New York Dairy Farm



NYCD110 Central New York Dairy Farm



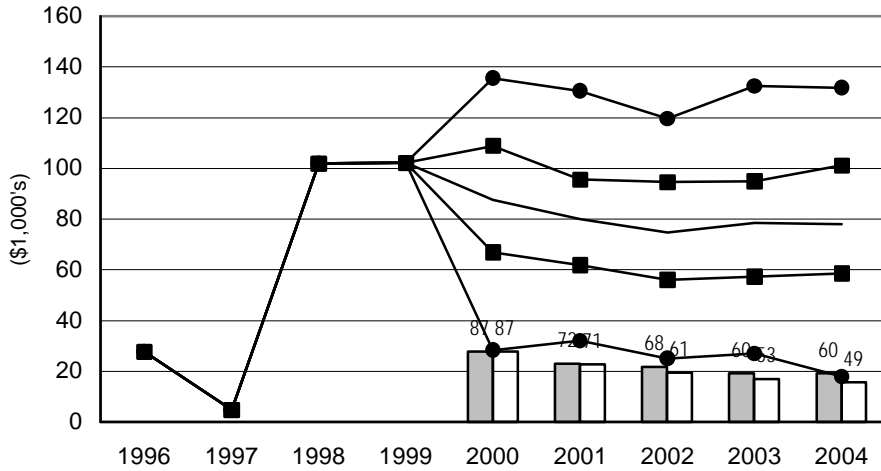
NYCD400 Large Central New York Dairy Farm



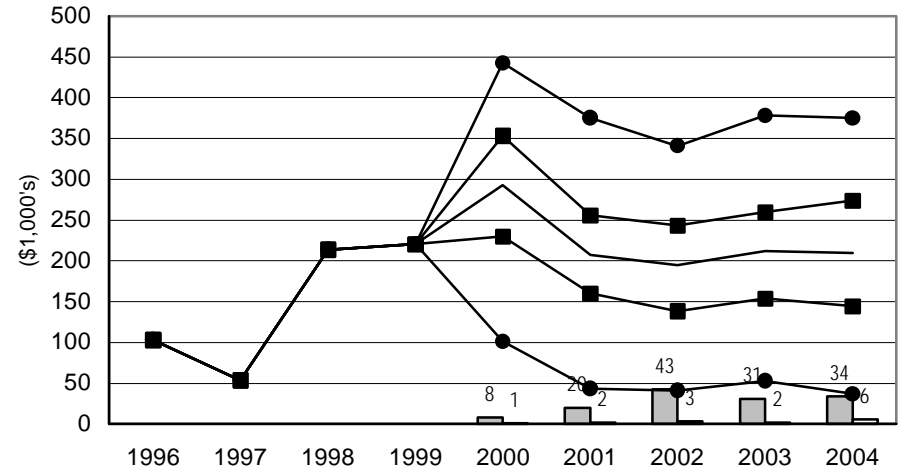
**Figure 31. Net Cash Farm Income and Probabilities of a Cash Flow Deficit and Refinancing:
Dairy Farms**

— Mean NCFI ■ 25 & 75 Percentile NCFI ● 5 & 95 Percentile NCFI ▒ Prob. of Cash Flow Deficit □ Prob. of Refinancing

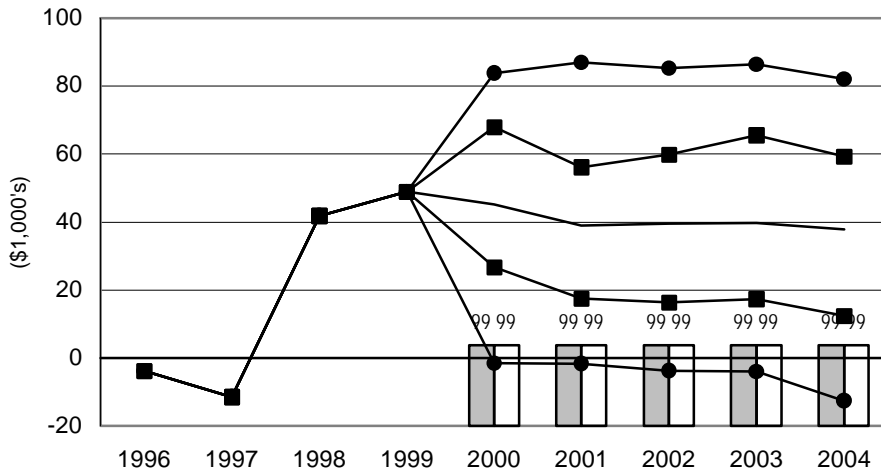
VTD134 Vermont Dairy Farm



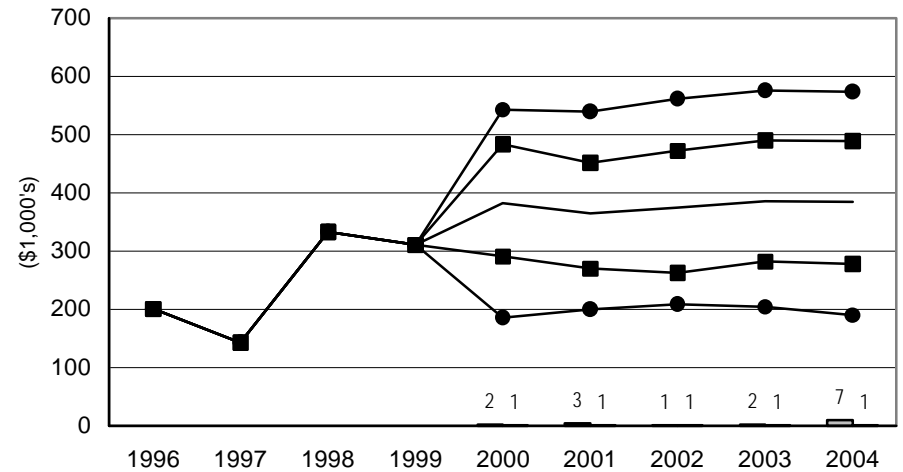
VTD350 Large Vermont Dairy Farm



MOD85 Missouri Dairy Farm



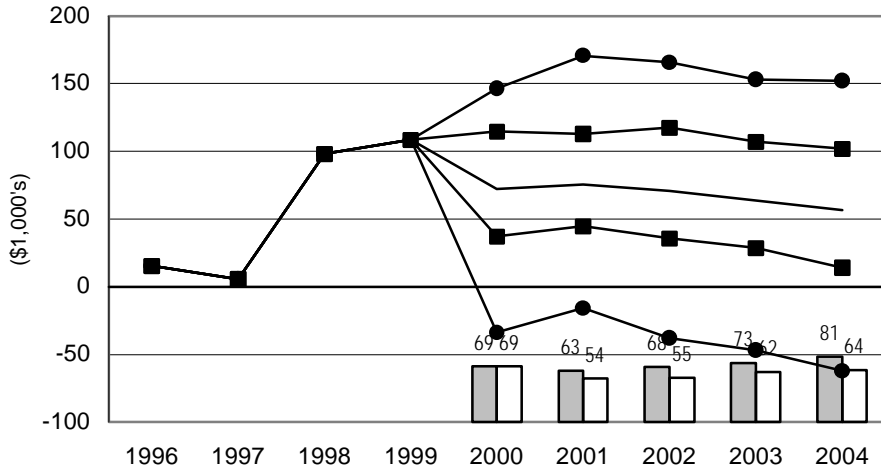
MOD330 Large Missouri Dairy Farm



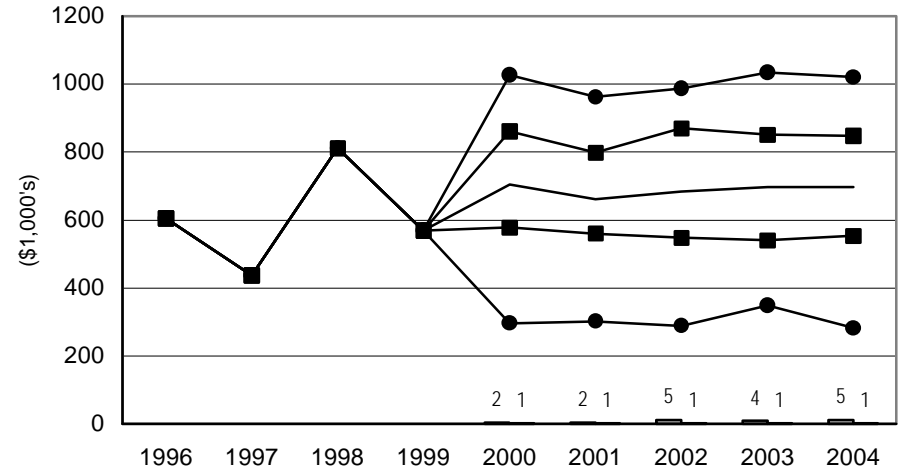
**Figure 32. Net Cash Farm Income and Probabilities of a Cash Flow Deficit and Refinancing:
Dairy Farms**

— Mean NCFI ■ 25 & 75 Percentile NCFI ● 5 & 95 Percentile NCFI ▒ Prob. of Cash Flow Deficit □ Prob. of Refinancing

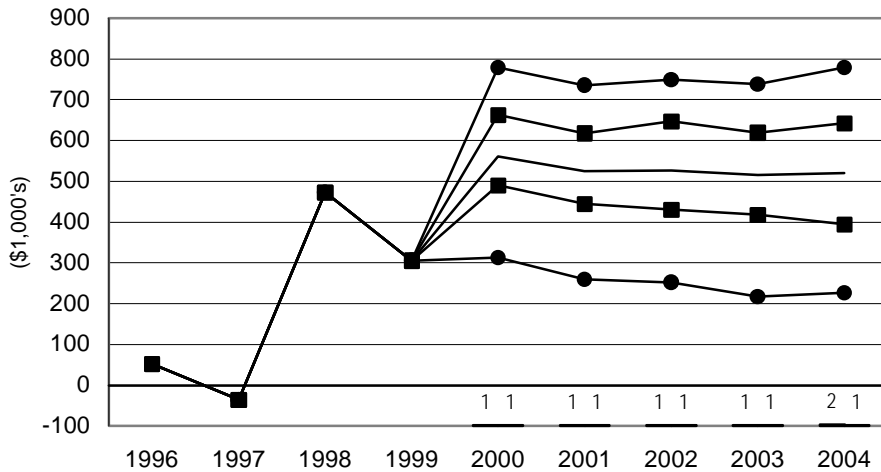
GAND200 Northern Georgia Dairy Farm



GASD700 Southern Georgia Dairy Farm



FLND500 Northern Florida Dairy Farm



FLSD1800 Southern Florida Dairy Farm

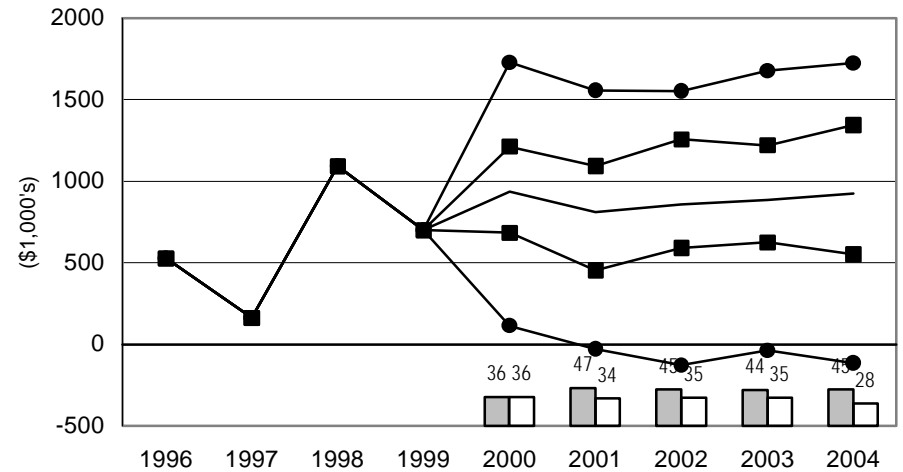
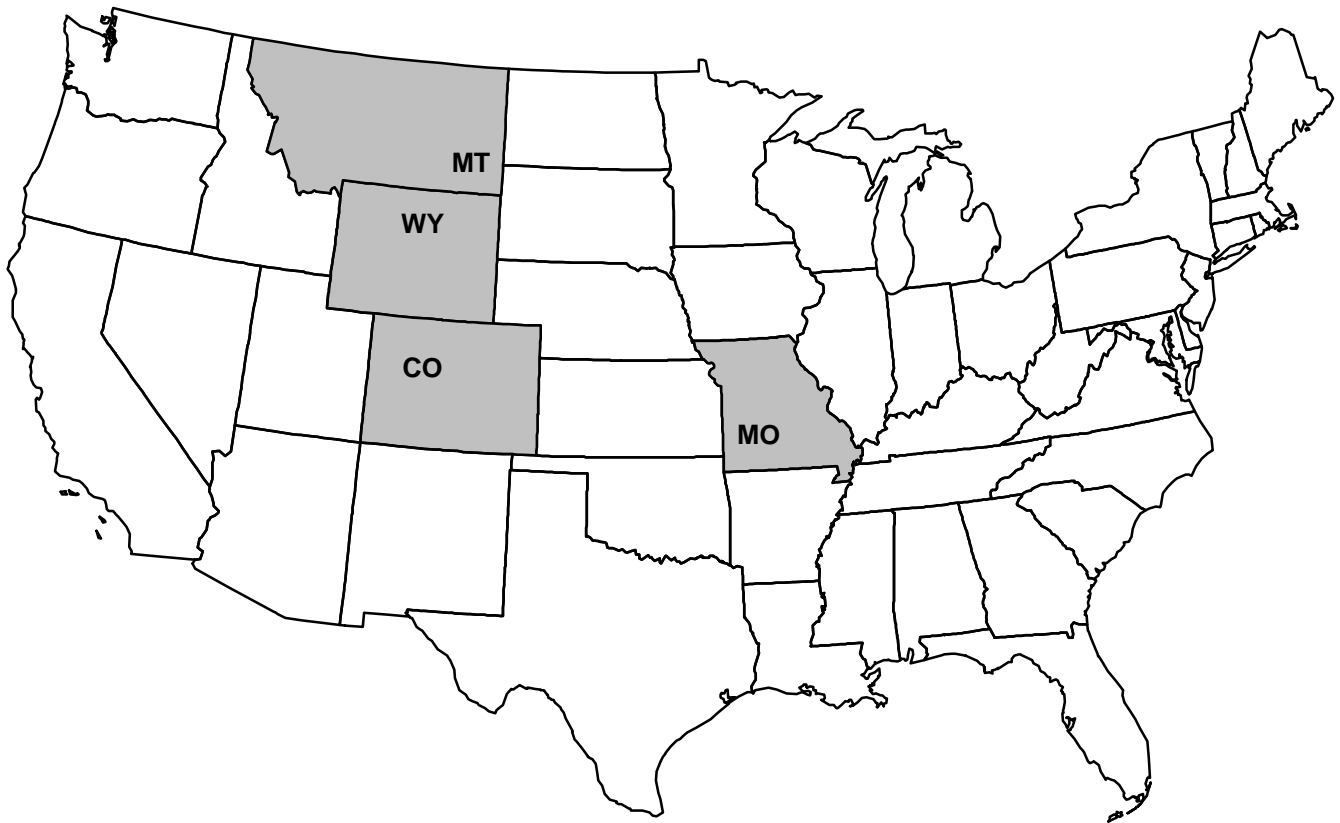


FIGURE 33. REPRESENTATIVE FARMS PRODUCING BEEF CATTLE



Beef Cattle Impacts

- # The beef cattle outlook is generally positive due to the upturn in cattle prices projected over the study period. Feeder cattle prices are projected to rise from approximately \$61/cwt. in 1996 to \$93.87/cwt. in 2003 then fall to \$90.73 in 2004.
- # The increase in cattle prices, cheaper feed costs and strong rates of inflation for land in the Mountain States are responsible for projected average annual real increases in net worth of 1 to 12 percent over the 2000-2004 period for the four representative ranches (Table 12).
- # Ending cash reserves grow over the period for the Montana and Colorado ranches. The Wyoming ranch experiences negative ending cash balances throughout the period. On the average, the Missouri beef operation also experiences small cash flow deficits each year until the last two years of the planning horizon. The probability of refinancing deficits declines for each of the ranches, except the Wyoming ranch, as cattle prices increase through 2004 (Figure 35).
- # Net cash farm incomes show improvement over the 1999-2004 period as cattle prices rebound (Table 12 and Figure 35). These ranches sell calves and use little purchased feed, so low feed prices have mostly indirect effects on the operations. The Montana and Colorado ranches have larger ending cash positions than the Wyoming ranch and are able to keep the probability of refinancing low.
- # The upward trend in cattle prices outpaces inflation and higher feed costs to increase average annual net cash incomes. The risk associated with net cash income is projected to increase due to uncertainty about prices and the effects compounding financial problems for operations with low rates of return.
- # Eight other representative farms have cattle operations ranging from 20 to 200 cows. Increasing returns from cattle throughout the study period contribute to the bottom line for those representative farms.

Table 12. Implications of the 1996 Farm Bill and the January 2000 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Beef Cattle.

	MTB400	WYB300	COB250	MOB150
Annual Change Real Net Worth (%)				
2000-2004 Average	11.97	7.83	12.06	1.00
Cost to Receipts Ratio (%)				
2000-2004 Average	55.71	82.83	54.34	69.15
Govt Payments/Receipts (%)				
2000-2004 Average	0.00	0.00	0.00	6.51
Total Cash Receipts (\$1000)				
1996	103.08	87.35	119.48	97.26
1997	139.54	114.94	143.29	119.45
1998	134.39	111.12	145.69	109.19
1999	145.26	121.57	134.13	123.88
2000	158.72	128.46	143.24	118.71
2001	165.06	133.39	155.31	121.26
2002	168.71	136.24	158.26	122.61
2003	170.64	137.58	161.29	123.80
2004	163.18	131.95	157.00	121.88
Net Cash Farm Income (\$1000)				
1996	11.97	-6.84	15.37	15.78
1997	47.00	19.54	36.97	37.52
1998	40.83	-8.05	44.47	18.50
1999	62.27	21.81	52.74	42.06
2000	72.52	23.76	62.67	35.11
2001	75.90	25.38	71.54	38.61
2002	78.89	27.87	76.55	39.50
2003	77.55	26.30	75.54	41.59
2004	70.88	21.34	72.14	39.94
Prob. of a Cash Flow Deficit (%)				
2000	2	99	9	83
2001	8	99	1	69
2002	7	99	1	68
2003	3	99	1	49
2004	10	99	4	38
Ending Cash Reserves (\$1000)				
1996	-13.84	-27.53	-17.10	-8.82
1997	-3.38	-30.04	-19.11	-0.84
1998	1.81	-62.89	-16.86	-22.08
1999	29.04	-61.91	-11.29	-13.98
2000	66.03	-70.11	15.40	-13.64
2001	96.26	-74.24	47.32	-9.82
2002	130.28	-83.18	85.53	-8.60
2003	161.58	-89.11	115.48	2.36
2004	187.07	-99.33	140.45	13.48
Prob. of Refinancing Deficits (%)				
2000	1	99	9	83
2001	1	99	1	68
2002	1	99	1	58
2003	1	99	1	44
2004	1	99	1	32
Nominal Net Worth (\$1000)				
1996	1,499.57	528.45	5,237.84	579.10
1997	1,703.73	602.38	5,745.31	627.49
1998	1,849.70	603.10	6,308.41	633.02
1999	2,044.59	651.52	6,938.83	658.08
2000	2,272.59	709.32	7,648.83	666.10
2001	2,507.11	760.00	8,415.91	678.46
2002	2,756.69	811.82	9,259.23	681.61
2003	3,019.75	867.67	10,178.67	691.95
2004	3,281.85	910.27	11,167.37	693.94
Prob. of Losing Real Net Worth (%)				
2000	1	12	1	37
2001	1	4	1	27
2002	1	1	1	26
2003	1	1	1	17
2004	1	1	1	17

Figure 34. Cattle Ranches

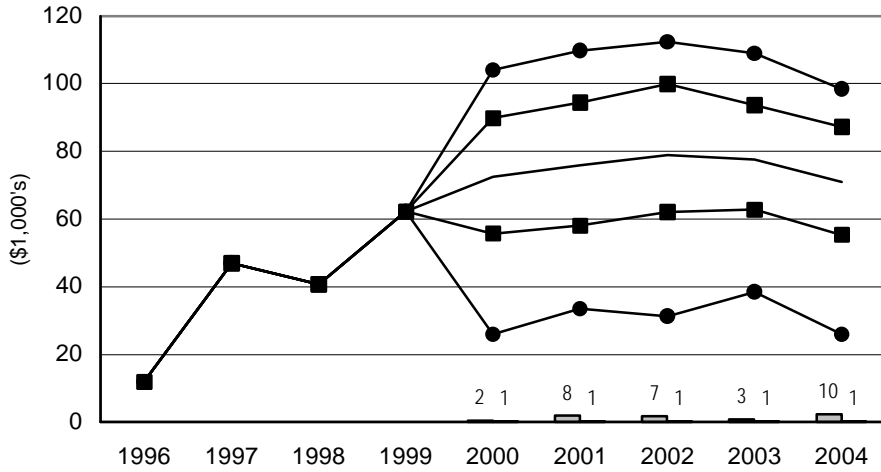
Economic and Financial Position Over the Period, 2000-2004, for all Cattle Ranches



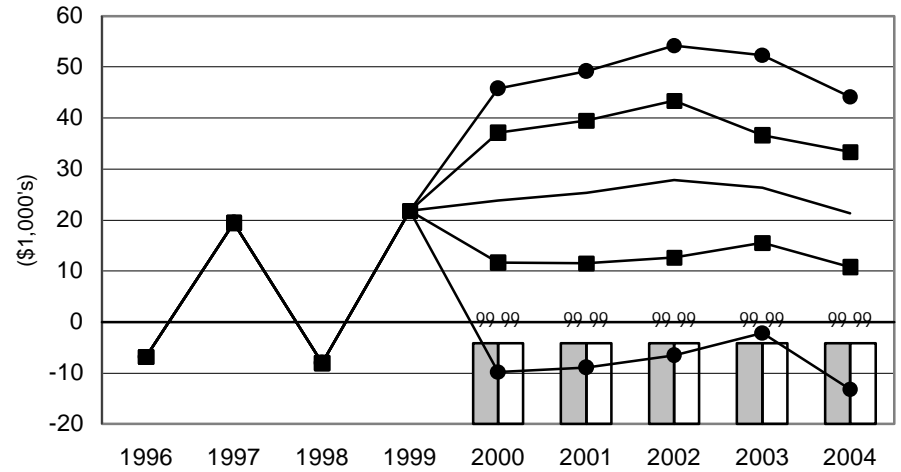
Figure 35. Net Cash Farm Income and Probabilities of a Cash Flow Deficit and Refinancing: Cattle Ranches

— Mean NCFI ■ 25 & 75 Percentile NCFI ● 5 & 95 Percentile NCFI ▒ Prob. of Cash Flow Deficit □ Prob. of Refinancing

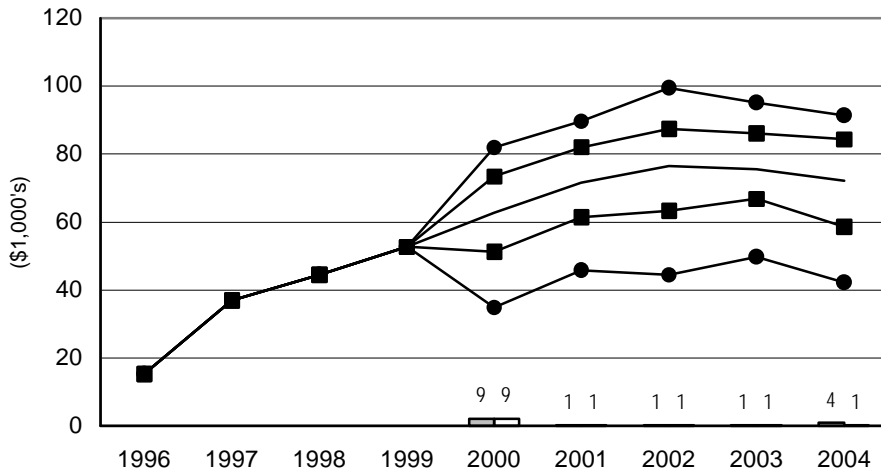
MTB400 Montana Cattle Ranch



WYB300 Wyoming Cattle Ranch



COB250 Colorado Cattle Ranch



MOB150 Southwest Missouri Cattle Ranch

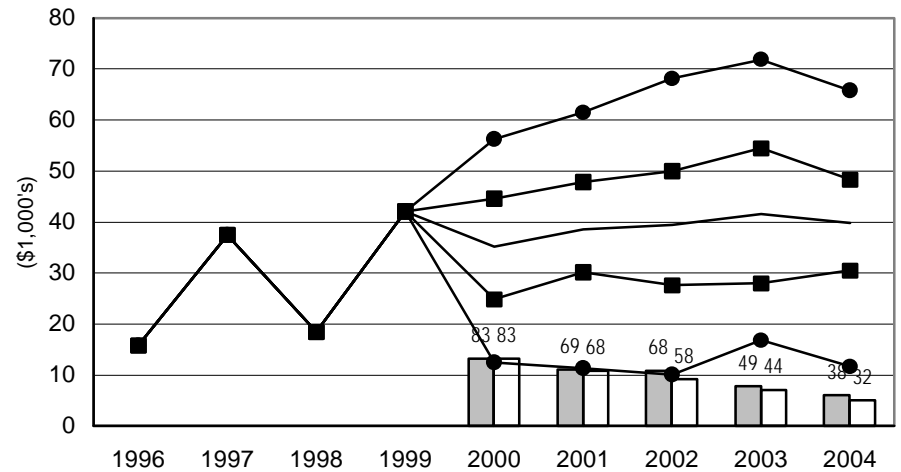
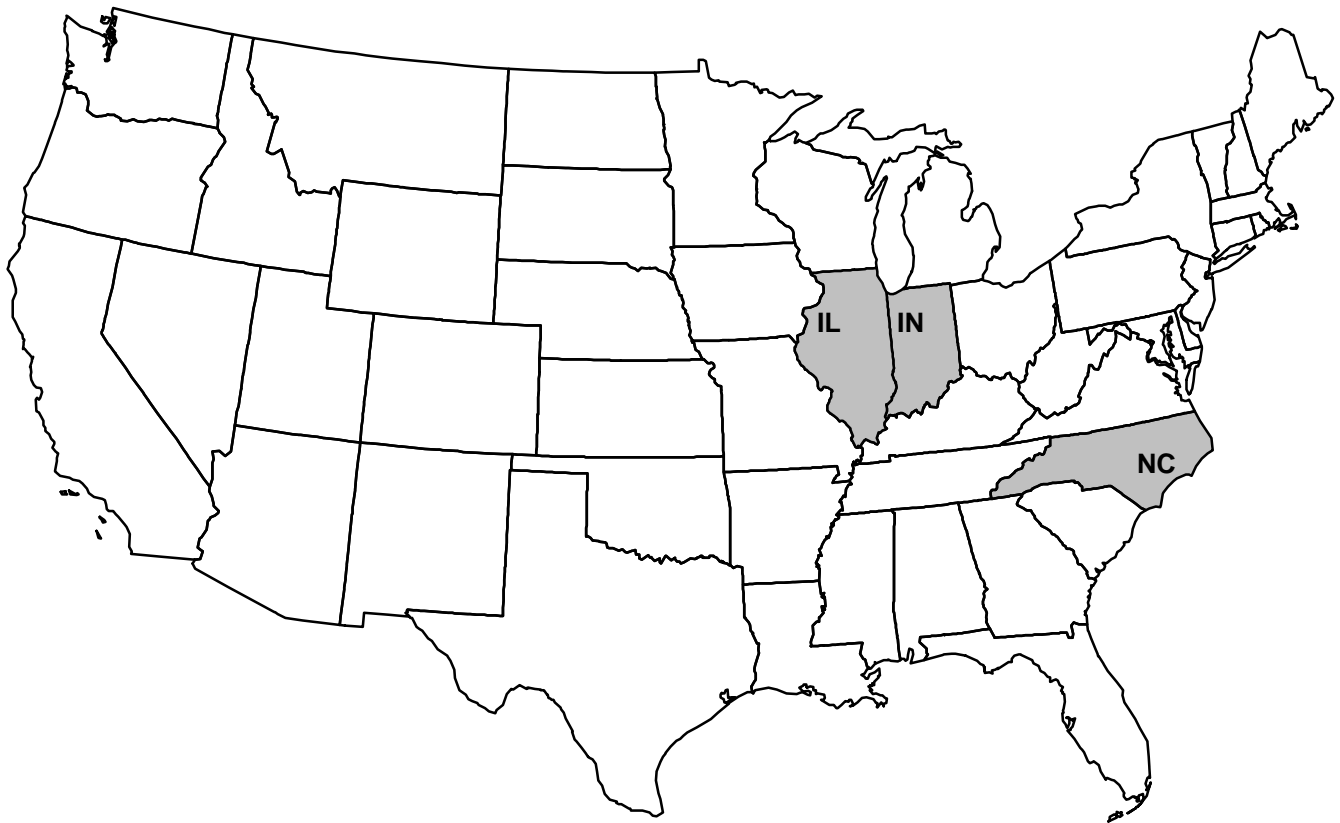


FIGURE 36. REPRESENTATIVE FARMS PRODUCING HOGS



Hog Farm Impacts

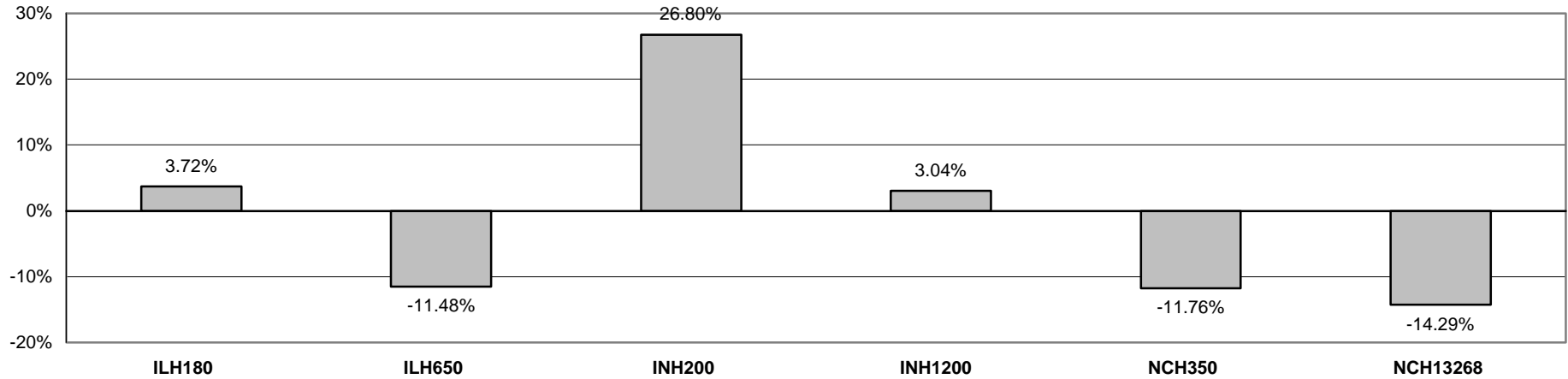
- # Baseline projected hog prices range from a low of \$34.00 per cwt. in 1999 to a high of \$43.52 per cwt. in 2002.
- # Five of the six representative hog farms experience an increase in real equity over the 1997-2004 period. The annual real equity growth ranges from -5.6 percent on the moderate Indiana (INH200) farm to about 12.4 percent on the NCH350. Annual real equity growth on the large contract farming operation in North Carolina is substantially higher than the other farms at 33 percent.
- # The two Central Missouri hog farms reported in past Baselines are not included because they exited the industry in 1998 and 1999. The local facilitator reported that almost all independent farrow-to-finish farms in the area were either out of business or feeding hogs on contract for other firms.
- # The two Illinois farms (ILH180 and ILH650) adjusted to the low prices in 1998 by reducing the number of sows and reducing costs. The farms survived the low prices, but the probability of a cash flow deficit is likely to grow to 60 percent for the moderate size farm (ILH180) by 2004. The large farm is likely to see the probability of cash flow deficits grow to 33 percent by 2004.
- # The two Indiana farms (INH200 and INH1200) are examples of farms that took advantage of high hog prices in 1996 and 1997 to expand and take on more debt. As a result the two farms have high probabilities of cash flow deficits each year of the planning horizon (Table 13). The larger farm will likely improve over the 2000-2002 period and may begin seeing positive ending cash balances after 2004. The probability of the larger farm having to refinance deficits improves from 99 percent in 2000 to 68 percent in 2004. The moderate farm, however, continues to build cash flow deficits and ever larger negative ending cash reserves.
- # Net incomes on the North Carolina farms were severely impacted by low hog prices in 1998 and 1999, however, they will likely recover, although at lower levels of income than the start of the period (Figure 39). Net cash income for the large farm was over \$8 million in 1996 and 1997 and fell to a negative \$469,000 in 1998. Over the 2000-2004 period the large farms net cash farm income gradually increases to \$7.3 million and then falls to \$5.1 million as hog prices decline after 2002. Probabilities of cash flow deficits are relatively low (less than 21 percent) through the planning horizon for both farms. Any potential flood damage is not included in this analysis.
- # The annual net income adjustments to move the three farms with a moderate to poor financial position (ILH180, INH200, and INH1200) to a good position ranges from 3 to 26 percent of receipts (Figure 38). On the other hand, the three farms with a good financial position could lose 11 to 14 percent of annual receipts and maintain their financial position.

Table 13. Implications of the 1996 Farm Bill and the January 2000 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Hogs.

	ILH180	ILH650	INH200	INH1200	NCH350	NCH13268
Overall Financial Position						
2000-2004 Ranking	MARGINAL	GOOD	POOR	MARGINAL	GOOD	GOOD
NIA to Maintain or Achieve a Good Fin. Position (\$1,000)	19.25	-208.09	122.78	94.98	-87.72	-3,939.83
NIA to Maintain or Achieve a Good Fin. Position (% Rec.)	3.72	-11.48	26.80	3.04	-11.76	-14.29
Annual Change Real Net Worth (%)						
2000-2004 Average	3.35	6.03	-5.59	5.75	12.63	32.66
Cost to Receipts Ratio (%)						
2000-2004 Average	72.78	68.03	97.56	85.98	70.07	78.47
Govt Payments/Receipts (%)						
2000-2004 Average	4.73	5.05	7.16	4.40	0.00	0.00
Total Cash Receipts (\$1000)						
1996	732.99	2,426.25	647.47	3,212.96	949.80	35,093.50
1997	733.44	2,463.51	642.44	3,936.91	917.30	33,878.37
1998	485.26	1,470.64	427.77	2,547.28	595.16	21,948.94
1999	499.67	1,592.73	439.85	2,739.77	619.12	22,877.89
2000	477.65	1,702.17	429.37	2,920.25	691.79	25,557.83
2001	512.32	1,850.11	465.04	3,179.57	760.90	28,129.04
2002	530.66	1,873.01	470.81	3,236.45	779.03	28,796.90
2003	537.55	1,854.42	470.11	3,212.23	767.56	28,372.14
2004	528.71	1,781.11	455.55	3,090.80	731.11	27,016.80
Net Cash Farm Income (\$1000)						
1996	267.11	892.18	173.66	574.66	220.65	8,438.89
1997	286.03	1,044.97	181.53	352.65	281.97	8,411.02
1998	74.20	267.01	28.25	-82.93	52.31	-469.01
1999	116.16	378.76	39.72	257.70	122.08	2,226.33
2000	129.44	530.29	22.68	368.74	194.49	4,934.23
2001	146.70	642.90	37.72	547.77	249.74	7,007.36
2002	159.49	653.41	25.57	546.28	259.60	7,347.90
2003	149.24	616.06	12.33	506.13	242.92	6,679.70
2004	139.80	520.81	-14.42	385.35	202.31	5,122.70
Prob. of a Cash Flow Deficit (%)						
2000	19	13	99	99	10	5
2001	21	3	99	84	2	1
2002	24	2	99	69	1	1
2003	49	7	99	62	3	3
2004	60	33	99	68	20	13
Ending Cash Reserves (\$1000)						
1996	95.00	334.49	39.65	34.92	46.01	3,672.28
1997	201.71	712.38	70.47	-53.08	122.96	7,256.50
1998	154.46	629.34	-13.64	-528.18	56.33	5,028.17
1999	120.44	538.75	-96.07	-681.46	27.97	4,539.59
2000	151.90	700.86	-151.02	-579.95	84.43	7,312.85
2001	182.93	934.67	-190.09	-388.65	175.33	11,445.59
2002	211.01	1,166.45	-261.95	-228.36	278.40	15,887.66
2003	214.00	1,380.28	-351.87	-91.17	367.86	20,024.14
2004	212.40	1,487.51	-487.62	-57.24	437.02	23,284.12
Prob. of Refinancing Deficits (%)						
2000	1	1	99	99	1	1
2001	1	1	99	84	1	1
2002	1	1	99	68	1	1
2003	1	1	99	58	1	1
2004	1	1	99	60	1	1
Nominal Net Worth (\$1000)						
1996	796.85	3,300.32	1,110.88	2,917.19	725.51	11,996.93
1997	938.27	3,996.08	1,234.87	3,397.78	835.46	16,590.34
1998	873.97	3,832.41	1,199.32	2,823.98	699.18	11,264.13
1999	894.56	4,000.88	1,181.71	2,932.93	720.59	12,419.69
2000	938.25	4,257.69	1,142.66	3,140.01	806.85	16,322.29
2001	980.00	4,577.42	1,121.52	3,442.69	923.64	21,345.34
2002	1,014.36	4,852.29	1,052.25	3,613.20	1,033.30	26,079.17
2003	1,028.73	5,060.69	963.81	3,759.04	1,118.97	30,057.14
2004	1,048.52	5,228.04	854.87	3,791.15	1,180.50	32,834.68
Prob. of Losing Real Net Worth (%)						
2000	17	10	77	33	12	7
2001	10	1	80	13	1	1
2002	8	1	93	9	1	1
2003	9	1	96	9	1	1
2004	6	1	98	9	1	1

Figure 37. Hog Farms

Minimum Annual Percentage Change in Receipts, 2000-2004, Needed to Achieve or Maintain a Good Overall Financial Position



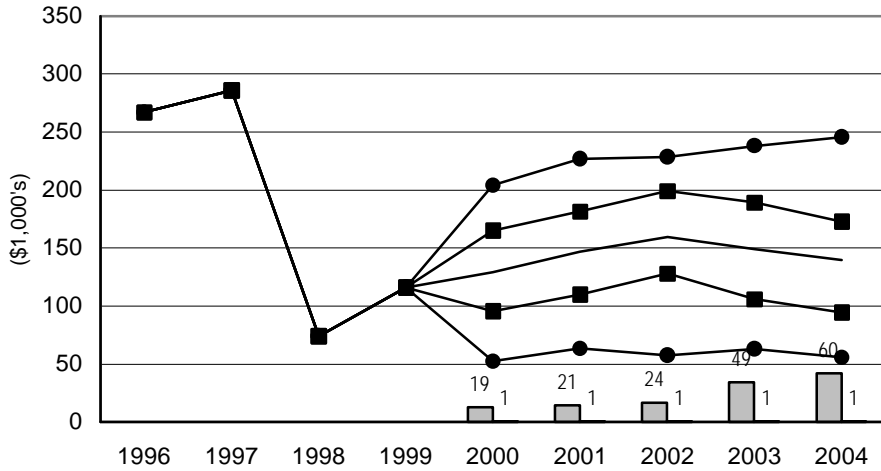
Economic and Financial Position Over the Period, 2000-2004, for all Hog Farms



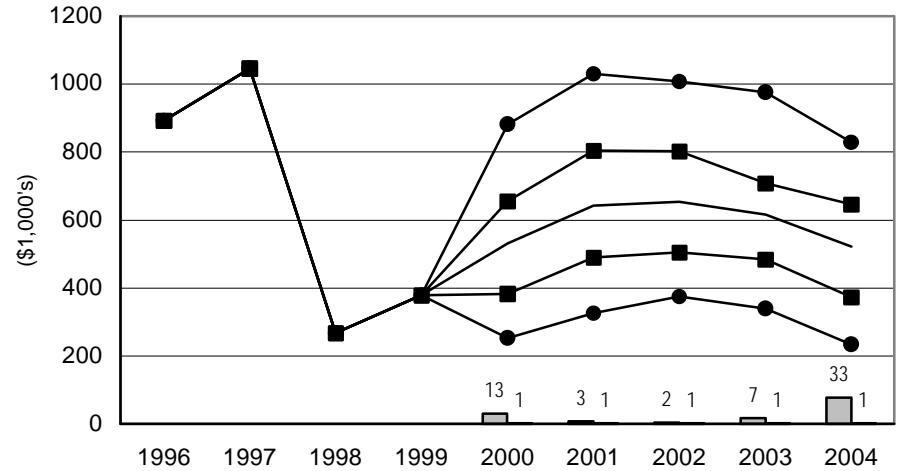
**Figure 38. Net Cash Farm Income and Probabilities of a Cash Flow Deficit and Refinancing:
Hog Farms**

— Mean NCFY ■ 25 & 75 Percentile NCFY ● 5 & 95 Percentile NCFY ▒ Prob. of Cash Flow Deficit □ Prob. of Refinancing

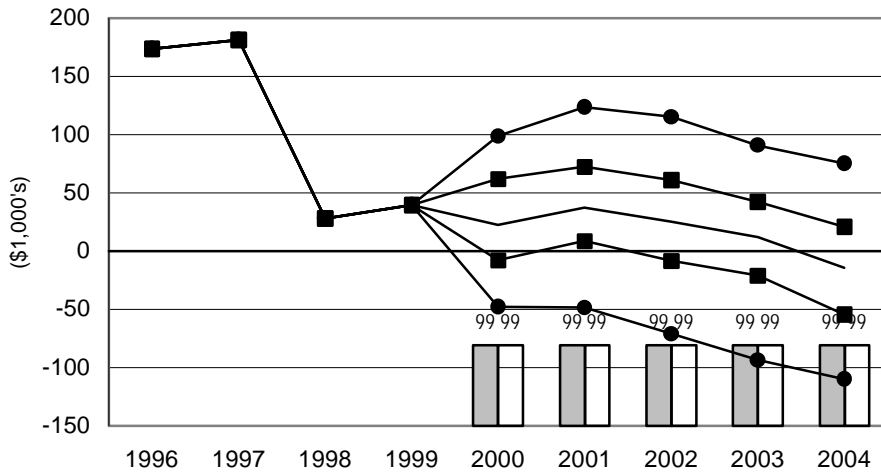
ILH180 Illinois Hog Farm



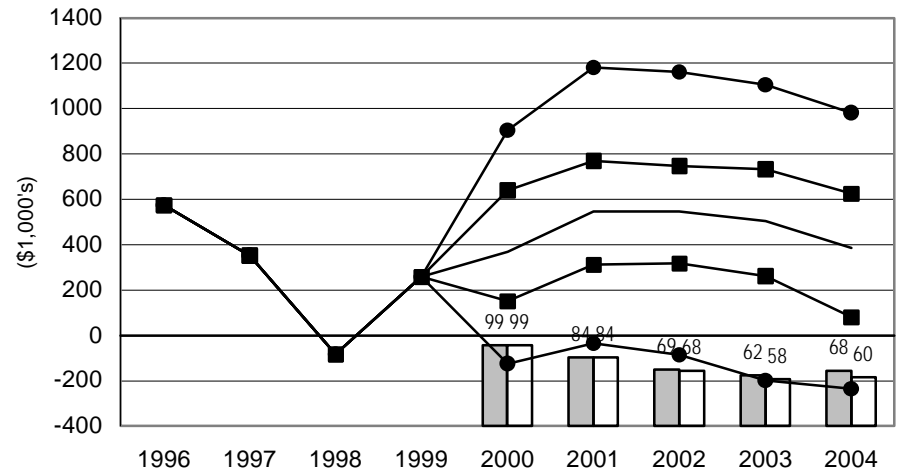
ILH650 Large Illinois Hog Farm



INH200 Indiana Hog Farm



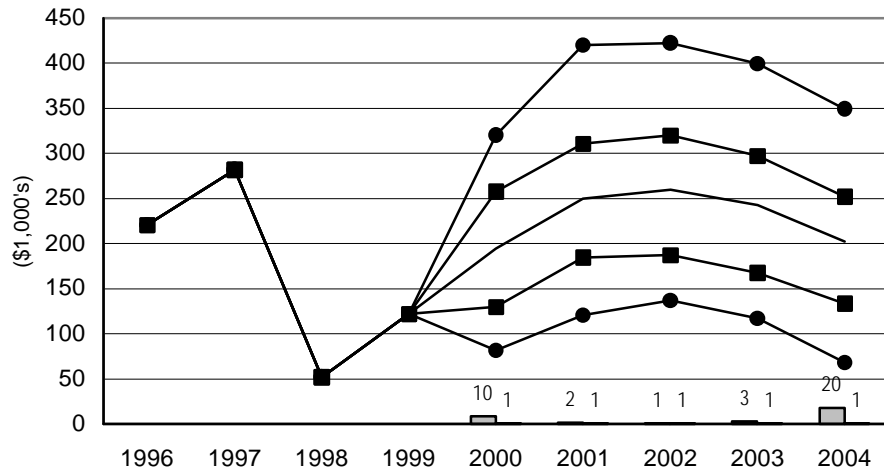
INH1200 Large Indiana Hog Farm



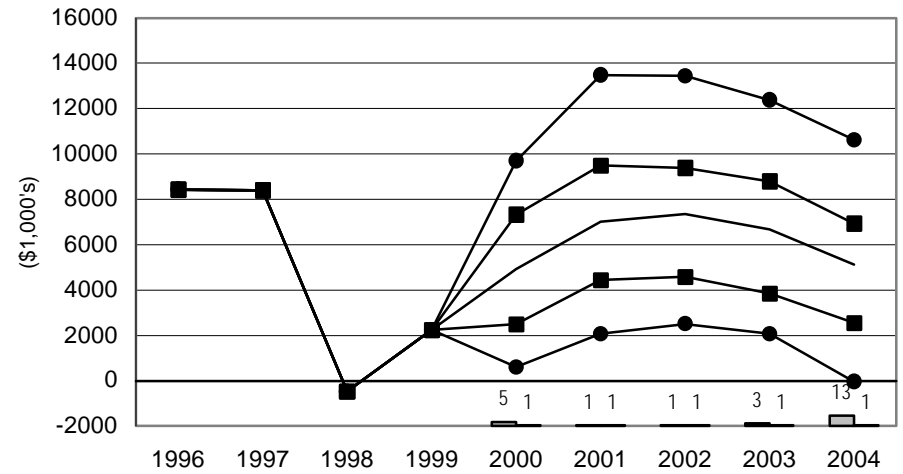
**Figure 39. Net Cash Farm Income and Probabilities of a Cash Flow Deficit and Refinancing:
Hog Farms**

— Mean NCFY ■ 25 & 75 Percentile NCFY ● 5 & 95 Percentile NCFY ▒ Prob. of Cash Flow Deficit □ Prob. of Refinancing

NCH350 North Carolina Hog Farm



NCH13268 Large North Carolina Hog Farm



APPENDIX A:

CHARACTERISTICS OF

REPRESENTATIVE FARMS

1999 CHARACTERISTICS OF PANEL FARMS PRODUCING FEED GRAIN AND OILSEEDS

- IAG950** A 950-acre Northwestern Iowa (Webster County) moderate size grain farm that plants 475 acres of corn, and 475 acres of soybeans. The farm receives 60 percent of its receipts from corn.
- IAG2400** A 2,400-acre Northwestern Iowa (Webster County) large grain farm that plants 1,200 acres of corn, and 1,200 acres of soybeans. The farm generates 63 percent of its receipts from corn.
- NEG900** A 900-acre South Central Nebraska (York County) grain farm that plants 600 acres of corn, and 300 acres of soybeans. The farm generates 78 percent of its receipts from corn.
- NEG1300** A 1,300 South Central Nebraska (Hamilton County) grain farm that plants 871 acres of corn and 429 acres of soybeans. The farm generates about 78 percent of its receipts from corn.
- MOCG1700** A 1,700-acre Central Missouri (Carroll County) moderate size grain farm with 85 acres of wheat, 808 acres of corn, and 808 acres of soybeans. This farm is located in the Missouri river bottom and supplies feed to the livestock producers in the region at a premium to other areas of Missouri. Corn generates 52 percent of the farm's receipts and soybeans account for 40 percent of receipts.
- MOCG3300** A 3,300-acre Central Missouri (Carroll County) large grain farm with 100 acres of wheat, 1,319 acres of corn, and 1,881 acres of soybeans. This farm is located in the Missouri river bottom-and supplies feed to the livestock producers in the region at a premium to other areas of Missouri. The farm generates about 46 percent of its total revenue from corn and 49 percent from soybeans.
- MONG1400** A 1,400-acre Northern Missouri (Nodaway County) diversified grain farm with 600 acres of corn, 600 acres of soybeans, and 200 acres of hay. The farm also has 200 breeding cows and in 1996 sold its 80 breeding sows. The farm generates about 68 percent of its total revenue from corn and soybeans and 29 percent from cattle.

Appendix Table A1. Characteristics of Panel Farms Producing Feed Grains.

	IAG950	IAG2400	NEG900	NEG1300	MOCG1700	MOCG3300	MONG1400
County	Webster	Webster	York	Hamilton	Carroll	Carroll	Nodaway
Total Cropland	950	2,400	900	1,300	1,700	3,300	1,400
Acres Owned	240	380	180	260	850	1,600	700
Acres Leased	710	2,020	720	1,040	850	1,700	700
Pastureland							
Acres Owned	0	0	0	0	0	0	400
Acres Leased	0	0	0	0	0	0	400
Assets (\$1000)							
Total	1,126	1,917	1,254	1,415	2,366	4,077	2,097
Real Estate	866	1,304	703	792	1,659	3,035	1,609
Machinery	209	451	392	419	414	647	343
Other & Livestock	52	162	159	204	293	395	145
Debt/Asset Ratios							
Total	0.16	0.17	0.21	0.10	0.13	0.15	0.22
Intermediate	0.16	0.19	0.26	0.02	0.07	0.14	0.45
Long Run	0.16	0.16	0.17	0.16	0.15	0.15	0.15
Number of Livestock							
Beef Cows	0	0	0	0	0	0	200
1999 Gross Receipts (\$1,000)*							
Total	269.0	598.2	321.0	436.9	350.2	643.9	345.0
Cattle	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	102.3 29.70%
Corn	162.9 60.60%	380.1 63.50%	251.6 78.40%	342.8 78.50%	183.5 52.40%	293.6 45.60%	154.6 44.80%
Wheat	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	15.6 4.50%	28.6 4.40%	0.0 0.00%
Soybeans	99.8 37.10%	204.6 34.20%	66.5 20.70%	90.8 20.80%	142.0 40.60%	312.8 48.60%	80.0 23.20%
Hay	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.7 0.20%
Other Receipts	3.4 1.30%	7.6 1.30%	0.0 0.00%	0.0 0.00%	5.0 1.40%	0.0 0.00%	4.3 1.20%
1999 Planted Acres**							
Total	950.0	2,400.0	900.0	1,300.0	1,700.0	3,300.0	1,450.0
Corn	475.0 50.00%	1,200.0 50.00%	600.0 66.70%	871.0 67.00%	807.5 47.50%	1,319.0 40.00%	600.0 41.40%
Wheat	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	85.0 5.00%	100.0 3.00%	0.0 0.00%
Soybeans	475.0 50.00%	1,200.0 50.00%	300.0 33.30%	429.0 33.00%	807.5 47.50%	1,881.0 57.00%	600.0 41.40%
Hay	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	200.0 13.80%

*Receipts for 1999 are included to indicate the relative importance of each enterprise to the farm. Percents indicate the percentage of the total receipts accounted for by the livestock categories and the crops.

**Acreages for 1999 are included to indicate the relative importance of each enterprise to the farm. Total planted acreage may exceed total cropland available due to double cropping. Percents indicate the percentage of total planted acreage accounted for by the crop.

PANEL FARMS PRODUCING FEED GRAIN AND OILSEEDS (CONTINUED)

- TXNP1600** A 1,600-acre Northern High Plains of Texas (Moore County) moderate size, 100 percent irrigated, grain farm with 528 acres of wheat, 240 acres of sorghum, 800 acres of corn, and 32 acres fallow. The farm generates 83 percent of its total receipts from feed grains.
- TXNP6700** A 6,700-acre Northern High Plains of Texas (Moore County) large, 85 percent irrigated, grain farm with 1,675 acres of irrigated wheat (800 acres of the wheat is in the dryland corners of all pivot irrigated fields), 335 acres of irrigated sorghum, 3,350 acres of irrigated corn, and 670 acres fallow. The farm generates about 61 percent of its receipts from feed grains.
- TXBG2000** A 2,000 acre Texas Blacklands (Hill County) grain farm with 600 acres of corn, 750 acres of sorghum, 250 acres of wheat, 400 acres of cotton and 150 acres of pasture. About 61 percent of the receipts are from feedgrains. The farm has 20 cows and receives only 2 percent of its receipts from cattle.
- TXBG2500** A 2,500 acre Texas Blacklands (Falls County) grain farm with 750 acres of corn, 250 acres of sorghum, 250 acres of wheat, 625 acres of oats and 625 acres of pasture. The feedgrains account for 53 percent of the receipts on the farm. The 125 cows plus stocker steers account for 25 percent of receipts.
- TNG900** A 900-acre Western Tennessee (Henry County) grain and soybean farm with 400 acres of corn, 500 acres of soybeans, 200 acres of wheat, and 250 acres of hay. The farm generates about 67 percent of its receipts from corn and soybeans. Fifty head of beef cattle account for 9 percent of receipts.
- TNG2400** A 2,400-acre Western Tennessee (Henry County) grain and soybean farm with 1,200 acres of corn, 1,200 acres of soybeans, and 600 acres of wheat. The farm generates about 78 percent of its receipts from corn and soybeans.
- SCG1500** A 1,500-acre South Carolina (Clarendon County) moderate size grain farm with 454 acres of double cropped wheat and soybeans, 846 acres of corn, and 200 acres of full season soybeans. The farm generates about 75 percent of its total receipts from corn and soybeans. This farm enjoys high returns on double cropped acreage but timing does not allow more than 454 acres.
- SCG3500** A 3,500-acre South Carolina (Clarendon County) large grain farm with 900 acres of double crop wheat and soybeans, 310 acres of full season soybeans, 840 acres of cotton, and 1,130 acres of corn. This farm enjoys high returns on double cropped acreage but timing is a limiting factor. The farm generates 55 percent of its receipts from corn and soybeans.

Appendix Table A2. Characteristics of Panel Farms Producing Feed Grains.

	TXNP1600	TXNP6700	TXBG2000	TXBG2500	TNG900	TNG2400	SCG1500	SCG3500
County	Moore	Moore	Hill	Falls	Henry	Henry	Clarendon	Clarendon
Total Cropland	1,600	6,700	2,000	1,250	900	2,400	1,500	3,500
Acres Owned	160	1,100	200	312	207	482	500	1,400
Acres Leased	1,440	5,600	1,800	938	693	1,918	1,000	2,100
Pastureland								
Acres Owned	0	0	15	312	57	0	300	1,400
Acres Leased	0	0	135	700	190	0	0	0
Assets (\$1000)								
Total	427	2,672	446	1,084	680	1,748	1,023	3,665
Real Estate	121	853	188	684	422	912	659	2,420
Machinery	269	1,356	247	142	221	614	334	936
Other & Livestock	37	463	11	258	38	222	30	310
Debt/Asset Ratios								
Total	0.16	0.15	0.31	0.12	0.26	0.18	0.16	0.19
Intermediate	0.16	0.15	0.42	0.05	0.43	0.20	0.16	0.24
Long Run	0.16	0.14	0.16	0.16	0.15	0.15	0.16	0.16
Number of Livestock								
Beef Cows	0	0	20	125	50	0	0	0
1999 Gross Receipts (\$1,000)*								
Total	407.6	1,606.1	357.3	401.2	213.9	539.9	426.6	1,191.3
Cattle	0.0 0.00%	0.0 0.00%	7.3 2.10%	101.9 25.40%	20.4 9.50%	0.0 0.00%	0.0 0.00%	0.0 0.00%
Corn	286.3 70.20%	1,258.3 78.30%	101.3 28.40%	152.0 37.90%	89.4 41.80%	296.6 54.90%	232.4 54.50%	513.6 43.10%
Sorghum	51.9 12.70%	70.4 4.40%	115.1 32.20%	36.2 9.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%
Wheat	69.3 17.00%	179.2 11.20%	27.6 7.70%	39.3 9.80%	34.5 16.20%	115.4 21.40%	101.2 23.70%	259.0 21.70%
Soybeans	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	53.0 24.80%	125.2 23.20%	86.0 20.20%	136.7 11.50%
Cotton	0.0 0.00%	0.0 0.00%	105.8 29.60%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	267.1 22.40%
Hay	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	8.5 4.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%
Oats	0.0 0.00%	0.0 0.00%	0.0 0.00%	23.2 5.80%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%
Other Receipts	0.0 0.00%	16.3 1.00%	0.0 0.00%	48.7 12.10%	7.0 3.30%	0.0 0.00%	3.8 0.90%	7.7 0.60%
1999 Planted Acres**								
Total	1,600.0	6,030.0	2,150.0	2,500.0	1,350.0	3,000.0	1,954.0	4,400.0
Corn	800.0 50.00%	3,350.0 55.60%	600.0 27.90%	750.0 30.00%	400.0 29.60%	1,200.0 40.00%	846.0 43.30%	1,400.0 31.80%
Sorghum	240.0 15.00%	335.0 5.60%	750.0 34.90%	250.0 10.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%
Wheat	528.0 33.00%	1,675.0 27.80%	250.0 11.60%	250.0 10.00%	200.0 14.80%	600.0 20.00%	454.0 23.20%	900.0 20.50%
Soybeans	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	500.0 37.00%	1,200.0 40.00%	654.0 33.50%	1,260.0 28.60%
Cotton	0.0 0.00%	0.0 0.00%	400.0 18.60%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	840.0 19.10%
Fallow	32.0 2.00%	670.0 11.10%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%
Hay	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	250.0 18.50%	0.0 0.00%	0.0 0.00%	0.0 0.00%
Oats	0.0 0.00%	0.0 0.00%	0.0 0.00%	625.0 25.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%
Improved Pasture	0.0 0.00%	0.0 0.00%	150.0 7.00%	625.0 25.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%

*Receipts for 1999 are included to indicate the relative importance of each enterprise to the farm. Percents indicate the percentage of the total receipts accounted for by the livestock categories and the crops.

**Acreages for 1999 are included to indicate the relative importance of each enterprise to the farm. Total planted acreage may exceed total cropland available due to double cropping. Percents indicate the percentage of total planted acreage accounted for by the crop.

1999 CHARACTERISTICS OF PANEL FARMS PRODUCING WHEAT

- WAW1500** A 1,500-acre Southeastern Washington (Whitman County) moderate size grain farm that plants 900 acres of wheat, 300 acres of barley, and 300 acres of dry peas. Disease problems require a rotation that includes a minimum amount of barley and peas to maintain wheat yields. The farm generates 69 percent of its receipts from wheat .
- WAW4250** A 4,250-acre Southeastern Washington (Whitman County) large size grain farm that is harvesting 2,763 acres of wheat, 200 acres of barley, and 1,288 acres of peas. Disease problems require a rotation that includes a minimum amount of barley and peas in order to maintain wheat yields. Winter and spring wheat account for 72 percent of receipts.
- NDW1760** A 1,760-acre South Central North Dakota (Barnes County) moderate size grain farm that has 704 acres of wheat, 176 acres of barley, 176 acres of corn, 352 acres of soybeans, and 352 acres of sunflowers. The farm receives about 51 percent of receipts from small grains of wheat and barley.
- NDW4850** A 4,850-acre South Central North Dakota (Barnes County) large grain farm that plants 2,585 acres of wheat, 470 acres of barley, 705 acres of soybeans, 940 acres of sunflowers, and 150 acres of CRP. Wheat accounts for about 55 percent of the farms total gross receipts with barley contributing another 12 percent.
- KSSW1385** A 1,385-acre South Central Kansas (Sumner County) moderate size grain farm that plants 928 acres of wheat, 138 acres of soybeans, and 319 acres of grain-sorghum. The farm generates about 69 percent of its receipts from wheat.
- KSSW3180** A 3,180-acre South Central Kansas (Sumner County) large grain farm harvesting 2,258 acres of wheat, 652 acres of grain sorghum, 56 acres of corn, 87 acres of soybeans, and 127 acres of hay. The farm also has 67 mother cows. The farm generates 69 percent of its receipts from wheat.
- KSNW2325** A 2,325-acre North Western Kansas (Thomas County) moderate size grain farm that plants 775 acres of wheat, 155 acres of grain sorghum, 620 acres of corn, and has 775 acres of fallow. The farm generates 41 percent of its receipts from wheat.
- KSNW4300** A 4,300-acre North Western Kansas (Thomas County) large grain farm harvesting 1,948 acres of wheat, 465 acres of sorghum, 549 acres of corn, 262 acres of sunflowers, 75 acres of hay, and 1,001 acres of fallow. The farm also has 100 breeding cows. The farm generates about 47 percent of its receipts from wheat.
- COW2700** A 2,700-acre Northeast Colorado (Washington County) moderate size grain farm that plants 1,127 acres of wheat, 608 acres of millet, and 446 acres of corn, and will leave 519 acres fallow. The farm generates 61 percent of its receipts from wheat.
- COW5440** A 5,440-acre Northeast Colorado (Washington County) large size grain farm that plants 1,900 acres of wheat, 500 acres of corn, 1,300 acres of millet, 640 acres of CRP, and 1,100 acres in fallow. Wheat produces 61 percent of the farms gross revenue.

Appendix Table A3. Characteristics of Panel Farms Producing Wheat.

	WAW1500	WAW4250	NDW1760	NDW4850	KSSW1385	KSSW3180	KSNW2325	KSNW4300	COW2700	COW5440
County	Whitman	Whitman	Barnes	Barnes	Sumner	Sumner	Thomas	Thomas	Washington	Washington
Total Cropland	1,500	4,250	1,760	4,850	1,385	3,180	2,325	4,300	2,700	5,440
Acres Owned	750	2,125	176	1,701	485	330	930	1,147	837	3,020
Acres Leased	750	2,125	1,584	3,149	900	2,850	1,395	3,153	1,863	2,420
Pastureland										
Acres Owned	0	0	0	0	0	25	500	500	0	0
Acres Leased	0	0	0	0	0	775	500	500	0	0
Assets (\$1000)										
Total	1,514	4,205	435	2,372	699	1,319	1,165	1,592	763	2,241
Real Estate	1,028	2,968	136	957	426	434	730	902	456	1,539
Machinery	475	1,056	221	1,008	199	509	387	466	193	582
Other & Livestock	12	181	77	407	74	375	47	224	114	120
Debt/Asset Ratios										
Total	0.22	0.19	0.15	0.17	0.20	0.10	0.21	0.13	0.15	0.17
Intermediate	0.35	0.30	0.14	0.18	0.26	0.06	0.32	0.09	0.15	0.21
Long Run	0.16	0.14	0.16	0.17	0.15	0.18	0.15	0.15	0.15	0.15
Number of Livestock										
Beef Cows	0	0	0	0	0	67	0	100	0	0
1999 Gross Receipts (\$1,000)*										
Total	256.4	685.6	238.4	678.8	154.3	331.1	247.5	515.8	268.6	508.3
Cattle	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	29.1 8.80%	5.1 2.00%	38.0 7.40%	0.0 0.00%	0.0 0.00%
Wheat	176.4 68.80%	492.1 71.80%	95.1 39.90%	371.2 54.70%	106.0 68.70%	228.9 69.10%	101.3 40.90%	244.1 47.30%	164.8 61.30%	309.2 60.80%
Sorghum	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	36.8 23.80%	50.5 15.30%	25.7 10.40%	59.4 11.50%	0.0 0.00%	0.0 0.00%
Barley	40.6 15.80%	31.3 4.60%	27.2 11.40%	84.1 12.40%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%
Corn	0.0 0.00%	0.0 0.00%	30.7 12.90%	0.0 0.00%	0.0 0.00%	4.9 1.50%	97.5 39.40%	151.2 29.30%	52.1 19.40%	52.4 10.30%
Soybeans	0.0 0.00%	0.0 0.00%	65.1 27.30%	153.2 22.60%	11.3 7.40%	6.7 2.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%
Dry Peas	39.4 15.40%	162.2 23.70%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%
Sunflowers	0.0 0.00%	0.0 0.00%	18.0 7.50%	56.4 8.30%	0.0 0.00%	0.0 0.00%	0.0 0.00%	20.8 4.00%	0.0 0.00%	0.0 0.00%
Millet	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	47.5 17.70%	116.9 23.00%
Hay	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	10.8 3.30%	0.0 0.00%	0.1 0.00%	0.0 0.00%	0.0 0.00%
Other Receipts	0.0 0.00%	0.0 0.00%	0.0 0.00%	9.3 1.40%	0.0 0.00%	0.0 0.00%	18.0 7.30%	1.5 0.30%	4.3 1.60%	29.8 5.90%
1999 Planted Acres**										
Total	1,500.0	4,250.0	1,760.0	4,850.0	1,385.0	3,180.0	2,325.0	4,300.0	2,700.0	5,440.0
Wheat	900.0 60.00%	2,762.5 65.00%	704.0 40.00%	2,585.0 53.30%	928.0 67.00%	2,258.0 71.00%	775.0 33.30%	1,948.0 45.30%	1,127.0 41.70%	1,900.0 34.90%
Sorghum	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	319.0 23.00%	652.0 20.50%	155.0 6.70%	465.0 10.80%	0.0 0.00%	0.0 0.00%
Barley	300.0 20.00%	200.0 4.70%	176.0 10.00%	470.0 9.70%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%
Corn	0.0 0.00%	0.0 0.00%	176.0 10.00%	0.0 0.00%	0.0 0.00%	56.0 1.80%	620.0 26.70%	549.0 12.80%	446.0 16.50%	500.0 9.20%
Soybeans	0.0 0.00%	0.0 0.00%	352.0 20.00%	705.0 14.50%	138.0 10.00%	87.0 2.70%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%
Dry Peas	300.0 20.00%	1,287.5 30.30%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%
Sunflowers	0.0 0.00%	0.0 0.00%	352.0 20.00%	940.0 19.40%	0.0 0.00%	0.0 0.00%	0.0 0.00%	262.0 6.10%	0.0 0.00%	0.0 0.00%
Millet	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	608.0 22.50%	1,300.0 23.90%
Hay	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	127.0 4.00%	0.0 0.00%	75.0 1.70%	0.0 0.00%	0.0 0.00%
Fallow	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	775.0 33.30%	1,001.0 23.30%	519.0 19.20%	1,100.0 20.20%
CRP	0.0 0.00%	0.0 0.00%	0.0 0.00%	150.0 3.10%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	640.0 11.80%

*Receipts for 1999 are included to indicate the relative importance of each enterprise to the farm. Percents indicate the percentage of the total receipts accounted for by the livestock categories and the crops.

**Acreages for 1999 are included to indicate the relative importance of each enterprise to the farm. Total

planted acreage may exceed total cropland available due to double cropping. Percents indicate the percentage of total planted acreage accounted for by the crop.

1999 CHARACTERISTICS OF PANEL FARMS PRODUCING COTTON

- CAC2000** A 2,000-acre Central San Joaquin Valley California (Kings County) moderate size cotton farm that plants 600 acres of cotton, 600 acres of wheat, 400 acres of corn, and 600 acres of hay. The farm generates 51 percent of its gross income from cotton.
- CAC6000** A 6,000-acre Central San Joaquin Valley California (Kings County) large cotton farm harvesting 2,400 acres of cotton, 2,100 acres of vegetables and almonds, 600 acres of wheat, 300 acres of corn, and 600 acres of hay. Vegetables on this farm vary from year to year depending on the price of the various vegetables, however, the returns to this 2,100 acres remain relatively stable over time. Cotton generates about 40 percent of this farm's receipts.
- TXSP1682** A 1,682-acre Texas Southern High Plains (Dawson County) moderate size cotton farm plants 1,185 acres of cotton (866 dryland and 319 irrigated), 196 acres of peanuts, and has 183 acres in CRP. This farm is just now starting to adopt the irrigation practices of its larger counterpart. The farm generates 60 percent of its receipts from cotton.
- TXSP3697** A 3,697-acre Texas Southern High Plains (Dawson County) large cotton farm plants 2,665 acres of cotton (2,095 dryland and 570 irrigated), 285 acres of peanuts, and has 214 acres in CRP. Cotton generates 75 percent of this farm's receipts.
- TXRP2500** A 2,500-acre Texas Rolling Plains (Jones County) cotton farm that plants 1,240 acres of cotton, and 825 acres of wheat. About 70 percent of this farm's receipts are derived from cotton.
- TXBC1400** A 1,400-acre Texas Blacklands (Williamson County) moderate size cotton and grain farm has 350 acres of cotton, 400 acres of sorghum, 550 acres of corn, and 100 acres of wheat. This farm also has 50 breeding cows which are pastured on rented land that cannot be cropped. Cotton generates 44 percent of the farms receipts.
- TXCB1700** A 1,700-acre Texas Coastal Bend (San Patricio County) cotton farm has 765 acres of cotton and 935 acres of grain sorghum. Severe disease problems force this farm to plant at a minimum 50 percent of the land to grain sorghum. About 74 percent of the receipts are cotton receipts.
- TNC1675** A 1,675-acre Southwest Tennessee (Fayette County) cotton farm has 838 acres of cotton, 670 acres of soybeans, and 168 acres of corn. The farm generates about 74 percent of its cash receipts from cotton.
- TNC3800** A 3,800-acre Southwest Tennessee (Haywood County) cotton farm has 2,508 acres of cotton, 760 acres of soybeans, 300 acres of wheat, and 532 acres of corn. The farm generates about 79 percent of its cash receipts from cotton.

Appendix Table A4. Characteristics of Panel Farms Producing Cotton.

	CAC2000	CAC6000	TXSP1682	TXSP3697	TXRP2500	TXBC1400	TXCB1700	TNC1675	TNC3800
County	Kings	Kings	Dawson	Dawson	Jones	Williamson	San Patricio	Fayette	Haywood
Total Cropland	2,000	6,000	1,682	3,697	2,500	1,400	1,700	1,675	3,800
Acres Owned	1,000	4,800	606	1,627	400	150	300	225	1,520
Acres Leased	1,000	1,200	1,076	2,070	2,100	1,250	1,400	1,450	2,280
Pastureland									
Acres Owned	0	0	0	0	0	30	0	0	0
Acres Leased	0	0	0	0	500	210	0	0	0
Assets (\$1000)									
Total	4,425	14,032	701	1,692	326	617	533	854	4,242
Real Estate	3,638	12,880	365	781	168	329	295	586	2,879
Machinery	449	8	337	684	151	209	238	268	1,333
Other & Livestock	338	1,145	0	227	7	79	0	0	30
Debt/Asset Ratios									
Total	0.15	0.14	0.25	0.18	0.24	0.12	0.33	0.29	0.20
Intermediate	0.10	0.00	0.37	0.22	0.33	0.08	0.54	0.59	0.27
Long Run	0.16	0.15	0.14	0.14	0.16	0.16	0.16	0.16	0.16
Number of Livestock									
Beef Cows	0	0	0	0	0	50	0	0	0
1999 Gross Receipts (\$1,000)*									
Total	1,563.0	8,019.2	528.4	1,066.9	232.5	297.3	581.3	377.3	1,110.2
Cattle	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	17.3 5.80%	0.0 0.00%	0.0 0.00%	0.0 0.00%
Cotton	799.8 51.20%	3,230.1 40.30%	316.7 59.90%	794.7 74.50%	161.7 69.60%	130.6 44.00%	434.6 74.80%	280.4 74.30%	881.0 79.40%
Sorghum	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	54.9 18.50%	132.1 22.70%	0.0 0.00%	0.0 0.00%
Wheat	195.2 12.50%	291.8 3.60%	0.0 0.00%	0.0 0.00%	46.0 19.80%	7.1 2.40%	0.0 0.00%	0.0 0.00%	46.9 4.20%
Soybeans	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	59.1 15.70%	65.3 5.90%
Corn	204.9 13.10%	92.8 1.20%	0.0 0.00%	0.0 0.00%	0.0 0.00%	82.4 27.70%	0.0 0.00%	36.4 9.60%	108.2 9.70%
Hay	363.1 23.20%	430.5 5.40%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%
Quota Peanuts	0.0 0.00%	0.0 0.00%	76.9 14.60%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%
Additional Peanuts	0.0 0.00%	0.0 0.00%	89.5 16.90%	192.5 18.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%
Other Receipts	0.0 0.00%	3,974.0 49.60%	39.6 7.50%	75.3 7.10%	24.8 10.70%	5.0 1.70%	14.6 2.50%	0.0 0.00%	7.0 0.60%
1999 Planted Acres**									
Total	2,200.0	6,000.0	1,564.0	3,164.0	2,065.0	1,400.0	1,700.0	1,675.0	4,100.0
Cotton	600.0 27.30%	2,400.0 40.00%	1,185.0 75.80%	2,665.0 84.20%	1,240.0 60.00%	350.0 25.00%	765.0 45.00%	837.5 50.00%	2,508.0 61.20%
Sorghum	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	400.0 28.60%	935.0 55.00%	0.0 0.00%	0.0 0.00%
Wheat	600.0 27.30%	600.0 10.00%	0.0 0.00%	0.0 0.00%	825.0 40.00%	100.0 7.10%	0.0 0.00%	0.0 0.00%	300.0 7.30%
Soybeans	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	670.0 40.00%	760.0 18.50%
Corn	400.0 18.20%	300.0 5.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	550.0 39.30%	0.0 0.00%	167.5 10.00%	532.0 13.00%
Hay	600.0 27.30%	600.0 10.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%
Quota Peanuts	0.0 0.00%	0.0 0.00%	65.0 4.20%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%
Additional Peanuts	0.0 0.00%	0.0 0.00%	131.0 8.40%	285.0 9.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%
Vegetables	0.0 0.00%	2,100.0 35.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%
CRP	0.0 0.00%	0.0 0.00%	183.0 11.70%	214.0 6.80%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%

*Receipts for 1999 are included to indicate the relative importance of each enterprise to the farm. Percents indicate the percentage of the total receipts accounted for by the livestock categories and the crops.

**Acreages for 1999 are included to indicate the relative importance of each enterprise to the farm. Total planted acreage may exceed total cropland available due to double cropping. Percents indicate the percentage of total planted acreage accounted for by the crop.

1999 CHARACTERISTICS OF PANEL FARMS PRODUCING RICE

- CAR424** A 424-acre Sacramento Valley California (Sutter and Yuba Counties) moderate size rice farm that plants 400 acres of rice. The farm generates 94 percent of its gross income from rice.
- CAR1365** A 1,365-acre Sacramento Valley California (Sutter and Yuba Counties) large rice farm that plants 1,265 acres of rice. The farm generates about 98 percent of its gross income from rice.
- TXR2118** A 2,118-acre West of Houston, Texas (Wharton County) moderate size rice farm that harvests 600 acres of first crop rice, and 510 acres of ratoon rice. The farm receives 99 percent of its gross receipts from rice.
- TXR3750** A 3,750-acre West of Houston, Texas (Wharton County) large rice farm that harvests 1,500 acres of first-crop rice, 1,275 acres of ratoon rice, and 200 acres of hay. The farm also has 200 breeding cows. About 95 percent of the farm's gross receipts are from rice.
- MOR1900** A 1,900-acre Southeastern Missouri (Butler County) moderate size rice farm with 616 acres of rice, 650 acres of soybeans, and 633 acres of corn. Rice accounts for 50 percent of this farm's receipts.
- MOR4000** A 4,000-acre Southeastern Missouri (Butler County) large rice farm with 1,710 acres of rice, 800 acre soybeans, 1,250 acres of corn, and 240 acres of cotton. About 55 percent of this farm's receipts are generated from rice.
- ARR2645** A 2,645-acre Arkansas (Arkansas County) moderate size rice farm with 175 acres of medium grain rice, 512 acres of long grain rice, 958 acres of soybeans, 230 acres of corn, and 450 acres of wheat. About 49 percent of the farm's receipts come from rice.
- ARR3400** A 3,400-acre Arkansas (Arkansas County) moderate size rice farm with 325 acres of medium grain rice, 975 acres of long grain rice, 1,700 acres of soybeans, and 500 acres of wheat. About 60 percent of the farm's receipts come from rice.
- LAR1100** A 1,100-acre Louisiana (Jefferson Davis, Acadia, and Vermilion Parishes) moderate size rice farm harvesting 189 acres of medium grain rice, 351 acres of long grain rice, 362 acres of soybeans, and 198 acres of fallow. About 85 percent of this farm's receipts are generated by rice.

Appendix Table A5. Characteristics of Panel Farms Producing Rice.

	CAR424	CAR1365	TXR2118	TXR3750	MOR1900	MOR4000	ARR2645	ARR3400	LAR1100
County	Sutter	Sutter	Wharton	Wharton	Butler	Butler	Arkansas	Arkansas	Acadia
Total Cropland	424	1,365	2,118	3,750	1,900	4,000	2,645	3,400	1,100
Acres Owned	212	515	318	1,688	380	2,000	815	1,020	50
Acres Leased	212	850	1,800	2,062	1,520	2,000	1,830	2,380	1,050
Pastureland									
Acres Owned	0	0	0	200	0	0	0	0	0
Assets (\$1000)									
Total	783	2,099	665	2,393	1,590	6,342	2,150	3,628	349
Real Estate	495	1,476	218	1,260	911	4,313	1,167	1,946	83
Machinery	265	501	261	628	680	1,835	568	1,024	253
Other & Livestock	24	122	186	506	0	194	415	657	13
Debt/Asset Ratios									
Total	0.22	0.15	0.09	0.15	0.28	0.25	0.14	0.16	0.30
Intermediate	0.33	0.10	0.06	0.13	0.44	0.44	0.13	0.17	0.35
Long Run	0.16	0.17	0.16	0.15	0.16	0.16	0.15	0.15	0.16
Number of Livestock									
Beef Cows	0	0	0	200	0	0	0	0	0
1999 Gross Receipts (\$1,000)*									
Total	299.7	916.2	462.1	1,311.9	565.1	1,636.8	703.3	1,020.0	286.0
Cattle	0.0	0.0	0.0	49.3	0.0	0.0	0.0	0.0	0.0
	0.00%	0.00%	0.00%	3.80%	0.00%	0.00%	0.00%	0.00%	0.00%
Medium Grain Rice	281.4	896.6	0.0	0.0	0.0	0.0	123.8	174.4	85.6
	93.90%	97.90%	0.00%	0.00%	0.00%	0.00%	17.60%	17.10%	29.90%
Long Grain Rice	0.0	0.0	455.1	1,242.7	279.7	898.5	218.9	441.2	158.9
	0.00%	0.00%	98.50%	94.70%	49.50%	54.90%	31.10%	43.30%	55.60%
Soybeans	0.0	0.0	0.0	0.0	92.5	141.9	189.5	284.9	37.3
	0.00%	0.00%	0.00%	0.00%	16.40%	8.70%	26.90%	27.90%	13.00%
Corn	0.0	0.0	0.0	0.0	190.2	445.8	59.0	0.0	0.0
	0.00%	0.00%	0.00%	0.00%	33.70%	27.20%	8.40%	0.00%	0.00%
Wheat	0.0	0.0	0.0	0.0	0.0	0.0	103.1	108.5	0.0
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	14.70%	10.60%	0.00%
Cotton	0.0	0.0	0.0	0.0	0.0	147.9	0.0	0.0	0.0
	0.00%	0.00%	0.00%	0.00%	0.00%	9.00%	0.00%	0.00%	0.00%
Other Receipts	18.3	19.6	7.0	20.0	0.0	0.0	4.8	1.2	3.0
	6.10%	2.10%	1.50%	1.50%	0.00%	0.00%	0.70%	0.10%	1.00%
1999 Planted Acres**									
Total	400.0	1,265.0	1,110.2	2,975.0	1,899.0	4,000.0	2,325.0	3,500.0	1,100.0
Medium Grain Rice	400.0	1,265.0	0.0	0.0	0.0	0.0	175.0	325.0	189.1
	100.00%	100.00%	0.00%	0.00%	0.00%	0.00%	7.50%	9.30%	17.20%
Long Grain Rice	0.0	0.0	1,110.2	2,775.0	616.0	1,710.0	512.0	975.0	350.9
	0.00%	0.00%	100.00%	93.30%	32.40%	42.80%	22.00%	27.90%	31.90%
Soybeans	0.0	0.0	0.0	0.0	650.0	800.0	958.0	1,700.0	361.9
	0.00%	0.00%	0.00%	0.00%	34.20%	20.00%	41.20%	48.60%	32.90%
Corn	0.0	0.0	0.0	0.0	633.0	1,250.0	230.0	0.0	0.0
	0.00%	0.00%	0.00%	0.00%	33.30%	31.30%	9.90%	0.00%	0.00%
Wheat	0.0	0.0	0.0	0.0	0.0	0.0	450.0	500.0	0.0
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	19.40%	14.30%	0.00%
Cotton	0.0	0.0	0.0	0.0	0.0	240.0	0.0	0.0	0.0
	0.00%	0.00%	0.00%	0.00%	0.00%	6.00%	0.00%	0.00%	0.00%
Hay	0.0	0.0	0.0	200.0	0.0	0.0	0.0	0.0	0.0
	0.00%	0.00%	0.00%	6.70%	0.00%	0.00%	0.00%	0.00%	0.00%
Fallow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	198.1
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	18.00%

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**Acreages for 1999 are included to indicate the relative importance of each enterprise to the farm. Total planted acreage may exceed total cropland available due to double cropping. Percents indicate the percentage of total planted acreage accounted for by the crop.

1999 CHARACTERISTICS OF PANEL FARMS PRODUCING MILK

- CAD1710** A 1,710-cow Central California (Tulare County) large dairy farm that produces 22,800 pounds of milk per cow. The farm plants 200 acres of hay, and 325 acres of silage for which it employs custom harvesting. Milk receipts generate 94 percent of all receipts.
- NMD2000** A 2,000-cow Southern New Mexico (Dona Anna and Chaves County) large dairy farm that averages 20,000 pounds per cow. Rather than plant any crops, this farm purchased all commodities necessary for blending its own total mixed ration. Milk sales account for 93 percent of cash receipts.
- WAD185** A 185-cow Northern Washington (Whatcom County) moderate size dairy farm that produces 23,900 pounds of milk per cow. The farm plants 115 acres of silage and generates 95 percent of its receipts from milk.
- WAD900** A 900-cow Northern Washington (Whatcom County) large dairy farm that produces 24,400 pounds of milk per cow. The farm plants 605 acres of silage and generates 95 percent of its receipts from milk.
- IDD750** A 750-cow Idaho (Twin Falls County) moderate size dairy farm that produces 22,300 pounds of milk per cow. The farm plants no crops. Milk is 89 percent of the farms gross income.
- IDD2100** A 2,100-cow Idaho (Twin Falls County) large dairy farm that produces 22,800 pounds of milk per cow. The farm plants 160 acres of hay and 400 acres of silage. Milk is 92 percent of the farms gross income.
- TXCD400** A 400-cow Central Texas (Erath County) moderate size dairy farm that produces 18,500 pounds of milk per cow. The farm plants 330 acres of hay. Milk is 90 percent of the farms gross income.
- TXCD825** A 825-cow Central Texas (Erath County) large dairy farm that produces 21,000 pounds of milk per cow. The farm plants 430 acres for silage, 20 acres of haylage, and milk accounts for 93 percent of receipts.
- TXED210** A 210-cow East Texas (Hopkins County) moderate size dairy farm that produces 16,700 pounds of milk per cow. The farm has 60 acres of improved pasture and generates 96 percent of its receipts from milk.
- TXED650** A 650-cow East Texas (Lamar County) large dairy farm that produces 18,000 pounds of milk per cow. The farm plants 800 acres of hay. The farm generates 94 percent of its receipts from milk.

Appendix Table A6. Characteristics of Panel Farms Producing Milk.

	CAD1710	NMD2000	WAD185	WAD900	IDD750	IDD2100	TXCD400	TXCD825	TXED310	TXED750
County	Tulare	Dona Ana	Whatcom	Whatcom	Twin Falls	Twin Falls	Erath	Erath	Hopkins	Lamar
Total Cropland	800	300	120	605	120	620	165	460	420	900
Acres Owned	800	300	60	300	120	620	165	460	210	900
Acres Leased	0	0	60	305	0	0	0	0	210	0
Pastureland										
Acres Leased	0	0	0	0	0	0	0	0	0	80
Assets (\$1000)										
Total	11,324	5,698	1,394	5,148	3,605	11,941	1,534	4,490	1,138	3,782
Real Estate	6,356	2,707	574	2,490	1,392	4,360	829	1,636	414	1,406
Machinery	303	307	95	556	274	458	139	337	103	467
Other & Livestock	4,665	2,685	725	2,103	1,939	7,124	567	2,517	620	1,909
Debt/Asset Ratios										
Total	0.14	0.15	0.11	0.13	0.07	0.06	0.40	0.10	0.09	0.09
Intermediate	0.01	0.06	0.02	0.03	0.00	0.00	0.55	0.01	0.00	0.01
Long Run	0.24	0.26	0.24	0.24	0.17	0.17	0.26	0.26	0.25	0.24
1999 Gross Receipts (\$1,000)*										
Total	5,527.4	5,347.5	653.2	3,186.0	2,258.4	6,287.9	991.4	3,335.2	845.1	2,096.8
Milk	5,200.8	4,977.9	619.0	3,029.1	2,015.6	5,772.0	892.8	3,106.1	811.9	1,977.2
	94.10%	93.10%	94.80%	95.10%	89.20%	91.80%	90.10%	93.10%	96.10%	94.30%
Dairy Cattle	326.6	369.6	34.1	156.9	242.8	515.7	62.4	229.1	33.2	119.6
	5.90%	6.90%	5.20%	4.90%	10.80%	8.20%	6.30%	6.90%	3.90%	5.70%
Hay	0.0	0.0	0.0	0.0	0.0	0.3	36.2	0.0	0.0	0.0
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.70%	0.00%	0.00%	0.00%
1999 Planted Acres**										
Total	525.0	0.0	115.0	605.0	0.0	560.0	330.0	450.0	420.0	900.0
Hay	200.0	0.0	0.0	0.0	0.0	160.0	330.0	0.0	0.0	800.0
	38.10%	0.00%	0.00%	0.00%	0.00%	28.60%	100.00%	0.00%	0.00%	88.90%
Silage	325.0	0.0	115.0	605.0	0.0	400.0	0.0	430.0	0.0	0.0
	61.90%	0.00%	100.00%	100.00%	0.00%	71.40%	0.00%	95.60%	0.00%	0.00%
Improved Pasture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60.0	0.0
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	14.30%	0.00%
Haylage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.40%	0.00%	0.00%

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**Acreages for 1999 are included to indicate the relative importance of each enterprise to the farm. Total planted acreage may exceed total cropland available due to double cropping. Percents indicate the percentage of total planted acreage accounted for by the crop.

1999 CHARACTERISTICS OF PANEL FARM PRODUCING MILK (CONTINUED)

- WID70** A 70-cow Eastern Wisconsin (Winnebago County) moderate size dairy farm that produces 22,800 pounds of milk per cow. The farm plants 37 acres of hay, 55 acres of corn, 24 acres of silage, and 89 acres of haylage. Milk makes up 91 percent of this farm's receipts.
- WID600** A 600-cow Eastern Wisconsin (Winnebago County) large dairy farm that produces 20,700 pounds of milk per cow. The farm plants 280 acres of hay, 378 acres of silage, and 343 acres of haylage. Milk accounts for 94 percent of the farm's receipts.
- MIED200** A 200-cow Michigan (Sanilac County) moderate size dairy farm that produces 23,000 pounds of milk per cow. The farm plants 220 acres of corn, 50 acres of wheat, and 170 acres of silage. Milk accounts for 92 percent of the farm's receipts.
- MICD140** A 140-cow Michigan (Isabella County) moderate size dairy farm that produces 21,200 pounds of milk per cow. The farm plants 175 acres of corn, 70 acres of hay, 65 acres of silage, and 110 acres of haylage. Milk accounts for 86 percent of the farm's receipts.
- NYWD800** A 800-cow Western New York (Wyoming County) moderate size dairy farm that produces 22,700 pounds of milk per cow. The farm plants 575 acres of silage and 625 acres of haylage. About 94 percent of the farm's receipts come from milk.
- NYWD1200** A 1,200-cow Western New York (Wyoming County) large dairy farm that produces 21,600 pounds of milk per cow. The farm plants 825 acres of silage and 700 acres of haylage. Milk accounts for 95 percent of the farm's receipts.
- NYCD110** A 110-cow Central New York (Cayuga County) moderate size dairy farm that produces 23,000 pounds of milk per cow. The farm plants 80 acres of hay, 64 acres of corn, and 131 acres of silage. Milk accounts for 92 percent of the farm's receipts.
- NYCD400** A 400-cow Central New York (Cayuga County) large dairy farm that produces 22,400 pounds of milk per cow. The farm plants 110 acres of hay, 260 acres of silage, and 470 acres of haylage. The farm generates 94 percent of its receipts from milk.
- VTD134** A 134-cow Vermont (Washington County) moderate size dairy farm that averages 19,000 pounds of milk per cow. The farm plants 46 acres of hay, 94 acres of silage, and 81 acres of haylage. Milk accounts for 91 percent of the receipts.
- VTD350** A 350-cow Vermont (Washington County) large dairy farm that averages 23,100 pounds of milk per cow. The farm plants 40 acres of hay, 350 acres of silage, and 310 acres of haylage. Milk accounts for 95 percent of the farm's receipts.

Appendix Table A7. Characteristics of Panel Farms Producing Milk.

	WID70	WID600	MIED200	MICD140	NYWD800	NYWD1200	NYCD110	NYCD400	VTD134	VTD350
County	Winnebago	Winnebago	Sanilac	Isabella	Wyoming	Wyoming	Cayuga	Cayuga	Washington	Washington
Total Cropland	245	1,000	590	510	1,200	1,800	296	850	220	700
Acres Owned	200	400	363	300	900	1,200	250	650	100	525
Acres Leased	45	600	227	210	300	600	46	200	120	175
Pastureland										
Acres Owned	0	0	50	25	225	300	20	400	120	50
Acres Leased	0	0	0	0	0	0	0	0	0	50
Assets (\$1000)										
Total	703	3,635	1,771	1,387	4,710	6,898	809	2,742	696	2,315
Real Estate	416	1,538	929	742	2,095	2,695	377	1,238	364	1,445
Machinery	130	304	286	248	603	837	81	331	153	360
Other & Livestock	157	1,793	555	396	2,012	3,366	351	1,173	179	510
Debt/Asset Ratios										
Total	0.21	0.12	0.14	0.15	0.14	0.13	0.14	0.12	0.26	0.24
Intermediate	0.18	0.03	0.04	0.04	0.06	0.07	0.04	0.02	0.25	0.08
Long Run	0.23	0.25	0.23	0.25	0.24	0.24	0.24	0.24	0.27	0.33
1999 Gross Receipts (\$1,000)*										
Total	249.1	1,956.4	631.5	428.0	2,696.6	4,088.5	364.6	1,347.7	409.9	1,241.4
Milk	227.5 91.30%	1,852.7 94.70%	583.2 92.40%	367.2 85.80%	2,542.4 94.30%	3,888.5 95.10%	334.8 91.80%	1,270.6 94.30%	371.5 90.60%	1,180.1 95.10%
Dairy Cattle	20.8 8.40%	103.6 5.30%	41.6 6.60%	50.1 11.70%	154.2 5.70%	200.0 4.90%	29.8 8.20%	77.1 5.70%	37.0 9.00%	59.4 4.80%
Hay	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	1.9 0.20%
Corn	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%
Soybeans	0.8 0.30%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%
Wheat	0.0 0.00%	0.0 0.00%	6.7 1.10%	10.7 2.50%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%
Other Receipts	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	1.5 0.40%	0.0 0.00%
1999 Planted Acres**										
Total	245.0	1,001.0	440.0	490.0	1,200.0	1,525.0	275.0	840.0	220.2	700.0
Hay	37.0 15.10%	280.0 28.00%	0.0 0.00%	70.0 14.30%	0.0 0.00%	0.0 0.00%	80.0 29.10%	110.0 13.10%	45.6 20.70%	40.0 5.70%
Silage	24.0 9.80%	378.0 37.80%	170.0 38.60%	65.0 13.30%	575.0 47.90%	825.0 54.10%	131.0 47.60%	260.0 31.00%	93.8 42.60%	350.0 50.00%
Haylage	89.0 36.30%	343.0 34.30%	0.0 0.00%	110.0 22.40%	625.0 52.10%	700.0 45.90%	0.0 0.00%	470.0 56.00%	80.8 36.70%	310.0 44.30%
Corn	55.0 22.40%	0.0 0.00%	220.0 50.00%	175.0 35.70%	0.0 0.00%	0.0 0.00%	64.0 23.30%	0.0 0.00%	0.0 0.00%	0.0 0.00%
Soybeans	40.0 16.30%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%
Wheat	0.0 0.00%	0.0 0.00%	50.0 11.40%	70.0 14.30%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%

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**Acreages for 1999 are included to indicate the relative importance of each enterprise to the farm. Total planted acreage may exceed total cropland available due to double cropping. Percents indicate the percentage of total planted acreage accounted for by the crop.

1999 CHARACTERISTICS OF PANEL FARM PRODUCING MILK (CONTINUED)

- MOD85** A 85-cow Southwestern Missouri (Christian County) moderate size dairy farm that averages 17,800 pounds of milk per cow. The farm plants 220 acres of hay and 40 acres of silage. About 87 percent of the farm's receipts come from milk.
- MOD330** A 330-cow Southwestern Missouri (Christian County) large dairy farm that averages 19,600 pounds of milk per cow. The farm plants 585 acres of hay and 180 acres of silage. Milk accounts for 93 percent of this farm's receipts.
- GAND200** A 200-cow Central Georgia (Putnam County) moderate size dairy farm that produces 18,600 pounds of milk per cow. Rather than plant any crops, this farm opts to purchase all of its feed requirements in the form of a premixed ration. Milk accounts for 95 percent of the farm's gross income.
- GASD700** A 700-cow Southern Georgia (Houston County) large dairy farm that produces 18,600 pounds of milk per cow. The farm plants 174 acres of hay and 466 acres of silage. Milk makes up 96 percent of the farm's receipts.
- FLND500** A 500-cow North Florida (Lafayette County) moderate size dairy farm that averages 16,400 pounds of milk per cow. The farm grows 125 acres of hay. All feed requirements, in addition to hay, are met through a purchased pre-mixed ration. Milk sales account for 94 percent of the farm's receipts.
- FLSD1800** A 1,800-cow South Central Florida (Okeechobee County) large dairy farm that produces 15,400 pounds of milk per cow. The farm grows 800 acres of hay. In addition to grass hay, grass silage, and pasture, cows receive a purchased premixed ration. Milk sales generate 96 percent of its receipts.

Appendix Table A8. Characteristics of Panel Farms Producing Milk.

	MOD85	MOD330	GAND200	GASD700	FLND500	FLSD1800
County	Christian	Christian	Putnam	Houston	Lafayette	Okeechobee
Total Cropland	260	685	200	507	590	1,800
Acres Owned	180	450	200	400	440	1,800
Acres Leased	80	235	0	107	150	0
Pastureland						
Acres Owned	55	20	0	150	60	0
Acres Leased	55	20	0	0	0	0
Assets (\$1000)						
Total	856	1,997	1,287	4,564	2,177	5,325
Real Estate	544	960	786	2,296	992	2,993
Machinery	150	265	85	346	233	282
Other & Livestock	162	772	416	1,922	952	2,050
Debt/Asset Ratios						
Total	0.36	0.15	0.17	0.13	0.11	0.19
Intermediate	0.57	0.06	0.06	0.01	0.00	0.09
Long Run	0.24	0.25	0.24	0.25	0.23	0.24
1999 Gross Receipts (\$1,000)*						
Total	230.1	939.3	669.1	2,288.2	1,583.2	5,270.1
Milk	200.9 87.30%	872.6 92.90%	638.9 95.50%	2,189.1 95.70%	1,492.1 94.20%	5,050.4 95.80%
Dairy Cattle	29.2 12.70%	66.7 7.10%	30.3 4.50%	99.0 4.30%	91.1 5.80%	219.8 4.20%
1999 Planted Acres**						
Total	260.0	765.0	0.0	640.0	125.0	800.0
Hay	220.0 84.60%	585.0 76.50%	0.0 0.00%	174.0 27.20%	125.0 100.00%	800.0 100.00%
Silage	40.0 15.40%	180.0 23.50%	0.0 0.00%	466.0 72.80%	0.0 0.00%	0.0 0.00%

*Receipts for 1999 are included to indicate the relative importance of each enterprise to the farm. Percents indicate the percentage of the total receipts accounted for by the livestock categories and the crops.

**Acreages for 1999 are included to indicate the relative importance of each enterprise to the farm. Total planted acreage may exceed total cropland available due to double cropping. Percents indicate the percentage of total planted acreage accounted for by the crop.

1999 CHARACTERISTICS OF PANEL FARMS PRODUCING BEEF CATTLE

- MTB400** A 400-cow ranch located in the eastern plains of Montana (Custer County). The ranch runs cows on a combination of owned, federal, state, and private lease land. One quarter of its total animal unit month grazing needs come from federal land and the ranch owns 14,000 acres of pasture. Of the total land owned, 440 acres are planted for hay. Cattle generates 100 percent of the total receipts on the ranch.
- WYB300** A 300-cow ranch located in North Central Wyoming (Washakie County). The ranch harvests hay from 200 acres of owned cropland, and it owns another 1000 acres of pastureland. Rangeland leased from the Forest Service provides 42 percent of the ranch's grazing needs. Cattle generates 100 percent of the total receipts on the ranch.
- COB250** A 250-cow ranch located in Northwest Colorado (Routt County). Federal land provides 7 percent of the ranch's AUM needs. Hay is produced on 400 acres of the pasture-hay land, of which the ranch owns 300. The ranch owns 1800 acres of pastureland, and the cattle graze the federal land during the summer months. Cattle generates 96 percent of the total receipts on the ranch. This ranch participates in a retained ownership/backgrounding program with 75 percent of the steers raised.
- MOB150** A 150-cow farm in Southwest Missouri (Dade County). The farm generates 51 percent of its receipts from beef cattle and the remainder from crops. The farm has 80 acres of sorghum, 160 acres of soybeans, 80 acres of wheat, and 400 acres of hay. Surplus hay sales make up 12 percent of cash receipts.
- OTHER** Eight other representative farms have beef cattle operations in conjunction with their crop production (MONG1400, TXBG2000, TXBG2500, TNG900, KSSW3180, KSNW4300, TXBC1400, and TXR3750). These farming operations have from 20 to 200 mother cows in their cow/calf herds and cattle provide from 4 to 30 percent of the receipts on these farms.

Appendix Table A9. Characteristics of Panel Farms Producing Beef Cattle.

	MTB400	WYB300	COB250	MOB150
County	Custer	Washakie	Routt	Dade
Total Cropland	0	200	450	440
Acres Owned	0	200	300	320
Acres Leased	0	0	150	120
Pastureland				
Acres Owned	14,000	1,000	1,800	320
Acres Leased	0	0	0	80
Federal AUMs Leased	1,350	1,500	250	0
State/Private AUMs	450	160	630	0
Assets (\$1000)				
Total	2,069	747	6,997	751
Real Estate	1,677	439	6,634	451
Machinery	94	93	118	196
Other & Livestock	298	215	245	104
Debt/Asset Ratios				
Total	0.01	0.13	0.01	0.12
Intermediate	0.04	0.30	0.04	0.25
Long Run	0.01	0.01	0.01	0.04
Number of Livestock				
Beef Cows	400	300	250	150
1999 Gross Receipts (\$1,000)*				
Total	145.3	121.6	134.1	123.9
Cattle	144.1 99.20%	118.5 97.40%	128.1 95.50%	63.0 50.90%
Sorghum	0.0 0.00%	0.0 0.00%	0.0 0.00%	13.1 10.60%
Soybeans	0.0 0.00%	0.0 0.00%	0.0 0.00%	18.4 14.90%
Wheat	0.0 0.00%	0.0 0.00%	0.0 0.00%	13.1 10.60%
Hay	1.2 0.80%	3.1 2.60%	0.0 0.00%	15.4 12.40%
Other Receipts	0.0 0.00%	0.0 0.00%	6.0 4.50%	0.0 0.00%
1999 Planted Acres**				
Total	440.0	200.0	400.0	720.0
Sorghum	0.0 0.00%	0.0 0.00%	0.0 0.00%	80.0 11.10%
Soybeans	0.0 0.00%	0.0 0.00%	0.0 0.00%	160.0 22.20%
Wheat	0.0 0.00%	0.0 0.00%	0.0 0.00%	80.0 11.10%
Hay	440.0 100.00%	200.0 100.00%	400.0 100.00%	400.0 55.60%

*Receipts for 1999 are included to indicate the relative importance of each enterprise to the farm. Percents indicate the percentage of the total receipts accounted for by the livestock categories and the crops.

**Acreages for 1999 are included to indicate the relative importance of each enterprise to the farm. Total planted acreage may exceed total cropland available due to double cropping. Percents indicate the percentage of total planted acreage accounted for by the crop.

1999 CHARACTERISTICS OF PANEL FARMS PRODUCING HOGS

- ILH180** A 180-sow hog farm located in Western Illinois (Knox County). The farm plants 700 acres of corn and 700 acres of soybeans. This farm weans 17 pigs/sow/year and operates on 3.5 pounds of feed per pound of pork sold. The hog operation produces about 47 percent of the farm's total receipts while the sale of crops accounts for about 53 percent.
- ILH650** A 650-sow hog farm located in Western Illinois (Knox County). The farm plants 1,072 acres of corn and 878 acres of soybeans. This farm will wean an average of 22 pigs per sow in a year, and feeds about 3.1 pounds of feed per pound of pork sold in a year. The hog enterprise generates 76 percent of the total receipts on the farm. Corn and soybean sales account for the remaining 24 percent of receipts.
- INH200** A 200-sow hog farm located in North Central Indiana (Carroll County). The farm plants 600 acres of corn, 145 acres of soybeans, and 25 acres of wheat. The farm feeds 3.3 pounds of feed per pound of pork sold and weans 17 pigs/sow/year. About 60 percent of the farm's receipts comes from hogs, and the remainder of receipts is generated through crop sales.
- INH1200** A 1,200-sow hog farm located in North Central Indiana (Carroll County). The farm plants 2,066 acres of corn, 1,034 acres of soybeans, and 100 acres of wheat. The farm is able to wean 20 pigs per sow per year and feed 3.3 pounds of feed per pound of pork sold. The hog operation accounts for approximately 76 percent of the farm's total receipts. The other quarter of receipts comes from crop sales.
- NCH350** A 350-sow hog farm located in Eastern North Carolina (Wayne County). The farm plants 100 acres of hay to dispose of waste from the farrow-to-finish hog operation, but does not plant any crops for feed. All feed for the operation is purchased. The farm will wean 19.5 pigs per sow per year and will feed 3.0 pounds of feed per pound of pork sold. The sale of hogs produces 100 percent of the farm's receipts.
- NCH13268** A 13,268-sow hog farm located in Eastern North Carolina (Wayne County). The operation contracts with individual farmers who provide on-site management, labor, and facilities. The operation provides hogs, purchased feed and specialized labor for its group of contract farrowing, nursery and finishing farms. On average the farm will wean 20 pigs per sow per year. A measure of feed efficiency for this operation is 2.9 pounds of feed per pound of pork sold. 100 percent of the farm's receipts are produced from the sale of hogs.

Appendix Table A10. Characteristics of Panel Farms Producing Hogs.

	ILH180	ILH650	INH200	INH1200	NCH350	NCH13268
County	Knox	Knox	Carroll	Carroll	Wayne	Wayne
Total Cropland	1,400	1,950	770	3,200	100	0
Acres Owned	140	975	460	1,038	100	0
Acres Leased	1,260	975	310	2,162	0	0
Assets (\$1000)						
Total	1,227	5,727	1,915	5,167	1,061	12,428
Real Estate	684	4,091	1,588	3,470	727	1
Machinery	329	696	240	1,019	98	21
Other & Livestock	215	940	86	677	236	12,406
Debt/Asset Ratios						
Total	0.27	0.30	0.38	0.43	0.32	0.00
Intermediate	0.13	0.10	0.41	0.54	0.11	0.00
Long Run	0.39	0.38	0.38	0.38	0.42	0.36
Number of Livestock						
Sows	180	650	200	1,200	350	13,268
1999 Gross Receipts (\$1,000)*						
Total	499.7	1,592.7	439.8	2,739.8	619.1	22,877.9
Hogs	233.2 46.70%	1,210.3 76.00%	261.6 59.50%	2,077.9 75.80%	619.1 100.00%	22,877.9 100.00%
Corn	120.5 24.10%	104.8 6.60%	137.3 31.20%	324.0 11.80%	0.0 0.00%	0.0 0.00%
Soybeans	139.3 27.90%	270.6 17.00%	34.1 7.80%	304.8 11.10%	0.0 0.00%	0.0 0.00%
Wheat	0.3 0.10%	0.0 0.00%	5.8 1.30%	24.0 0.90%	0.0 0.00%	0.0 0.00%
Other Receipts	2.5 0.50%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%
1999 Planted Acres**						
Total	1,400.0	1,950.0	770.0	3,200.0	100.0	0.0
Corn	700.0 50.00%	1,072.5 55.00%	600.0 77.90%	2,066.0 64.60%	0.0 0.00%	0.0 0.00%
Soybeans	700.0 50.00%	877.5 45.00%	145.0 18.80%	1,034.0 32.30%	0.0 0.00%	0.0 0.00%
Wheat	0.0 0.00%	0.0 0.00%	25.0 3.20%	100.0 3.10%	0.0 0.00%	0.0 0.00%
Hay	0.0 0.00%	0.0 0.00%	0.0 0.00%	0.0 0.00%	100.0 100.00%	0.0 0.00%

*Receipts for 1999 are included to indicate the relative importance of each enterprise to the farm. Percents indicate the percentage of the total receipts accounted for by the livestock categories and the crops.

**Acreages for 1999 are included to indicate the relative importance of each enterprise to the farm. Total planted acreage may exceed total cropland available due to double cropping. Percents indicate the percentage of total planted acreage accounted for by the crop.

APPENDIX B:
LIST OF PANEL FARM
COOPERATORS

FEED GRAIN FARMS

Iowa

Facilitators

Mr. Jim Patton - Webster County Extension Agent

Panel Participants

Mr. Phil Naeve	Mr. Loren Wuebker
Mr. Larry Lynch	Mr. Dennis Ammen
Mr. Don Sandell	Mr. John Ricke
Mr. Bob Anderson	Mr. Virgil Gordon
Mr. Larry Lane	Mr. Merv Berg
Mr. Perry Black	Mr. and Mrs. Jim Carver

Nebraska

Facilitators

Mr. Gary Zoubek – York County Extension Educator

Dr. Roger Selley - Extension Farm Management Specialist, University of Nebraska

Panel Participants

Mr. Dave Doremus	Mr. Gale Thomsen
Mr. Boyd Stur	Mr. Kurt Goertzen
Mr. Loren Bangs	Mr. Gordon Quiring
Mr. Jerry Stahr	Mr. Dave Hutsell
Mr. Robert Jensen	Mr. Andrew Christiansen
Mr. Alan Songster	

Missouri

Facilitator

Mr. Parman Green - Farm Management Specialist, University of Missouri - Columbia

Panel Participants

Mr. Larry Davies	Mr. Clifford Lyons
Mr. Ron Gibson	Mr. Ron Linneman
Mr. Ron Venable	Mr. Glenn Kaiser
Mr. Gerald Kitchen	Mr. Jack Harriman
Mr. John Vogelsmeier	Mr. James Wheeler
Mr. Mike Hisle	

Texas - Northern High Plains

Facilitators

Mr. Robert Harris - Moore County Agricultural Extension Agent

Dr. Steve Amosson - Extension Economist - Management, Texas A&M University

Panel Participants

Mr. Ellis Moore	Mr. Kelly Williams
Mr. Tom Moore	Mr. Kerri Cartwright
Mr. Brent Clark	Mr. Rick May
Mr. Kelly Hays	Mr. Clyde Tims
Mr. Jerry Trussell	

FEED GRAIN FARMS (CONTINUED)

Northern Missouri

Facilitator

Mr. Mike Killingsworth - Farm Management Consultant, Maryville, Missouri

Mr. Peter Zimmel - University of Missouri-Columbia

Panel Participants

Mr. Jack Baldwin

Mr. Don Mobley

Mr. Roger Vest

Mr. Gary Ecker

Mr. Kevin Rosenbohm

South Carolina

Facilitator

Mr. Toby Boring - Extension Agricultural Economist, Clemson University

Panel Participants

Mr. Harry DuRant

Mr. Steve Lowder

Mr. John Ducworth

Mr. Billy Davis

Mr. Tom Jackson

Mr. John Spann

Mrs. Vikki Brogdon

Mr. Chris Cogdill

Mr. Leslie McIntosh

Tennessee

Facilitator

Dr. Daryll Ray, Professor, University of Tennessee

Panel Participants

Edwin Alles

Jack Ogg

Donald Parker

Doug Schoolfield

Greg Story

Daniel Wengerd

Paul Wengerd

James Yarbro

Texas - Central Blacklands

Facilitators

Mr. Bill Buxkemper - County Extension Agent, Agriculture, Hill County

Mr. Donald Kelm - County Extension Agent, Agriculture, Falls County

Panel Participants

Mr. Kenneth Machac

Mr. Ben Dieterich, Jr.

Mr. Lanny Neil

Mr. Keith Drews

Mr. Barney Pastejoysky

Mr. R.L. Kuretsch

Mr. John Sawyer

Mr. Gary Strabanet

Mr. Aaron Walters

Mr. Tom Zander

WHEAT FARMS

Washington

Facilitators

Mr. John Burns - Whitman County Agricultural Extension Agent
Dr. Herb Hinman - Extension Economist, Washington State University

Panel Participants

Mr. Brian Largent	Mr. Gary Largent
Mr. Bruce Nelson	Mr. John Whitman
Mr. Asa Clark	Mr. Hank Suess
Mr. David Harlow	Mr. Randy Suess
Mr. Todd Scholz	

North Dakota

Facilitators

Mr. Shawn Vachal - Barnes County Extension Agent
Mr. Dwight Aakre - Extension Associate - Farm Management, North Dakota State University

Panel Participants

Mr. Mike Clemens	Mr. Ray Haugen
Mr. Arvid Winkler	Mr. Anthony Thilmoney
Mr. Wade Bruns	Mr. Leland Gussette
Mr. Jack Formo	Mr. Greg Shanenko
Mr. Jim Broten	Mr. Charles Triebold

South Central Kansas

Facilitators

Mr. Gerald Le Valley - Sumner County Agricultural Extension Agent
Mr. Brad Goehring - Sedgwick County Extension Agent
Mr. Steve Westfahl - Sedgwick County Extension Agent

Panel Participants

Mr. Robert White	Mr. Joe Allen
Mr. Nick Steffen	Mr. Tim Turek
Mr. Donald Applegate	Mr. David Messenger
Mr. Robert Headley	Mr. Rae Reusser
Mr. Dennis Pettigrew	Mr. Jim Stuhlsatz

Colorado

Facilitators

Mr. Dennis Kaan - Regional Extension Specialist, Colorado State University
Mr. Don Nitchie - Director, Farm Mgmt/Marketing, Colorado State University Cooperative Extension

Panel Participants

Mr. Terry Kuntz	Mr. John Hickert
Mr. Calvin Schaffert	Mr. Bill Rodwell
Mr. John Wright	Mr. Gerry Ohr
Mr. Cliff Fletcher	Mr. Rick Lewton
Mr. David Foy	Mr. Ken Remington
Mr. Leland Willeke	

WHEAT FARMS (CONTINUED)

Northwestern Kansas

Facilitators

Mr. Scott Docken - Extension Agricultural Economist, Farm Management Association, KSU

Mr. Mark Wood - Extension Agricultural Economist, Farm Management Association, KSU

Mr. Dan Obrien - Extension Agricultural Economist, Farm Management Association, KSU

Panel Participants

Mr. Harold Mizell

Mr. Brian Laufer

Mr. Lee Jueneman

Mr. Lance Leebrick

Mr. Lyman Goetsch

Mr. Gerald Huessman

Mr. Steve Schertz

Mr. Dennis Franklin

Mr. Rich Calliham

Mr. Vernon Akers

COTTON FARMS

California

Facilitator

Mr. Bruce A. Roberts - Kings County Director and Farm Advisor, University of California Cooperative

Extension

Panel Participants

Mr. Mark Hansen

Mr. Steve Boyett

Mr. Ernie Taylor

Mr. John Diener

Mr. Jeff Hildebrand

Mr. Michael Boyette

Mr. Craig Pedersen

Mr. Mark Diener

Mr. Carlton Duty

Texas - Southern High Plains

Facilitators

Mr. John Farris - Dawson County Agricultural Extension Agent

Dr. Jackie Smith - Extension Economist - Management, Texas A&M University

Panel Participants

Mr. Milton Schneider

Mr. Dave Nix

Mr. Glen Phipps

Mr. Donald Vogler

Mr. Kent Nix

Mr. Mark Furlow

Mr. Mark Boardman

Mr. Lonny Ferguson

Mr. Todd Gregory

Mr. Thomas Holder

Mr. Brad Boyd

Mr. Jerry Chapman

Texas - Rolling Plains

Facilitators

Mr. Todd Vineyard - Ellis County Agricultural Extension Agent

Mr. Stan Bevers - Extension Economist - Management, Texas A&M University

Panel Participants

Mr. Ronnie Richmond

Mr. Dennis Olson

Mr. Ronnie Riddle

Mr. Ferdie Walker

Texas - Blacklands

Facilitator

Mr. Ronnie Leps - Williamson County Agricultural Extension Agent

Panel Participants

Mr. Donald Stolte

Mr. Herbert Raesz

Mr. Doug Schernik

Mr. Bob Bartosh

Mr. Lonny Rinderknecht

Texas - Coastal Bend

Facilitators

Mr. Jeffrey Stapper - San Patricio-Aransas County Extension Agent

Dr. Larry Falconer - Extension Economist - Management, Texas A&M University

Panel Participants

Mr. Brad Bickham

Mr. Clarence Chopelas

Mr. Darby Salge

Tennessee

Facilitator

Dr. Daryll Ray, Professor, University of Tennessee

Panel Participants

Mr. Harris Armour, III

Mr. Eugene McFerren

Ms. Lee Ann Rhea

Mr. Travis London

Mr. Tom Karcher

Mr. Mark McNabb

Mr. Dewayne Hendrix

Mr. Ronald Woods

RICE FARMS

Arkansas

Facilitator

Mr. Bill Free, Riceland Foods, Inc.

Panel Participants

Mr. David Feilkie

Mr. Derek Bohanan

Mr. David Jessup

Texas

Facilitator

Dr. Ed Rister - Professor, Texas A&M University

Panel Participants

Mr. W. A. "Billy" Hefner, III

Mr. Andy Anderson

Mr. Ronald Gertson

Mr. Madison H. Smith

Mr. Jim Wiese

Mr. John Waligura

Mr. Glen Rod

Mr. Layton Raun

Mr. Kenneth "Peter" Stelzel

Mr. Jason Hlavinka

Mr. Steve Balas

California

Facilitator

Mr. Jack Williams - Farm Advisor, Sutter and Yuba Counties, Univ. of California Cooperative Extension

Panel Participants

Mr. Bill Baggett

Mr. Frank Rosa

Mr. Jack DeWitt

Mr. Wayne Vineyard

Mr. Don Staas

Mr. Paul Lower

Mr. Ned Lemenager

Mr. Scott Tucker

Missouri

Facilitators

Mr. Bruce Beck - Farmer's Agronomy Specialist, University of Missouri - Columbia

Mr. David Guethle - Area Agronomy Specialist, University of Missouri - Columbia

Mr. Peter Zimmer - University of Missouri-Columbia

Panel Participants

Mr. Sonny Martin

Mr. Fred Tanner

Mr. Bruce Yarbro

Mr. J. D. Sifford

Mr. C. P. Johnson

Mr. Mike Mick

Mr. Davis Minton

Mr. Rick Spargo

Mr. Floyd Page

Mr. Cloyce Sowell

Mr. Dale Conner

Louisiana

Facilitators

Mr. Eddie Eskew - County Agent, Louisiana Cooperative Extension Service

Mr. Howard J. Cormier - County Agent, Louisiana Cooperative Extension Service

Mr. Ronnie Levy - County Agent/Parrish Chairman, Louisiana Cooperative Extension Service

Mr. D. L. Eugene (Gene) Johnson - Specialist in Marketing, Louisiana Cooperative Extension Service,
Natural Resources and Economic Development

Panel Participants

Mr. Alden Horten

Mr. Brian Wild

Mr. Tommy Faulk

Mr. Allan McLain

Mr. Jackie Loewer

DAIRY FARMS

California

Facilitator

Mr. Larry Serpa - Land O' Lakes

Panel Participants

Mr. Dave Rebeiro

Mr. Bill Van Beek

Mr. Phillip Rebeiro

Mr. Jeff Wilbur

New Mexico

Facilitator

Dr. Robert Schwart - Professor and Extension Economist, Texas A&M University

Panel Participants

Mr. Joe Gonzalez

Mr. Bill Davis

Mr. Bob Wade

Mr. Marc Reischman

Mr. Mike Visser

Washington

Facilitator

Mr. Robert Dyk - Watcom County Agricultural Extension Agent

Panel Participants

Mr. Ron Bronsema

Mr. Rod DeJong

Mr. Greg McKay

Mr. Ed Pomeroy

Mr. Keith Boon

Mr. Dick Bengen

Mr. Peter Vlas

Idaho

Facilitator

Mr. Dean Falk - Extension Dairy Specialist, University of Idaho

Dr. Wilson Grey - Farm Management Specialist - University of Idaho

Panel Participants

Mr. & Mrs. Martin Lee

Mr. Michael Quesnell

Mr. Bill Stouder

Mr. John Beukers

Mr. Adrian Boer

Mr. Alan Gerratt

Mr. Randy Tolman

Mr. Harry Hogland

Mr. Greg Ledbetter

Mr. Rick Thompson

Mr. Jack Van Beek

Mr. Reagon Hatch

Mr. Hank Hafliger

Texas - Central

Facilitator

Mr. Joe Pope - Erath County Agricultural Extension Agent

Panel Participants

Mr. Lane Jones

Mr. Leonard Moncrief

Mr. Jake Van Vliet

Mr. Lonnie Hammonds

Mr. Jack Parks

Mr. Owen Sieperda

Texas - Eastern

Facilitator

Mr. Ron Tosh - Dairy Farmers of America, Field Supervisor

Panel Participants

Mr. Jimmy Barnhart

Mr. Burk Bullock

Mr. Allan Caddell

Mr. Gary Overstreet

Mr. Richard Fannin

Mr. Douwe Plantinga

DAIRY FARMS (CONTINUED)

Missouri

Facilitator

Mr. Stacey Hamilton – Greene County Dairy Specialist

Panel Participants

Mr. Allen Sulgrove

Mr. & Mrs. Doug Owen

Mr. & Mrs. Freddie Martin

Mr. Wayne Whitehead

Mr. Joe Peebles

Mr. Larry Winfree

Mr. John McArthur

Michigan

Facilitator

Mr. Dan Bollinger - County Extension Agent - Clinton County

Mr. Mike McFadden - County Extension Agent - Isabella County

Dr. Craig Thomas - County Extension Agent - Sanilac County

Panel Participants

Mr. Tom Fox

Mr. Ron McDonald

Mr. Keith Moeggenberg

Mr. Bryan Neyer

Mr. Bob Pasch

Mr. Jerry Varner

Mr. Jim Wilson

Mr. Mike Fagan

Mr. & Mrs. Don Hopper

Mr. Jim Reid

Mr. Jason Shinn

Mr. Duane Stuever

Florida

Facilitators

Mr. Chris Vann - Lafayette County Agricultural Extension Agent

Mr. Art Darling - Sunshine State Milk Producers

Panel Participants

Mr. Morris Jackson

Mr. Everett Kerby

Mr. Bobby Koon

Mr. Terry Reagan

Mr. Louis Shiver

Mr. Roger Butler

Mr. Bob Butler

Mr. Ray Melear

Mr. Glynn Rutledge

Mr. Bob Rydzewski

Wisconsin

Facilitator

Mr. Jeff Key - Winnebago County Agricultural Extension Agent

Panel Participants

Mr. Joe Bonlender

Mr. Pete Knigge

Mr. Fred Kasten

Mr. Dean Hughes

Mr. Dave Bradley

Mr. Gary Frank

Mr. Micheal Hinz

Ms. Linda Hodorff

Mr. Vernon Newhouse

Mr. Jeffery Pollack

Mr. Larry Pollack

Mr. John Ruedinger

DAIRY FARMS (CONTINUED)

Georgia

Facilitator

Mr. Bill Thomas - Professor and Extension Economist, University of Georgia

Mr. Peyton Sapp - Greene County Extension Agent

Panel Participants

Mr. Zippy DuVall

Mr. Carlton McMichael

Mr. Thomas Bell

Mr. Ronny Parham

Mr. Mike Rainey

Mr. Ernest Turk

Mr. Bobby Walker

Mr. Everett Williams

Mr. Terry Camp

Mr. Bill Boyce

Mr. Bernard Sims

Mr. Dale Hayes

Mr. Henry Cabiness

Mr. Tom Thompson

Mr. Lamar Anthony

Mr. Bill Moore

Mr. Raymond Hunter

Mr. Terry Embry

Mr. Joe West

Mr. John Bernard

Mr. Lane Ely

Mr. Jaret Elwell

New York - Western

Facilitator

Mr. Steve Richards – Cornell Cooperative Extension

Panel Participants

Mr. Walter Faryns

Mr. Kent Miller

Mr. Collin Broughton

Mr. Bill Fitch

Mr. George Mueller

Mr. John Mueller

Mr. John Noble

New York - Central

Facilitator

Dr. Wayne Knoblauch - Professor, Cornell University

Panel Participants

Mr. Gary Mutchler

Mr. Robert Howland

Mr. Bill Kilcer

Mr. Robert Space

Mr. Chuck Benson

Mr. Mike Learn

Mr. Edie McMahon

Mr. Kenton Patchen

Mr. Martin Young

Vermont

Facilitator

Dr. Rick Wackernagel - Professor, University of Vermont

Panel Participants

Mr. Steve Hurd

Mr. Kim Harvey

Mr. Everett Maynard

Mr. Stanley Scribner

Mr. Ted Foster

Mr. Roger Rainville

Mr. Onan Whitcomb

Ms. Sally Goodrich

Mr. Mark Rodgers

Mr. Steven Jones

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