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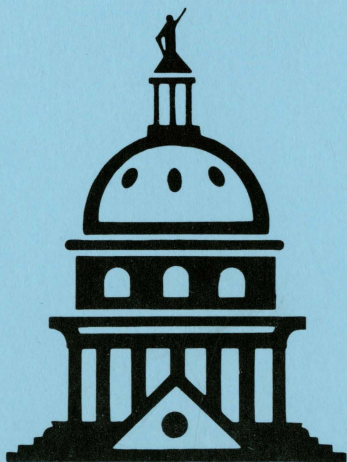
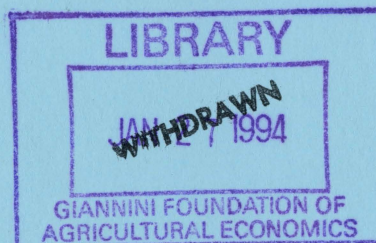
AFPC 92-1

POLICY WORKING PAPER

**IMPLICATIONS OF THE 1990 FARM BILL
AND FAPRI JANUARY 1992
BASELINE ON REPRESENTATIVE
FARMS**

AFPC Policy Working Paper 92-1

Department of Agricultural Economics
Texas Agricultural Experiment Station
Texas Agricultural Extension Service
Texas A&M University *System*



AFPC
AGRICULTURAL & FOOD POLICY CENTER



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AFPC Working Paper 92-1 was produced at AFPC with grateful acknowledgement
of the contributions by:

Dawne Hicks

Merinda K. Condra

This material is based upon work supported by the Cooperative State Research Service, U.S.
Department of Agriculture, under Agreement Nos. 89-34201-4237 and 90-34228-5003.

Any opinions, findings, or conclusions expressed in this publication are those of the authors and do
not necessarily reflect the views of the U.S. Department of Agriculture or The Texas A&M University
System.

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EXECUTIVE SUMMARY

- Purpose:** To present the farm level impacts of a continuation of current macroeconomic and farm policies over the period 1992-95.
- Present farm level impacts for 62 moderate and large size farms representing a cross-section of American agriculture.
 - Utilize the January 1992 FAPRI baseline.
 - Identify those regions that are likely to experience the greatest economic pressure under the 1990 Farm Bill.
- Situation:** Contemporary conditions in the absence of major breakthroughs in international trade mean that target prices set an upper limit on returns to crop producers.
- Reduced FLEX payments in the absence of few profitable cropping options, frozen target prices, frozen farm program yields, and continued inflation of input costs has meant reduced farm income for crop producers.
 - The significant unknowns are:
 - The prospects for significant increases in export demand
 - The pace of economic recovery
 - The rate at which inflation increases farm costs.
- Results:**
- Feed grain farms: While net cash income was relatively stable, real net cash incomes declined on the predominant feed grain farms. Yet, a majority of the farms increased real net worth.
 - Wheat farms: Two-thirds of the wheat farms experienced lower net cash income with real income declining for all farms. Farms in primarily wheat producing areas lost substantial equity.
 - Oilseeds: While oilseeds did not contribute a majority of receipts on any representative farm, none were found to be extremely vulnerable.
 - Cotton: Reduced net cash income was experienced by 80 percent of the cotton farms, all of which obtained more than 60 percent of their income from cotton. Half of the farms realized a decline in real equity.
 - Rice: A majority of the farms realized lower real equity reflecting reduced levels of net cash income.
 - Dairy: Only 10 percent of the dairies were able to generate higher net cash incomes while all farms earned lower real net incomes. Nearly half of the dairies lose equity. Large dairies consistently do better than moderate size dairies.
 - Beef: Fighting cyclical decline in beef prices exclusively, all cow/calf operations lose equity.
 - Hogs: Despite reduced earnings through 1992, all hog farms increase equity as hog prices recover from 1992 through 1995.

Potential Problem Areas:

- Dairy
- Cotton
- Rice
- Wheat
- Moderate size farms
- Farms with limited flex options

INTRODUCTION

The farm level economic impacts of the 1990 Farm Bill on crop and livestock producers are projected in this report. The analysis was conducted over the 1990-1995 planning horizon using a whole farm simulation model. The model simulated economic activity for representative crop and livestock farms in major production regions of the United States. Data to simulate the farms came from three sources. The Food and Agricultural Policy Research Institute's (FAPRI) January 1992 Baseline provided annual prices, policy parameters, yields, technology trends, rates of inflation, and interest rates for the period 1992-1995. Observed values were used for these variables in 1990-1991. Information to describe the representative farms was developed by AFPC and FAPRI scientists using the panel farm process described below.

The panel farm analyses represent the economic impacts on commercial scale producers who do not adjust cropping systems, management strategies, tenure arrangements, and costs structures over the 1990-1995 planning horizon. Acreage flexing within the current cropping pattern is, however, allowed under the normal and optional flex acreage options. The assumption of no change in cropping systems and management practices in the presence of policy changes is recognized as a limitation but was done for several reasons:

- Farm level analyses for the January 1992 Baseline were designed to monitor regions of the country that may come under economic pressure,
- Direction and magnitude of future change in management practices are currently unknown,
- Introduction of new crops on the farms will likely require changes in the machinery complement and yield distributions, both of which are unknown, and
- Technological breakthroughs cannot be predicted and, even so, their effect on yields and costs are unknown. Therefore, trend-estimated technology in the Baseline is maintained.

The primary objective of the study was to identify those regions which could experience adverse economic pressure under the terms of the 1990 Farm Bill. Initial debt levels on the representative farms were based on the average debt obtained in the ERS-USDA farm cost and returns surveys for farms of similar size and commodity makeup in each state.

This report is organized into eleven parts. The first section summarizes the panel farm process, key assumptions and a map showing where the panel farms are located. The second section summarizes the FAPRI January 1992 Baseline and the policy, price, and yield assumptions used for the panel farm analyses. The third through seventh sections present the results of the simulation analyses for feed grains, wheat, oilseed, cotton, and rice farms. The eighth through tenth sections summarize simulation results for dairy, cattle and hog farms. The final section of the report provides the names of farmers who cooperated in the panel farm process in each state, as well as the land grant scientists who assisted in the panel farm development.

Panel Farm Process

Traditional policy analysis has involved analyzing the effects of farm programs on crops, dairy, and livestock in the aggregate, primarily at the national level. These analyses, while vital to policy makers, do not provide sufficient detail as to the likely effects of farm programs on producers in different regions of the country. To overcome this deficiency, AFPC scientists developed, in 1980-81, a computer model for analyzing the effects of farm programs on representative farms, ranches, and dairies in different regions of Texas.

During the 1985 Farm Bill debate, AFPC scientists used the farm level policy model (FLIPSIM) to analyze a large number of alternatives that were considered by Congress. The consequences of each alternative policy on the economic viability (profitability, survival, and success) of crop farms in Texas were reported without recommendation.¹

Results of these analyses were provided to the House and Senate Agriculture Committees in Washington, D.C., to farmers, and to farm organizations. The farm level policy analyses proved to be useful in the 1985 Farm Bill debate and led to a Congressional appropriation to fund AFPC's expansion of farm level analyses to other states (see map of panel farms, Figure 1). Farms developed under this joint appropriation between AFPC and FAPRI were used to analyze policy options for the 1990 Farm Bill.

In meeting this expanded mandate, it was necessary to develop information to describe panel farms in selected production regions throughout the United States. The FLIPSIM model uses this producer derived information to simulate the economic impact of alternative policies on the representative farm, ranch, or dairy in a particular region. The initial information is obtained from producer panels with participants providing information on:

- Size of the typical operation (acres, head, etc.),
- Tenure (acres owned and leased),
- Enterprises (crops, livestock),
- Costs of production for each enterprise,
- Expected crop yields and a history of yields, and
- Machinery complement.

Once the raw data are collected, the information is processed and returned to the panel members for review. Data adjustments are made consistent with the panel's recommendations. The panel farm data are then used in FLIPSIM to develop pro forma financial statements for the panel farm. The financial statements are reviewed by the panel members. If adjustments need to be made, new pro forma financial statements are developed and the process is repeated until the farm panel is satisfied that the financial projections are reasonable for the type of farm they are describing.

Secondary data for panel farms are obtained in each region with the help of local land grant university personnel. This information includes:

- Local interest rates for operating loans, intermediate debt, long-term debt, and passbook savings accounts,
- Local CCC loan rates,
- Local prices received for commodities and/or livestock and prices paid for feedstuffs,
- Local prices paid for machinery and inputs, and

¹The AFPC adheres strictly to the policy analysis framework that the consequences of alternative policies are to be estimated and presented without a recommendation or a ranking of the alternatives.

- State income tax information.

General macro economic data, policy assumptions, and prices for farm level policy analyses are provided by the Food and Agricultural Policy Research Institute (FAPRI) at the University of Missouri - Columbia and Iowa State University. This information includes:

- Projected inflation rates, interest rates, and CPI,
- Projected crop prices, loan rates, target prices, acreage reduction requirements, diversion payment rates, marketing loans, Findley loan rates, and yield trends,
- Projected livestock and milk prices and yield trends, and
- Projected changes in livestock herd size.

Key Assumptions

- All farms classified as moderate scale are the size (acres or number of livestock) which is considered to be representative of a majority of full-time commercial farming operations in the study area. In many regions, a second farm that is normally 2-3 times larger than the moderate scale farm is developed as an indicator of economies to size pressure.
- Initial debt for the panel farms is assumed to be the average for farms of similar size and commodity makeup as obtained by the ERS-USDA farm cost and returns survey for 1990.
- The farm participates in the farm program and chooses the flex alternative (within its current crop mix) which appears to be the most profitable.
 - Normal flexible acreage (NFA) is planted to an eligible crop currently produced on the farm which generated the greatest returns above variable cost *excluding* government payments. AFPC analysts arbitrarily adopted a decision rule that if returns above variable cost could not be increased above \$5/acre, then the producer would continue to produce the current crop.
 - The optional flexible acreage (OFA) was "flexed" in those cases where a different crop's returns above variable cost *excluding* government payments was greater than the currently planted program crop's returns above variable cost *including* government payments. Since the cost of production for each enterprise on the farm was developed from a single budget, the farm is assumed to operate under one farm number for flexing purposes or it is assumed that all acres maintain homogeneous production and cost relationships within a single enterprise.
- Dairy farm herd size is held constant over the 1990-1995 planning horizon.
- Hog farm herd size is held constant over the 1990-1995 planning horizon.
- Cow herd size is held constant over the 1990-1995 planning horizon.
- Farm program parameters, average annual prices, crop yield trends, output per dairy cow, interest rates, real estate appreciation (depreciation), and input cost inflation (deflation) are based on the FAPRI January 1992 Baseline which assumed implementation of the 1990 Farm Bill.

- In cases where the panel farm produced both corn and grain sorghum, current planting proportions were maintained as a combined base throughout the 1991-1995 period.
- The farm was structured so government payment limits were not effective at reducing deficiency payments.
- Family living withdrawals were assumed at a minimum base rate of \$20,000 annually (maximum \$40,000) with the farm subject to owner/operator federal and state income taxes as a sole proprietor. This assumption was applied to all farms regardless of their size or profitability.
- No off-farm-related income was included in the analyses. The farm, therefore, must annually contribute between \$20,000-\$40,000 to cover family living expenditures.

Figure 1. Panel Farms Used for the Analysis



JANUARY 1992 FAPRI

BASELINE

JANUARY 1992 FAPRI BASELINE

Domestic Economic Projections

- FAPRI relies heavily on the WEFA group and Project LINK for macroeconomic projections over the study period. The following comments are lifted primarily from the FAPRI January 1992 Baseline.
- The U.S. economy is projected to recover slowly from the recession of 1990-91. Real GDP is projected to increase by only 2.3 percent in 1992, before exceeding 3 percent growth annually for the period 1993-95.
- Record federal budget deficits are projected by 1992 because of the recession and the savings and loan bailout. The deficit is projected to decline thereafter.
- Percentage increases in prices for selected inputs vary from a low of zero to a high of 5.77 percent over the 1991-95 period. Land values are projected to increase about 14 percent over the period.
- Interest rates declined in 1991 and are projected to decline further in 1992 before increasing to approximately 10 percent by 1995.
- Inflation rates, as indicated by changes in the CPI, decline to 2.51 percent in 1992 before growing between 3 and 4 percent annually through 1995.

Domestic Economic Projections, 1991-1995

	1991	1992	1993	1994	1995
	----- (Percent) -----				
Percentage Changes in Prices:					
General Farm Production	0.28	1.53	3.57	4.25	3.82
Chemicals	0.54	4.92	4.21	4.31	4.50
Fertilizer	5.77	2.29	2.62	2.62	2.73
Fuel and Lube	0.00	1.83	2.97	2.88	3.02
Machinery and Equipment	1.92	1.61	2.65	3.72	3.92
Labor	0.00	1.38	1.70	2.45	2.93
Land Value	2.10	3.20	3.90	2.50	1.50
Consumer Price Index (CPI):					
Percentage Change	4.15	2.51	3.24	3.75	4.09
Interest Rates (%):					
Conventional Mortgages					
Long Term	9.40	8.82	9.09	9.50	10.00
Bank Prime	8.49	7.31	7.87	9.46	9.94

Source: FAPRI, January 1992 Baseline.

JANUARY 1992 FAPRI BASELINE

U.S. Policy Assumptions

- FAPRI incorporates provisions from both the Food, Agriculture, Conservation and Trade Act of 1990 (FACTA-90) and the Omnibus Budget Reconciliation Act of 1990 (OBRA-90). On-going GATT negotiations are assumed to have no affect on policy provisions through 1995.
- Target prices are frozen at 1990 levels and loan rates are determined by formula. The Secretary is assumed to use the discretionary authority granted by law to announce the lowest effective loan rate for wheat and feed grains.
- The annual acreage reduction programs are assumed to be consistent with the supply/demand requirements mandated by FACTA-90. The Secretary is assumed to use his discretionary authority to manage the ARP with the objective of achieving stable domestic prices and competitiveness in world markets.
- The normal flexible acres (NFA) established by OBRA-90 are maintained at the 15 percent level for the period 1991-1995.
- The milk price support rests on the statutory \$10.10/cwt minimum through 1994. In 1995, the support increases by \$0.25/cwt, triggered by anticipated government purchases of less than 3.5 billion pounds of milk equivalent measured on a total solids basis. The milk assessment on producers who increase production is maintained at \$0.1125/cwt for 1992-95.

Farm Program Provisions, 1990-1996

	90/91	91/92	92/93	93/94	94/95	95/96
Target Prices						
Corn (\$/bu)	2.75	2.75	2.75	2.75	2.75	2.75
Sorghum (\$/bu)	2.61	2.61	2.61	2.61	2.61	2.61
Barley (\$/bu)	2.36	2.36	2.36	2.36	2.36	2.36
Oats (\$/bu)	1.45	1.45	1.45	1.45	1.45	1.45
Wheat (\$/bu)	4.00	4.00	4.00	4.00	4.00	4.00
Rice (\$/cwt)	10.71	10.71	10.71	10.71	10.71	10.71
Cotton (cents/lb)	72.90	72.90	72.90	72.90	72.90	72.90
Loan Rates						
Corn (\$/bu)	1.57	1.62	1.72	1.72	1.66	1.61
Sorghum (\$/bu)	1.49	1.54	1.63	1.63	1.57	1.53
Barley (\$/bu)	1.28	1.32	1.40	1.40	1.35	1.31
Oats (\$/bu)	.81	.83	.88	.88	.85	.83
Soybeans (\$/bu)	4.50	5.02	5.02	5.02	5.02	5.02
Wheat (\$/bu)	1.95	2.04	2.21	2.41	2.29	2.17
Rice (\$/cwt)	6.50	6.50	6.50	6.50	6.50	6.50
Cotton (cents/lb)	50.30	50.80	54.80	53.10	53.40	51.80
Acreage Reduction Program (ARP) Rate (Percent)						
Corn	10.0	7.5	5.0	7.5	7.5	5.0
Sorghum	10.0	7.5	5.0	7.5	7.5	5.0
Barley	10.0	7.5	5.0	7.5	7.5	5.0
Oats	5.0	0.0	0.0	0.0	0.0	0.0
Wheat	5.0	15.0	5.0	5.0	5.0	5.0
Rice	20.0	5.0	0.0	5.0	5.0	5.0
Cotton	12.5	5.0	10.0	5.0	5.0	5.0
Triple-Base Rate (Percent)						
Feed Grains	0.0	15.0	15.0	15.0	15.0	15.0
Wheat	0.0	15.0	15.0	15.0	15.0	15.0
Rice	0.0	15.0	15.0	15.0	15.0	15.0
Cotton	0.0	15.0	15.0	15.0	15.0	15.0
Milk Support Price (\$/cwt)	10.10	10.10	10.10	10.10	10.10	10.35
Milk Assessment (\$/cwt)	0.0	0.05	0.1125	0.1125	0.1125	0.1125

Source: FAPRI, January 1992 Baseline.

JANUARY 1992 FAPRI BASELINE

Crop and Livestock Prices and Crop Yields

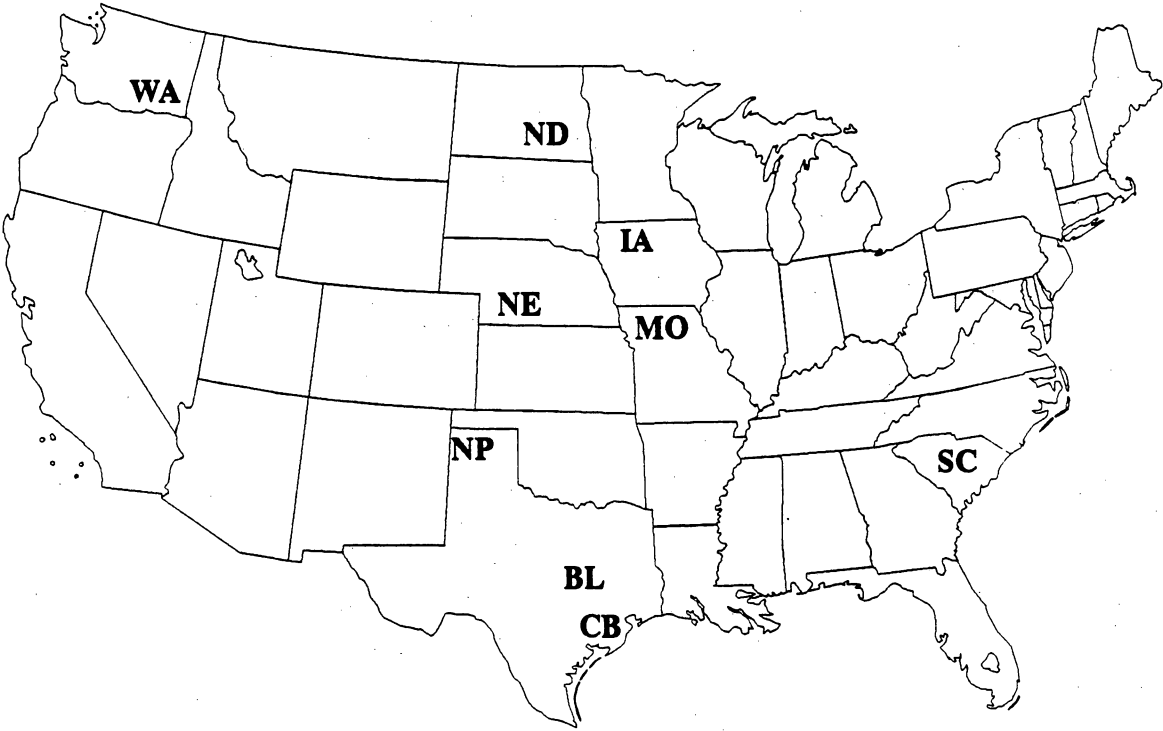
- FAPRI Baseline used the WEFA projections of macroeconomic variables and domestic farm policy assumptions to project crop and livestock prices for 1991 through 1995.
- Crop yields and annual milk per cow projections reflect technology changes and supply responses to price and policy changes for 1992-95.
- Per acre corn yields are projected to increase by approximately 1.1 percent annually for 1992-95. Soybean yields increase to 35.7 bushels per acre by 1995 assuming average weather conditions. Wheat yields increase by less than 1 percent annually from 1992 to 1995, and cotton yields increase 25 pounds per acre by 1995.
- Corn prices are projected to increase to \$2.45 per bushel in 1991-92. Prices of corn are projected to range between \$2.19 and \$2.39 per bushel thereafter.
- Soybean prices fall in 1991-92 to \$5.44/bushel but increase thereafter, reaching \$5.95/bushel in 1995-96.
- Wheat prices are projected to decline from \$3.07/bushel in 1991 to \$2.78/bushel in 1992. Thereafter, prices rebound to \$3.23/bushel by 1995.
- Kansas City feeder steer prices are projected to decline over the 1990-95 period from \$90.86/cwt to \$80.68/cwt. Utility cow prices follow this general pattern, as well.
- Barrow and gilt prices are projected to decline through 1992, before increasing to \$51.00/cwt by 1995.
- The all-milk price is projected to increase from the \$12.24/cwt low experienced in 1991 to \$12.79/cwt in 1995. The \$12.79/cwt in 1995 represents a \$0.55/cwt increase over the low projected for 1991-92, but is still approximately \$1/cwt below prices achieved in 1990.

Crop Yields And Crop And Livestock Prices, 1990-1996

	90/91	91/92	92/93	93/94	94/95	95/96
CROPS:						
Corn						
Yield (bu/ac)	118.5	108.6	119.9	121.6	123.0	124.0
Price (\$/bu)	2.28	2.45	2.19	2.26	2.30	2.39
Sorghum						
Yield (bu/ac)	62.9	59.0	65.1	65.9	66.6	67.3
Price (\$/bu)	2.12	2.37	2.05	2.14	2.13	2.21
Barley						
Yield (bu/ac)	56.1	55.2	57.2	57.8	58.0	58.6
Price (\$/bu)	2.14	2.09	2.12	2.14	2.08	2.20
Wheat						
Yield (bu/ac)	39.5	34.3	37.8	38.0	38.3	38.6
Price (\$/bu)	2.61	3.07	2.78	2.81	3.06	3.23
Soybeans						
Yield (bu/ac)	34.1	34.3	34.8	35.0	35.3	35.7
Price (\$/bu)	5.75	5.44	5.83	5.67	5.68	5.95
Cotton						
Yield (lbs/ac)	634	656	641	654	659	666
Price (\$/lb)	.681	.593	.620	.604	.603	.618
Rice						
Yield (lbs/ac)	5529	5617	5602	5754	5778	5831
Price (\$/cwt)	6.70	7.25	5.99	7.20	7.27	7.33
All Hay						
Yield (tons/ac)	2.39	2.51	2.52	2.55	2.58	2.60
Price (\$/ton)	83.20	71.24	69.00	71.22	72.81	73.97
Soybean Meal						
Price (\$/ton)	169.00	174.74	193.20	189.26	189.58	196.84
LIVESTOCK:						
Cattle						
Feeders (\$/cwt)	90.86	89.14	87.04	85.43	83.76	80.68
Cows (\$/cwt)	53.13	52.29	51.55	50.71	47.32	43.79
Pork						
Barrows/Gilts (\$/cwt)	54.45	49.03	41.08	44.98	52.04	56.71
Sows (\$/cwt)	48.18	44.37	36.25	42.43	49.13	51.00
Milk						
Production/Cow (1,000 lbs)	14.64	14.85	15.13	15.47	15.83	16.08
All Milk Price (\$/cwt)	13.73	12.24	12.29	12.48	12.61	12.79

Source: FAPRI, January 1992 Baseline.

Panel Farms Producing Feed Grains



CHARACTERISTICS OF PANEL FARMS PRODUCING FEED GRAINS

- WAMG** a 1,276 acre Southeastern Washington (Whitman County) moderate size grain farm which grows 583 acres of wheat, 130 acres of barley, and 498 acres of dry peas in 1992. The farm flexed NFA and OFA barley acreage to wheat and generated 8 percent of its revenue from barley.
- WALG** a 4,250 acre Southeastern Washington (Whitman County) large grain farm which grows 1,858 acres of wheat, 336 acres of barley, and 1,890 acres of dry peas. The farm flexed NFA barley acreage to wheat and generated 6 percent of its receipts from barley.
- NDMG** a 1,600 acre South Central North Dakota (Barnes County) moderate size grain farm which grows 820 acres of wheat, 320 acres of barley, and 400 acres of sunflowers in 1992. The farm flexed NFA barley acreage to wheat and received about 20 percent of its receipts from barley.
- NDLG** a 4,000 acre South Central North Dakota (Barnes County) large grain farm which grows 1,940 acres of wheat, 1,100 acres of barley, and 800 acres of sunflowers in 1992. The farm flexed NFA barley acreage to wheat and received about 27 percent of its receipts from barley.
- NEMG** a 630 acre South Central Nebraska (Phelps County) moderate size irrigated grain farm which grows 513 acres of corn and 60 acres of soybeans in 1992. The farm continued to plant corn on its NFA acreage and generates about 94 percent of its gross receipts from corn.
- NELG** a 1,575 acre South Central Nebraska (Phelps County) large irrigated grain farm which grows 1,330 acres of corn and 100 acres of soybeans. The farm continued to plant corn on its NFA acreage and generates more than 96 percent of its gross receipts from corn.
- IAMG** a 680 acre Northwestern Iowa (Webster County) moderate size grain farm which grows 304 acres of corn and 325 acres of soybeans in 1992. The farm continued to plant corn on its NFA acreage and receives about 57 percent of its receipts from corn.
- IALG** a 1,320 acre Northwestern Iowa (Webster County) large grain farm which grows 668 acres of corn and 576 acres of soybeans in 1992. The farm continued to plant corn on its NFA acreage and generates 61 percent of its gross receipts from corn.

Characteristics of Panel Farms Producing Feed Grains

	WAMG	WALG	NDMG	NDLG	NEMG	NELG	IAMG	IALG
Total Acreage	1276	4250	1600	4000	630	1575	680	1320
Owned Acres	638	1700	400	1600	315	1040	140	132
Leased Acres	638	2550	1200	2400	315	535	540	1188

Assets	-- (\$1,000) --							
Real Estate	980.2	2495.1	184.9	756.3	636.9	2079.7	269.0	245.7
Machinery	285.1	714.4	279.0	920.5	318.1	527.6	115.1	265.7
Livestock, Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Debt/Asset Ratio*	0.09	0.13	0.26	0.25	0.14	0.17	0.37	0.36
Machinery	0.05	0.05	0.21	0.21	0.03	0.03	0.12	0.12
Land	0.11	0.11	0.28	0.28	0.19	0.19	0.46	0.46

1992 Gross Receipts**	-- (\$1,000) --							
Total	221.7	689.8	191.4	493.7	199.5	595.1	137.4	237.0
Wheat	137.0	425.6	102.5	266.5				
Barley	17.2	43.3	38.5	132.6				
Peas	67.5	220.9						
Sunflower			50.4	94.6				
Corn					188.0	574.2	78.9	144.8
Soybeans					11.5	20.9	58.5	92.2

1992 Planted Acreage	-- (Acres) --							
Total	1212.40	4084.50	1540.00	3840.0	573.0	1430.0	629.0	1244.8
Wheat	583.5	1858.5	820.0	1940.0				
Barley	130.9	336.0	320.0	1100.0				
Peas	498.0	1890.0						
Sunflowers			400.0	800.0				
Corn					513.0	1330.0	304.0	668.8
Soybeans					60.0	100.0	325.0	576.0

* Total debt/asset ratio reflects accrued taxes that are not reflected in machinery and land debt.

** Receipts for 1992 are included to indicate the relative importance of each enterprise to the farm; these values do not reflect price and yield risk so they differ from the average annual cash receipts in subsequent tables.

CHARACTERISTICS OF PANEL FARMS PRODUCING FEED GRAINS - Continued

- MOMG** a 1,100 acre North Central Missouri (Carroll County) moderate size grain farm with 190 acres of wheat, 285 acres of corn, and 500 acres of soybeans in 1992. The farm did not flex on either its wheat or corn base and generated about 36 percent of its total revenue from corn.
- MOLG** a 2,100 acre North Central Missouri (Carroll County) large grain farm with 380 acres of wheat, 570 acres of corn, and 1,000 acres of soybeans in 1992. The farm did not flex on either its wheat or corn base and generated about 38 percent of its total revenue from corn.
- NPMG** a 1,600 Northern High Plains of Texas (Moore County) moderate size irrigated grain farm with 480 acres of wheat, 356 acres of sorghum, and 380 acres of corn in 1992. The farm flexed NFA wheat to sorghum and generated about 71 percent of its total receipts from feed grains.
- NPLG** a 4,500 acre Northern High Plains of Texas (Moore County) large irrigated grain farm with 1,344 acres of wheat, 1,056 acres of sorghum, and 995 acres of corn in 1992. The farm flexed NFA wheat to sorghum and generated about 70 percent of its total revenue from feed grains.
- BLMC** a 1,000 acre Texas Blacklands (Williamson County) moderate size cotton farm with 472 acres of sorghum and 448 acres of cotton in 1992. The farm flexed NFA and OFA sorghum to cotton and generated about 36 percent of its total receipts from sorghum.
- CBMC** a 1,400 acre Texas Coastal Bend (San Patricio County) moderate size cotton farm with 623 acres of sorghum and 617 acres of cotton in 1992. The farm flexed NFA and OFA sorghum and corn to cotton and generated about 27 percent of its total revenue from sorghum in 1992.
- SCMG** a 1,500 acre South Carolina (Clarendon County) moderate size grain farm with 600 acres of wheat, 600 acres of corn, and 975 acres of soybeans in 1992. The farm flexed its NFA corn and NFA wheat to soybeans and generated 36 percent of its total receipts from corn.
- SCLG** a 3,500 acre South Carolina (Clarendon County) large grain farm with 880 acres of wheat, 262 acres of cotton, 1,120 acres of corn and 2,177 acres of soybeans in 1992. The farm flexed NFA corn, wheat, and cotton acreage to soybeans. About 31 percent of total receipts for the farm come from corn.

Characteristics of Panel Farms Producing Feed Grains - Continued

	MOMG	MOLG	NPMG	NPLG	BLMC	CBMC	SCMG	SCLG
Total Acreage	1100	2100	1600	4500	1000	1400	1500	3500
Owned Acres	550	840	320	900	250	300	500	1400
Leased Acres	550	1260	1280	3600	750	1100	1000	2100
<hr/>								
Assets	-- (\$1,000) --							
Real Estate	589.2	958.8	181.0	525.0	268.1	343.5	557.1	1924.1
Machinery	263.8	463.9	332.2	827.3	328.7	163.6	249.7	739.1
Livestock, Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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Debt/Asset Ratio*	0.32	0.33	0.19	0.21	0.20	0.20	0.26	0.26
Machinery	0.28	0.28	0.17	0.17	0.17	0.17	0.45	0.45
Land	0.31	0.31	0.21	0.21	0.21	0.21	0.18	0.18
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1992 Gross Receipts**	-- (\$1,000) --							
Total	186.5	343.5	307.0	831.5	223.2	385.3	469.2	1029.9
Wheat	32.9	61.8	89.5	250.6			124.5	157.0
Sorghum			80.8	240.3	80.6	102.5		
Cotton					142.6	282.8		152.2
Corn	66.3	129.9	136.7	340.6		0	169.8	315.7
Soybeans	87.3	151.8					174.9	405.0
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1992 Planted Acreage	-- (Acres) --							
Total	975.0	1950.0	1216.0	3396.2	920.5	1240.5	2175.0	4974.0
Wheat	190.0	380.0	480.0	1344.0			600.0	880.0
Sorghum			356.0	1056.6	472.0	623.3		
Cotton					448.5	617.2		262.5
Corn	285.0	570.0	380.0	995.6			600.0	1120.0
Soybeans	500.0	1000.0					975.0	2177.5

* Total debt/asset ratio reflects accrued taxes that are not reflected in machinery and land debt.

** Receipts for 1992 are included to indicate the relative importance of each enterprise to the farm; these values do not reflect price and yield risk so they differ from the average annual cash receipts in subsequent tables.

FEED GRAIN IMPACTS

- The tables and charts in this section include projections for all AFPC panel farms that produce a feed grain (corn, sorghum, barley, and oats) regardless of the feed grain's percentage contribution to total receipts.
 - Feed grains contribute more than 50 percent of the gross receipts on the NEMG (94 percent), NELG (96 percent), IAMG (57 percent), IALG (61 percent), NPMG (71 percent), and NPLG (70 percent) farms.
 - Feed grains contribute about 33 percent of the gross receipts on the MOMG (36 percent), MOLG (38 percent), BLMC (36 percent), SCMG (36 percent) SCLG (31 percent) farms.
 - The WAMG (8 percent), WALG (6 percent), NDMG (20 percent), NDLG (27 percent), and CBMC (27 percent) farms generate less than 30 percent of the farm's gross receipts from feed grains.
- All farms except the Texas Blacklands (BLMC) and the Texas Coastal Bend (CBMC) experience a downturn in net cash farm income in 1991, reflecting primarily the additional 15 percent of base acreage that is not eligible for government payments due to the 1990 Budget Reconciliation Act (NFA). Although the feed grain farms had the opportunity to flex to more profitable crops, the alternatives were either not there or the returns were not sufficient to offset the loss in deficiency payments.
- The two Texas farms that did not show a decline in 1991 net cash farm income (BLMC and CBMC) were able to utilize both flexibility options (NFA and OFA) to move from feed grains to cotton. The increased revenue from the flexibility options, coupled with the fact that the ARP requirement for cotton declined from 12.5 percent in 1990 to 5 percent in 1991 more than made up for the loss in program payment acres.
- All farms experienced a rebound in net cash farm incomes from 1991 to 1992 due primarily to a lower 1992 acreage reduction requirement (ARP) for feed grains and wheat.
- For the 1992-95 period, prices for all program crops were not projected to exceed frozen target price levels. Therefore, the revenue base was effectively frozen while input cost continued to escalate. This cost price squeeze resulted in eight of the sixteen farms experiencing less nominal net cash farm income in 1995 than they generated in 1990.
- The net cash farm income on six of the eight farms that experienced a nominal increase in 1995 (comparing 1995 to 1990) failed to out-pace projected inflation rates. Therefore, all farms, with the exception of the BLMC and CBMC, experience losses in real net cash farm income (adjusted for inflation) over the period.
- Although real net cash farm income declines for 14 of the 16 farms, eleven of the sixteen farms are able to increase real equity due to debt reduction and projected increases in land values (1.5 to 3.9 percent annually).
- Two of the five farms losing equity, WAMG and WALG, generate less than 10 percent of their receipts from feed grains. Of the remaining three, the moderate Missouri farm (MOMG) loses less than 1 percent while the moderate Nebraska (NEMG) and moderate Texas Northern Plains (NPMG) farms lose 21 and 16 percent, respectively. The moderate Nebraska (NEMG) farm is the most vulnerable due to relatively small average cash receipts, \$198,970, and an unfavorable ratio of cash

expenses to receipts (93 percent). The farm is simply not capable of servicing family living expenses and replacing equipment under the projected prices for the 1990 farm bill.

- The moderate Texas Northern Plains (NPMG) grain farm generates about \$300,000 annually in cash receipts but it, too, cannot cover family living expenses and capital replacement requirements with cash expenses of \$0.88 for each dollar of receipts.
- The large Iowa grain farm (IALG) experiences real growth of approximately 70 percent. The farm is the most efficient of all farms analyzed when the criteria is the ratio of cash expenses to receipts (52 percent). The farm can easily cover machinery replacement and family living expenses with total net cash farm income averaging more than \$100,000 annually. The NPLG farm experiences real growth in equity of nearly 59 percent. The farm is not as efficient as its Iowa counterpart with expenses averaging \$0.71 for each dollar of receipts. This irrigated farm, however, generates slightly over \$800,000 annually, producing an average net cash farm income of nearly \$250,000 per year.
- In the major feed grain producing regions (Iowa, Nebraska, Missouri and Texas High Plains), the large farms experience a significant advantage in economic viability when compared to their moderate scale counterparts. All have significantly lower cash expense to revenue ratios ranging from approximately 13 percentage points in Missouri to 17 percentage points in Nebraska and the Texas High Plains.

Implications of the 1990 Farm Bill and FAPRI January 1992 Baseline on Panel Farms that Produce Feedgrains.

	WAMG	WALG	NDMG	NDLG	NEMG	NELG	IAMG	IALG
Probability Success (%)	0.0	0.0	77.0	30.0	0.0	98.0	100.0	100.0
Probability of Lower Equity (%)	100.0	87.0	31.0	38.0	100.0	0.0	2.0	0.0
Average Change in Real Net Worth (%)	-11.72	-2.03	6.12	2.50	-21.41	9.19	12.33	70.39
Average Annual Ratio of Expenses to Receipts (%)	83.90	83.98	71.55	79.46	92.80	75.87	65.59	51.70
Average Present Value Ending Net Worth (\$1000)	981.40	2645.63	306.35	1102.50	593.74	2240.83	277.86	499.45
Average Annual Cash Receipts (\$1000)	216.40	676.30	184.64	478.97	198.97	595.01	137.67	236.94
Average Annual Cash Expenses (\$1000)	181.46	567.67	131.72	379.46	184.48	451.03	90.18	122.37
Average Annual Net Cash Income (\$1000)	34.95 (15.82)	108.63 (14.53)	52.92 (19.26)	99.51 (27.29)	14.49 (42.84)	143.98 (12.17)	47.50 (11.17)	114.57 (7.00)
Average Cash Receipts (\$1000)								
1990	210.60	665.55	183.16	463.68	192.92	575.45	132.91	229.27
1991	195.87	609.12	166.78	429.28	183.36	549.99	125.99	217.57
1992	219.40	682.50	191.77	497.17	198.30	591.78	137.91	238.1
1993	218.84	683.81	184.13	485.58	199.67	596.44	141.91	244.6
1994	223.14	698.04	187.40	490.37	205.15	614.11	139.15	240.23
1995	230.58	718.77	194.57	507.76	214.40	642.28	148.18	251.78
Average Net Cash Income (\$1000)								
1990	37.99	116.31	61.20	104.23	24.06	139.82	47.57	110.63
1991	27.48	77.45	43.39	75.32	12.45	115.88	41.77	101.13
1992	42.68	128.31	63.04	124.29	21.08	150.47	50.63	119.10
1993	35.73	115.19	54.94	101.31	12.94	146.40	52.85	122.32
1994	32.61	106.88	47.09	93.72	9.39	150.04	48.56	113.43
1995	33.19	107.61	47.83	98.20	7.04	161.25	43.60	120.82

Values in parentheses are coefficients of variation for the preceeding mean value.

Probability of Economic Success - Chance that the farm will earn a return on initial equity greater than 0.058.

Probability of Lower Equity - Chance that the farm will experience a decrease in net worth after adjusting for inflation.

Change in Real Net Worth -Percentage change in real net worth over the simulation period, 1990-1995.

Average Annual Ratio of Expenses to Receipts - Ratio of all cash expenses to all farm receipts including government payments.

Present Value Ending Net Worth - Discounted value of net worth in the last year simulated.

Annual Cash Receipts - Total cash receipts from crops, dairy, livestock, government payments, and other farm related activities.

Annual Cash Expenses - Total cash costs for crops, dairy, and livestock production, including interest costs and fixed cash costs; excludes depreciation.

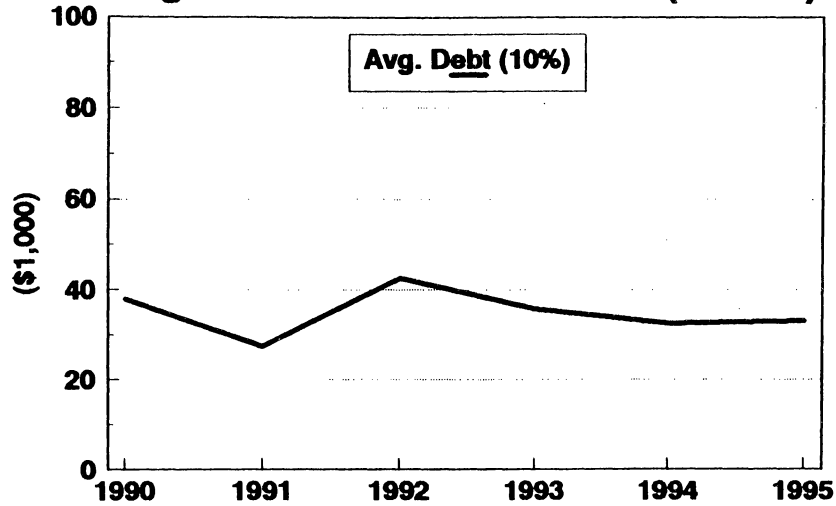
Annual Net Cash Income - Total cash receipts minus total cash expenses; excludes family living expenses, principal payments, and costs to replace capital assets.

Implications of the 1990 Farm Bill and FAPRI January 1992 Baseline on Panel Farms that Produce Feedgrains.

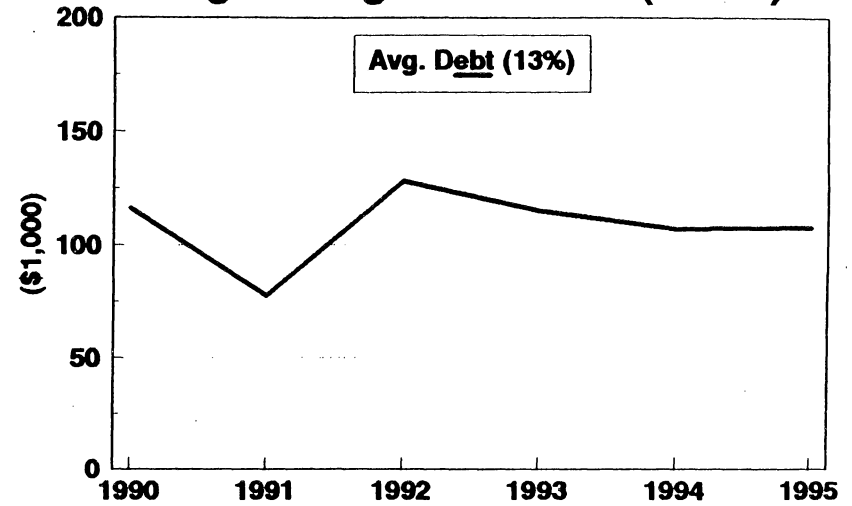
	MOMG	MOLG	NPMG	NPLG	BLMC	CBMC	SCMG	SCLG
Probability Success (%)	34.0	100.0	22.0	100.0	100.0	97.0	100.0	97.0
Probability of Lower Equity (%)	59.0	0.0	99.0	0.0	0.0	7.0	0.0	0.0
Average Change in Real Net Worth (%)	-0.88	32.61	-15.65	58.51	56.06	32.01	40.78	29.20
Average Annual Ratio of Expenses to Receipts (%)	75.12	62.42	87.50	70.55	55.10	79.63	74.24	76.41
Average Present Value Ending Net Worth (\$1000)	565.22	1106.19	356.48	1542.21	592.70	510.84	735.24	2342.01
Average Annual Cash Receipts (\$1000)	184.38	339.60	301.80	816.86	225.60	386.76	459.62	1026.59
Average Annual Cash Expenses (\$1000)	138.33	211.72	263.99	576.10	123.84	306.51	340.56	782.65
Average Annual Net Cash Income (\$1000)	46.05 (14.45)	127.88 (9.19)	37.81 (16.08)	240.76 (6.35)	101.76 (13.24)	80.24 (29.62)	119.06 (16.77)	243.94 (20.26)
Average Cash Receipts (\$1000)								
1990	179.49	329.88	289.27	782.72	196.12	328.81	443.80	1000.83
1991	167.06	307.95	275.20	743.73	219.74	384.37	411.88	943.50
1992	182.65	336.76	310.81	841.95	226.07	386.89	476.03	1025.16
1993	188.06	346.40	305.29	826.98	229.51	394.95	469.56	1047.68
1994	190.58	350.90	308.70	835.72	237.38	401.88	467.98	1068.79
1995	198.43	365.70	321.55	870.08	244.79	423.65	488.45	1073.55
Average Net Cash Income (\$1000)								
1990	47.58	122.46	44.83	227.50	85.79	61.51	110.06	222.10
1991	37.98	107.34	33.16	200.02	98.93	86.37	93.56	193.14
1992	51.74	130.81	49.00	279.94	105.47	91.67	142.87	262.43
1993	54.73	133.99	39.05	252.45	106.47	87.58	128.99	265.62
1994	44.07	132.91	31.77	238.37	106.03	76.94	116.49	263.72
1995	40.18	139.77	29.06	246.29	107.87	77.39	122.41	256.62

Values in parentheses are coefficients of variation for the preceding mean value.
 Probability of Economic Success - Chance that the farm will earn a return on initial equity greater than 0.058.
 Probability of Lower Equity - Chance that the farm will experience a decrease in net worth after adjusting for inflation.
 Change in Real Net Worth - Percentage change in real net worth over the simulation period, 1990-1995.
 Average Annual Ratio of Expenses to Receipts - Ratio of all cash expenses to all farm receipts including government payments.
 Present Value Ending Net Worth - Discounted value of net worth in the last year simulated.
 Annual Cash Receipts - Total cash receipts from crops, dairy, livestock, government payments, and other farm related activities.
 Annual Cash Expenses - Total cash costs for crops, dairy, and livestock production, including interest costs and fixed cash costs; excludes depreciation.
 Annual Net Cash Income - Total cash receipts minus total cash expenses; excludes family living expenses, principal payments, and costs to replace capital assets.

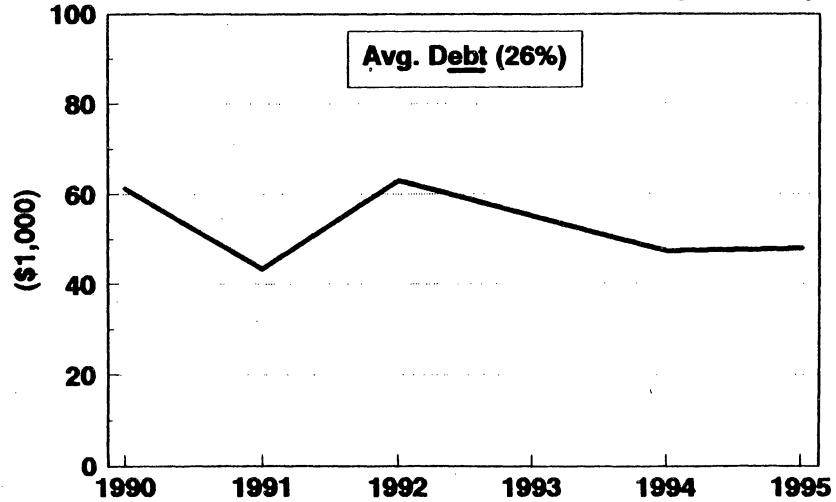
**Net Cash Farm Income
Washington Moderate Grain Farm (WAMG)**



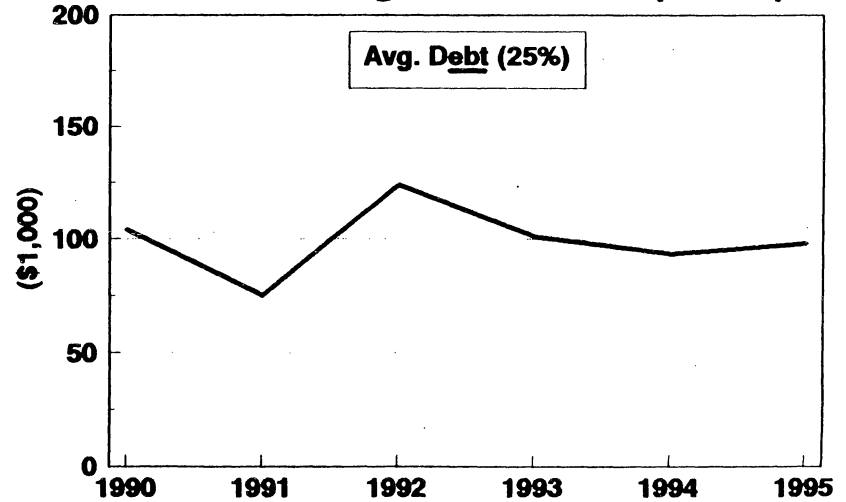
**Net Cash Farm Income
Washington Large Grain Farm (WALG)**



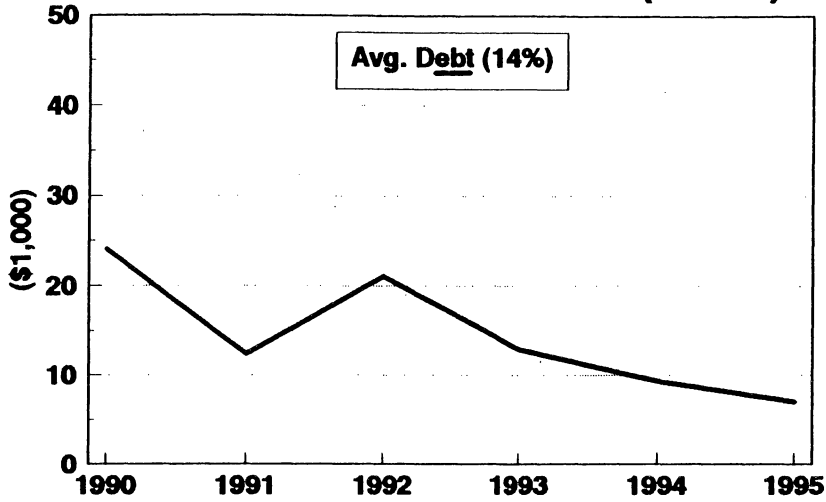
**Net Cash Farm Income
North Dakota Moderate Grain Farm (NDMG)**



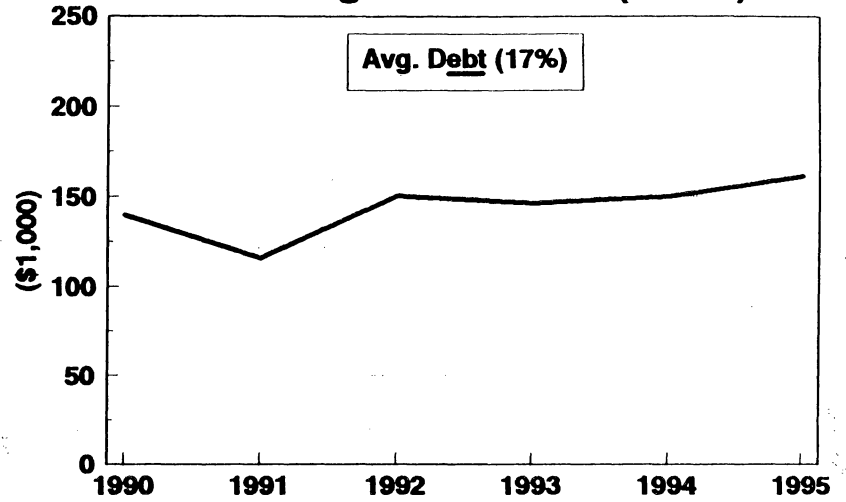
**Net Cash Farm Income
North Dakota Large Grain Farm (NDLG)**



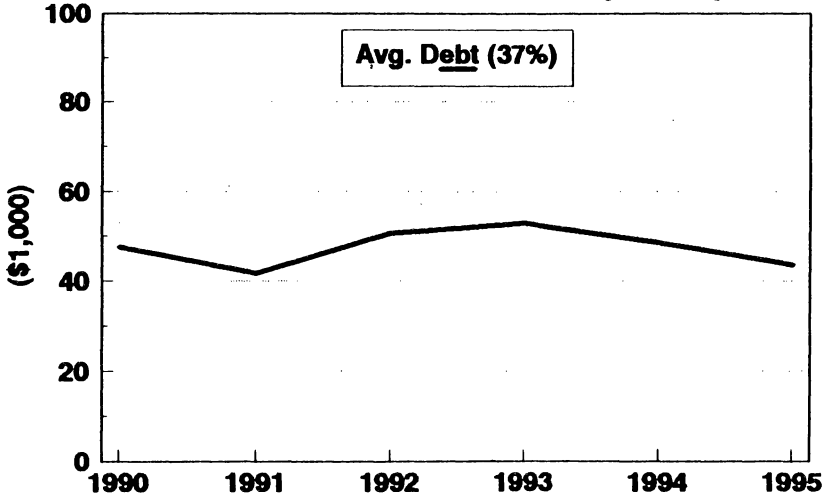
**Net Cash Farm Income
Nebraska Moderate Grain Farm (NEMG)**



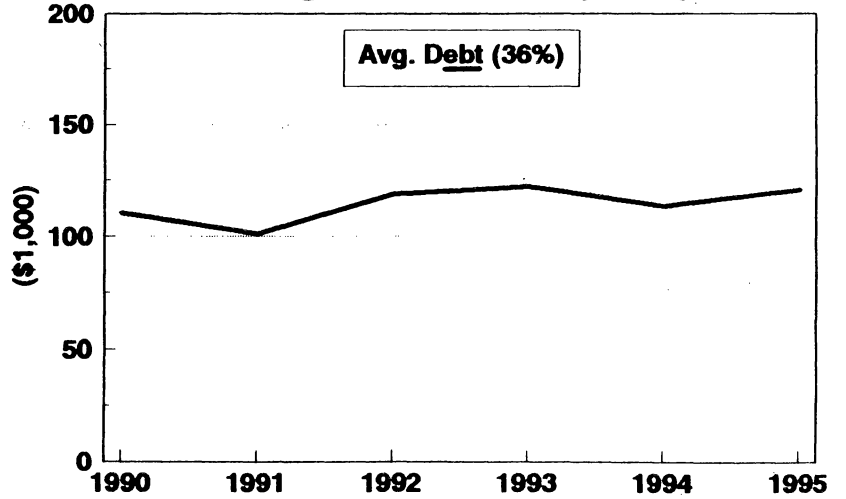
**Net Cash Farm Income
Nebraska Large Grain Farm (NELG)**



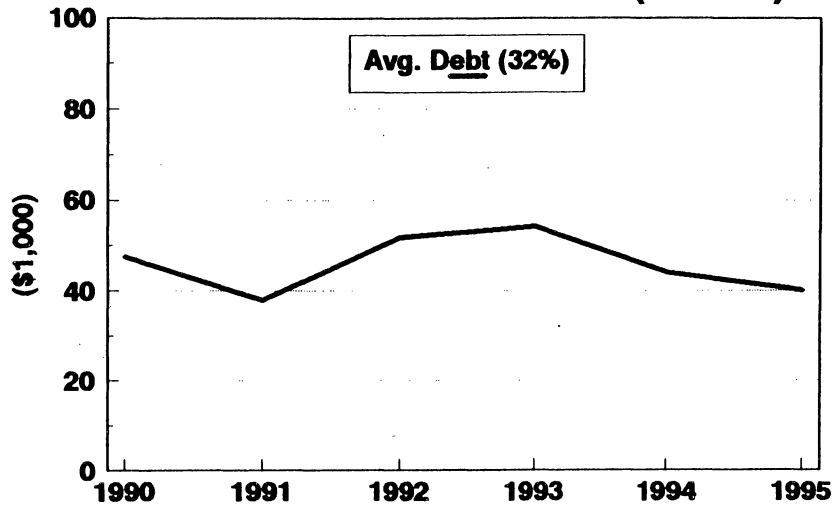
**Net Cash Farm Income
Iowa Moderate Grain Farm (IAMG)**



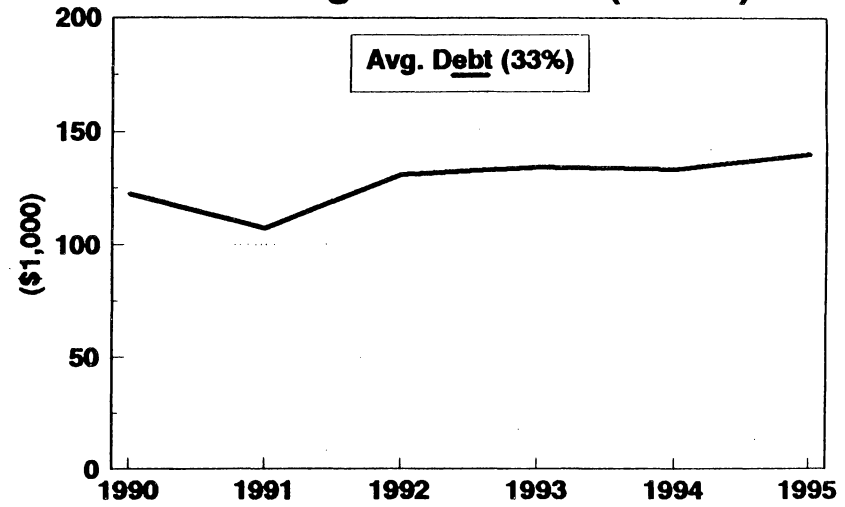
**Net Cash Farm Income
Iowa Large Grain Farm (IALG)**



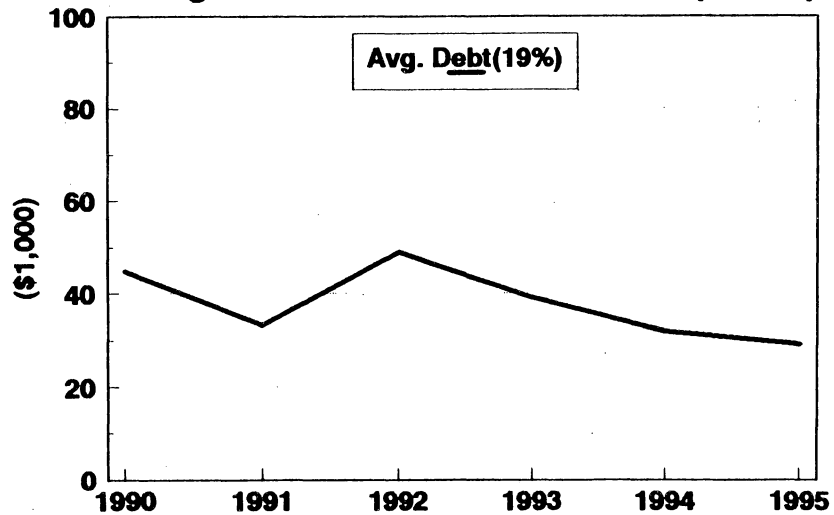
**Net Cash Farm Income
Missouri Moderate Grain Farm (MOMG)**



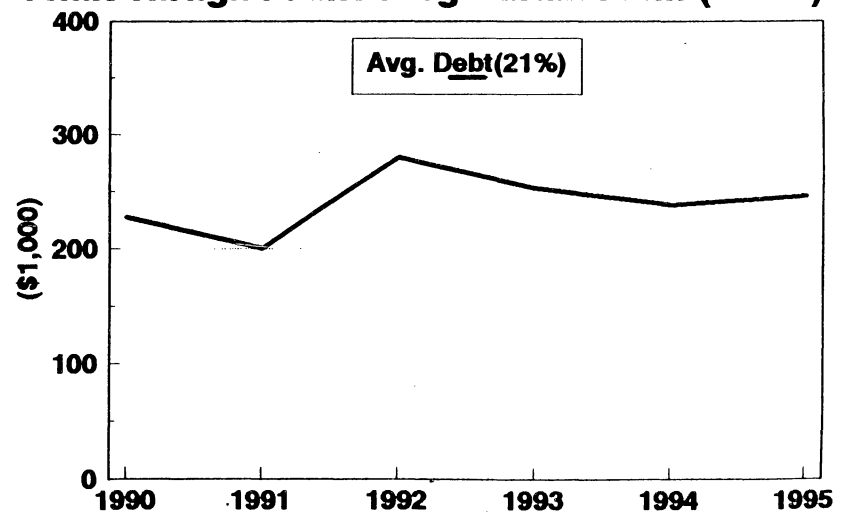
**Net Cash Farm Income
Missouri Large Grain Farm (MOLG)**



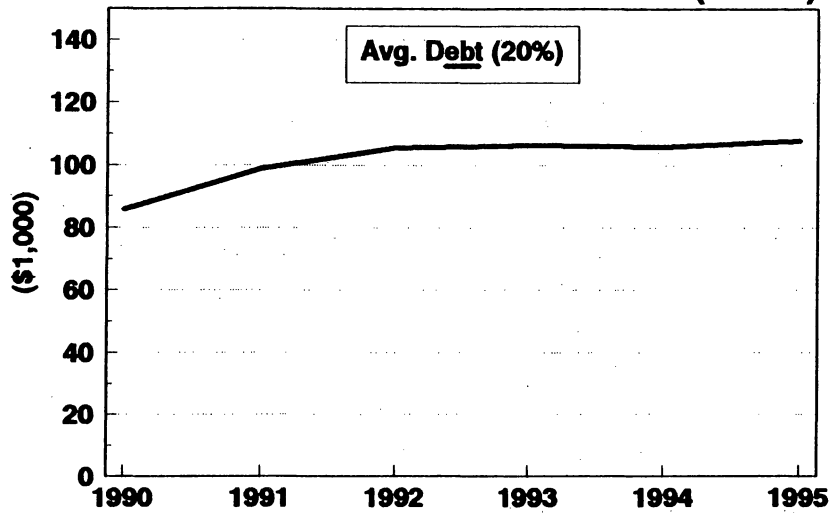
**Net Cash Farm Income
Texas N.High Plains Moderate Grain Farm (NPMG)**



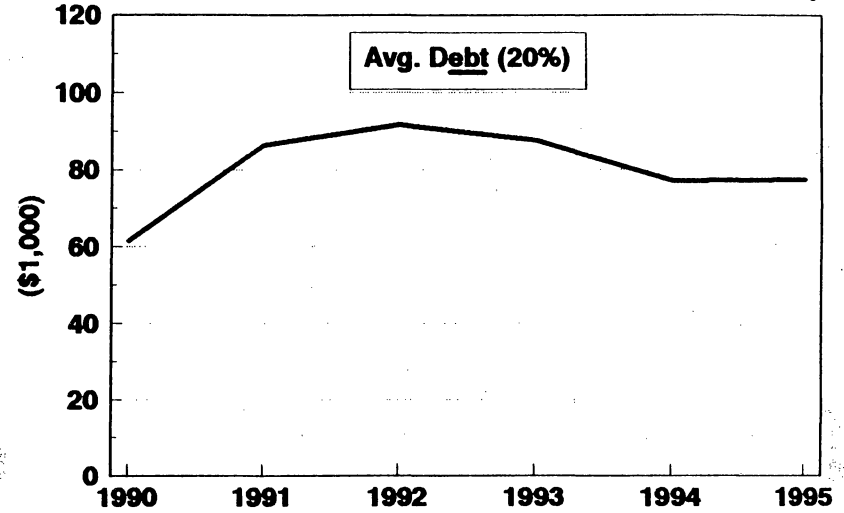
**Net Cash Farm Income
Texas N.High Plains Large Grain Farm (NPLG)**



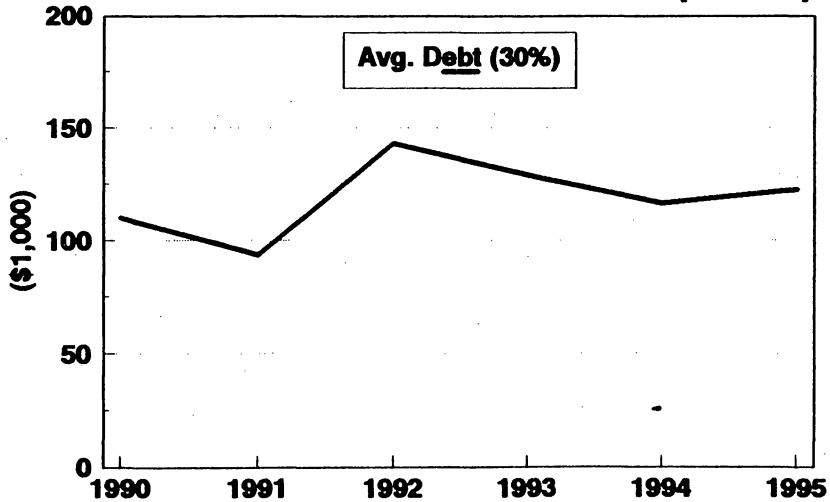
Net Cash Farm Income
Texas Blacklands Moderate Cotton Farm (BLMC)



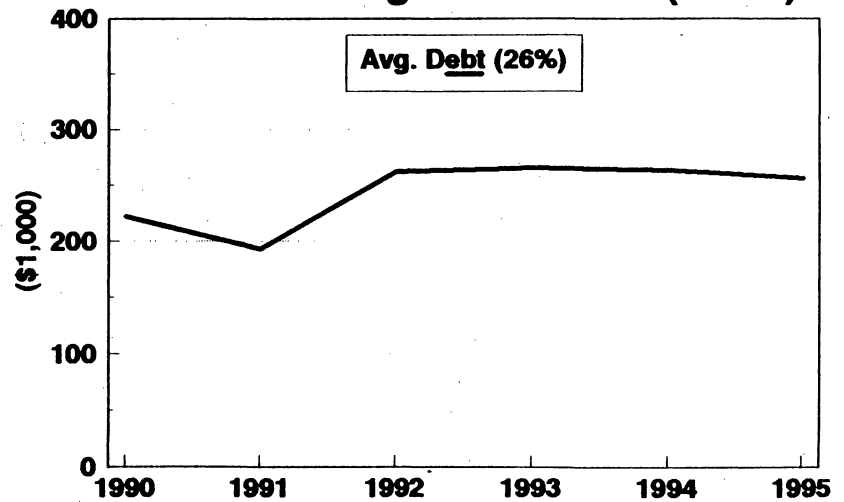
Net Cash Farm Income
Texas Coastal Bend Moderate Cotton Farm (CBMC)



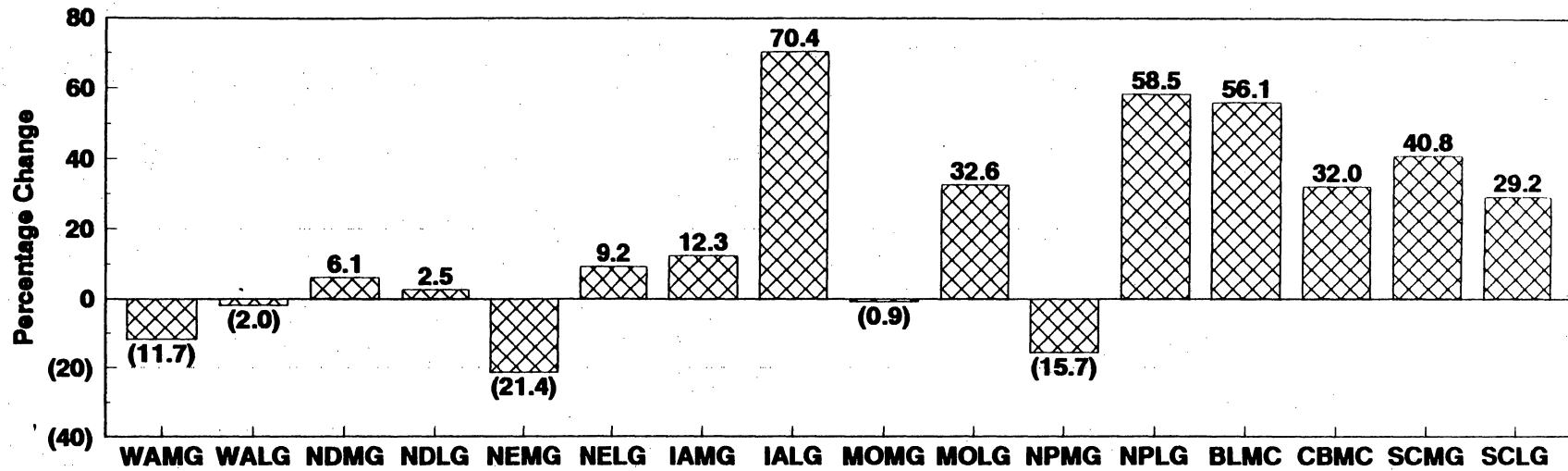
Net Cash Farm Income
South Carolina Moderate Grain Farm (SCMG)



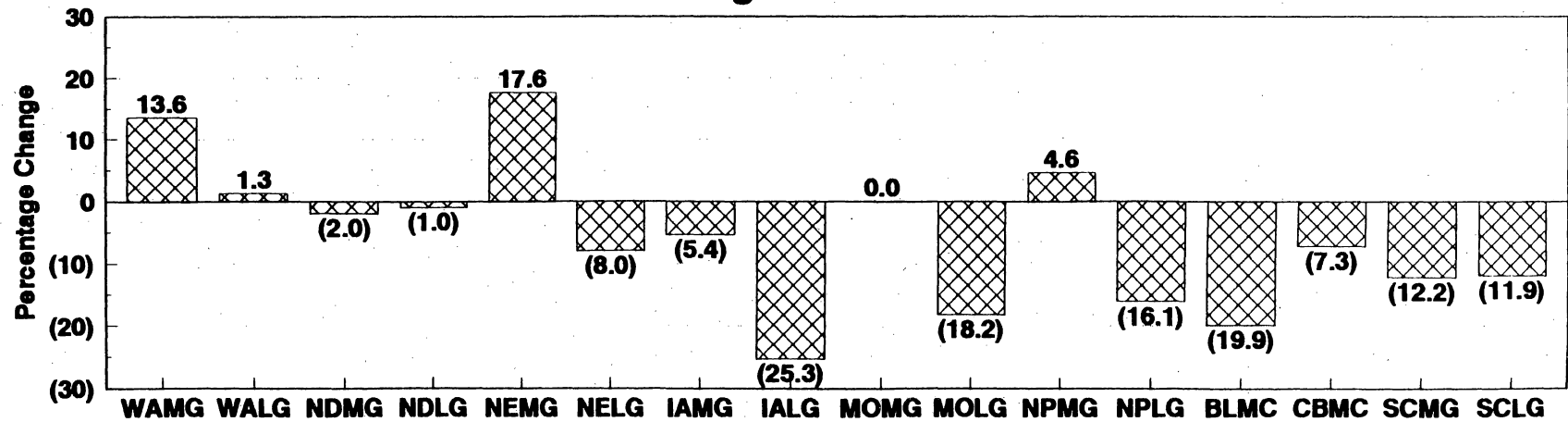
Net Cash Farm Income
South Carolina Large Grain Farm (SCLG)



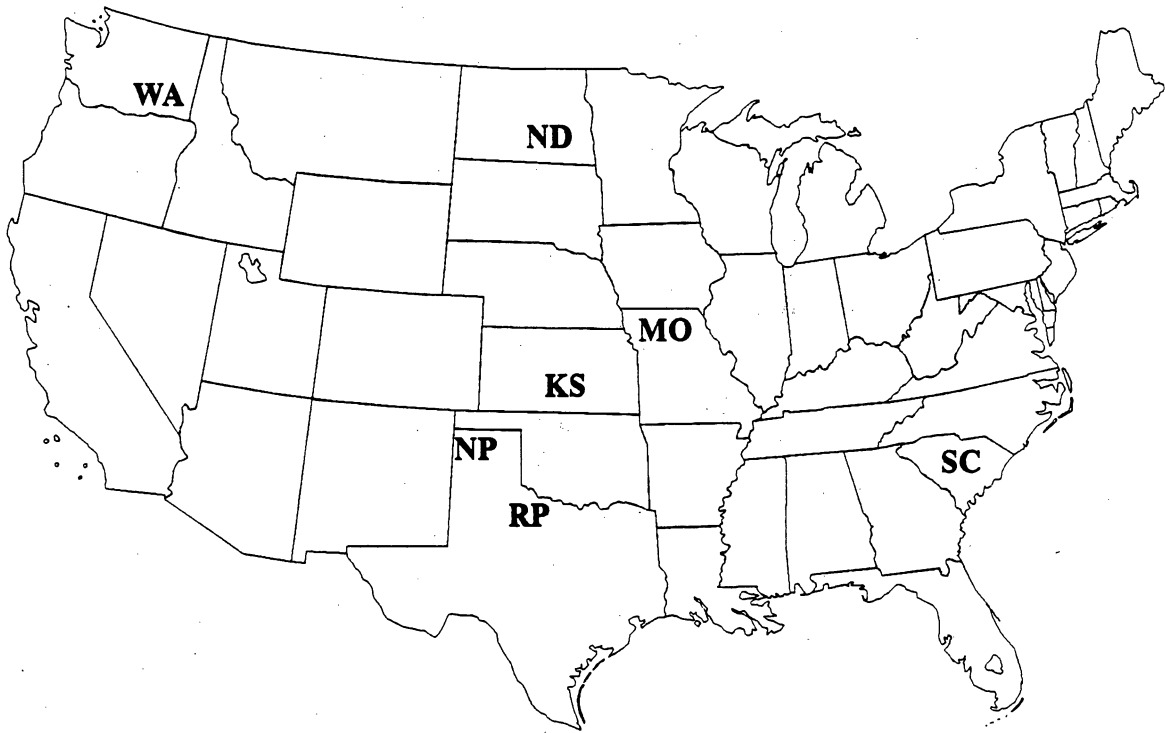
Real Change in Net Worth for All Feedgrain Farms 1990-1995.



Annual Percentage Change in Receipts Needed to Maintain Real Net Worth from 1990 to 1995: Feedgrain Farms



Panel Farms Producing Wheat



CHARACTERISTICS OF PANEL FARMS PRODUCING WHEAT

- WAMG** a 1,276 acre Southeastern Washington (Whitman County) moderate size grain farm which grows 583 acres of wheat, 130 acres of barley, and 498 acres of dry peas in 1992. The farm flexed NFA and OFA barley acreage to wheat and generated 62 percent of its revenue from wheat.
- WALG** a 4,250 acre Southeastern Washington (Whitman County) large grain farm which grows 1,858 acres of wheat, 336 acres of barley, and 1,890 acres of dry peas. The farm flexed NFA barley acreage to wheat and generated 62 percent of its receipts from wheat.
- NDMG** a 1,600 acre South Central North Dakota (Barnes County) moderate size grain farm which grows 820 acres of wheat, 320 acres of barley, and 400 acres of sunflowers in 1992. The farm flexed NFA barley acreage to wheat and received about 54 percent of its receipts from wheat.
- NDLG** a 4,000 acre South Central North Dakota (Barnes County) large grain farm which grows 1,940 acres of wheat, 1,100 acres of barley, and 800 acres of sunflowers in 1992. The farm flexed NFA barley acreage to wheat and received about 54 percent of its receipts from wheat.
- KSMG** a 1,175 acre South Central Kansas (Sumner County) moderate size grain farm which grows 880 acres of wheat and 236 acres of sorghum in 1992. The farm flexed NFA wheat to sorghum and generates about 83 percent of its total revenue from wheat in 1992.
- KSLG** a 2,500 acre South Central Kansas (Sumner County) large grain farm which grows 2,375 acres of wheat in 1992. The farm grew only wheat and, therefore, had no flex alternatives. Wheat generates 100 percent of the revenue on this farm.
- MOMG** a 1,100 acre North Central Missouri (Carroll County) moderate size grain farm with 190 acres of wheat, 285 acres of corn, and 500 acres of soybeans in 1992. The farm did not use flex options and generated about 17 percent of its total revenue from wheat.
- MOLG** a 2,100 acre North Central Missouri (Carroll County) large grain farm with 380 acres of wheat, 570 acres of corn, and 1,000 acres of soybeans in 1992. The farm did not use flex options and generated about 18 percent of its total revenue from wheat.

Characteristics of Panel Farms Producing Wheat

	WAMG	WALG	NDMG	NDLG	KSMG	KSLG	MOMG	MOLG
Total Acreage	1276	4250	1600	4000	1175	2500	1100	2100
Owned Acres	638	1700	400	1600	388	250	550	840
Leased Acres	638	2550	1200	2400	787	2250	550	1260
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Assets	-- (\$1,000) --							
Real Estate	980.2	2495.1	184.9	756.3	321.3	327.1	589.2	958.5
Machinery	285.1	714.4	279.0	920.5	283.3	501.1	263.8	463.9
Livestock, Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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Debt/Asset Ratio*	0.09	0.13	0.26	0.25	0.42	0.42	0.32	0.33
Machinery	0.05	0.05	0.21	0.21	0.04	0.04	0.28	0.28
Land	0.11	0.11	0.28	0.28	0.38	0.38	0.31	0.31
<hr/>								
1992 Gross Receipts**	-- (\$1,000) --							
Total	221.7	689.8	191.4	493.7	121.6	232.1	186.5	343.5
Wheat	137.0	425.6	102.5	266.5	100.8	232.1	32.6	61.8
Barley	17.2	43.3	38.5	132.6				
Peas	67.5	220.9						
Sunflower			50.4	94.6				
Sorghum					20.8			
Corn							66.3	129.9
Soybeans							87.3	151.8
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1992 Planted Acres	-- (Acres) --							
Total	1212.4	4084.5	1540.0	3940.0	1116.3	2375.0	975.0	1950.0
Wheat	583.5	1858.5	820.0	1940.0	880.0	2375.0	190.0	380.0
Barley	130.9	336.0	320.0	1100.0				
Peas	498.0	1890.0						
Sunflowers			400.0	800.0				
Sorghum					236.3			
Corn							285.0	570.0
Soybeans							500.0	1000.0

* Total debt/asset ratio reflects accrued taxes that are not reflected in machinery and land debt.

** Receipts for 1992 are included to indicate the relative importance of each enterprise to the farm; these values do not reflect price and yield risk so they differ from the average annual cash receipts in subsequent tables.

CHARACTERISTICS OF PANEL FARMS PRODUCING WHEAT - Continued

- NPMG** a 1,600 acre Northern High Plains of Texas (Moore County) moderate size irrigated grain farm with 480 acres of wheat, 356 acres of sorghum, and 380 acres of corn in 1992. The farm flexed NFA wheat to sorghum and generated about 29 percent of its total receipts from wheat.
- NPLG** a 4,500 acre Northern High Plains of Texas (Moore County) large irrigated grain farm with 1,596 acres of wheat, 604 acres of sorghum, and 995 acres of corn in 1992. The farm flexed NFA wheat to sorghum and generated about 30 percent of its total revenue from wheat.
- RPMC** a 1,300 acre Rolling Plains of Texas (Jones County) moderate size cotton farm which grows 312 acres of wheat and 604 acres of cotton in 1992. The farm flexed NFA wheat to cotton and generated about 15 percent of its total revenue from wheat in 1992.
- RPLC** a 2,000 acre Rolling Plains of Texas (Jones County) large cotton farm which grows 480 acres of wheat and 929 acres of cotton in 1992. The farm flexed NFA wheat acreage to cotton and generated 15 percent of its revenue from wheat.
- SCMG** a 1,500 acre South Carolina (Clarendon County) moderate size grain farm with 600 acres of wheat, 600 acres of corn, and 975 acres of soybeans in 1992. The farm flexed its NFA corn and NFA wheat to soybeans and generated 27 percent of its total receipts from wheat.
- SCLG** a 3,500 acre South Carolina (Clarendon County) large grain farm with 880 acres of wheat, 262 acres of cotton, 1,120 acres of corn and 2,177 acres of soybeans in 1992. The farm flexed NFA corn, wheat, and cotton acreage to soybeans. About 15 percent of total receipts for the farm come from wheat.

Characteristics of Panel Farms Producing Wheat - Continued

	NPMG	NPLG	RPMC	RPLC	SCMG	SCLG
Total Acreage	1600	4500	1300	2000	1500	3500
Owned Acres	320	900	325	400	500	1400
Leased Acres	1280	3600	975	1600	1000	2100
<hr/>						
Assets	-- (\$1,000) --					
Real Estate	181.0	525.0	183.9	231.3	558.0	1924.1
Machinery	332.2	827.3	133.7	276.3	249.7	739.1
Livestock, Other	0.0	0.0	23.5	0.0	0.0	0.0
<hr/>						
Debt/Asset Ratio*	0.19	0.21	0.14	0.15	0.26	0.26
Machinery	0.17	0.17	0.16	0.16	0.45	0.45
Land	0.21	0.21	0.14	0.14	0.18	0.18
<hr/>						
1992 Gross Receipts**	-- (\$1,000) --					
Total	307.0	831.5	141.0	247.9	469.2	1029.9
Wheat	89.5	250.6	21.8	36.4	124.5	157.0
Sorghum	80.8	240.3				
Cotton			119.2	211.5		152.2
Corn	136.7	340.6			169.8	315.7
Soybeans					174.9	405.0
<hr/>						
1992 Planted Acreage	-- (Acres) --					
Total	1216.0	3196.2	915.9	1409.7	2175.0	4974.0
Wheat	480.0	1596.0	312.0	480.0	600.0	880.0
Sorghum	356.0	604.6				
Cotton			603.9	929.7		262.5
Corn	380.0	995.6			600.0	1120.0
Soybeans					975.0	2177.5

* Total debt/asset ratio reflects accrued taxes that are not reflected in machinery and land debt.

** Receipts for 1992 are included to indicate the relative importance of each enterprise to the farm; these values do not reflect price and yield risk so they differ from the average annual cash receipts in subsequent tables.

WHEAT IMPACTS

- The tables and charts in this section include projections for all AFPC panel farms that produce wheat regardless of the wheat's percentage contribution to total receipts.
 - Wheat contributes more than 50 percent of the gross receipts on the WAMG (62 percent), WALG (62 percent), NDMG (54 percent), NDLG (54 percent), KSMG (83 percent), and KSLG (100 percent) farms.
 - All other farms in this section, MOMG (17 percent), MOLG (18 percent), NPMG (29 percent), NPLG (30 percent), RPMG (15 percent), RPLC (15 percent), SCMG (27 percent), and SCLG (15 percent) generated less than one-third of their revenues from wheat.
- All farms, except the cotton farms in the Texas Rolling Plains, experienced a downturn in net cash farm income in 1991 reflecting primarily the additional 15 percent of base acreage that is not eligible for government payments due to the 1990 Budget Reconciliation Act (NFA). In addition, the ARP for wheat increased from 5 percent in 1990 to 15 percent in 1991. Although the farms had the opportunity to flex to more profitable crops, the alternatives were either not there or the returns were not sufficient to offset the loss in deficiency payments.
- The Texas Rolling Plains farms show an increase in net cash farm income in 1991 despite the non-payment acreage (NFA). Both farms flexed NFA wheat to cotton, however, the primary reason for the increased income appears to result from the decline in cotton ARP from 12.5 percent in 1990 to 5 percent in 1991.
- Again, with the exception of the Texas Rolling Plains cotton farms, all farms showed rebounds in net cash farm income by 1992 due to a 10 percentage point reduction in the wheat ARP and a 2 1/2 percentage point reduction in the feed grains ARP. The cotton farms do not follow suit due to cotton ARP requirements increasing by 5 percentage points from 1991 to 1992.
- For the 1992-95 period, prices for all program crops were not projected to exceed frozen target price levels. Therefore, the revenue base was effectively frozen while input cost continued to escalate. This cost price squeeze resulted in 10 of the 14 farms experiencing lower nominal net cash farm income in 1995 than they generated in 1990.
- The net cash farm income on the four farms that experienced a nominal increase in 1995 failed to outpace projected inflation rates. Therefore, all farms experienced losses in real net cash farm income (adjusted for inflation).
- Unlike feed grains, the farms that are dependent on wheat for the majority of their revenue had difficulty in protecting their equity over the study period. The Kansas moderate grain farm experienced a 72 percent loss in real equity over the period while its larger scale counterpart lost 46 percent. The moderate Washington farm lost 12 percent of its equity with the large farm losing 2 percent. The North Dakota farms were able to grow slightly at 6 percent for the moderate farm and 3 percent for the larger operation.
- The Kansas wheat farms would need to experience increased revenues of 27 percent for the moderate operation (KSMG) and 16 percent for the larger farm (KSLG) in order to maintain real equity over the study period.
- For the most part, large farms are more efficient than their moderate scale counterparts but farms with heavy wheat dependence are extremely vulnerable. Unlike feed grains, look for considerable pressure from all segments of the wheat-growing community in the major production regions.

Implications of the 1990 Farm Bill and FAPRI January 1992 Baseline on Panel Farms that Produce Wheat.

	WAMG	WALG	NDMG	NDLG	KSMG	KSLG	MOMG	MOLG
Probability Success (%)	0.0	0.0	77.0	30.0	0.0	0.0	34.0	100.0
Probability of Lower Equity (%)	100.0	87.0	31.0	38.0	100.0	100.0	59.0	0.0
Average Change in Real Net Worth (%)	-11.72	-2.03	6.12	2.50	-71.53	-45.52	-0.88	32.61
Average Annual Ratio of Expenses to Receipts (%)	83.90	83.98	71.55	79.46	100.48	92.77	75.12	62.42
Average Present Value Ending Net Worth (\$1000)	981.40	2645.63	306.35	1102.50	83.08	224.74	565.22	1106.19
Average Annual Cash Receipts (\$1000)	216.40	676.30	184.64	478.97	120.14	230.81	184.38	339.60
Average Annual Cash Expenses (\$1000)	181.46	567.67	131.72	379.46	120.63	213.89	138.33	211.72
Average Annual Net Cash Income (\$1000)	34.95 (15.82)	108.63 (14.53)	52.92 (19.26)	99.51 (27.29)	-0.49 (705.63)	16.92 (47.40)	46.05 (14.45)	127.88 (9.19)
Average Cash Receipts (\$1000)								
1990	210.60	665.55	183.16	463.68	120.18	228.20	179.49	329.88
1991	195.87	609.12	166.78	429.28	102.48	215.81	167.06	307.95
1992	219.40	682.50	191.77	497.17	123.82	235.90	182.65	336.76
1993	218.84	683.81	184.13	485.58	121.95	229.89	188.06	346.40
1994	223.14	698.04	187.40	490.37	124.64	233.02	190.58	350.90
1995	230.58	718.77	194.57	507.76	127.80	242.04	198.43	365.70
Average Net Cash Income (\$1000)								
1990	37.99	116.31	61.20	104.23	17.66	32.39	47.58	122.46
1991	27.48	77.45	43.39	75.32	-3.03	16.67	37.98	107.34
1992	42.68	128.31	63.04	124.29	8.17	33.23	51.74	130.81
1993	35.73	115.19	54.94	101.31	0.41	13.03	54.73	133.99
1994	32.61	106.88	47.09	93.72	-9.74	3.66	44.07	132.91
1995	33.19	107.61	47.83	98.20	-16.42	2.53	40.18	139.77

Values in parentheses are coefficients of variation for the preceding mean value.

Probability of Economic Success - Chance that the farm will earn a return on initial equity greater than 0.058.

Probability of Lower Equity - Chance that the farm will experience a decrease in net worth after adjusting for inflation.

Change in Real Net Worth - Percentage change in real net worth over the simulation period, 1990-1995.

Average Annual Ratio of Expenses to Receipts - Ratio of all cash expenses to all farm receipts including government payments.

Present Value Ending Net Worth - Discounted value of net worth in the last year simulated.

Annual Cash Receipts - Total cash receipts from crops, dairy, livestock, government payments, and other farm related activities.

Annual Cash Expenses - Total cash costs for crops, dairy, and livestock production, including interest costs and fixed cash costs; excludes depreciation.

Annual Net Cash Income - Total cash receipts minus total cash expenses; excludes family living expenses, principal payments, and costs to replace capital assets.

Implications of the 1990 Farm Bill and FAPRI January 1992 Baseline on Panel Farms that Produce Wheat.

	NPMG	NPLG	RPMC	RPLC	SCMG	SCLG
Probability Success (%)	22.0	100.0	28.0	28.0	100.0	97.0
Probability of Lower Equity (%)	99.0	0.0	92.0	79.0	0.0	0.0
Average Change in Real Net Worth (%)	-15.65	58.51	-31.72	-28.88	40.78	29.20
Average Annual Ratio of Expenses to Receipts (%)	87.50	70.55	86.32	90.13	74.24	76.41
Average Present Value Ending Net Worth (\$1000)	356.48	1542.21	189.11	269.79	735.24	2342.01
Average Annual Cash Receipts (\$1000)	301.80	816.86	142.88	251.53	459.62	1026.59
Average Annual Cash Expenses (\$1000)	263.99	576.10	121.86	223.84	340.56	782.65
Average Annual Net Cash Income (\$1000)	37.81 (16.08)	240.76 (6.35)	21.02 (66.29)	27.69 (90.98)	119.06 (16.77)	243.94 (20.26)
Average Cash Receipts (\$1000)						
1990	289.27	782.72	124.89	217.91	443.80	1000.83
1991	275.20	743.73	141.79	250.02	411.88	943.50
1992	310.81	841.95	140.34	246.83	476.03	1025.16
1993	305.29	826.98	144.41	254.64	469.56	1047.68
1994	308.70	835.72	161.21	284.12	467.98	1068.79
1995	321.55	870.08	144.65	255.63	488.45	1073.55
Average Net Cash Income (\$1000)						
1990	44.83	227.50	20.23	24.48	110.06	222.10
1991	33.16	200.02	27.26	39.57	93.56	193.14
1992	49.00	279.94	27.16	35.73	142.87	262.43
1993	39.05	252.45	23.16	30.28	128.99	265.62
1994	31.77	238.37	24.98	35.45	116.49	263.72
1995	29.06	246.29	3.32	0.59	122.41	256.62

Values in parentheses are coefficients of variation for the preceeding mean value.

Probability of Economic Success - Chance that the farm will earn a return on initial equity greater than 0.058.

Probability of Lower Equity - Chance that the farm will experience a decrease in net worth after adjusting for inflation.

Change in Real Net Worth -Percentage change in real net worth over the simulation period, 1990-1995.

Average Annual Ratio of Expenses to Receipts - Ratio of all cash expenses to all farm receipts including government payments.

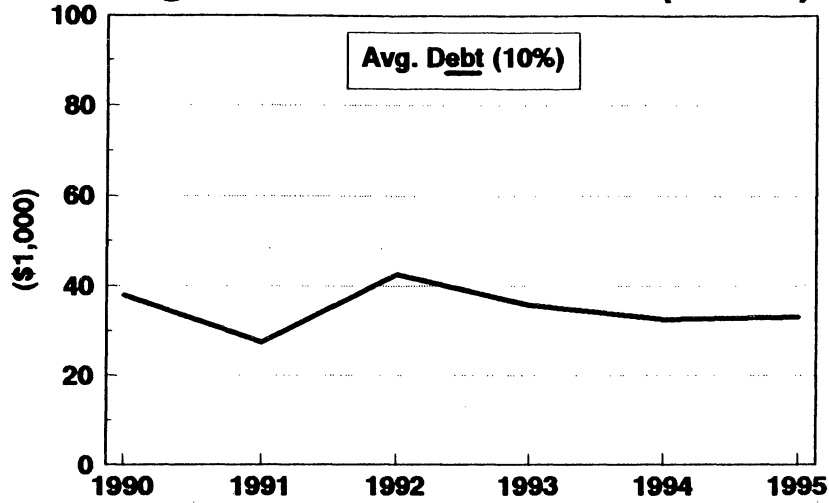
Present Value Ending Net Worth - Discounted value of net worth in the last year simulated.

Annual Cash Receipts - Total cash receipts from crops, dairy, livestock, government payments, and other farm related activities.

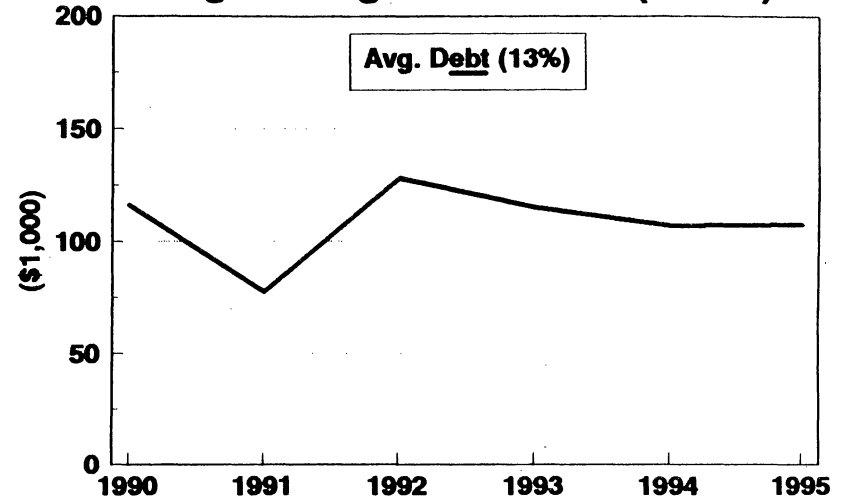
Annual Cash Expenses - Total cash costs for crops, dairy, and livestock production, including interest costs and fixed cash costs; excludes depreciation.

Annual Net Cash Income - Total cash receipts minus total cash expenses; excludes family living expenses, principal payments, and costs to replace capital assets.

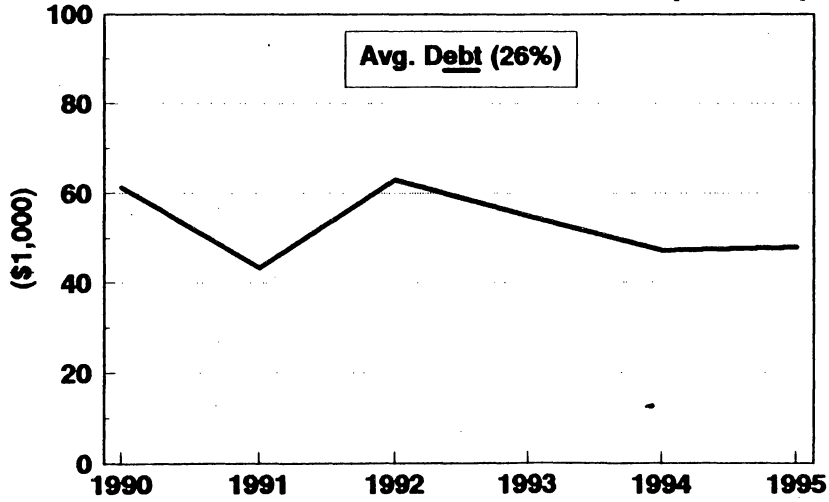
Net Cash Farm Income
Washington Moderate Grain Farm (WAMG)



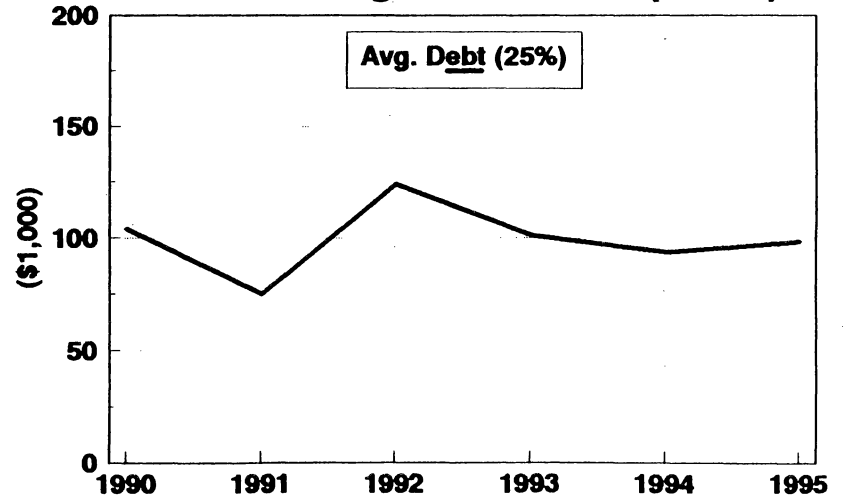
Net Cash Farm Income
Washington Large Grain Farm (WALG)



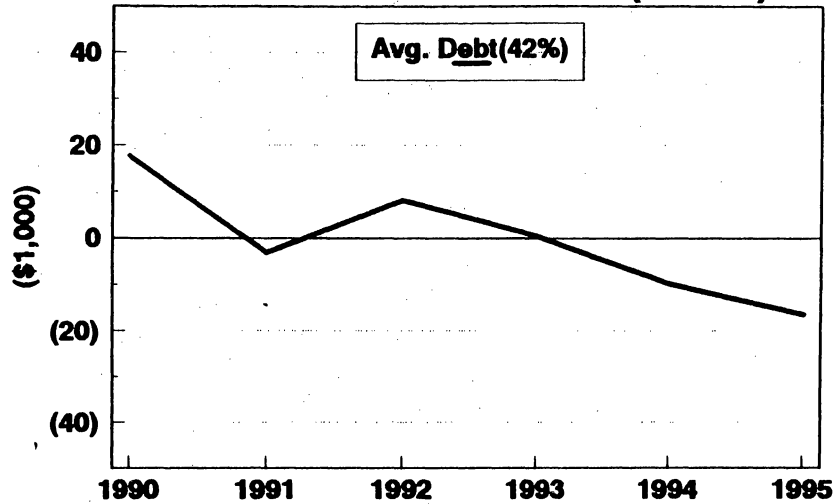
Net Cash Farm Income
North Dakota Moderate Grain Farm (NDMG)



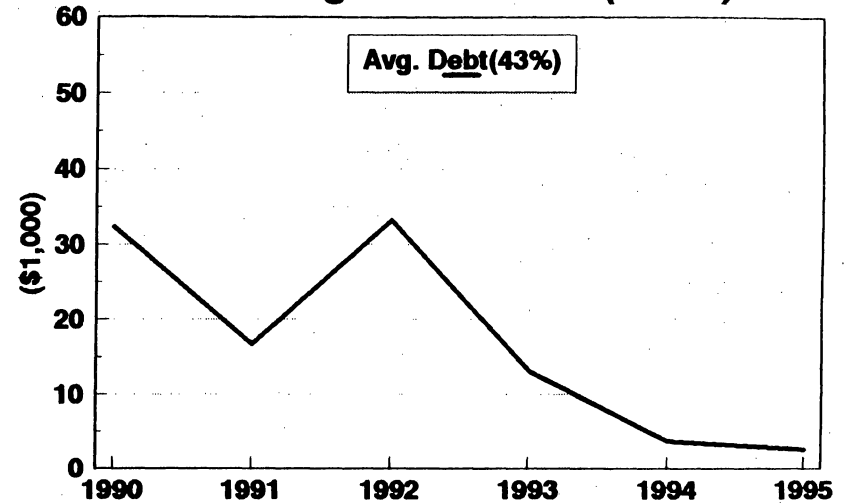
Net Cash Farm Income
North Dakota Large Grain Farm (NDLG)



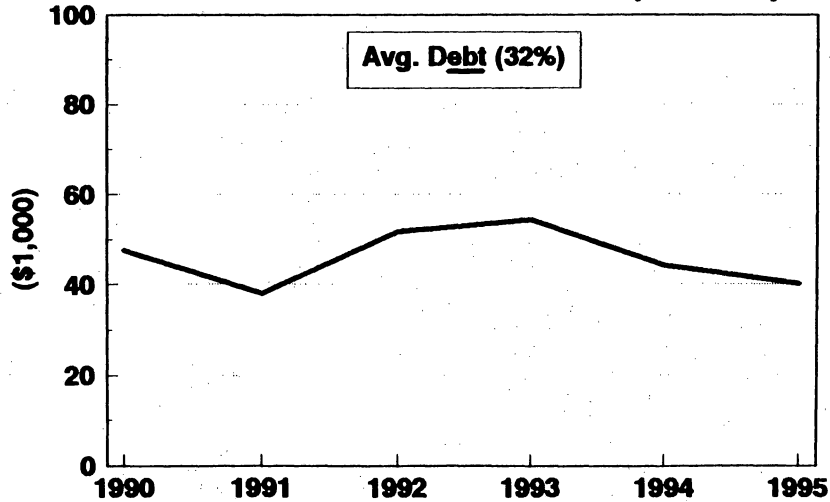
**Net Cash Farm Income
Kansas Moderate Grain Farm (KSMG)**



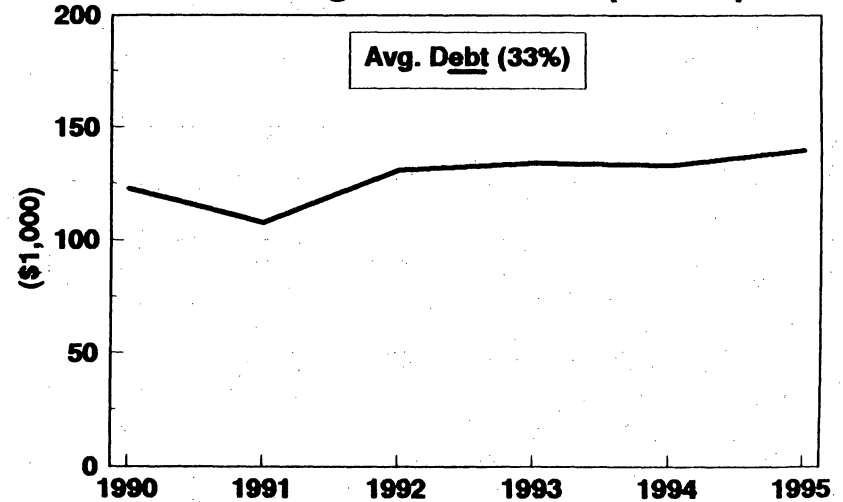
**Net Cash Farm Income
Kansas Large Grain Farm (KSLG)**



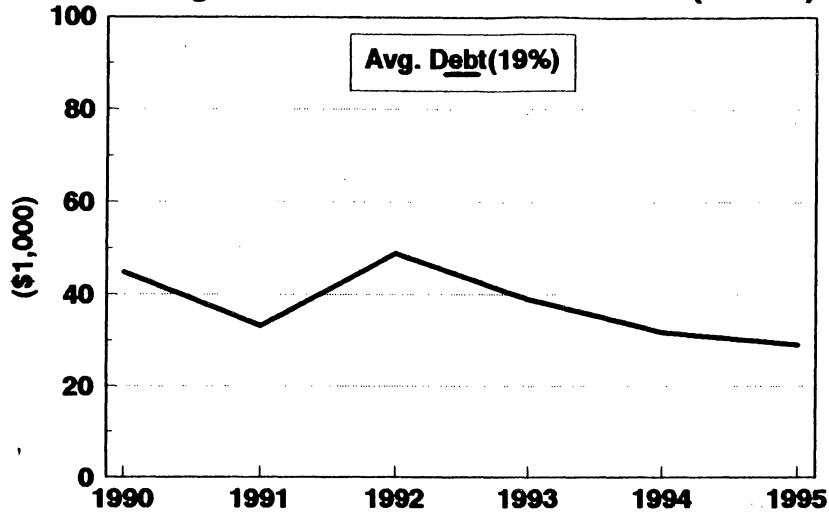
**Net Cash Farm Income
Missouri Moderate Grain Farm (MOMG)**



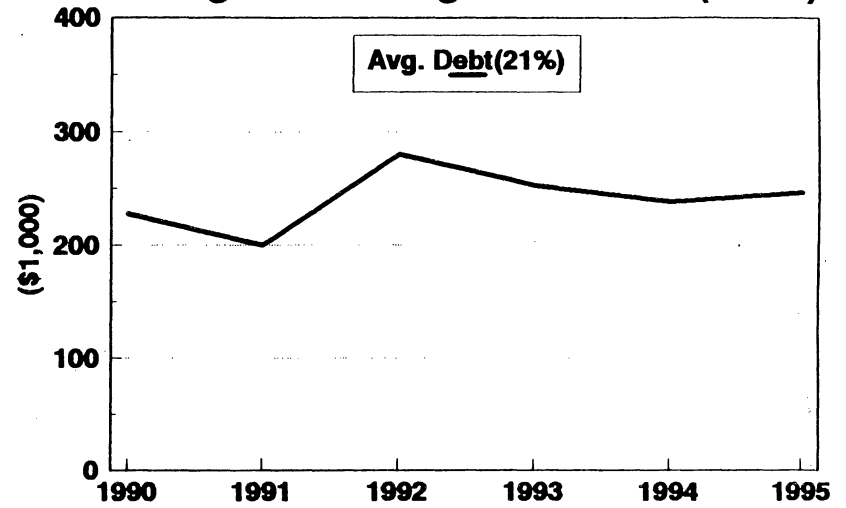
**Net Cash Farm Income
Missouri Large Grain Farm (MOLG)**



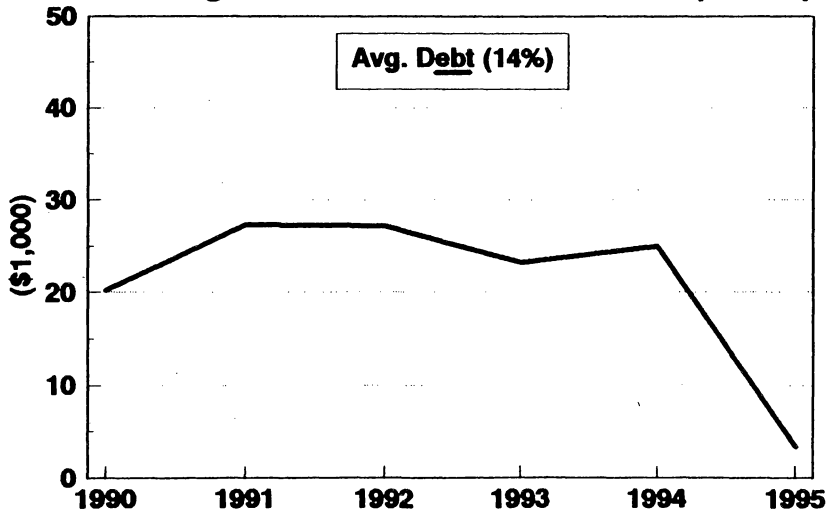
Net Cash Farm Income
Texas N.High Plains Moderate Grain Farm (NPMG)



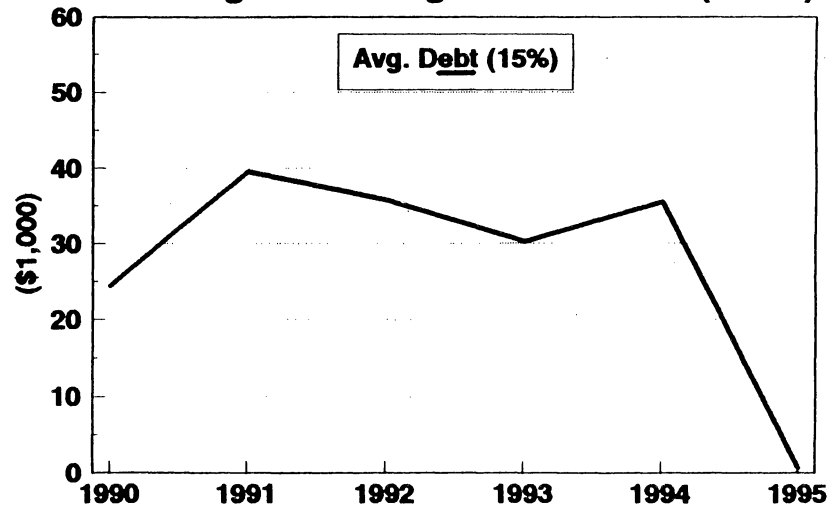
Net Cash Farm Income
Texas N.High Plains Large Grain Farm (NPLG)



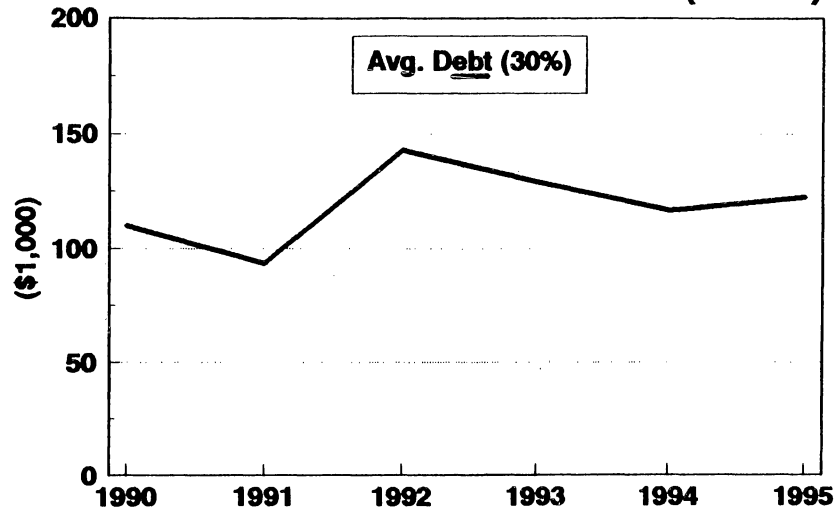
Net Cash Farm Income
Texas Rolling Plains Moderate Cotton Farm (RPMC)



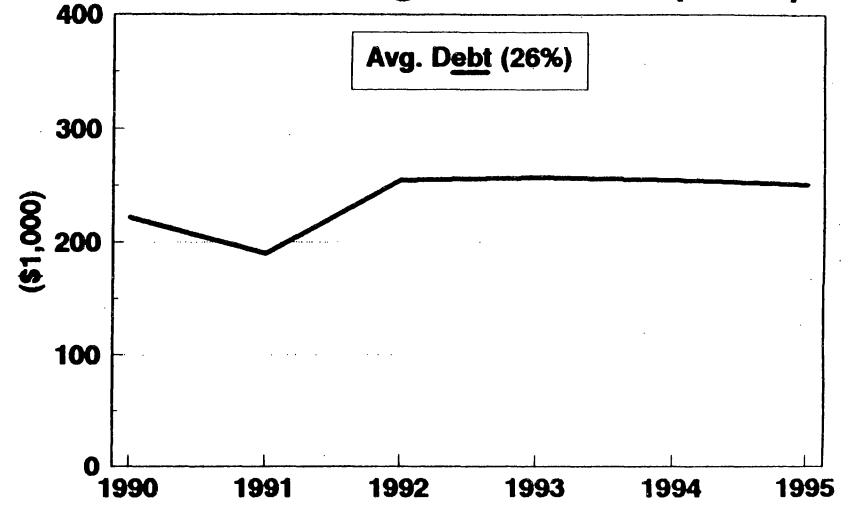
Net Cash Farm Income
Texas Rolling Plains Large Cotton Farm (RPLC)



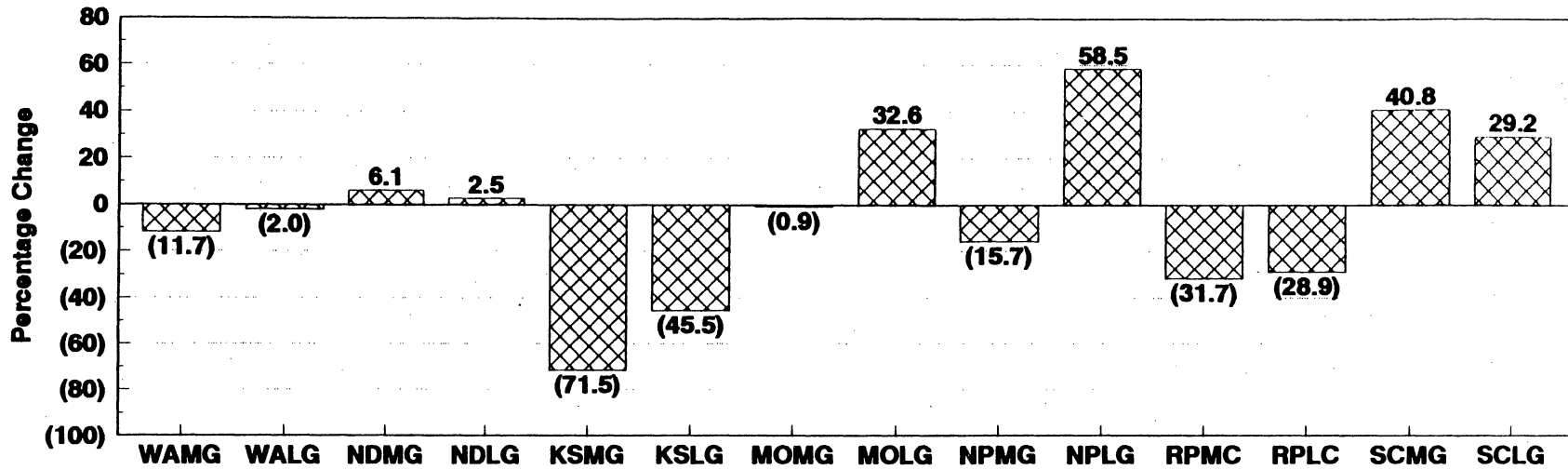
Net Cash Farm Income
South Carolina Moderate Grain Farm (SCMG)



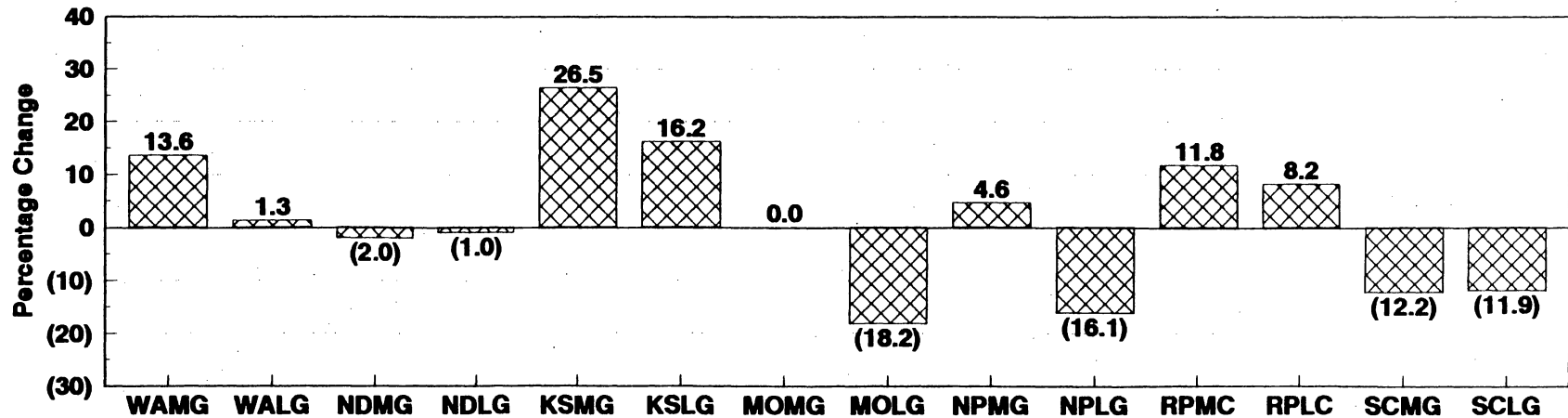
Net Cash Farm Income
South Carolina Large Grain Farm (SCLG)



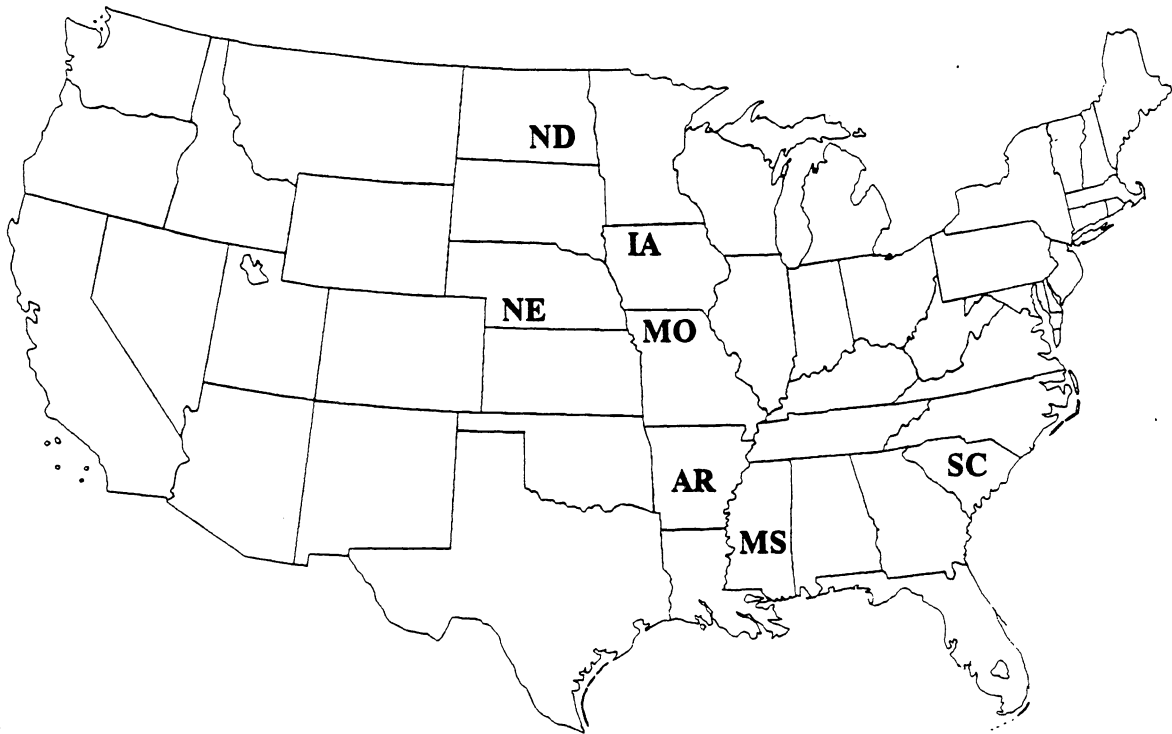
Real Change in Net Worth for All Wheat Farms, 1990-1995.



Annual Percentage Change in Receipts Needed to Maintain Real Net Worth from 1990-1995: Wheat Farms



Panel Farms Producing Oilseeds



CHARACTERISTICS OF PANEL FARMS PRODUCING OILSEEDS

- NDMG** a 1,600 acre South Central North Dakota (Barnes County) moderate size grain farm which grows 820 acres of wheat, 320 acres of barley, and 400 acres of sunflowers in 1992. The farm flexed NFA barley acreage to wheat and received about 26 percent of its receipts from sunflowers.
- NDLG** a 4,000 acre South Central North Dakota (Barnes County) large grain farm which grows 1,940 acres of wheat, 1,100 acres of barley, and 800 acres of sunflowers in 1992. The farm flexed NFA barley acreage to wheat and received about 19 percent of its receipts from sunflowers.
- NEMG** a 630 acre South Central Nebraska (Phelps County) moderate size irrigated grain farm which grows 513 acres of corn and 60 acres of soybeans in 1992. The farm did not flex any crops and generated 6 percent of its gross receipts from soybeans.
- NELG** a 1,575 acre South Central Nebraska (Phelps County) large irrigated grain farm which grows 1,331 acres of corn and 100 acres of soybeans. The farm did not flex any crops and generated 4 percent of its gross receipts from soybeans.
- IAMG** a 680 acre Northwestern Iowa (Webster County) moderate size grain farm which grows 304 acres of corn and 325 acres of soybeans in 1992. The farm did not flex any crops and receives about 44 percent of its receipts from soybeans.
- IALG** a 1,320 acre Northwestern Iowa (Webster County) large grain farm which grows 668 acres of corn and 576 acres of soybeans in 1992. The farm did not flex any crops and generated about 39 percent of its gross receipts from soybeans.
- MOMG** a 1,100 acre North Central Missouri (Carroll County) moderate size grain farm with 190 acres of wheat, 285 acres of corn, and 500 acres of soybeans in 1992. The farm did not flex any crops and generated about 47 percent of its total revenue from soybeans.
- MOLG** a 2,100 acre North Central Missouri (Carroll County) large grain farm with 380 acres of wheat, 570 acres of corn, and 1,000 acres of soybeans in 1992. The farm did not flex any crops and generated about 44 percent of its total revenue from soybeans.

Characteristics of Panel Farms Producing Oilseeds

	NDMG	NDLG	NEMG	NELG	IAMG	IALG	MOMG	MOLG
Total Acreage	1600	4000	630	1575	680	1320	1100	2100
Owned Acres	400	1600	315	1040	140	132	550	840
Leased Acres	1200	2400	315	535	540	1188	550	1260
Assets					-- (\$1,000) --			
Real Estate	184.9	756.3	636.9	2079.7	269.0	245.7	589.2	958.4
Machinery	279.0	920.5	318.1	527.6	115.1	265.7	263.0	463.9
Livestock, Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Debt/Asset Ratio*								
Machinery	0.26	0.25	0.14	0.17	0.37	0.36	0.32	0.33
Land	0.21	0.21	0.03	0.03	0.12	0.12	0.28	0.28
Land	0.28	0.28	0.19	0.19	0.46	0.46	0.31	0.31
1992 Gross Receipts**					-- (\$1,000) --			
Total	191.4	493.7	199.5	595.1	137.4	237.0	186.5	343.5
Wheat	102.5	266.5					32.9	61.8
Barley	38.5	132.6						
Sunflower	50.4	94.6						
Corn			188.0	574.2	78.9	144.8	66.3	129.9
Soybeans			11.5	20.9	58.5	92.2	87.3	151.8
1992 Planted Acreage					-- (Acres) --			
Total	1540.0	3840.0	573.0	1430.0	629.0	1244.8	975.0	1950.0
Wheat	820.0	1940.0					190.0	380.0
Barley	320.0	1100.0						
Sunflowers	400.0	800.0						
Corn			513.0	1330.0	304.0	668.8	285.0	570.0
Soybeans			60.0	100.0	325.0	576.0	500.0	1000.0

* Total debt/asset ratio reflects accrued taxes that are not reflected in machinery and land debt.

** Receipts for 1992 are included to indicate the relative importance of each enterprise to the farm; these values do not reflect price and yield risk so they differ from the average annual cash receipts in subsequent tables.

CHARACTERISTICS OF PANEL FARMS PRODUCING OILSEEDS - Continued

- MSMC** a 1,470 acre Mississippi Delta (Washington County) moderate size cotton farm which grows 756 acres of cotton and 560 acres of soybeans in 1992. The farm did not flex any crops and generated about 13 percent of its total receipts from soybeans.
- MSLC** a 3,300 acre Mississippi Delta (Washington County) large cotton farm which grows 1,350 acres of cotton and 1,500 acres of soybeans in 1992. The farm did not flex any crops and generated about 19 percent of its revenue from soybeans.
- SCMG** a 1,500 acre South Carolina (Clarendon County) moderate size grain farm with 600 acres of wheat, 600 acres of corn, and 975 acres of soybeans in 1992. The farm flexed its NFA corn and NFA wheat to soybeans and generated 37 percent of its total receipts from soybeans.
- SCLG** a 3,500 acre South Carolina (Clarendon County) large grain farm with 880 acres of wheat, 262 acres of cotton, 1,120 acres of corn and 2,177 acres of soybeans in 1992. The farm flexed NFA corn, wheat, and cotton acreage to soybeans. About 39 percent of total receipts for the farm come from soybeans.
- ARMR** a 1,100 acre Arkansas (Arkansas County) moderate size rice farm which grows 537 acres of rice, 88 acres of wheat, and 531 acres of soybeans in 1992. The farm flexed NFA and OFA wheat to rice and receives 25 percent of its revenue from soybeans.

Characteristics of Panel Farms Producing Oilseeds - Continued

	MSMC	MSLC	SCMG	SCLG	ARMR
Total Acreage	1470	3300	1500	3500	1100
Owned Acres	735	1650	500	1400	440
Leased Acres	735	1650	1000	2100	640
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Assets	-- (\$1,000) --				
Real Estate	778.6	1903.2	557.1	1924.1	526.0
Machinery	644.0	1217.9	249.7	739.1	267.6
Livestock, Other	0.0	0.0	0.0	0.0	0.0
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Debt/Asset Ratio*	0.00	0.00	0.26	0.26	0.13
Machinery	0.00	0.00	0.45	0.45	0.20
Land	0.00	0.00	0.18	0.18	0.10
<hr/>					
1992 Gross Receipts**	-- (\$1,000) --				
Total	642.5	1223.7	469.2	1029.9	412.8
Wheat			124.5	157.0	15.3
Sorghum					
Cotton	561.8	986.2		152.2	
Corn			169.8	315.7	
Soybeans	80.7	237.5	174.9	405.0	102.7
Rice					294.8
<hr/>					
1992 Planted Acreage	-- (Acres) --				
Total	1316.0	2850.0	2175.0	4974.0	1068.9
Wheat			600.0	880.0	87.5
Cotton	756.0	1350.0		262.5	
Corn			600.0	1120.0	
Soybeans	560.0	1500.0	975.0	2177.5	531.3
Rice					537.6

* Total debt/asset ratio reflects accrued taxes that are not reflected in machinery and land debt.

** Receipts for 1992 are included to indicate the relative importance of each enterprise to the farm; these values do not reflect price and yield risk so they differ from the average annual cash receipts in subsequent tables.

OILSEED IMPACTS

- The tables and charts in this section include projections for all AFPC panel farms that produce oilseeds, regardless of the oilseeds' percentage contribution to total receipts.
 - The North Dakota farms grow sunflowers while all other farms grow soybeans.
 - Oilseeds do not contribute a majority of the cash receipts on any farm in the analysis. They are primarily grown in rotation programs and in double cropping situations.
- The North Dakota farms are discussed primarily in the wheat section, the Iowa and Nebraska farms are discussed in the feed grains section, the Mississippi farms in the cotton section, and the Arkansas farm is discussed in the rice section.
- Soybeans, however, are the leading contributors to gross receipts on the MOMG (47 percent), MOLG (44 percent), SCMG (37 percent) and SCLG (39 percent) farms.
- In general, the farms that produce soybeans do not appear to be extremely vulnerable. For the most part, net cash farm incomes are maintained in nominal terms although they decline when adjusted for inflation. Only the moderate Nebraska farm (NEMG) loses significant equity (21 percent) over the study period.

Implications of the 1990 Farm Bill and FAPRI January 1992 Baseline on Panel Farms that Produce Oilseeds.

	NDMG	NDLG	NEMG	NELG	IAMG	IALG	MOMG	MOLG
Probability Success (%)	77.0	30.0	0.0	98.0	100.0	100.0	34.0	100.0
Probability of Lower Equity (%)	31.0	38.0	100.0	0.0	2.0	0.0	59.0	0.0
Average Change in Real Net Worth (%)	6.12	2.50	-21.41	9.19	12.33	70.39	-0.88	32.61
Average Annual Ratio of Expenses to Receipts (%)	71.55	79.46	92.80	75.87	65.59	51.70	75.12	62.42
Average Present Value Ending Net Worth (\$1000)	306.35	1102.50	593.74	2240.83	277.86	499.45	565.22	1106.19
Average Annual Cash Receipts (\$1000)	184.64	478.97	198.97	595.01	137.67	236.94	184.38	339.60
Average Annual Cash Expenses (\$1000)	131.72	379.46	184.48	451.03	90.18	122.37	138.33	211.72
Average Annual Net Cash Income (\$1000)	52.92 (19.26)	99.51 (27.29)	14.49 (42.84)	143.98 (12.17)	47.50 (11.17)	114.57 (7.00)	46.05 (14.45)	127.88 (9.19)
Average Cash Receipts (\$1000)								
1990	183.16	463.68	192.92	575.45	132.91	229.27	179.49	329.88
1991	166.78	429.28	183.36	549.99	125.99	217.52	167.06	307.95
1992	191.77	497.17	198.30	591.78	137.91	238.15	182.65	336.76
1993	184.13	485.58	199.67	596.44	141.91	244.68	188.06	346.40
1994	187.40	490.37	205.15	614.11	139.15	240.23	190.58	350.90
1995	194.57	507.76	214.40	642.28	148.18	251.78	198.43	365.70
Average Net Cash Income (\$1000)								
1990	61.20	104.23	24.06	139.82	47.57	110.63	47.58	122.46
1991	43.39	75.32	12.45	115.88	41.77	101.13	37.98	107.34
1992	63.04	124.29	21.08	150.47	50.63	119.10	51.74	130.81
1993	54.94	101.31	12.94	146.40	52.85	122.32	54.73	133.99
1994	47.09	93.72	9.39	150.04	48.56	113.43	44.07	132.91
1995	47.83	98.20	7.04	161.25	43.60	120.82	40.18	139.77

Values in parentheses are coefficients of variation for the preceeding mean value.

Probability of Economic Success - Chance that the farm will earn a return on initial equity greater than 0.058.

Probability of Lower Equity - Chance that the farm will experience a decrease in net worth after adjusting for inflation.

Change in Real Net Worth -Percentage change in real net worth over the simulation period, 1990-1995.

Average Annual Ratio of Expenses to Receipts - Ratio of all cash expenses to all farm receipts including government payments.

Present Value Ending Net Worth - Discounted value of net worth in the last year simulated.

Annual Cash Receipts - Total cash receipts from crops, dairy, livestock, government payments, and other farm related activities.

Annual Cash Expenses - Total cash costs for crops, dairy, and livestock production, including interest costs and fixed cash costs; excludes depreciation.

Annual Net Cash Income - Total cash receipts minus total cash expenses; excludes family living expenses, principal payments, and costs to replace capital assets.

Implications of the 1990 Farm Bill and FAPRI January 1992 Baseline on Panel Farms that Produce Oilseeds.

	MSMC	MSLC	SCMG	SCLG	ARMR
Probability Success (%)	73.0	2.0	100.0	97.0	100.0
Probability of Lower Equity (%)	21.0	25.0	0.0	0.0	0.0
Average Change in Real Net Worth (%)	3.04	2.13	40.78	29.20	26.64
Average Annual Ratio of Expenses to Receipts (%)	84.89	85.59	74.24	76.41	71.38
Average Present Value Ending Net Worth (\$1000)	1353.48	3008.53	735.24	2342.01	870.70
Average Annual Cash Receipts (\$1000)	663.05	1261.10	459.62	1026.59	386.35
Average Annual Cash Expenses (\$1000)	562.62	1078.76	340.56	782.65	275.63
Average Annual Net Cash Income (\$1000)	100.43 (13.42)	182.34 (15.18)	119.06 (16.77)	243.94 (20.26)	110.72 (7.49)
Average Cash Receipts (\$1000)					
1990	602.24	1147.88	443.80	1000.83	344.27
1991	660.85	1249.93	411.88	943.50	375.80
1992	645.56	1229.46	476.03	1025.16	401.73
1993	686.83	1304.06	469.56	1047.68	393.60
1994	691.69	1316.92	467.98	1068.79	398.64
1995	691.13	1318.37	488.45	1073.55	404.05
Average Net Cash Income (\$1000)					
1990	85.09	151.34	110.06	222.10	103.32
1991	119.67	211.69	93.56	193.14	111.96
1992	110.64	198.86	142.87	262.43	125.65
1993	116.11	210.37	128.99	265.62	113.72
1994	96.78	180.10	116.49	263.72	107.26
1995	74.28	141.66	122.41	256.62	102.43

Values in parentheses are coefficients of variation for the preceding mean value.

Probability of Economic Success - Chance that the farm will earn a return on initial equity greater than 0.058.

Probability of Lower Equity - Chance that the farm will experience a decrease in net worth after adjusting for inflation.

Change in Real Net Worth - Percentage change in real net worth over the simulation period, 1990-1995.

Average Annual Ratio of Expenses to Receipts - Ratio of all cash expenses to all farm receipts including government payments.

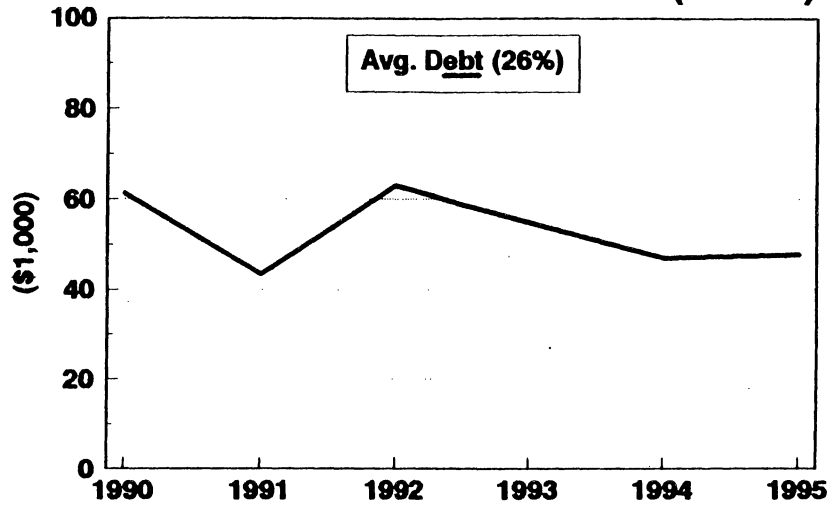
Present Value Ending Net Worth - Discounted value of net worth in the last year simulated.

Annual Cash Receipts - Total cash receipts from crops, dairy, livestock, government payments, and other farm related activities.

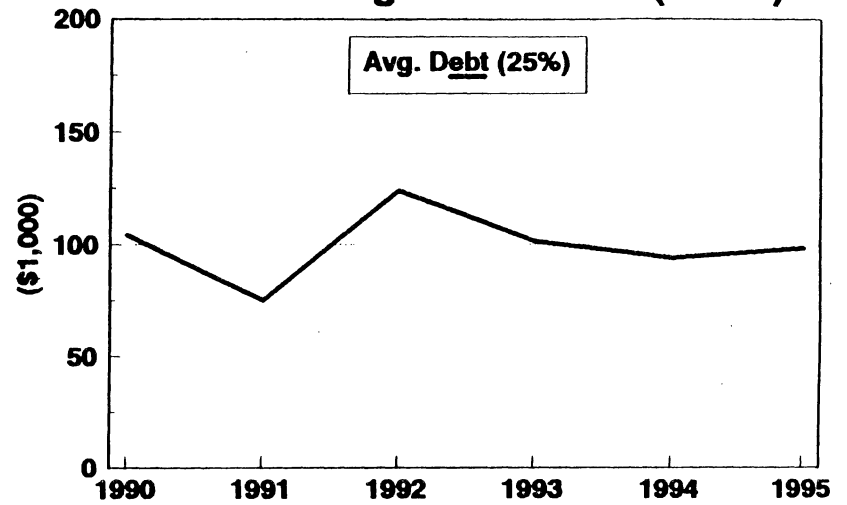
Annual Cash Expenses - Total cash costs for crops, dairy, and livestock production, including interest costs and fixed cash costs; excludes depreciation.

Annual Net Cash Income - Total cash receipts minus total cash expenses; excludes family living expenses, principal payments, and costs to replace capital assets.

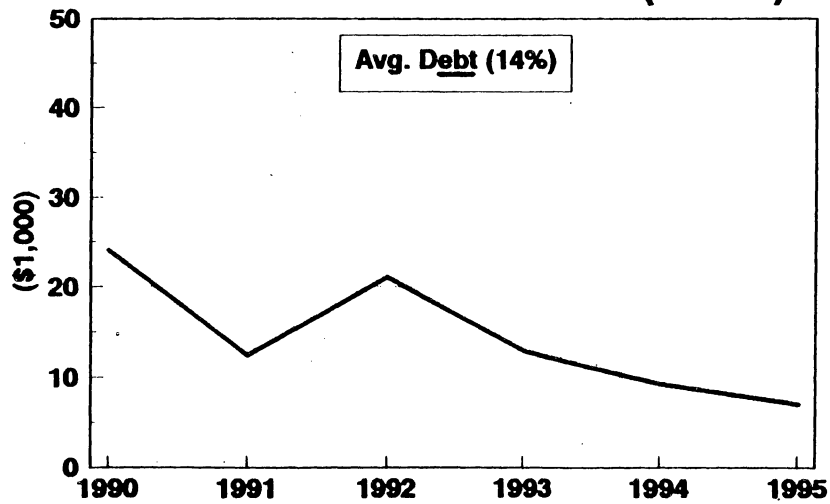
Net Cash Farm Income
North Dakota Moderate Grain Farm (NDMG)



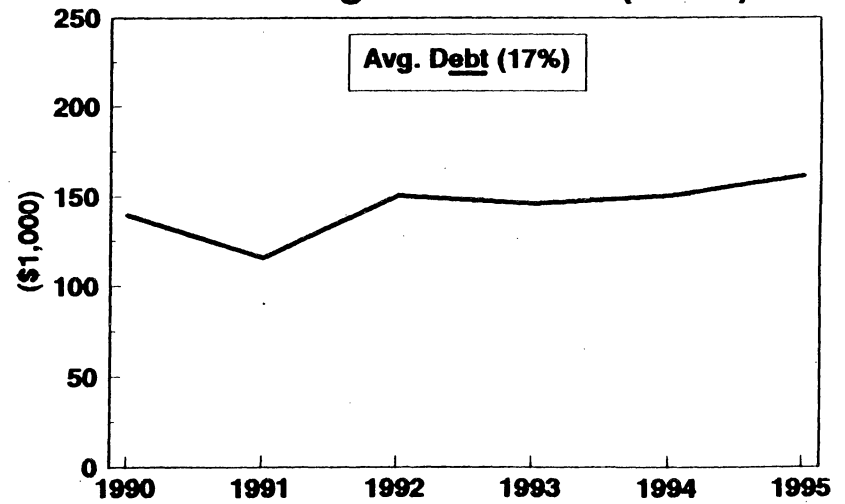
Net Cash Farm Income
North Dakota Large Grain Farm (NDLG)



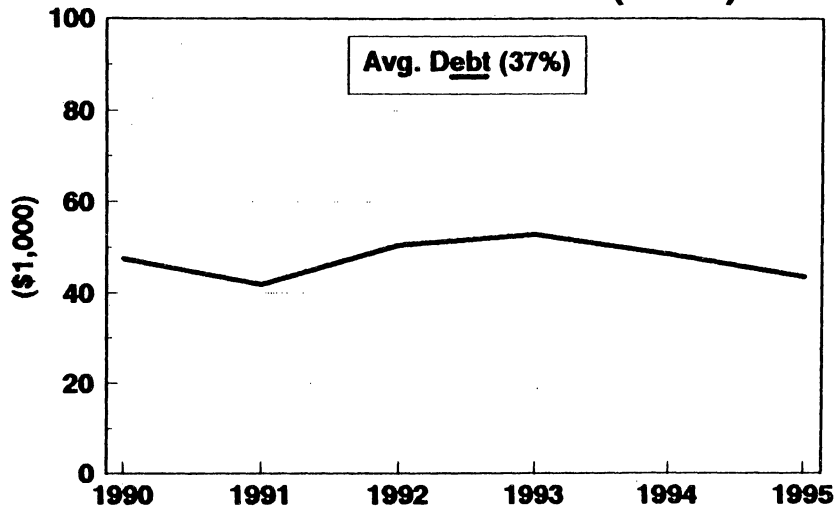
Net Cash Farm Income
Nebraska Moderate Grain Farm (NEMG)



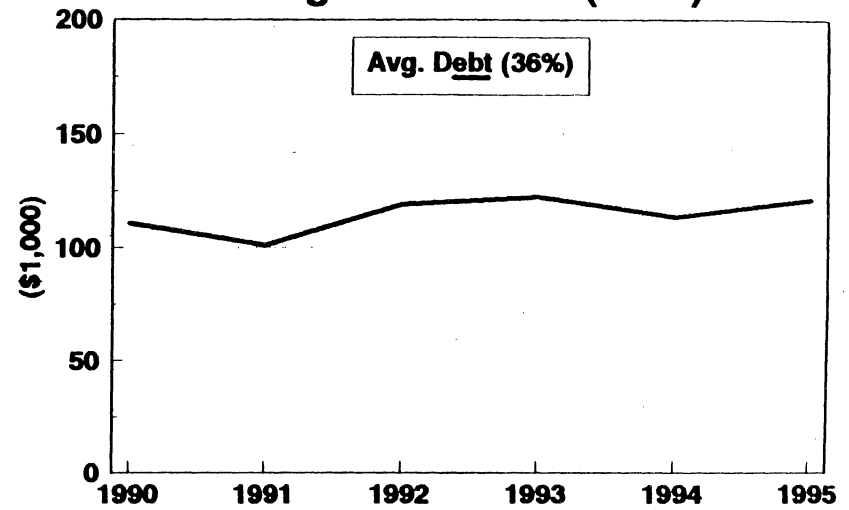
Net Cash Farm Income
Nebraska Large Grain Farm (NELG)



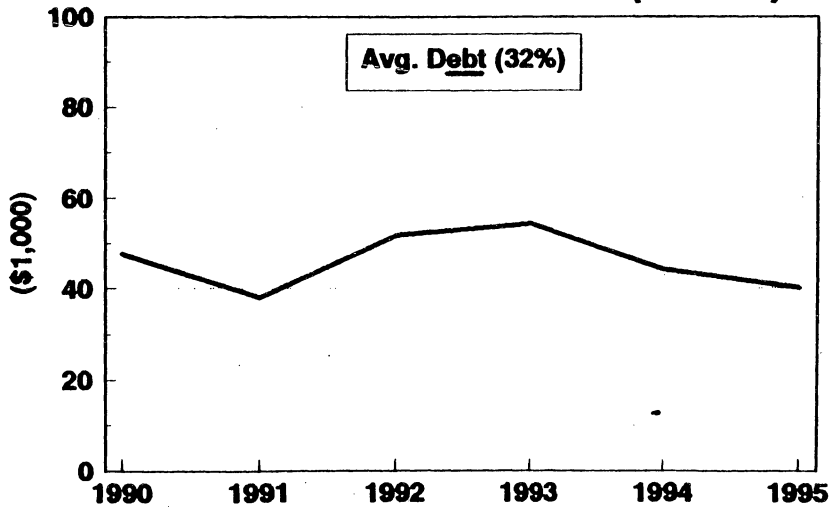
**Net Cash Farm Income
Iowa Moderate Grain Farm (IAMG)**



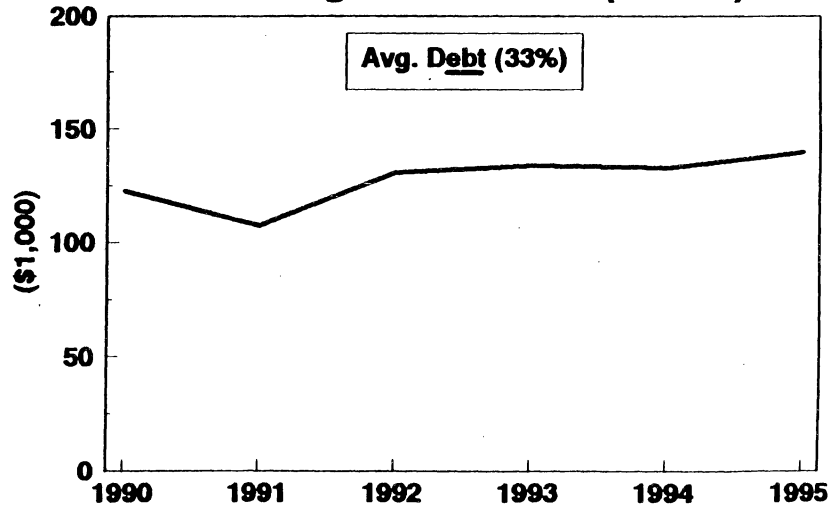
**Net Cash Farm Income
Iowa Large Grain Farm (IALG)**



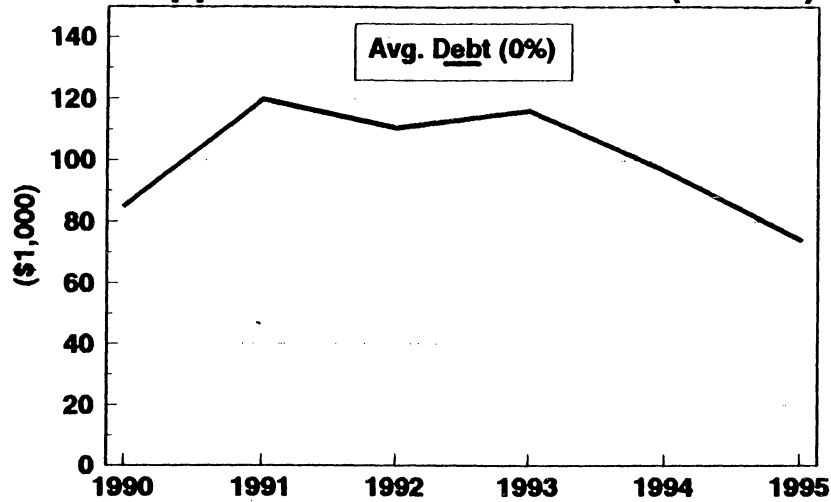
**Net Cash Farm Income
Missouri Moderate Grain Farm (MOMG)**



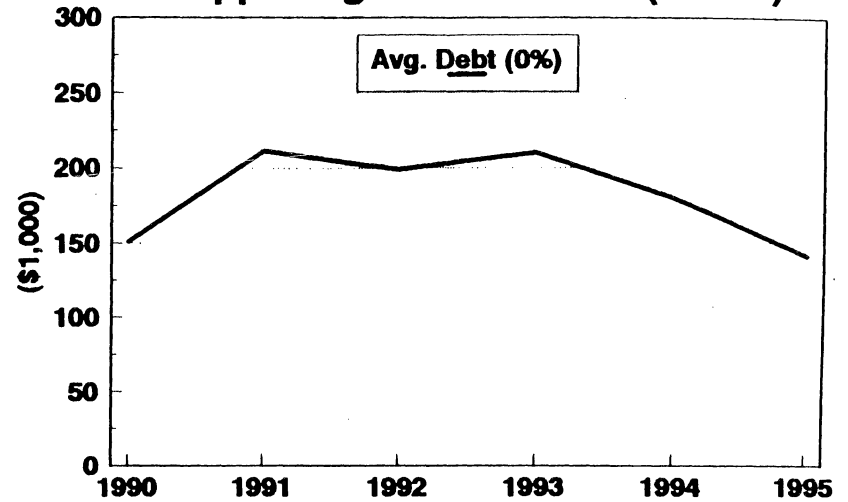
**Net Cash Farm Income
Missouri Large Grain Farm (MOLG)**



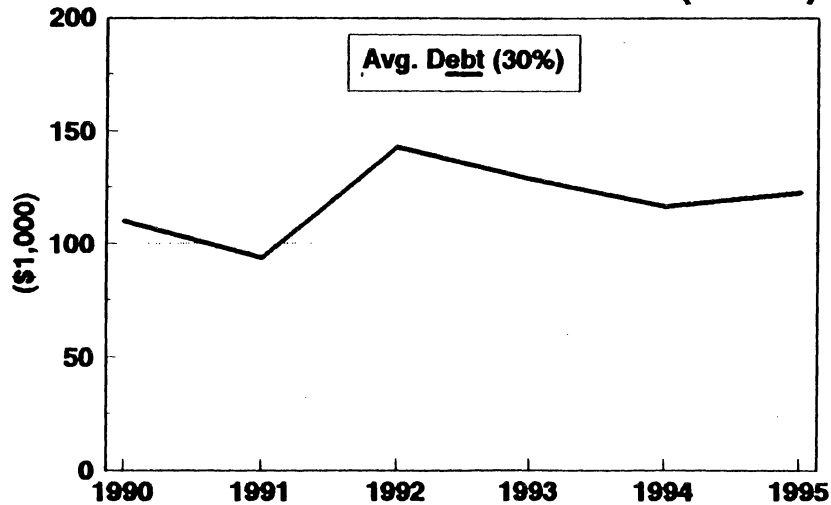
Net Cash Farm Income
Mississippi Moderate Cotton Farm (MSMC)



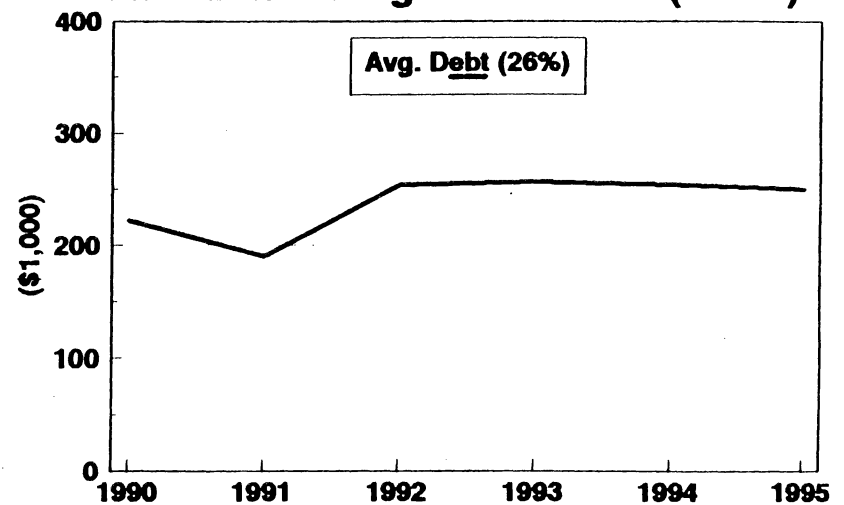
Net Cash Farm Income
Mississippi Large Cotton Farm (MSLC)



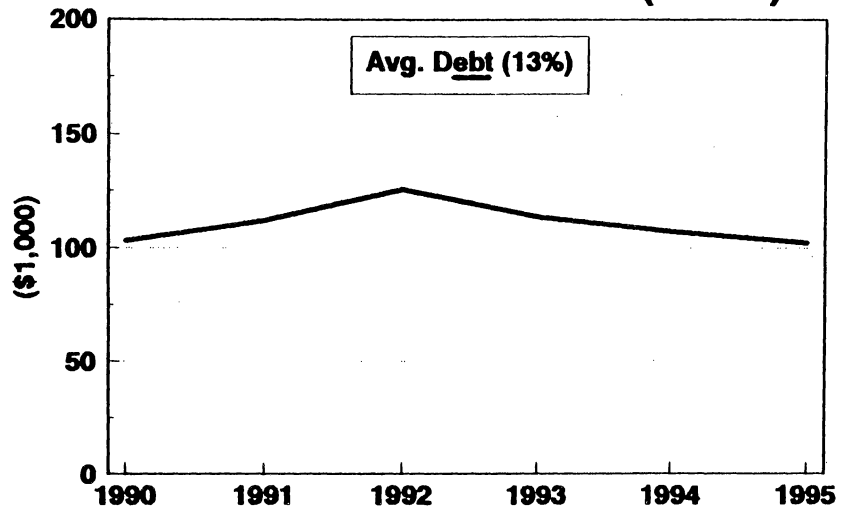
Net Cash Farm Income
South Carolina Moderate Grain Farm (SCMG)



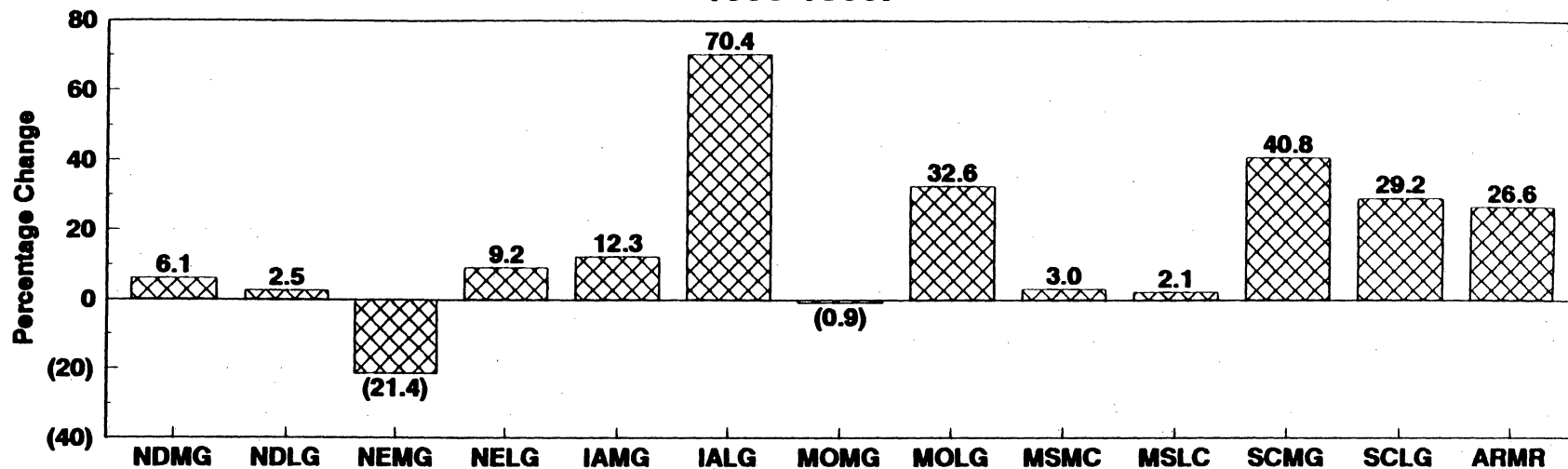
Net Cash Farm Income
South Carolina Large Grain Farm (SCLG)



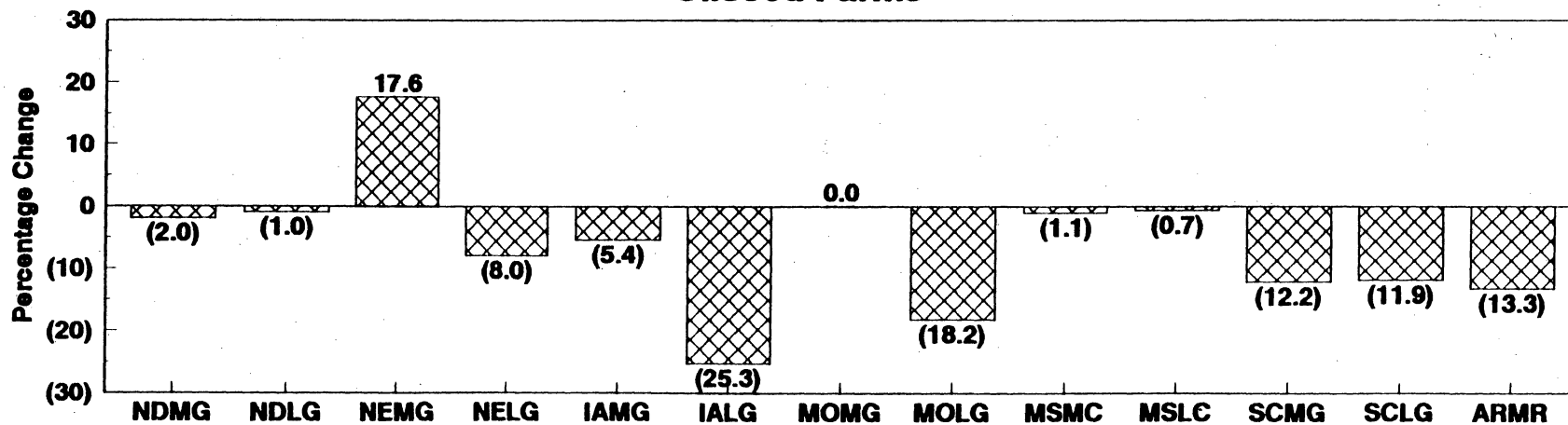
**Net Cash Farm Income
Arkansas Moderate Rice Farm (ARMR)**



**Real Change in Net Worth for All Oilseed Farms,
1990-1995.**



**Annual Percentage Change in Receipts Needed to
Maintain Real Net Worth from 1990 to 1995:
Oilseed Farms**



Panel Farms Producing Cotton



CHARACTERISTICS OF PANEL FARMS PRODUCING COTTON

- CAMC** a 735 acre Southern San Joaquin Valley California (Kern County) moderate size cotton farm which grows 450 acres of cotton and 201 acres of alfalfa in 1992. The farm did not flex any crops and generates about 80 percent of its total receipts from cotton.
- CALC** a 3,150 acre Southern San Joaquin Valley California (Kern County) large cotton farm which grows 1,800 acres of cotton and 1,002 acres of alfalfa in 1992. The farm did not flex any crops and generates about 74 percent of its total revenue from cotton.
- SPMC** a 1,360 acre Texas Southern High Plains (Dawson County) moderate size cotton farm which grows 820 acres of cotton in 1992. The farm did not flex any crops and generated all of its receipts from cotton.
- SPLC** a 3,310 acre Texas Southern High Plains (Dawson County) large cotton farm which grows 1,989 acres of cotton in 1992. The farm did not flex any crops and generated all of its revenue from cotton.
- RPMC** a 1,300 acre Rolling Plains of Texas (Jones County) moderate size cotton farm which grows 312 acres of wheat and 604 acres of cotton in 1992. The farm flexed NFA wheat to cotton and generated about 84 percent of its total revenue from cotton.
- RPLC** a 2,000 acre Rolling Plains of Texas (Jones County) large cotton farm which grows 480 acres of wheat and 1,049 acres of cotton in 1992. The farm flexed NFA wheat acreage to cotton and generated 85 percent of its revenue from cotton.

Characteristics of Panel Farms Producing Cotton

	CAMC	CALC	SPMC	SPLC	RPMC	RPLC
Total Acreage	735	3150	1360	3310	1300	2000
Owned Acres	368	1050	340	828	325	400
Leased Acres	367	2100	1020	2482	975	1600
<hr/>						
Assets	-- (\$1,000) --					
Real Estate	808.2	2571.4	160.7	401.0	183.9	231.3
Machinery	381.6	997.3	150.3	351.4	133.7	276.3
Livestock, Other	0.0	0.0	0.0	0.0	23.5	0.0
<hr/>						
Debt/Asset Ratio*	0.19	0.19	0.15	0.15	0.14	0.15
Machinery	0.11	0.11	0.16	0.16	0.16	0.16
Land	0.18	0.18	0.14	0.14	0.14	0.14
<hr/>						
1992 Gross Receipts **	-- (\$1,000) --					
Total	658.4	2915.9	166.6	408.6	141.0	247.9
Wheat					21.8	36.4
Cotton	527.9	2181.9	166.6	408.6	119.2	211.5
Alfalfa	130.7	734.0				
<hr/>						
1992 Planted Acreage	-- (Acres) --					
Total	651.0	2802.0	820.0	1989.0	915.9	1529.7
Wheat					312.0	480.0
Cotton	450.0	1800.0	820.0	1989.0	603.9	1049.7
Alfalfa	201.0	1002.0				

* Total debt/asset ratio reflects accrued taxes that are not reflected in machinery and land debt.

** Receipts for 1992 are included to indicate the relative importance of each enterprise to the farm; these values do not reflect price and yield risk so they differ from the average annual cash receipts in subsequent tables.

CHARACTERISTICS OF PANEL FARMS PRODUCING COTTON - Continued

- BLMC** a 1,000 acre Texas Blacklands (Williamson County) moderate size cotton farm with 472 acres of sorghum and 448 acres of cotton in 1992. The farm flexed NFA and OFA sorghum to cotton and generated about 63 percent of its total receipts from cotton.
- CBMC** a 1,400 acre Texas Coastal Bend (San Patricio County) moderate size cotton farm with 623 acres of sorghum and 617 acres of cotton in 1992. The farm flexed NFA and OFA sorghum and corn to cotton and generated about 73 percent of its total revenue from cotton.
- MSMC** a 1,470 acre Mississippi Delta (Washington County) moderate size cotton farm which grows 756 acres of cotton and 560 acres of soybeans in 1992. The farm did not flex any crops and generated about 87 percent of its total receipts from cotton.
- MSLC** a 3,300 acre Mississippi Delta (Washington County) large cotton farm which grows 1,350 acres of cotton and 1,500 acres of soybeans in 1992. The farm did not flex any crops and generated about 80 percent of its revenue from cotton.
- SCLG** a 3,500 acre South Carolina (Clarendon County) large grain farm with 880 acres of wheat, 262 acres of cotton, 1,120 acres of corn and 2,177 acres of soybeans in 1992. The farm flexed NFA corn, wheat, and cotton acreage to soybeans. About 15 percent of total receipts for the farm come from cotton.

Characteristics of Farms Producing Cotton - Continued

	BLMC	CBMC	MSMC	MSLC	SCLG
Total Acreage	1000	1400	1470	3300	3500
Owned Acres	250	300	735	1650	1400
Leased Acres	750	1100	735	1650	2100
Assets			-- (\$1,000) --		
Real Estate	268.1	343.5	778.6	1903.2	1924.1
Machinery	328.7	163.6	644.0	1217.9	739.1
Livestock, Other	0.0	0.0	0.0	0.0	0.0
Debt/Asset Ratio*					
Machinery	0.20	0.20	0.00	0.00	0.26
Land	0.17	0.17	0.00	0.00	0.45
Land	0.21	0.21	0.00	0.00	0.18
1992 Gross Receipts**			-- (\$1,000) --		
Total	223.2	385.3	642.5	1223.7	1029.9
Wheat					157.0
Sorghum	80.6	102.5			
Cotton	142.6	282.8	561.8	986.2	152.2
Corn					315.7
Soybeans			80.7	237.5	405.0
1992 Planted Acreage			-- (Acres) --		
Total	920.5	1240.5	1316.0	2850.0	4974.0
Wheat					880.0
Sorghum	472.0	623.3			
Cotton	448.5	617.2	756.0	1350.0	262.5
Corn					1120.0
Soybeans			560.0	1500.0	2177.5

* Total debt/asset ratio reflects accrued taxes that are not reflected in machinery and land debt.

** Receipts for 1992 are included to indicated the relative importance of each enterprise to the farm; these values do not reflect price and yield risk so they differ from the average cash receipts in the subsequent tables.

COTTON IMPACTS

- With the exception of the large South Carolina grain farm (SCLG), all farms analyzed in this section generate more than 60 percent of their gross receipts from cotton production.
- In the early months of the 1991-92 marketing year, adjusted world prices fell below the cotton loan rate by, at times, more than \$0.08/lb. Thus, producers were eligible for loan deficiency payments even though the season average domestic price is projected to be \$0.593/lb for 1991-92. Recognizing that producers realize a benefit from the loan deficiency payments, an assumption was made to tie a loan deficiency payment to the season average price for cotton. In 1992-1995, the adjusted world price (AWP) was assumed to be \$0.152/lb below the estimated season average cotton price. Loan deficiency payments thus are calculated based on the relationship of the adjusted world price to the announced loan rate.
- Cotton farms experience increased net cash farm income in 1991, despite the non-payment acreage (NFA), due to a 7.5 percentage point decline in the ARP requirement and an average \$0.067/lb marketing loan deficiency payment.
- For the 1992-95 period, prices for all program crops were not projected to exceed frozen target price levels. Therefore, the revenue base was effectively frozen while input costs continued to escalate. This cost price squeeze resulted in eight of the ten predominantly cotton farms experiencing less nominal net cash income in 1995 than they generated in 1990.
- The Texas Blacklands (BLMC) and Coastal Bend (CBMC) farms show increases in nominal net cash farm incomes by 26 percent when compared to 1990. These farms were able to take advantage of the flex provisions in the farm bill, moving both NFA and OFA feed grain acreage to cotton. Adjusting the 1995 net cash farm income values for inflation, however, results in real income growth of approximately 6 percent.
- Five of the ten predominate cotton farms realize real growth in equity over the study period. These include both California (CALC) farms, the large Texas Southern Plains (SPLC) farm, the Texas Blacklands (BLMC) farm, and the Texas Coastal Bend (CBMC) farm.
- With the exception of BLMC, the farms that are growing are similar in production efficiency with cash expenses averaging between \$0.75 and \$0.86 per dollar of revenue. The BLMC is the most efficient with cash expenses averaging \$0.55 for each dollar of revenue.
- While the moderate Southern Plains (SPMC) farm is as efficient as some of the larger farms with an expense to revenue ratio of 81 percent, it only averages \$169,000 in cash receipts annually. Therefore, the margin is not enough for the farm to service the \$20,000 minimum family living requirement, make principal payments and replace equipment. This farm loses 16 percent of its equity over the period.
- The two Texas Rolling Plains (RPMC and RPLC) farms lose approximately 30 percent of their equity over the study period. Cash expenses average between \$0.86 and \$0.90 per dollar of revenue, resulting in too small a margin to cover family living expenses, principal payments, and machinery replacement costs.
- The Mississippi farms increase their equity 2 to 3 percent during the study period. However, one will notice that these farms begin in 1990 with zero debt, a value reported by ERS.

Implications of the 1990 Farm Bill and FAPRI January 1992 Baseline on Panel Farms that Produce Cotton.

	CAMC	CALC	SPMC	SPLC	RPMC	RPLC
Probability Success (%)	100.0	100.0	61.0	86.0	28.0	28.0
Probability of Lower Equity (%)	0.0	0.0	68.0	13.0	92.0	79.0
Average Change in Real Net Worth (%)	24.81	57.77	-15.57	29.00	-31.72	-28.88
Average Annual Ratio of Expenses to Receipts (%)	78.98	82.33	80.57	75.14	86.32	90.13
Average Present Value Ending Net Worth (\$1000)	1193.62	4245.42	195.57	722.45	189.11	269.79
Average Annual Cash Receipts (\$1000)	685.16	3042.56	168.91	412.06	142.88	251.53
Average Annual Cash Expenses (\$1000)	540.88	2503.70	134.91	307.10	121.86	223.84
Average Annual Net Cash Income (\$1000)	144.28 (9.63)	538.86 (11.57)	34.00 (43.92)	104.96 (33.11)	21.02 (66.29)	27.69 (90.98)
Average Cash Receipts (\$1000)						
1990	649.47	2893.79	151.96	372.08	124.89	217.91
1991	687.50	3053.28	170.92	416.23	141.79	250.02
1992	658.56	2919.81	166.57	408.61	140.34	246.83
1993	698.58	3097.86	179.90	437.66	144.41	254.64
1994	714.49	3169.16	170.98	414.20	161.21	284.12
1995	702.39	3121.47	173.13	423.56	144.65	255.63
Average Net Cash Income (\$1000)						
1990	140.34	536.28	30.30	87.98	20.23	24.48
1991	163.29	620.65	41.56	116.65	27.26	39.57
1992	141.84	518.00	41.40	119.33	27.16	35.73
1993	152.65	570.67	41.18	123.83	23.16	30.28
1994	148.36	553.93	27.88	94.12	24.98	35.45
1995	119.23	433.62	21.67	87.86	3.32	0.59

Values in parentheses are coefficients of variation for the preceeding mean value.
 Probability of Economic Success - Chance that the farm will earn a return on initial equity greater than 0.058.
 Probability of Lower Equity - Chance that the farm will experience a decrease in net worth after adjusting for inflation.
 Change in Real Net Worth - Percentage change in real net worth over the simulation period, 1990-1995.
 Average Annual Ratio of Expenses to Receipts - Ratio of all cash expenses to all farm receipts including government payments.
 Present Value Ending Net Worth - Discounted value of net worth in the last year simulated.
 Annual Cash Receipts - Total cash receipts from crops, dairy, livestock, government payments, and other farm related activities.
 Annual Cash Expenses - Total cash costs for crops, dairy, and livestock production, including interest costs and fixed cash costs; excludes depreciation.
 Annual Net Cash Income - Total cash receipts minus total cash expenses; excludes family living expenses, principal payments, and costs to replace capital assets.

Implications of the 1990 Farm Bill and FAPRI January 1992 Baseline on Panel Farms that Produce Cotton.

	BLMC	CBMC	MSMC	MSLC	SCLG
Probability of Success (%)	100.0	97.0	73.0	2.0	97.0
Probability of Lower Equity (%)	0.0	7.0	21.0	25.0	0.0
Average Change in Real Net Worth (%)	56.06	32.01	3.04	2.13	29.20
Average Annual Ratio of Expenses to Receipts (%)	55.10	79.63	84.89	85.59	76.41
Average Present Value Ending Net Worth (\$1000)	592.70	510.84	1353.48	3008.53	2342.01
Average Annual Cash Receipts (\$1000)	225.60	386.76	663.05	1261.10	1026.59
Average Annual Cash Expenses (\$1000)	123.84	306.51	562.62	1078.76	782.65
Average Annual Net Cash Income (\$1000)	101.76 (13.24)	80.24 (29.62)	100.43 (13.42)	182.34 (15.18)	243.94 (20.26)
Average Cash Receipts (\$1000)					
1990	196.12	328.81	602.24	1147.88	1000.83
1991	219.74	384.37	660.85	1249.93	943.50
1992	226.07	386.89	645.56	1229.46	1025.16
1993	229.51	394.95	686.83	1304.06	1047.68
1994	237.38	401.88	691.69	1316.92	1068.79
1995	244.79	423.65	691.13	1318.37	1073.55
Average Net Cash Income (\$1000)					
1990	85.79	61.51	85.09	151.34	222.10
1991	98.93	86.37	119.67	211.69	193.14
1992	105.47	91.67	110.64	198.86	262.43
1993	106.47	87.58	116.11	210.37	265.62
1994	106.03	76.94	96.78	180.10	263.72
1995	107.87	77.39	74.28	141.66	256.62

Values in parentheses are coefficients of variation for the preceding mean value.

Probability of Economic Success - Chance that the farm will earn a return on initial equity greater than 0.058.

Probability of Lower Equity - Chance that the farm will experience a decrease in net worth after adjusting for inflation.

Change in Real Net Worth - Percentage change in real net worth over the simulation period, 1990-1995.

Average Annual Ratio of Expenses to Receipts - Ratio of all cash expenses to all farm receipts including government payments.

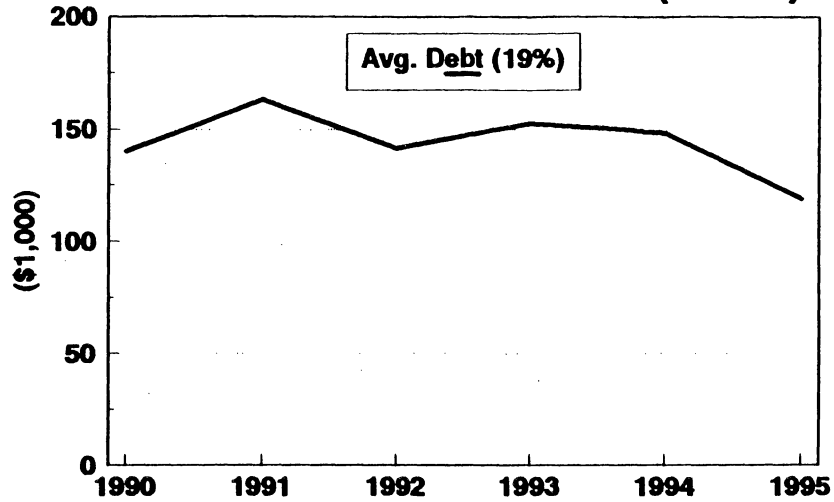
Present Value Ending Net Worth - Discounted value of net worth in the last year simulated.

Annual Cash Receipts - Total cash receipts from crops, dairy, livestock, government payments, and other farm related activities.

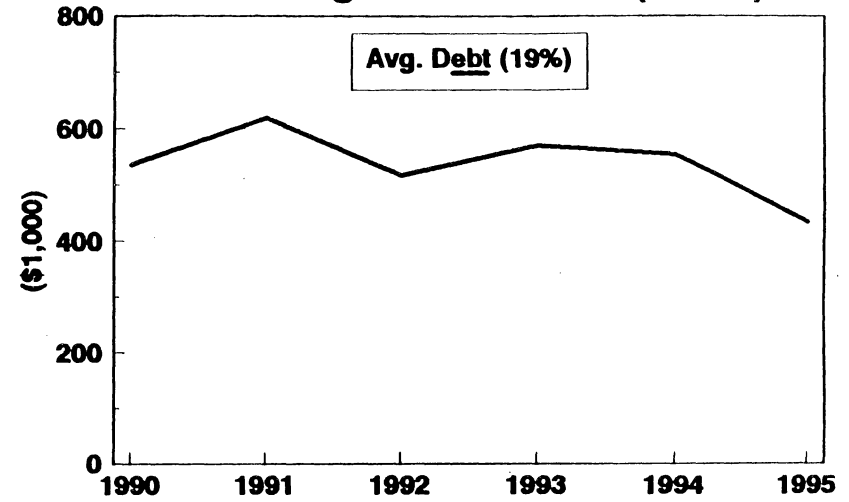
Annual Cash Expenses - Total cash costs for crops, dairy, and livestock production, including interest costs and fixed cash costs; excludes depreciation.

Annual Net Cash Income - Total cash receipts minus total cash expenses; excludes family living expenses, principal payments, and costs to replace capital assets.

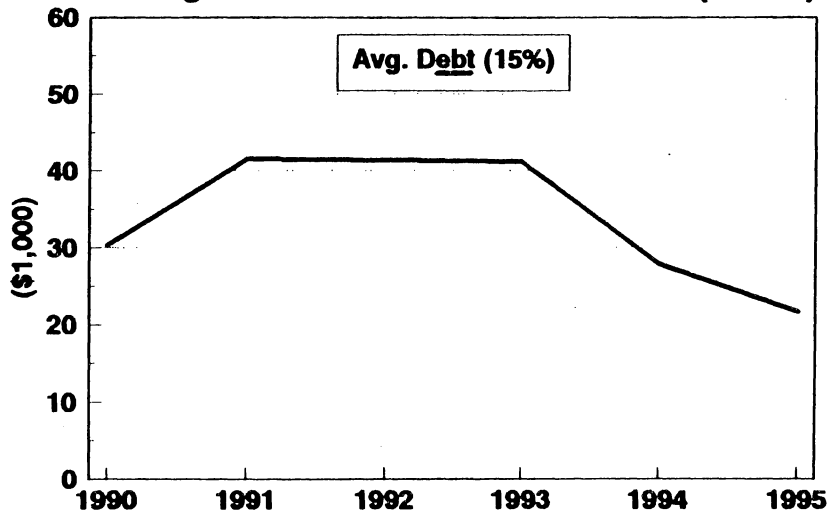
**Net Cash Farm Income
California Moderate Cotton Farm (CAMC)**



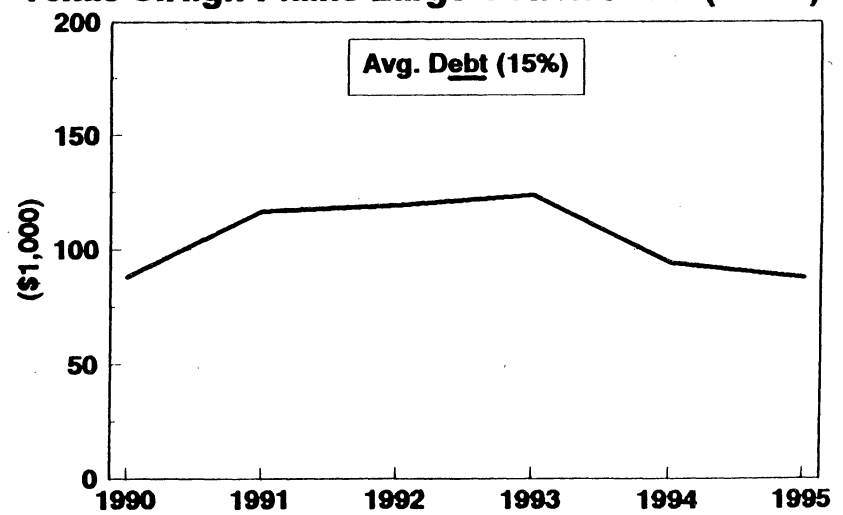
**Net Cash Farm Income
California Large Cotton Farm (CALC)**



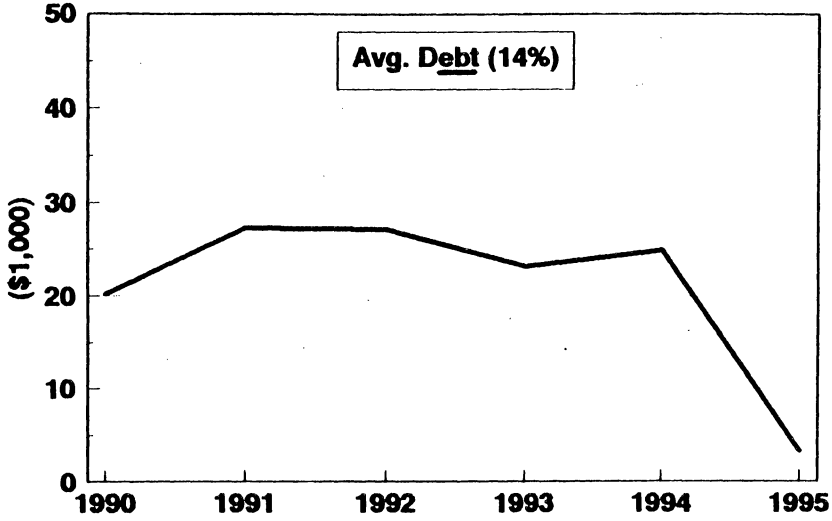
**Net Cash Farm Income
Texas S.High Plains Moderate Cotton Farm (SPMC)**



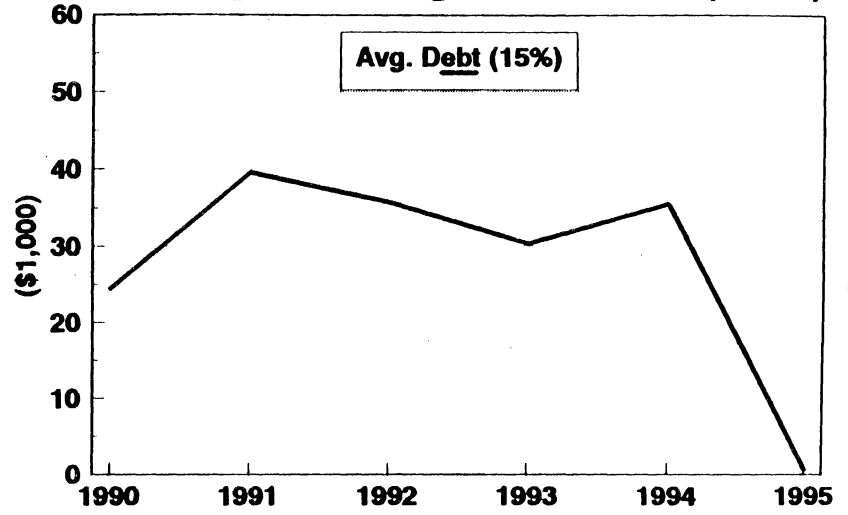
**Net Cash Farm Income
Texas S.High Plains Large Cotton Farm (SPLC)**



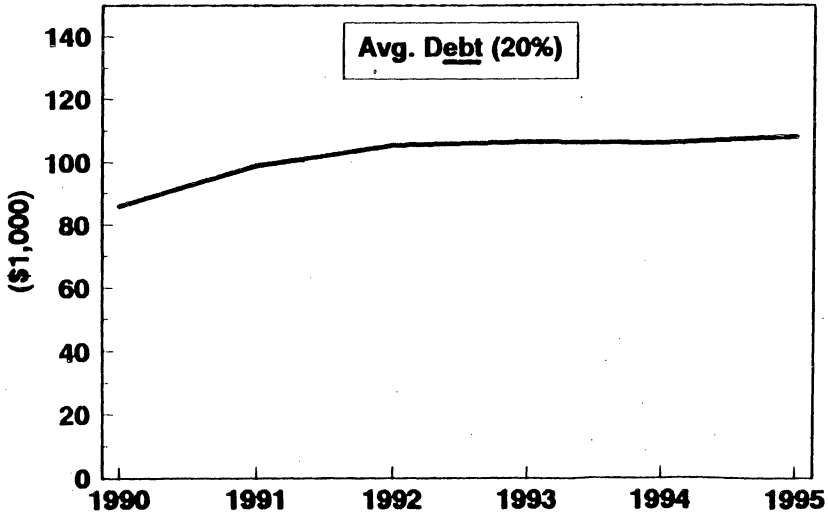
Net Cash Farm Income
Texas Rolling Plains Moderate Cotton Farm (RPMC)



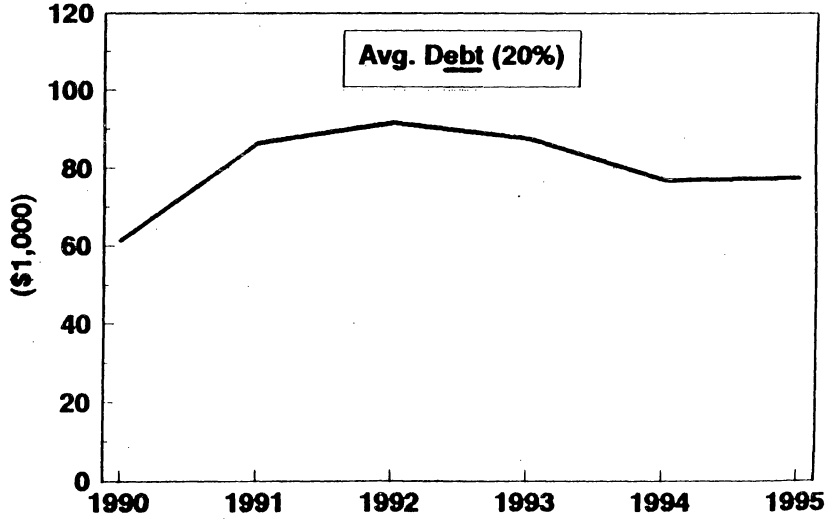
Net Cash Farm Income
Texas Rolling Plains Large Cotton Farm (RPLC)



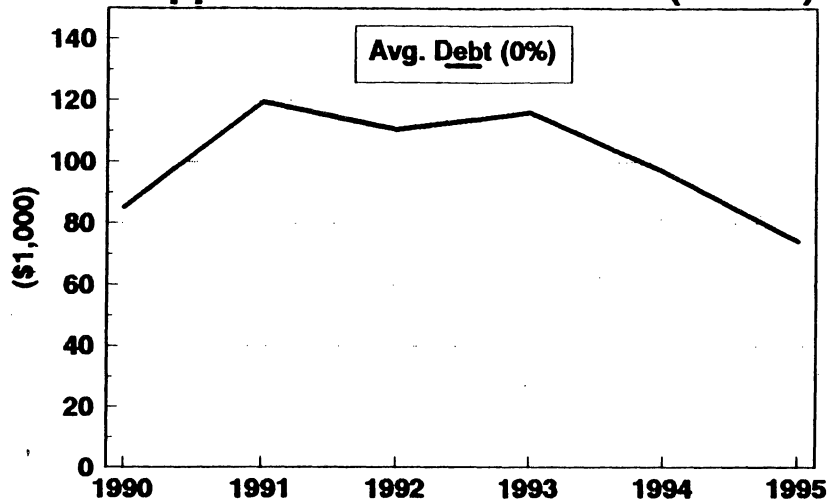
Net Cash Farm Income
Texas Blacklands Moderate Cotton Farm (BLMC)



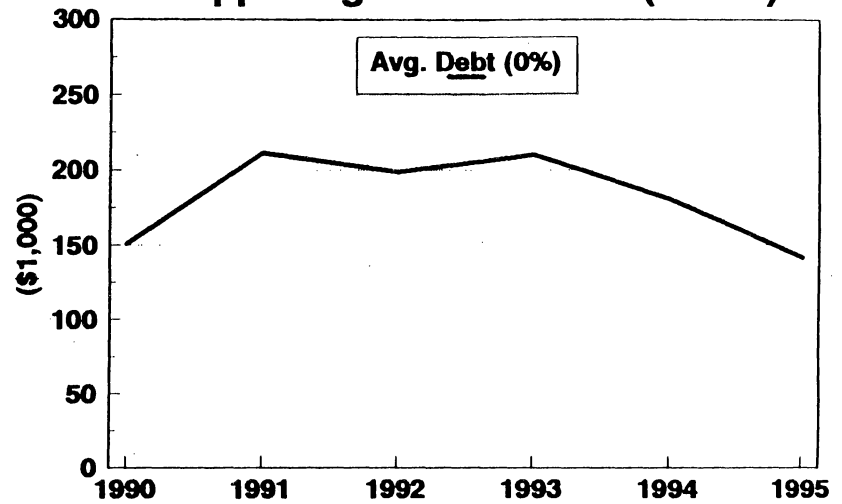
Net Cash Farm Income
Texas Coastal Bend Moderate Cotton Farm (CBMC)



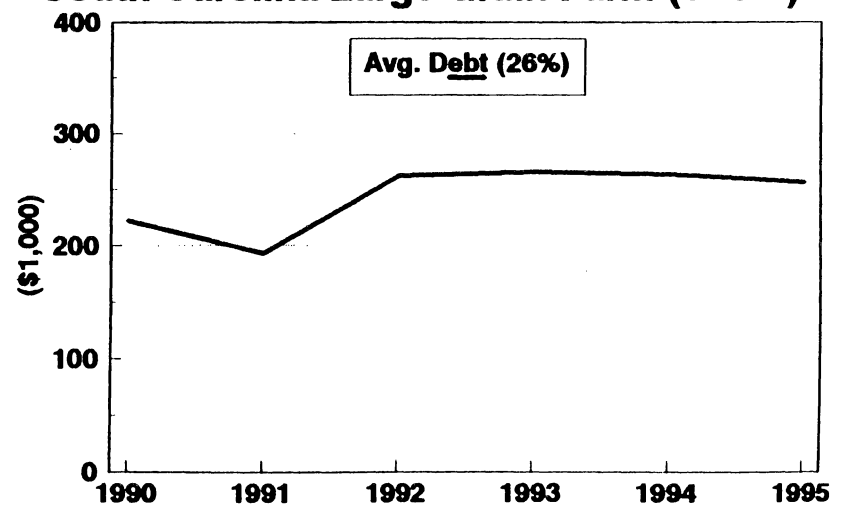
Net Cash Farm Income
Mississippi Moderate Cotton Farm (MSMC)



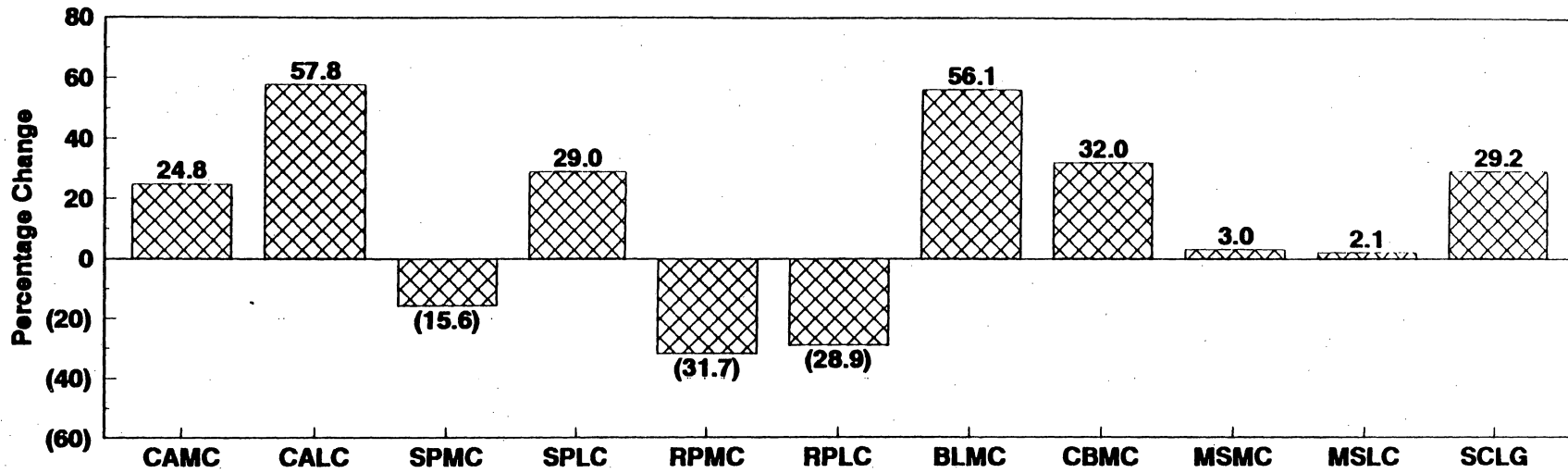
Net Cash Farm Income
Mississippi Large Cotton Farm (MSLC)



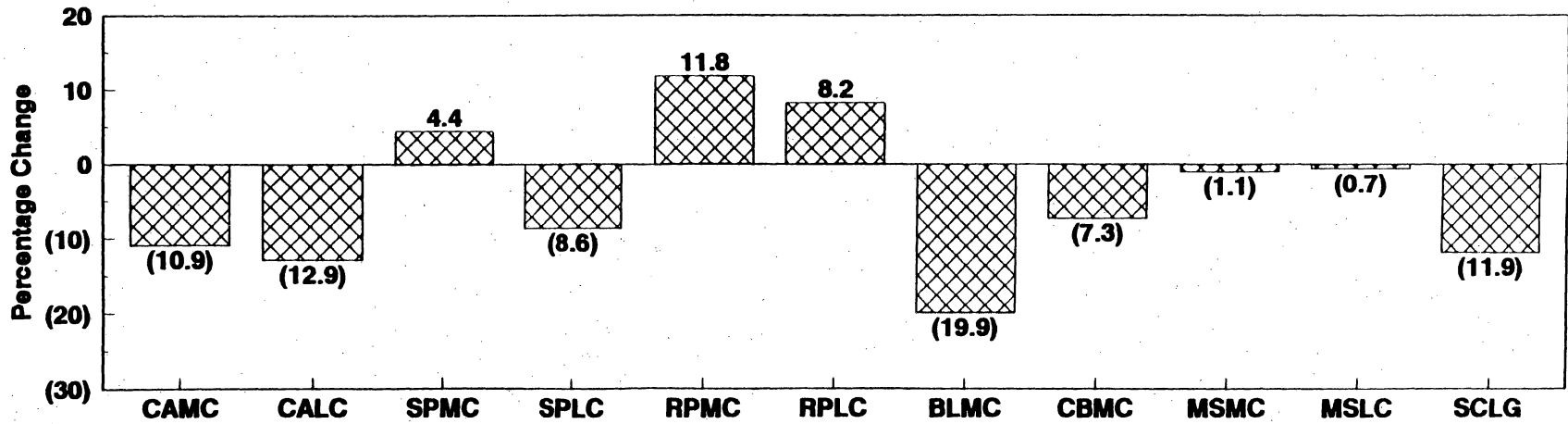
Net Cash Farm Income
South Carolina Large Grain Farm (SCLG)



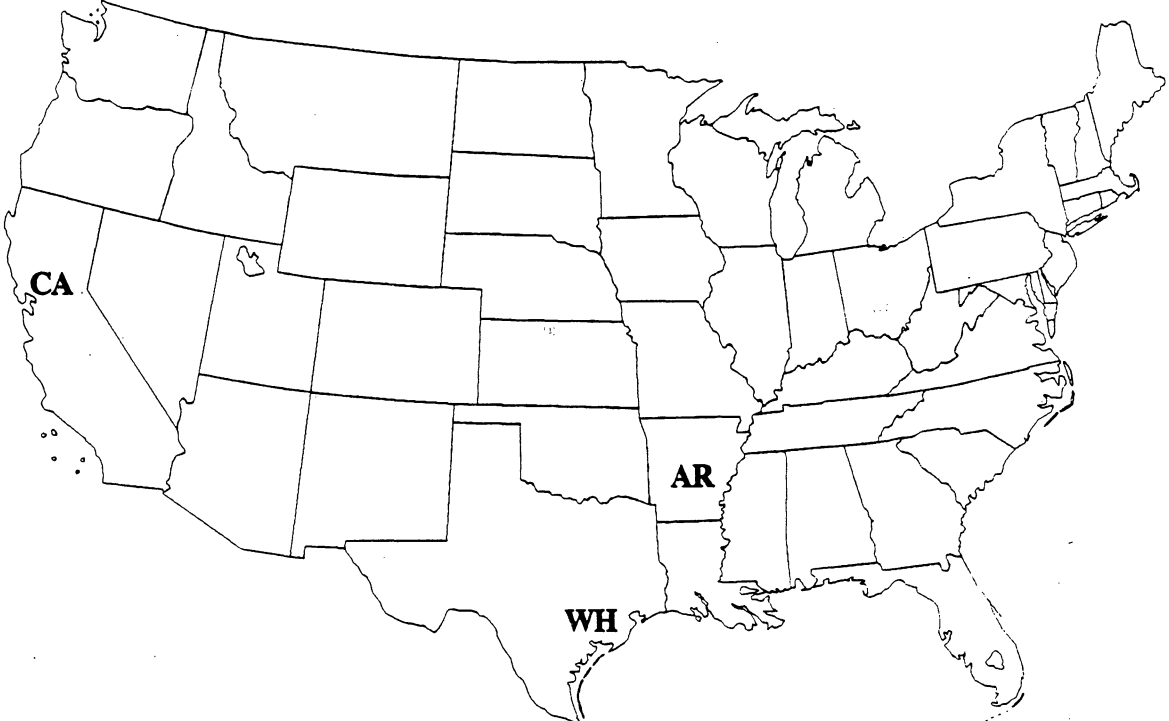
**Real Change in Net Worth for All Cotton Farms,
1990-1995.**



**Annual Percentage Change in Receipts Needed to
Maintain Real Net Worth from 1990-1995:
Cotton Farms**



Panel Farms Producing Rice



CHARACTERISTICS OF PANEL FARMS PRODUCING RICE

- CAMR** a 424 acre Sacramento Valley California (Sutter and Yuba Counties) moderate size rice farm which grows 400 acres of rice in 1992. The farm did not flex any crops and receives all of its revenue from rice.
- CALR** a 1,300 acre Sacramento Valley California (Sutter and Yuba Counties) large rice farm which grows 1,200 acres of rice in 1992. The farm did not flex any crops and generates all of its revenue from rice.
- WHMR** a 1,500 acre West of Houston, Texas (Wharton County) moderate size rice farm which grows 500 acres of rice in 1992. The farm did not flex any crops and receives all of its total revenue from rice.
- WHLR** a 3,900 acre West of Houston, Texas (Wharton County) large rice farm which grows 1,300 acres of rice in 1992. The farm did not flex any crops and receives all of its total revenue from rice.
- ARMR** a 1,100 acre Arkansas (Arkansas County) moderate size rice farm which grows 537 acres of rice, 88 acres of wheat, and 531 acres of soybeans in 1992. The farm flexed NFA and OFA wheat to rice and receives about 71 percent of its revenue from rice.

Characteristics of Panel Farms Producing Rice

	CAMR	CALR	WHMR	WHLR	ARMR
Total Acreage	424	1300	1500	3900	1100
Owned Acres	212	500	300	780	440
Leased Acres	212	800	1200	3120	640
Assets		-- (\$1,000) --			
Real Estate	473.6	1378.3	285.6	905.1	526.0
Machinery	182.5	352.9	277.9	728.2	267.6
Livestock, Other	0.0	0.0	0.0	0.0	0.0
Debt/Asset Ratio*					
Machinery	0.35	0.37	0.15	0.15	0.13
Land	0.38	0.38	0.16	0.16	0.20
Land	0.32	0.32	0.14	0.14	0.10
1992 Gross Receipts**		-- (\$1,000) --			
Total	284.5	862.2	366.2	961.5	412.8
Rice	284.5	862.2	366.2	961.5	294.8
Wheat					15.3
Soybeans					102.7
1992 Planted Acreage		-- (Acres) --			
Total	400.0	1200.0	500.0	1300.0	1068.9
Rice	400.0	1200.0	500.0	1300.0	537.6
Ratoon Rice			450.0	1170.0	
Wheat					87.5
Soybeans					531.3

* Total debt/asset ratio reflects accrued taxes that are not reflected in machinery and land debt.

** Receipts for 1992 are included to indicate the relative importance of each enterprise to the farm; these values do not reflect price and yield risk so they differ from the average annual cash receipts in subsequent tables.

RICE IMPACTS

- The California (CAMR and CALR) and Texas (WHMR and WHLR) rice farms produce only rice while the Arkansas (ARMR) farm generates 71 percent of its revenue from rice production.
- It is very difficult to estimate a relationship between the adjusted world price (AWP) for rice and its projected season average price. The fact that significant loan deficiency payments have been paid to rice producers since the inception of the marketing loan program requires that AFPC make an assumption. Based on market conditions in 1990, AFPC assumed a flat \$1.62/cwt wedge between projected season average price and the AWP.
- Net cash farm incomes remain fairly stable for two of the five farms between 1990 and 1991 as the reduction in payments due to NFA are offset by a 15 percentage point reduction in ARP requirements. Net cash incomes rebound in 1992 for all five farms due to a 0 percent ARP requirement and lower prices which generate larger marketing loan benefits.
- Net cash farm incomes for all farms decline from the peak in 1992 as ARP rates increase to 5 percent annually and increasing market prices reduce producer loan deficiency benefits from the marketing loan.
- Both Texas farms and the large California farm are experiencing negative net cash farm incomes by 1994. The Arkansas farm is able to sustain net cash farm income at more than \$100,000 per year throughout the period as it is more diversified and able to take advantage of flex opportunities.
- The pattern reflected in the net cash farm income projections is repeated in the analysis of real equity growth. The moderate Texas farm loses over 30 percent of its equity while the large Texas and California farms lose 19 percent. The moderate California farm shows modest real growth of 1 percent while the Arkansas farm grows by 27 percent.

Implications of the 1990 Farm Bill and FAPRI January 1992 Baseline on Panel Farms that Produce Rice.

	CAMR	CALR	WHMR	WHLR	ARMR
Probability Success (%)	95.0	0.0	0.0	0.0	100.0
Probability of Lower Equity (%)	26.0	100.0	100.0	99.0	0.0
Average Change in Real Net Worth (%)	0.97	-19.55	-30.88	-19.83	26.64
Average Annual Ratio of Expenses to Receipts (%)	83.32	99.06	94.15	96.92	71.38
Average Present Value Ending Net Worth (\$1000)	410.99	835.97	296.06	965.68	870.70
Average Annual Cash Receipts (\$1000)	257.38	782.20	338.07	882.72	386.35
Average Annual Cash Expenses (\$1000)	214.40	774.61	318.15	855.13	275.63
Average Annual Net Cash Income (\$1000)	42.98 (10.65)	7.59 (193.81)	19.93 (35.47)	27.59 (66.45)	110.72 (7.49)
Average Cash Receipts (\$1000)					
1990	236.31	714.89	301.31	793.72	344.27
1991	258.84	787.12	336.80	876.90	375.80
1992	282.76	857.11	359.35	943.62	401.73
1993	255.43	777.82	342.39	890.64	393.60
1994	255.31	777.47	342.44	891.08	398.64
1995	255.64	778.80	346.14	900.39	404.05
Average Net Cash Income (\$1000)					
1990	48.41	51.76	43.52	82.88	103.32
1991	49.63	44.03	33.42	62.96	111.96
1992	65.28	71.54	37.27	77.36	125.65
1993	40.30	-5.39	23.19	30.03	113.72
1994	31.97	-39.47	-2.03	-22.20	107.26
1995	22.31	-76.90	-15.82	-65.47	102.43

Values in parentheses are coefficients of variation for the preceeding mean value.

Probability of Economic Success - Chance that the farm will earn a return on initial equity greater than 0.058.

Probability of Lower Equity - Chance that the farm will experience a decrease in net worth after adjusting for inflation.

Change in Real Net Worth - Percentage change in real net worth over the simulation period, 1990-1995.

Average Annual Ratio of Expenses to Receipts - Ratio of all cash expenses to all farm receipts including government payments.

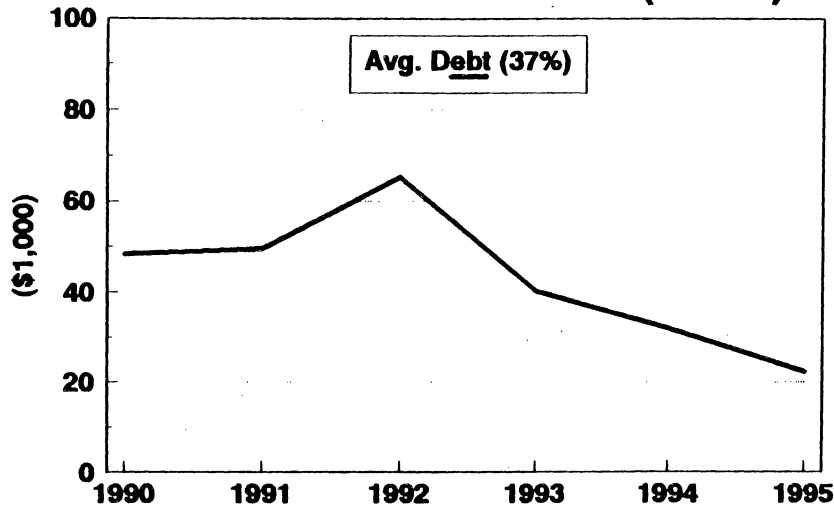
Present Value Ending Net Worth - Discounted value of net worth in the last year simulated.

Annual Cash Receipts - Total cash receipts from crops, dairy, livestock, government payments, and other farm related activities.

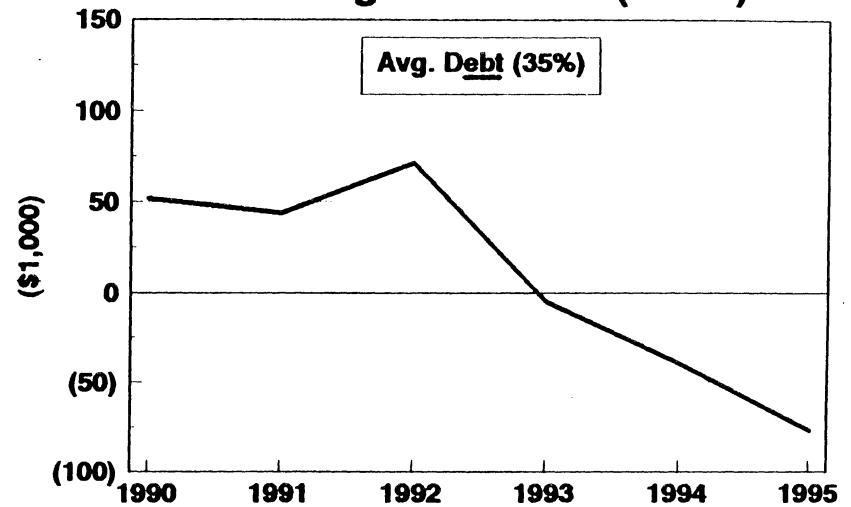
Annual Cash Expenses - Total cash costs for crops, dairy, and livestock production, including interest costs and fixed cash costs; excludes depreciation.

Annual Net Cash Income - Total cash receipts minus total cash expenses; excludes family living expenses, principal payments, and costs to replace capital assets.

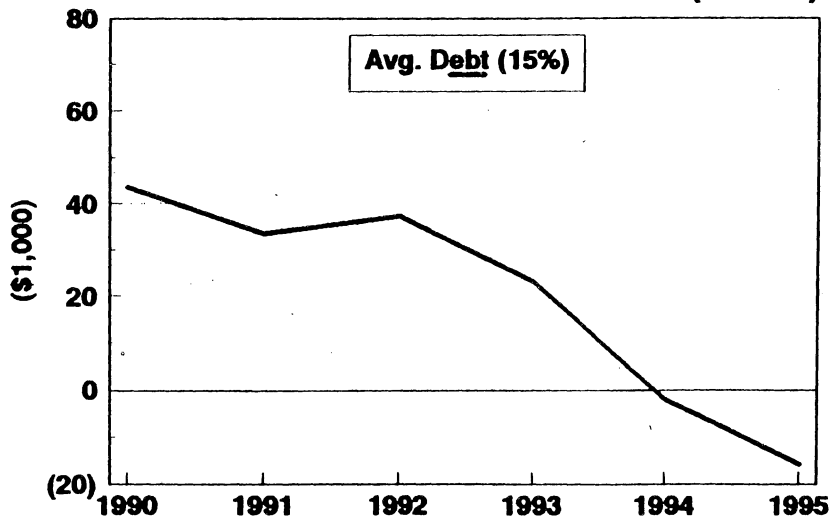
**Net Cash Farm Income
California Moderate Rice Farm (CAMR)**



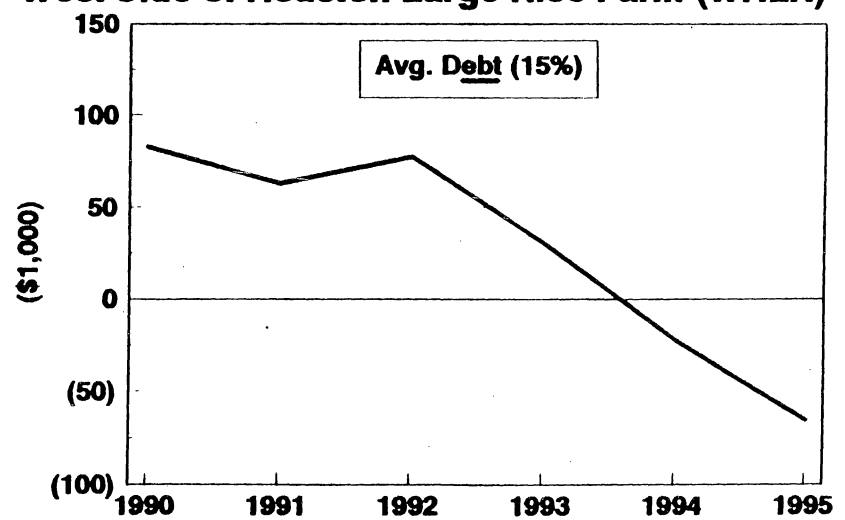
**Net Cash Farm Income
California Large Rice Farm (CALR)**



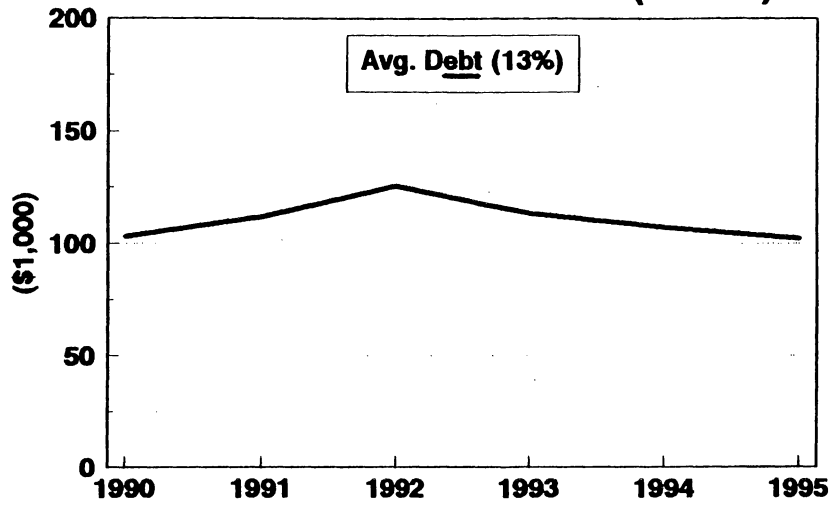
**Net Cash Farm Income
West Side of Houston Moderate Rice Farm (WHMR)**



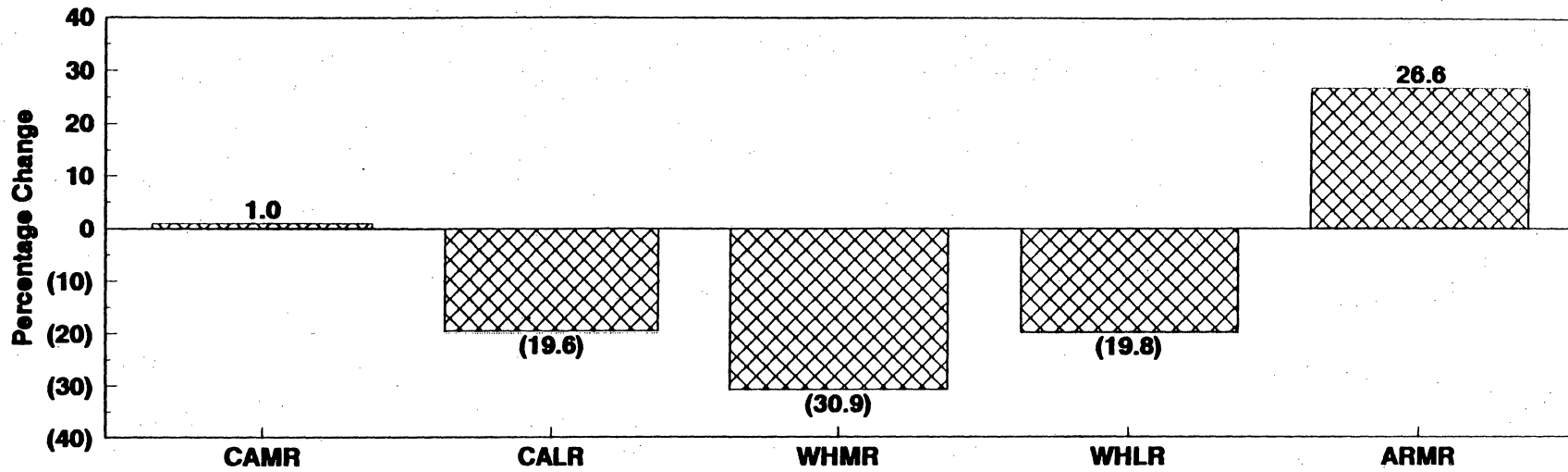
**Net Cash Farm Income
West Side of Houston Large Rice Farm (WHLR)**



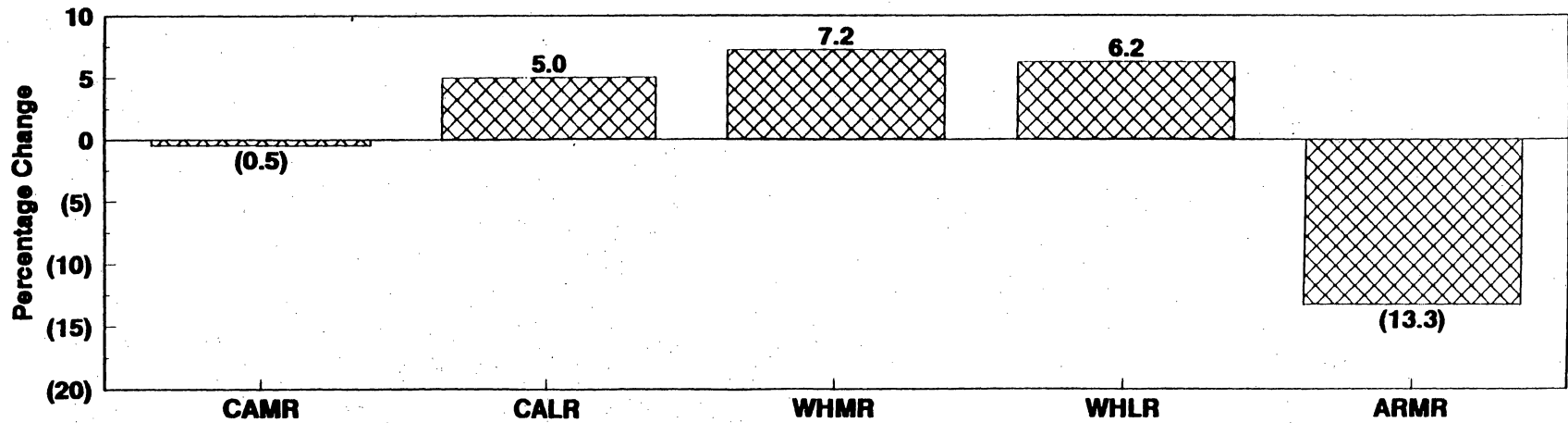
Net Cash Farm Income Arkansas Moderate Rice Farm (ARMR)



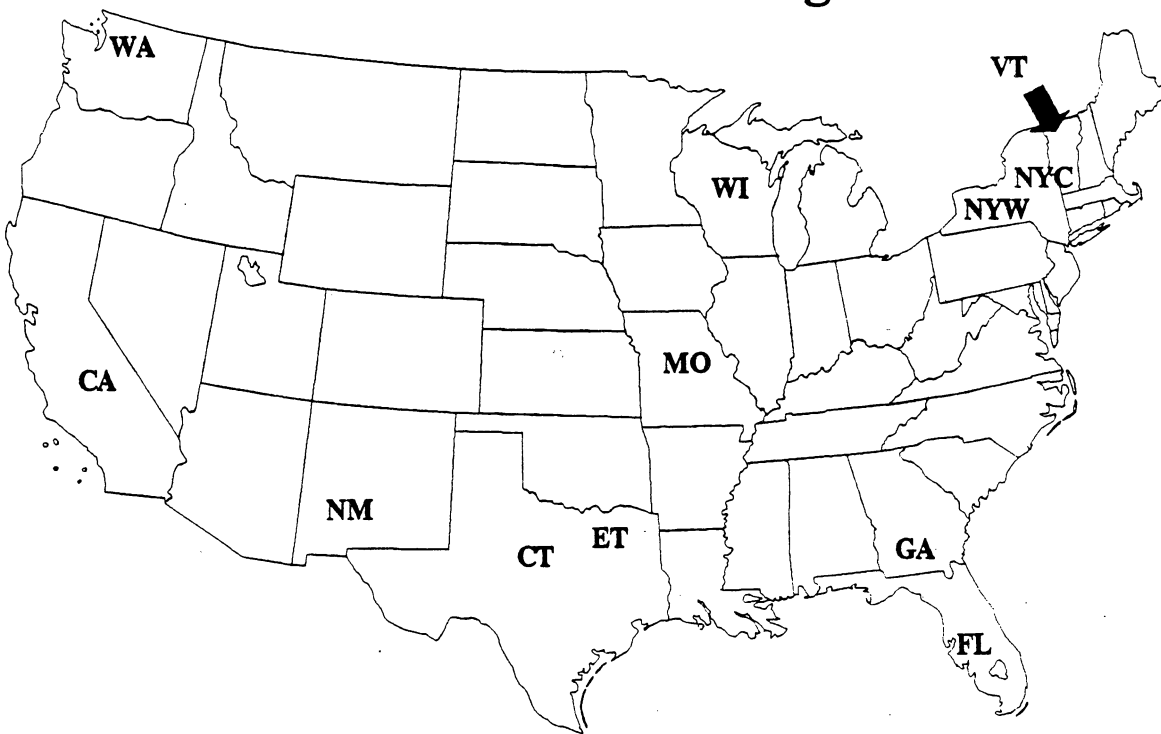
**Real Change in Net Worth for All Rice Farms,
1990-1995.**



**Annual Percentage Change in Receipts Needed to
Maintain Real Net Worth from 1990 to 1995:
Rice Farms**



Panel Farms Producing Milk



CHARACTERISTICS OF PANEL FARMS PRODUCING MILK

- WAMD** a 160 cow Northern Washington (Whatcom County) moderate size dairy farm which has a herd average of 21,620 pounds of milk per cow. The farm grows 114 acres of silage and generates about 91 percent of its revenue from milk sales.
- WALD** an 800 cow Northern Washington (Whatcom County) large dairy farm which has a herd average of 22,650 pounds of milk per cow. The farm grows 385 acres of silage and generates about 90 percent of its revenue from milk sales.
- CALD** a 2,050 cow Central California (Tulare County) large dairy farm which has a herd average of 19,240 pounds of milk per cow. The farm grows no feed and generates about 84 percent of its revenue from milk sales.
- NMLD** a 1,600 cow Southern New Mexico (Dona Anna County) large dairy farm which has a herd average of 18,930 pounds of milk per cow. The farm grows 110 acres of silage and generates about 84 percent of its revenue from milk sales.
- CTMD** a 300 cow Central Texas (Erath County) moderate size dairy farm which has a herd average of 14,090 pounds of milk per cow. The farm grows 303 acres of hay and generates about 85 percent of its revenue from milk sales.
- CTLD** a 720 cow Central Texas (Erath County) large dairy farm which has a herd average of 17,220 pounds of milk per cow. The farm grows no feed and produces 89 percent of its receipts from milk sales.
- ETMD** a 180 cow Eastern Texas (Hopkins County) moderate size dairy farm which has a herd average of 14,090 pounds of milk per cow. The farm grows 250 acres of hay and generates about 79 percent of its receipts from milk sales.
- ETLD** an 812 cow Eastern Texas (Hopkins County) large dairy farm which has a herd average of 16,200 pounds of milk per cow. The farm grows 300 acres of hay and generates about 87 percent of its receipts from milk sales.

Characteristics of Panel Farms Producing Milk

	WAMD	WALD	CALD	NMLD	CTMD	CTLD	ETMD	ETLD
Number of Cows	160	800	2050	1600	300	720	180	812
Milk per Cow (cwts)	216.2	226.5	192.4	189.3	140.9	172.2	140.9	162.0
Assets				-- (\$1,000) --				
Real Estate	507.6	1853.4	3100.2	1974.8	408.4	614.0	403.3	1164.2
Machinery	90.6	327.4	126.3	293.5	178.3	233.2	131.6	345.9
Livestock	210.7	1077.7	3458.6	2672.0	444.0	650.9	166.0	747.5
Debt/Asset Ratio*								
	0.35	0.38	0.27	0.23	0.27	0.26	0.22	0.24
Machinery	0.45	0.45	0.21	0.21	0.37	0.37	0.37	0.37
Land	0.27	0.27	0.25	0.25	0.11	0.11	0.11	0.11
Total Acreage								
	120	428	320	150	606	460	400	600
Owned Acres	60	225	320	150	303	160	200	400
Leased Acres	60	203			303	300	200	200
1992 Gross Receipts**				-- (\$1,000) --				
Total	444.4	2347.6	5176.3	4738.6	658.5	1845.5	421.3	1990.3
Milk	404.6	2119.2	4322.7	3994.2	557.5	1635.1	334.5	1734.2
Livestock	38.1	222.6	853.6	744.4	101.0	210.4	54.4	234.0
Crop	1.7	5.8	0.0	0.0	0.0	0.0	32.4	22.1
1992 Planted Acreage				-- (Acres) --				
Total	114	385		110	303		250.0	300.0
Silage	114	385		110				
Alfalfa Hay								
Other Hay					303		250.0	300.0
Alfalfa Haylage								
Haylage								
Corn								

* Total debt/asset ratio reflects accrued taxes that are not reflected in machinery and land debt.

** Receipts for 1992 are included to indicate the importance of each enterprise to the farm; these values do not reflect price and yield risk so they differ from the average annual cash receipts in subsequent tables.

CHARACTERISTICS OF PANEL FARMS PRODUCING MILK - Continued

- WIMD** a 50 cow Eastern Wisconsin (Winnebago County) moderate size dairy farm which has a herd average of 15,450 pounds of milk per cow. The farm grows 18 acres of silage, 30 acres of alfalfa, 48 acres of hay, 42 acres of haylage, and 36 acres of corn for grain. The farm operation generates about 79 percent of its total revenue from milk sales.
- WILD** a 175 cow Eastern Wisconsin (Winnebago County) large dairy farm which has a herd average of 18,530 pounds of milk per cow. The farm grows 44 acres of silage, 125 acres of hay, 252 acres of haylage, and 93 acres of corn for grain. The farm generates 85 percent of its revenue from milk sales.
- VTMD** a 65 cow Vermont moderate size dairy farm which has a herd average of 15,900 pounds of milk per cow. The farm grows 45 acres of silage, 23 acres of alfalfa, 22 acres of hay, and 47 acres of haylage. The farm generates 84 percent of its revenue from milk sales.
- VTLD** a 186 cow Vermont large dairy farm which has a herd average of 18,570 pounds of milk per cow. The farm grows 137 acres of silage, 37 acres of alfalfa, 29 acres of hay, and 82 acres of haylage. The farm generates about 89 percent of its revenue from milk sales.
- NYCM** a 100 cow Central New York (Cayuga County) moderate size dairy farm which has a herd average of 18,530 pounds of milk per cow. The farm grows 60 acres of silage, 47 acres of haylage and 111 acres of corn for grain. About 85 percent of the farm's gross receipts come from milk sales.
- NYCL** a 175 cow Central New York (Cayuga County) large dairy which has a herd average of 18,530 pounds of milk per cow. The farm grows 99 acres of silage, 99 acres of alfalfa, 117 acres of alfalfa haylage, 11 acres of haylage, and 89 acres of corn for grain. The farm generates 87 percent of its total receipts from milk sales.
- NYWM** a 500 cow Western New York (Wyoming County) moderate size dairy farm which has a herd average of 18,530 pounds of milk per cow. The farm grows 432 acres of silage, 229 acres of alfalfa haylage and 118 acres of haylage. About 88 percent of the total revenue on the farm comes from milk sales.
- NYWL** a 1,000 cow Western New York (Wyoming County) large dairy farm which has a herd average of 18,530 pounds of milk per cow. The farm grows 640 acres of silage and generates about 88 percent of its total receipts from milk sales.

Characteristics of Panel Farms Producing Milk - Continued

	WIMD	WILD	VTMD	VTLD	NYCM	NYCL	NYWM	NYWL
Number of Cows	50	175	65	186	100	175	500	1000
Milk per Cow (cwts)	154.5	185.3	159.0	185.7	185.3	185.3	185.3	185.3
Assets								
	-- (\$1,000) --							
Real Estate	218.9	530.1	439.4	617.5	421.6	516.7	1146.3	1725.7
Machinery	126.8	272.2	140.8	272.8	118.7	236.0	292.8	718.4
Livestock	72.0	258.5	83.6	229.1	118.3	201.5	568.2	1105.7
Debt/Asset Ratio*								
	0.25	0.24	0.16	0.18	0.17	0.21	0.18	0.21
Machinery	0.12	0.12	0.31	0.31	0.31	0.31	0.31	0.31
Land	0.30	0.30	0.09	0.09	0.09	0.09	0.09	0.09
Total Acreage								
	190	550	262	385	358	713	1000	1500
Owned Acres	152	330	200	275	255	609	800	1067
Leased Acres	38	220	62	110	103	104	200	433
1992 Gross Receipts**								
	-- (\$1,000) --							
Total	116.1	454.5	154.3	491.4	272.0	464.5	1314.6	2622.0
Milk	91.7	384.8	130.2	435.1	230.6	403.6	1153.2	2306.4
Livestock	20.0	68.4	22.8	55.1	40.6	60.8	161.4	315.6
Crop	4.4	1.3	1.3	1.2	0.8	0.0	0.0	0.0
1992 Planted Acreage								
	-- (Acres) --							
Total	174	514	137	285	218	415	779	640
Silage	18	44	45	137	60	99	432	640
Alfalfa Hay	30		23	37		99		
Other Hay	48	125	22	29				
Alfalfa Haylage						117	229	
Haylage	42	252	47	82	47	11	118	
Corn	36	93			111	89		

* Total debt/asset ratio reflects accrued taxes that are not reflected in machinery and land debt.

** Receipts for 1992 are included to indicate the relative importance of each enterprise to the farm; these values do not reflect price and yield risk so they differ from the average annual cash receipts in subsequent tables.

CHARACTERISTICS OF PANEL FARMS PRODUCING MILK - Continued

- MOMD** a 65 cow Southeastern Missouri (Christian County) moderate size dairy farm which has a herd average of 17,500 pounds of milk per cow. The farm grows 97 acres of alfalfa and 121 acres of other hay, and generates about 81 percent of its revenue from milk sales.
- MOLD** a 200 cow Southeastern Missouri (Christian County) large dairy farm which has a herd average of 18,530 pounds of milk per cow. The farm grows 108 acres of silage, 102 acres of alfalfa, 350 acres of other hay, and 40 acres of alfalfa haylage. About 83 percent of the farm's revenue comes from milk sales.
- GAMD** a 200 cow Southern Georgia (Spalding County) moderate size dairy farm which has a herd average of 16,470 pounds of milk per cow. The farm grows 107 acres of silage and 116 acres of other hay. The farm generates about 87 percent of the total revenue from milk sales.
- FLLD** a 1,000 cow South Central Florida (Okeechobee County) large dairy farm which has a herd average of 15,440 pounds of milk per cow. The farm grows 259 acres of silage and 281 acres of other hay. About 89 percent of the farm's total revenue comes from milk sales.

Characteristics of Panel Farms Producing Milk - Continued

	MOMD	MOLD	GAMD	FLLD	
Number of Cows	65	200	200	1000	
Milk per Cow (cwts)	175.0	185.3	164.7	154.4	
Assets		-- (\$1,000) --			
Real Estate	137.1	751.8	484.4	3163.7	
Machinery	112.8	272.4	166.4	281.9	
Livestock	90.7	247.5	260.7	1343.9	
Debt/Asset Ratio*		0.21	0.25	0.43	0.29
Machinery	0.08	0.08	0.13	0.38	
Land	0.33	0.33	0.70	0.24	
Total Acreage		250	600	416	1340
Owned Acres	145	600	300	1340	
Leased Acres	105		116		
1992 Gross Receipts**		-- (\$1,000) --			
Total	173.5	553.3	522.2	2686.5	
Milk	141.4	460.5	456.8	2391.4	
Livestock	27.5	74.7	65.4	294.0	
Crop	4.6	18.1	0.0	1.1	
1992 Planted Acreage		-- (Acres) --			
Total	218.0	600.0	223.0	540.0	
Silage		108.0	107.0	259.0	
Alfalfa Hay	97.0	102.0			
Other Hay	121.0	350.0	116.0	281.0	
Alfalfa Haylage		40.0			
Haylage					
Corn					

* Total debt/asset ratio reflects accrued taxes that are not reflected in machinery and land debt.

** Receipts for 1992 are included to indicate the relative importance of each enterprise to the farm; these values do not reflect price and yield risk so they differ from the average annual cash receipts in subsequent tables.

DAIRY IMPACTS

- FAPRI projects the all milk price to bottom out at \$12.24/cwt for the 1991-92 marketing year before rebounding to \$12.79/cwt by 1995-96. The net cash farm income for the dairies basically follows this price pattern. Dairy incomes decline through 1992 before showing a rebound in 1993. However, increasing feed concentrate and protein prices more than offset increasing all milk prices in 1994-1995.
- Only two of the twenty dairies in the study were able to generate higher net cash farm incomes in 1995 than were generated in 1990. The large California (CALD) and the large Central Texas (CTLD) dairy produced nominal net cash farm incomes in 1995 that were between 6-9 percent higher than in 1990. If adjusted for inflation, all dairies experienced declines in real net cash farm incomes relative to 1990.
- Four dairies experienced near zero or negative net cash farm incomes during the study period. Net cash farm income for the moderate Washington dairy (WAMD) only averaged \$14,240 over the study period while the moderate size operations in East Texas (ETMD), Vermont (VTMD) and Georgia (GAMD) had negative net cash farm incomes of \$3,000, \$10,000 and \$19,000, respectively. These dairy operations are projected to lose from 35 to 67 percent of their real equity if they remain in the dairy business through 1995. Cash expenditures on these dairies approach or exceed \$1 for each \$1 in revenue, thus the farm is not able to generate the minimum \$20,000 family living expense, much less make principal and machinery replacement payments.
- Five more dairies (CTMD, VTLD, NYCM, NYWM and FLLD) show losses in real net worth over the study period. The moderate Central New York dairy loses 14 percent while the others lose less than five percent.
- The large Central Texas dairy experiences the greatest real growth at 146 percent, followed by the large New Mexico (94 percent), large Western New York (61 percent), large California (58 percent), large Washington (31 percent), large Wisconsin (27 percent), large East Texas (26 percent), large Missouri (18 percent), and moderate Missouri (14 percent) dairy farms.
- The results indicate considerable economies of size advantages to the larger farms in each region. Thus, while the moderate dairies are under economic pressure, most of the larger scale operations are able to grow in real terms. These differential economic impacts will likely pose problems as producers, special interests, agribusinesses and politicians attempt to agree on a dairy policy that satisfies all segments of the dairy industry.

Implications of the 1990 Farm Bill and FAPRI January 1992 Baseline on Panel Farms that Produce Milk.

	WAMD	WALD	CALD	NMLD	CTMD	CTLD	ETMD	ETLD
Probability Success (%)	0.0	100.0	100.0	100.0	57.0	100.0	0.0	85.0
Probability of Lower Equity (%)	100.0	0.0	0.0	0.0	50.0	0.0	100.0	2.0
Average Change in Real Net Worth (%)	-35.39	30.77	57.69	94.79	-0.98	145.96	-45.89	25.96
Average Annual Ratio of Expenses to Receipts (%)	96.97	85.69	78.64	77.38	88.96	77.06	100.75	89.44
Average Present Value Ending Net Worth (\$1000)	343.36	2655.73	7881.40	7495.79	739.71	2721.52	287.01	2165.25
Average Annual Cash Receipts (\$1000)	465.62	2456.00	5389.48	4915.79	684.55	1924.63	439.71	2070.36
Average Annual Cash Expenses (\$1000)	451.39	2103.94	4238.41	3803.87	608.81	1482.77	442.77	1850.84
Average Annual Net Cash Income (\$1000)	14.24 (62.12)	352.06 (13.23)	1151.08 (6.62)	1111.92 (5.66)	75.74 (23.68)	441.87 (9.27)	-3.06 (453.93)	219.51 (27.19)
Average Cash Receipts (\$1000)								
1990	486.16	2562.93	5648.55	5083.49	705.26	1986.52	460.52	2145.68
1991	439.66	2322.00	5125.66	4691.01	651.89	1825.23	418.93	1970.03
1992	445.27	2352.02	5186.72	4749.88	663.21	1859.16	421.08	1985.76
1993	462.31	2439.88	5339.52	4899.10	682.88	1918.12	437.47	2066.64
1994	475.34	2505.54	5470.46	5000.41	695.03	1956.71	447.32	2112.36
1995	485.00	2553.61	5565.98	5070.87	709.02	2002.06	452.92	2141.66
Average Net Cash Income (\$1000)								
1990	50.04	444.97	1104.26	1138.49	91.34	453.18	34.63	272.12
1991	11.78	285.63	1050.43	1055.94	62.94	389.25	-6.36	147.91
1992	0.10	276.17	1116.66	1065.02	65.98	404.73	-12.94	157.42
1993	11.36	354.20	1210.90	1138.93	82.02	456.49	-5.18	234.41
1994	10.30	383.28	1223.69	1149.53	79.47	467.98	-8.56	255.25
1995	1.84	368.10	1200.52	1123.63	72.69	479.57	-19.96	249.96

Values in parentheses are coefficients of variation for the preceeding mean value.

Probability of Economic Success - Chance that the farm will earn a return on initial equity greater than 0.058.

Probability of Lower Equity - Chance that the farm will experience a decrease in net worth after adjusting for inflation.

Change in Real Net Worth -Percentage change in real net worth over the simulation period, 1990-1995.

Average Annual Ratio of Expenses to Receipts - Ratio of all cash expenses to all farm receipts including government payments.

Present Value Ending Net Worth - Discounted value of net worth in the last year simulated.

Annual Cash Receipts - Total cash receipts from crops, dairy, livestock, government payments, and other farm related activities.

Annual Cash Expenses - Total cash costs for crops, dairy, and livestock production, including interest costs and fixed cash costs; excludes depreciation.

Annual Net Cash Income - Total cash receipts minus total cash expenses; excludes family living expenses, principal payments, and costs to replace capital assets.

Implications of the 1990 Farm Bill and FAPRI January 1992 Baseline on Panel Farms that Produce Milk.

	WIMD	WILD	VTMD	VTLD	NYCM	NYCL	NYWM	NYWL
Probability Success (%)	100.0	100.0	0.0	54.0	9.0	100.0	22.0	100.0
Probability of Lower Equity (%)	24.0	0.0	100.0	58.0	100.0	0.0	68.0	0.0
Average Change in Real Net Worth (%)	2.15	26.80	-49.22	-1.24	-14.37	14.57	-4.32	60.63
Average Annual Ratio of Expenses to Receipts (%)	57.81	69.71	106.47	87.00	85.42	79.26	91.44	74.58
Average Present Value Ending Net Worth (\$1000)	313.63	984.03	267.63	841.35	477.93	802.79	1538.08	4572.52
Average Annual Cash Receipts (\$1000)	121.24	476.75	160.85	512.73	284.80	485.44	1374.19	2741.81
Average Annual Cash Expenses (\$1000)	70.07	332.26	171.21	445.99	243.17	384.61	1256.11	2044.23
Average Annual Net Cash Income (\$1000)	51.17 (3.86)	144.49 (5.01)	-10.36 (25.00)	66.75 (12.11)	41.63 (13.45)	100.83 (10.70)	118.08 (24.86)	697.58 (8.24)
Average Cash Receipts (\$1000)								
1990	126.12	491.60	166.74	529.14	292.68	501.00	1418.78	2858.84
1991	114.89	448.73	152.93	485.51	268.56	459.62	1299.71	2593.84
1992	117.03	461.08	155.27	494.43	275.15	468.11	1323.84	2635.3
1993	120.75	476.23	160.08	510.60	285.14	484.29	1372.22	2728.03
1994	123.58	488.67	163.48	522.75	290.73	495.19	1402.03	2791.11
1995	125.05	494.18	166.60	533.97	296.55	504.41	1428.57	2843.66
Average Net Cash Income (\$1000)								
1990	55.46	168.00	12.20	100.29	58.22	126.43	244.12	891.76
1991	47.19	130.55	-2.51	62.45	35.40	86.28	123.69	669.05
1992	49.88	134.57	-10.64	52.94	37.38	89.89	63.78	594.36
1993	51.40	143.93	-12.24	64.13	44.22	100.28	108.23	686.85
1994	50.85	146.74	-20.32	62.58	41.31	103.84	98.34	688.84
1995	52.22	143.13	-28.67	58.09	33.23	98.26	70.31	654.59

Values in parentheses are coefficients of variation for the preceding mean value.

Probability of Economic Success - Chance that the farm will earn a return on initial equity greater than 0.058.

Probability of Lower Equity - Chance that the farm will experience a decrease in net worth after adjusting for inflation.

Change in Real Net Worth - Percentage change in real net worth over the simulation period, 1990-1995.

Average Annual Ratio of Expenses to Receipts - Ratio of all cash expenses to all farm receipts including government payments.

Present Value Ending Net Worth - Discounted value of net worth in the last year simulated.

Annual Cash Receipts - Total cash receipts from crops, dairy, livestock, government payments, and other farm related activities.

Annual Cash Expenses - Total cash costs for crops, dairy, and livestock production, including interest costs and fixed cash costs; excludes depreciation.

Annual Net Cash Income - Total cash receipts minus total cash expenses; excludes family living expenses, principal payments, and costs to replace capital assets.

Implications of the 1990 Farm Bill and FAPRI January 1992 Baseline on Panel Farms that Produce Milk.

	MOMD	MOLD	GAMD	FLLD
Probability Success (%)	100.0	100.0	0.0	8.0
Probability of Lower Equity (%)	0.0	0.0	100.0	48.0
Average Change in Real Net Worth (%)	13.70	18.06	-67.42	-0.18
Average Annual Ratio of Expenses to Receipts (%)	69.66	75.71	103.48	93.54
Average Present Value Ending Net Worth (\$1000)	302.94	1134.28	163.87	3415.68
Average Annual Cash Receipts (\$1000)	180.52	577.24	544.41	2793.08
Average Annual Cash Expenses (\$1000)	125.73	436.96	563.34	2612.62
Average Annual Net Cash Income (\$1000)	54.80 (5.15)	140.28 (5.31)	-18.93 (34.50)	180.46 (28.10)
Average Cash Receipts (\$1000)				
1990	187.57	599.34	558.96	2853.00
1991	172.11	548.50	516.62	2656.48
1992	174.55	557.35	527.16	2706.42
1993	179.26	572.62	543.02	2794.38
1994	183.42	587.31	554.88	2845.15
1995	186.22	598.30	565.83	2903.05
Average Net Cash Income (\$1000)				
1990	67.17	177.42	34.41	340.40
1991	53.16	129.21	-7.20	156.87
1992	48.19	126.50	-26.98	115.57
1993	52.96	135.15	-19.97	166.91
1994	54.73	137.63	-37.65	175.58
1995	52.55	135.76	-56.17	127.43

Values in parentheses are coefficients of variation for the preceeding mean value.

Probability of Economic Success - Chance that the farm will earn a return on initial equity greater than 0.058.

Probability of Lower Equity - Chance that the farm will experience a decrease in net worth after adjusting for inflation.

Change in Real Net Worth - Percentage change in real net worth over the simulation period, 1990-1995.

Average Annual Ratio of Expenses to Receipts - Ratio of all cash expenses to all farm receipts including government payments.

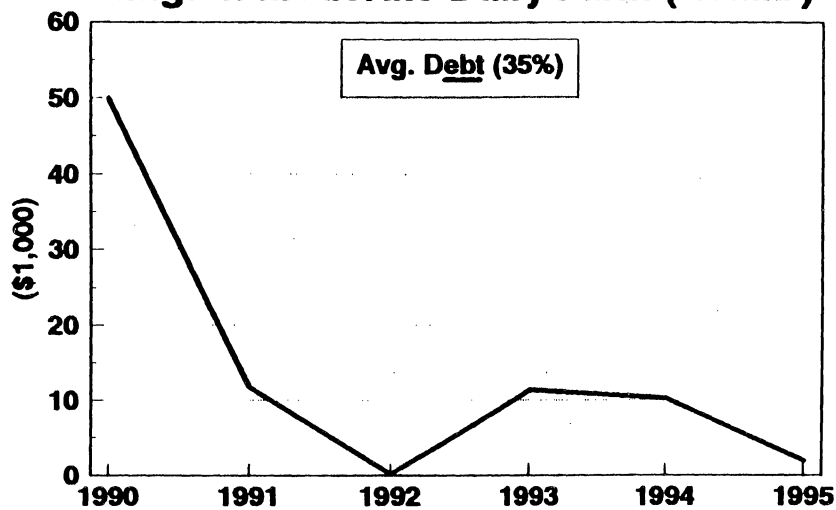
Present Value Ending Net Worth - Discounted value of net worth in the last year simulated.

Annual Cash Receipts - Total cash receipts from crops, dairy, livestock, government payments, and other farm related activities.

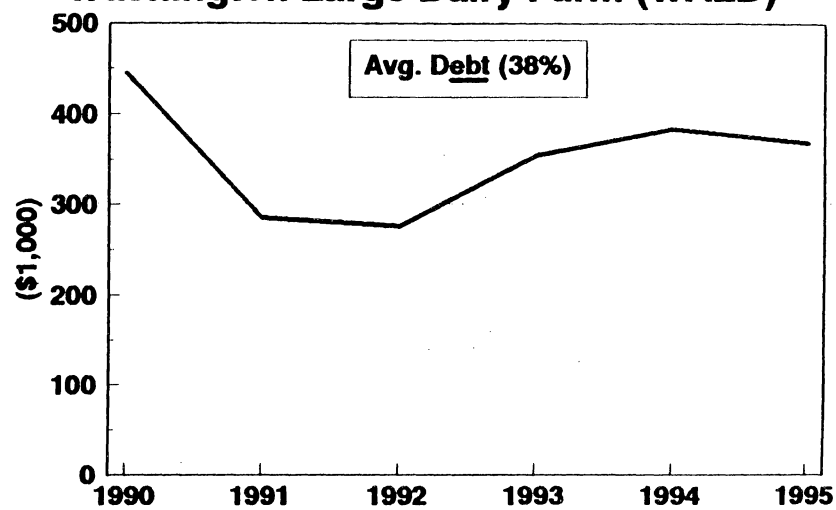
Annual Cash Expenses - Total cash costs for crops, dairy, and livestock production, including interest costs and fixed cash costs; excludes depreciation.

Annual Net Cash Income - Total cash receipts minus total cash expenses; excludes family living expenses, principal payments, and costs to replace capital assets.

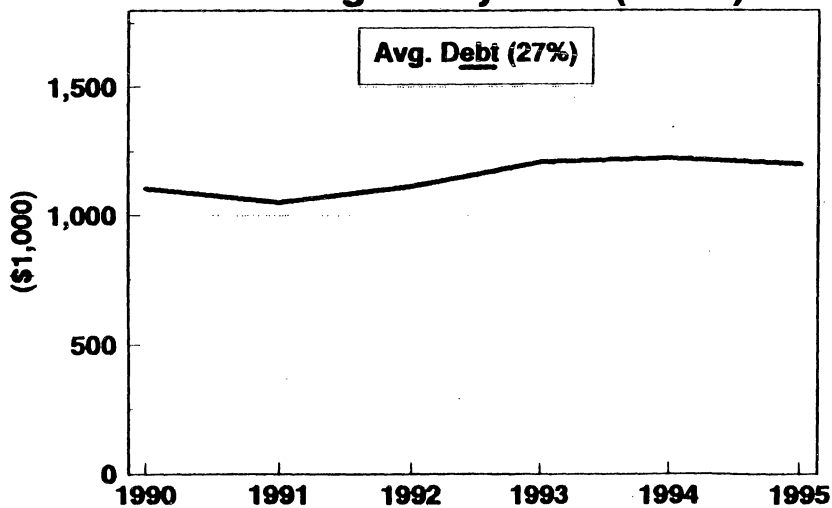
Net Cash Farm Income
Washington Moderate Dairy Farm (WAMD)



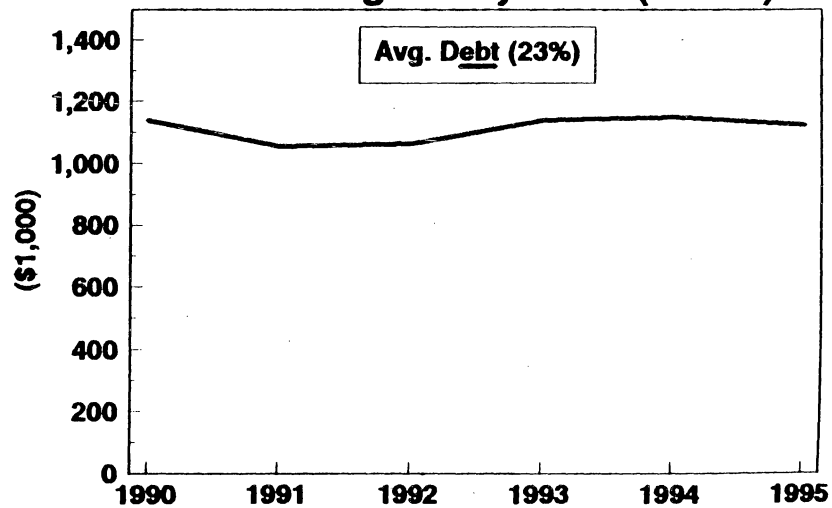
Net Cash Farm Income
Washington Large Dairy Farm (WALD)



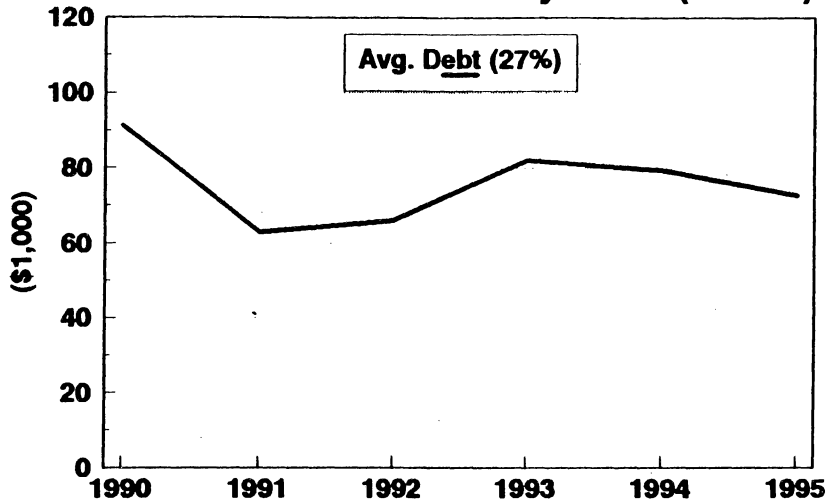
Net Cash Farm Income
California Large Dairy Farm (CALD)



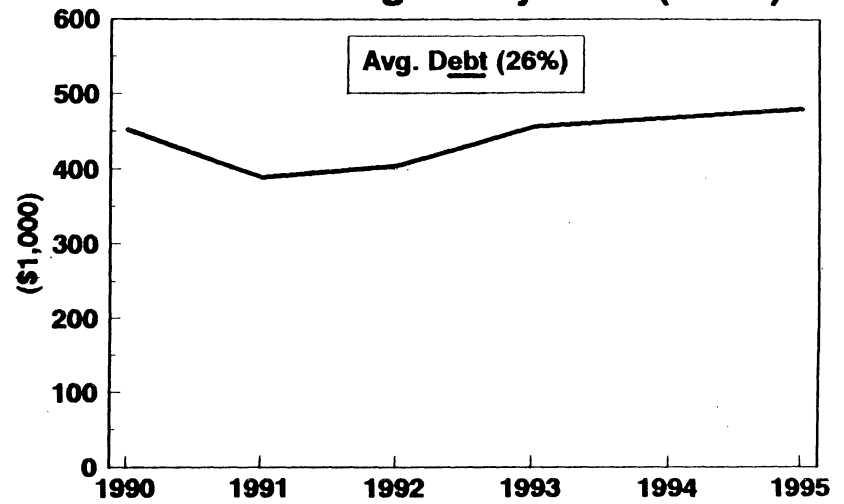
Net Cash Farm Income
New Mexico Large Dairy Farm (NMLD)



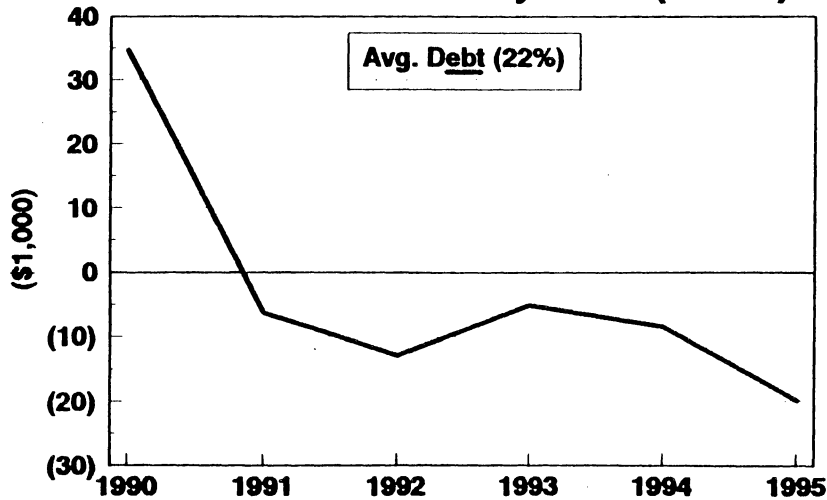
**Net Cash Farm Income
Central Texas Moderate Dairy Farm (CTMD)**



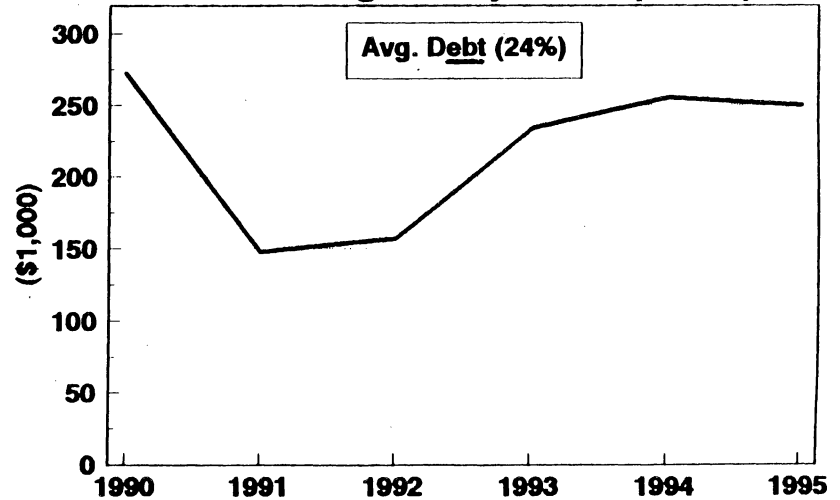
**Net Cash Farm Income
Central Texas Large Dairy Farm (CTLTD)**



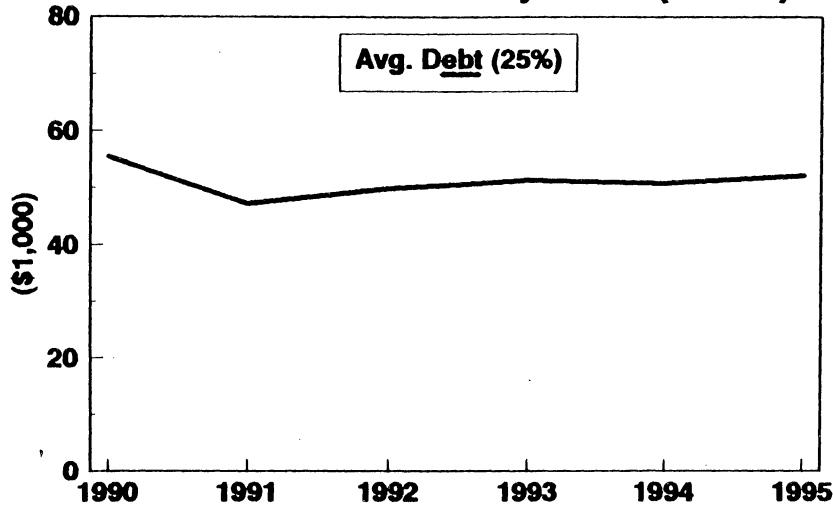
**Net Cash Farm Income
East Texas Moderate Dairy Farm (ETMD)**



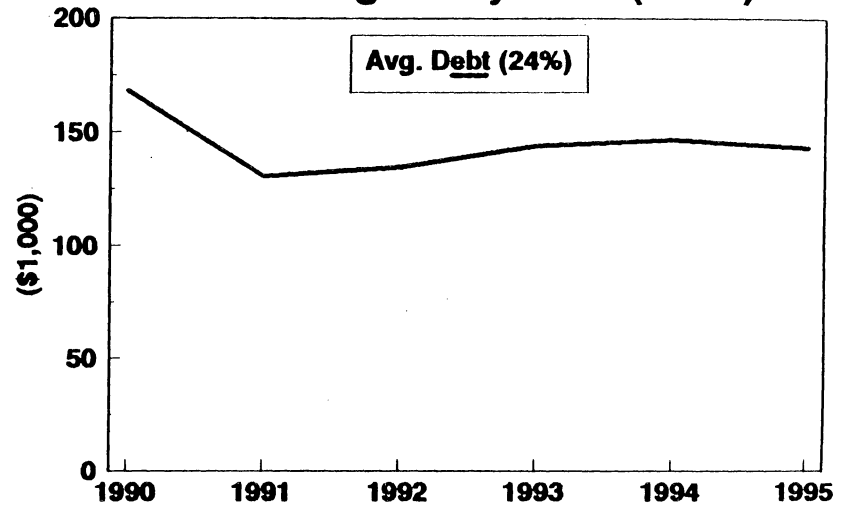
**Net Cash Farm Income
East Texas Large Dairy Farm (ETLTD)**



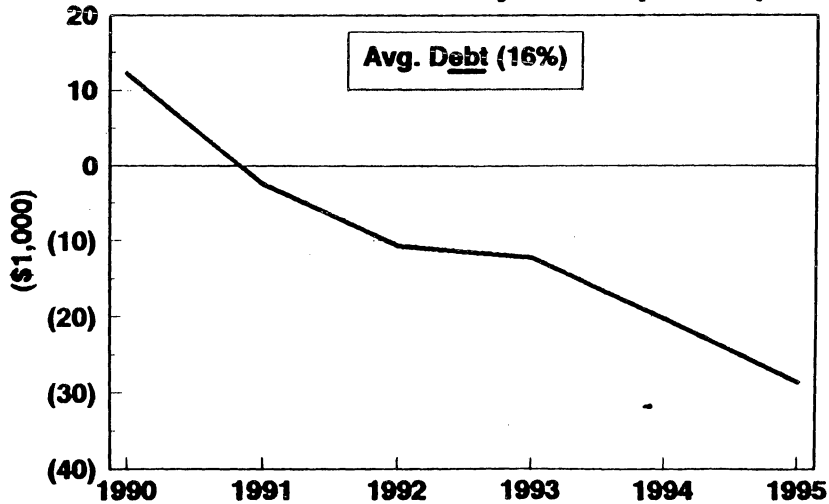
**Net Cash Farm Income
Wisconsin Moderate Dairy Farm (WIMD)**



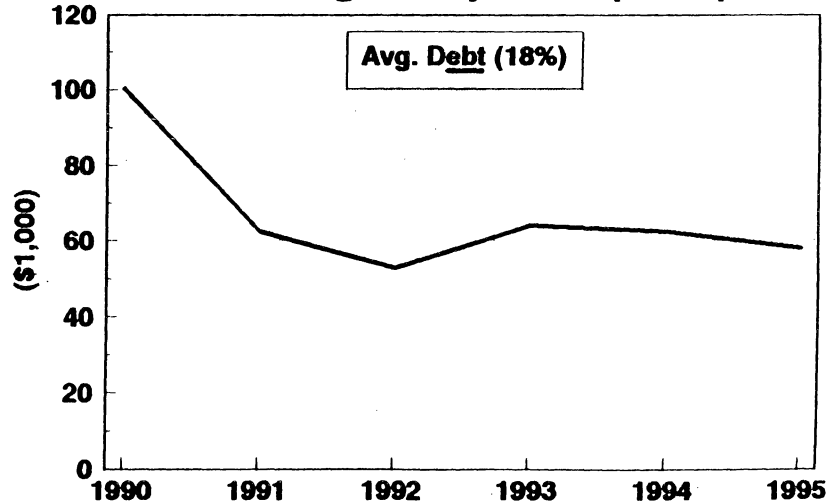
**Net Cash Farm Income
Wisconsin Large Dairy Farm (WILD)**



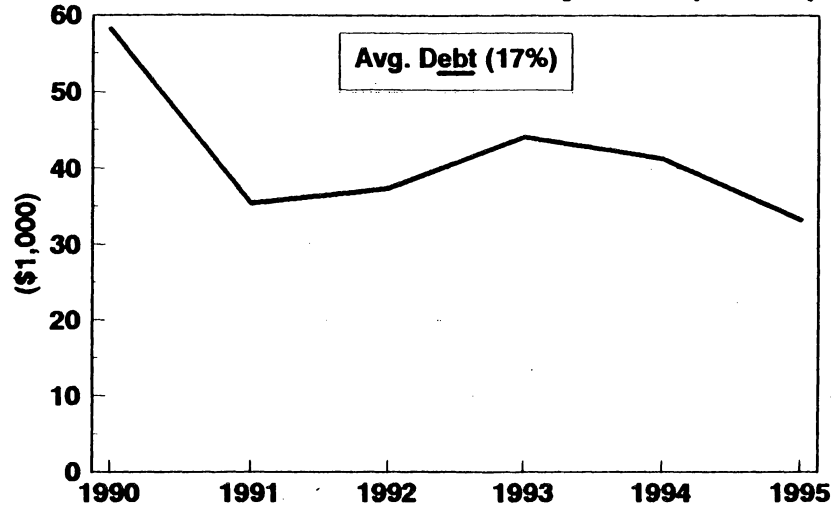
**Net Cash Farm Income
Vermont Moderate Dairy Farm (VTMD)**



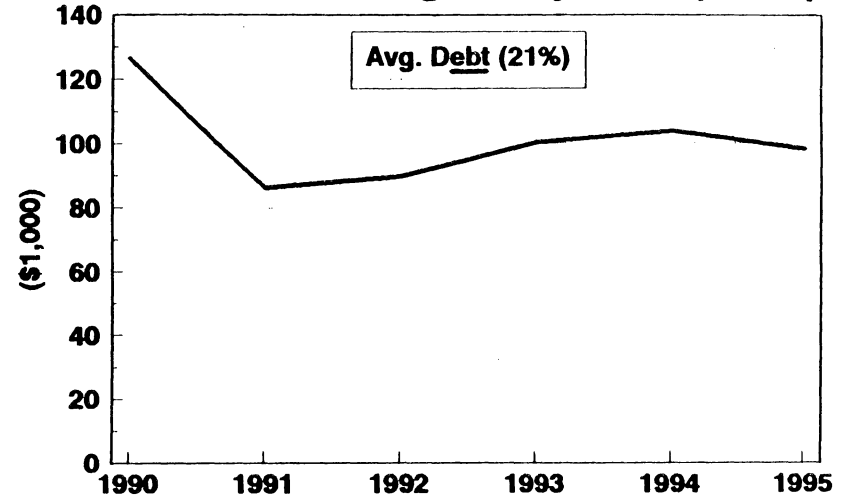
**Net Cash Farm Income
Vermont Large Dairy Farm (VTLD)**



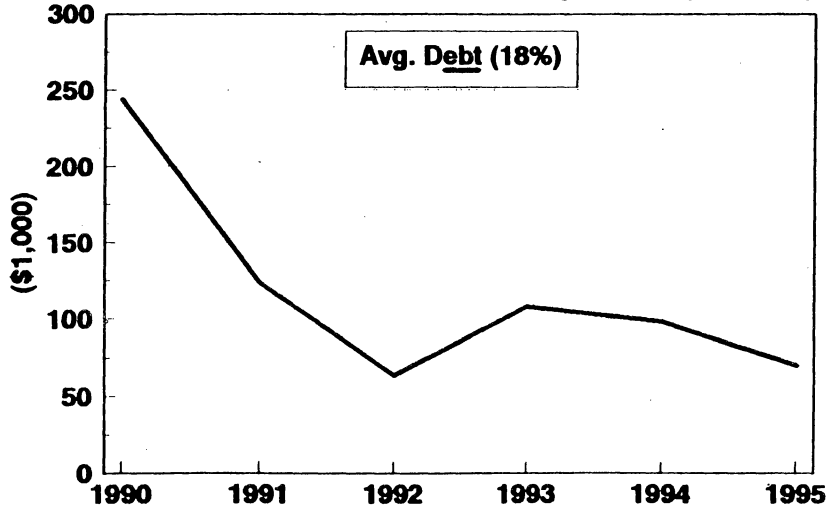
Net Cash Farm Income
Central New York Moderate Dairy Farm (NYCM)



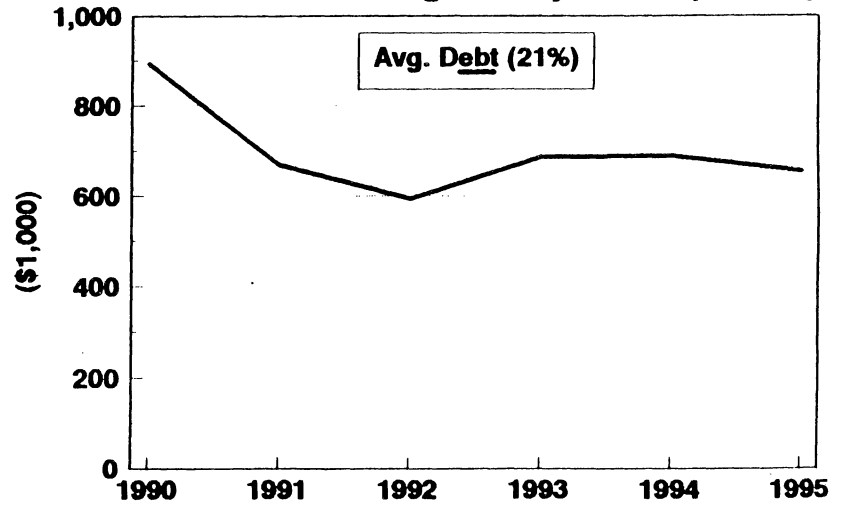
Net Cash Farm Income
Central New York Large Dairy Farm (NYCL)



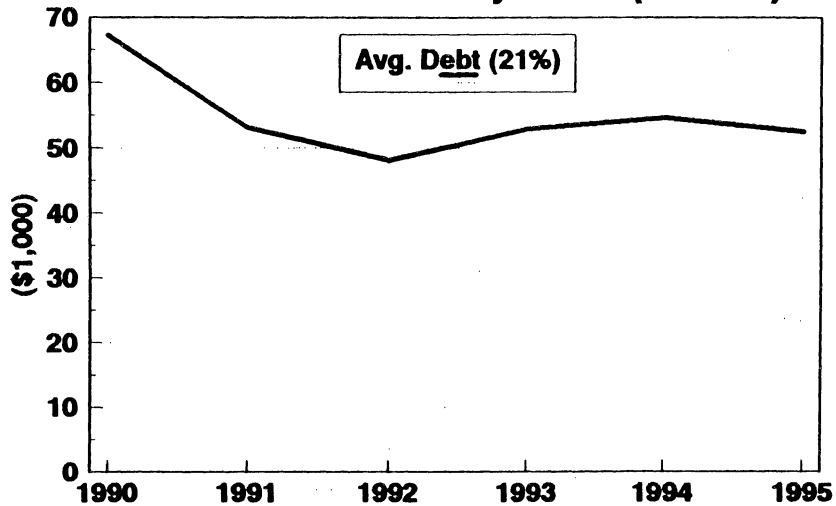
Net Cash Farm Income
Western New York Moderate Dairy Farm (NYWM)



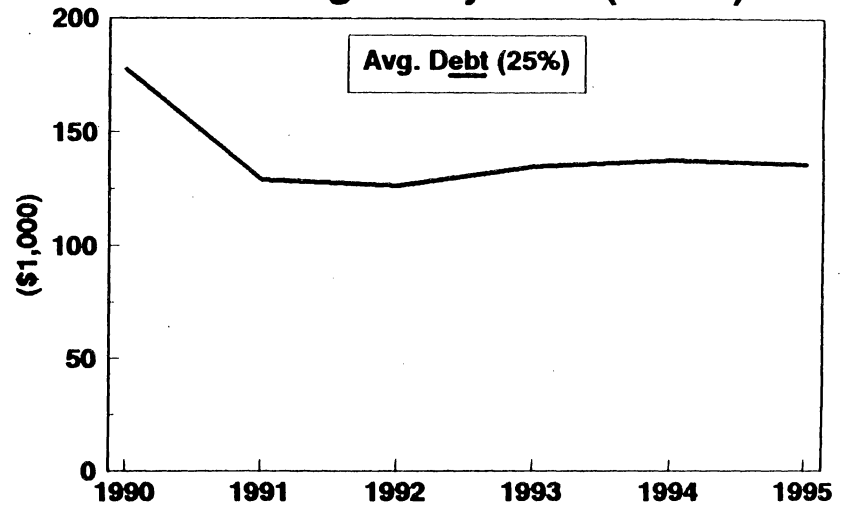
Net Cash Farm Income
Western New York Large Dairy Farm (NYWL)



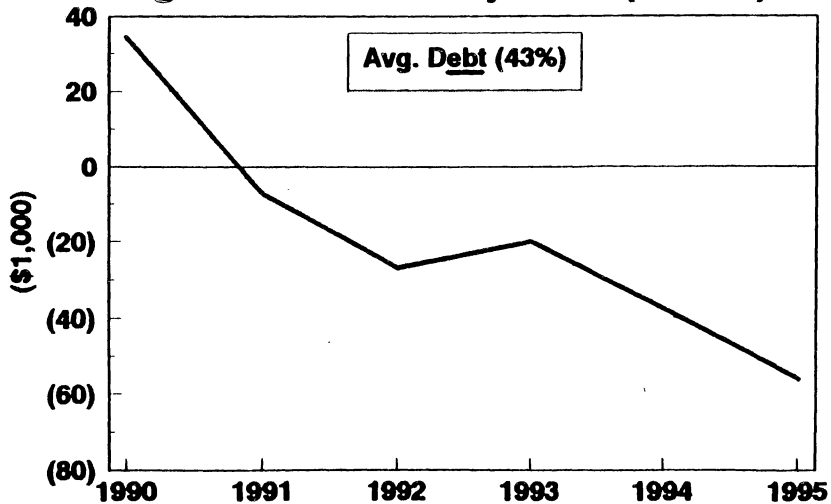
**Net Cash Farm Income
Missouri Moderate Dairy Farm (MOMD)**



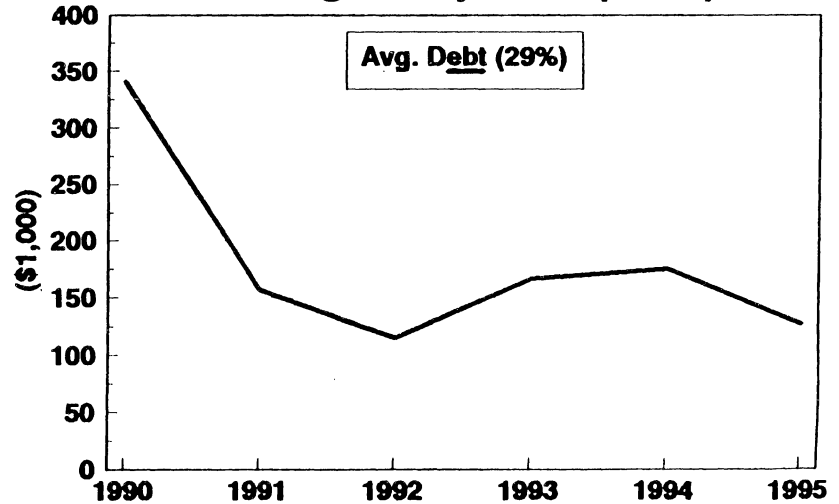
**Net Cash Farm Income
Missouri Large Dairy Farm (MOLD)**



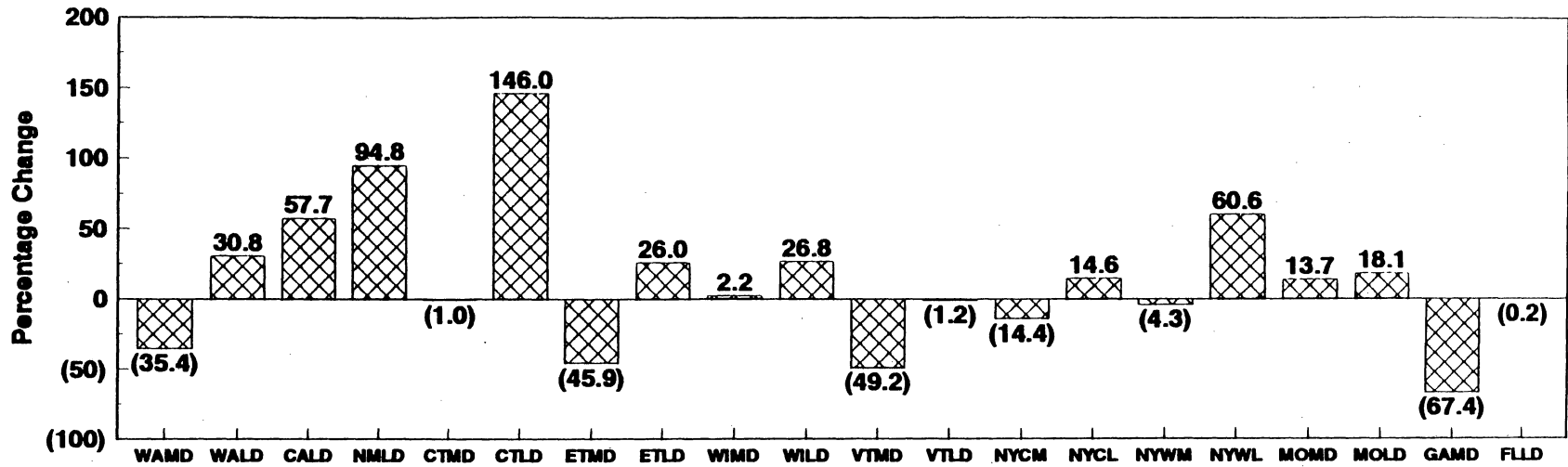
**Net Cash Farm Income
Georgia Moderate Dairy Farm (GAMD)**



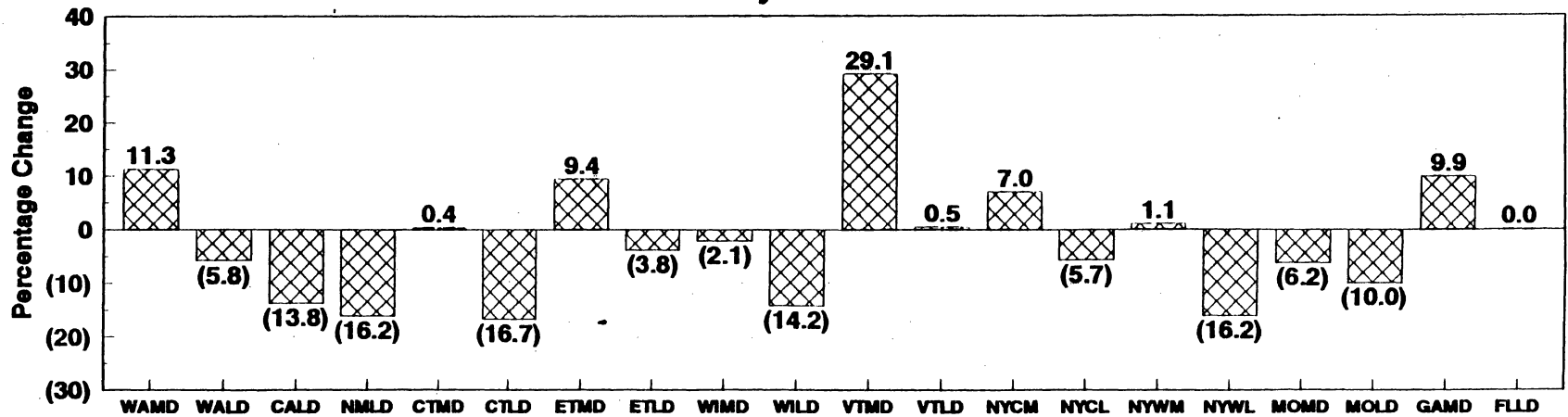
**Net Cash Farm Income
Florida Large Dairy Farm (FLLD)**



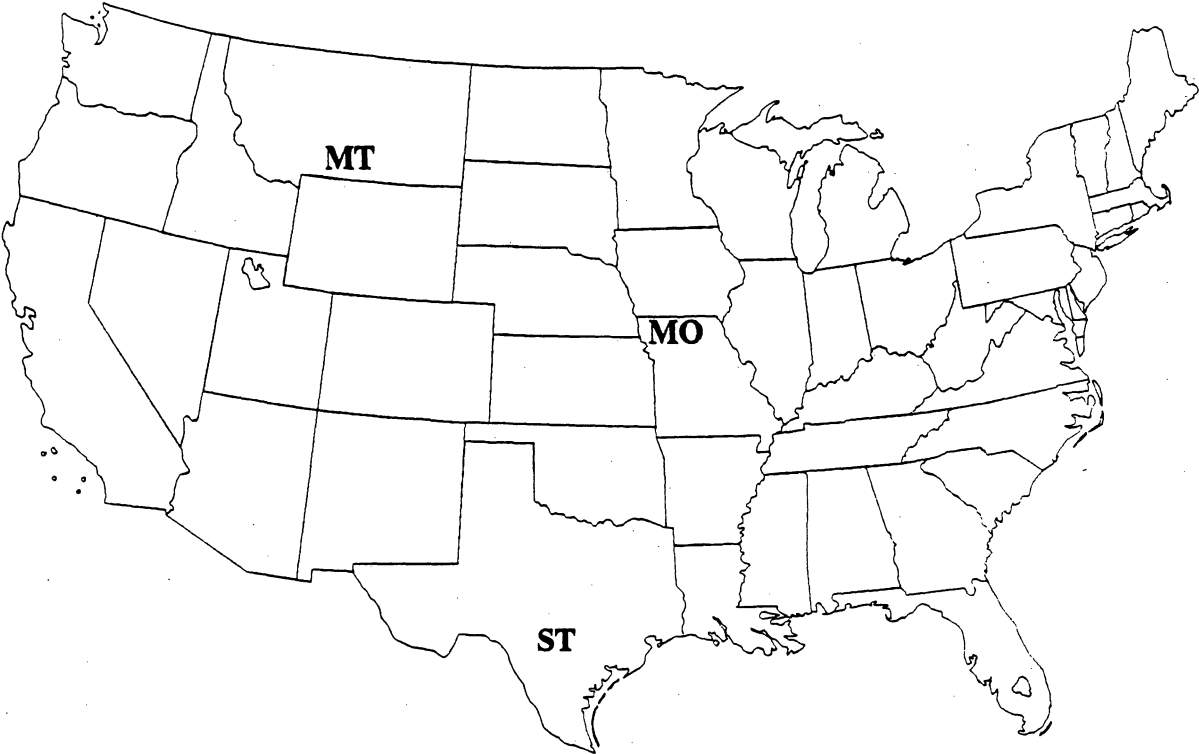
Real Change in Net Worth for All Dairy Farms, 1990-1995.



Annual Percentage Change in Receipts Needed to Maintain Real Net Worth from 1990 to 1995: Dairy Farms



Panel Farms Producing Beef Cattle



CHARACTERISTICS OF PANEL FARMS PRODUCING BEEF CATTLE

- MTLC** a large Southeastern Montana (Custer County) cow/calf ranch with 400 mother cows. The ranch owns 14,000 acres and leases 6,000 acres. All of the receipts come from the cow/calf operation.
- MOMC** a moderate Missouri (Nodaway County) cow/calf operation with 150 mother cows. The operation also has 80 sows and in 1992, grows 350 acres of soybeans, 270 acres of corn, 150 acres of alfalfa, and 38 acres of wheat. Cattle sales account for 29 percent of gross receipts.
- STLC** a large South Texas (Gonzales County) cow/calf ranch with 400 cows. The operation owns 2,800 acres of which 300 are planted to hay and 300 are planted to oats. All of the receipts on the ranch are generated by cattle sales.

Characteristics of Panel Farms Producing Beef Cattle

	MTLC	MOMC	STLC
Total Acreage	20,000	1500	2800
Owned Acres	14,000	750	2800
Leased Acres	6,000	750	0
<hr/>			
Assets	---(\$1,000)--		
Real Estate	700.0	752.5	2090.0
Machinery	93.0	239.2	57.1
Livestock,Other	367.7	182.2	381.5
<hr/>			
Livestock Numbers			
Number of Cows	400	150	400
Number of Sows	0	80	0
<hr/>			
Debt/Asset Ratio*	0.14	0.19	0.05
Machinery	0.03	0.30	0.05
Land	0.18	0.10	0.05
<hr/>			
1992 Gross Receipts**	---(\$1,000)---		
Total	180.0	288.8	201.8
Cattle	180.0	84.6	201.8
Hog	0.0	121.6	0.0
Crop	0.0	82.6	0.0
<hr/>			
1992 Planted Acreage	---(Acres)---		
Total	300	808	600
Oats			300
Hay	300		300
Alfalfa		150	
Wheat		38	
Corn		270	
Soybean		350	

* Total debt/asset ratio reflects accrued taxes that are not reflected in machinery and land debt.

** Receipts for 1992 are included to indicate the relative importance of each enterprise to the farm; these values do not reflect price and yield risk so they differ from the average annual cash receipts in subsequent tables.

BEEF CATTLE IMPACTS

- Both the Montana and South Texas cow/calf operations experience significant declines in net cash farm incomes over the study period due to an 11 percent projected drop in feeder prices and an 18 percent decline in cow prices. The ranches lose 5 percent and 11 percent of their real equity over the period.
- The Missouri operation relies heavily on its hog and crop production to buffer much of the declines apparent in the cattle enterprises. Nominal net cash farm income on this farm remains stable and the farm experiences real growth of 7 percent.

Implications of the 1990 Farm Bill and FAPRI January 1992 Baseline on Panel Farms that Produce Beef Cattle.

	MTLC	MOMC	STLC
Probability Success (%)	74.0	99.0	0.0
Probability of Lower Equity (%)	92.0	1.0	100.0
Average Change in Real Net Worth (%)	-4.48	7.05	-10.57
Average Annual Ratio of Expenses to Receipts (%)	67.82	75.56	89.98
Average Present Value Ending Net Worth (\$1000)	958.12	1016.40	2148.65
Average Annual Cash Receipts (\$1000)	172.31	308.49	197.72
Average Annual Cash Expenses (\$1000)	116.77	232.98	177.73
Average Annual Net Cash Income (\$1000)	55.54 (9.10)	75.51 (9.87)	19.98 (32.86)
Average Cash Receipts (\$1000)			
1990	182.88	318.98	210.20
1991	179.71	295.85	206.00
1992	174.51	290.17	199.96
1993	170.71	298.20	195.66
1994	165.61	317.90	190.14
1995	160.45	329.84	184.36
Average Net Cash Income (\$1000)			
1990	61.57	89.00	39.58
1991	64.30	69.08	35.84
1992	63.87	61.53	28.82
1993	54.81	63.85	19.14
1994	49.02	81.10	5.64
1995	39.64	88.48	-9.12

Values in parentheses are coefficients of variation for the preceding mean value.

Probability of Economic Success - Chance that the farm will earn a return on initial equity greater than 0.058.

Probability of Lower Equity - Chance that the farm will experience a decrease in net worth after adjusting for inflation.

Change in Real Net Worth - Percentage change in real net worth over the simulation period, 1990-1995.

Average Annual Ratio of Expenses to Receipts - Ratio of all cash expenses to all farm receipts including government payments.

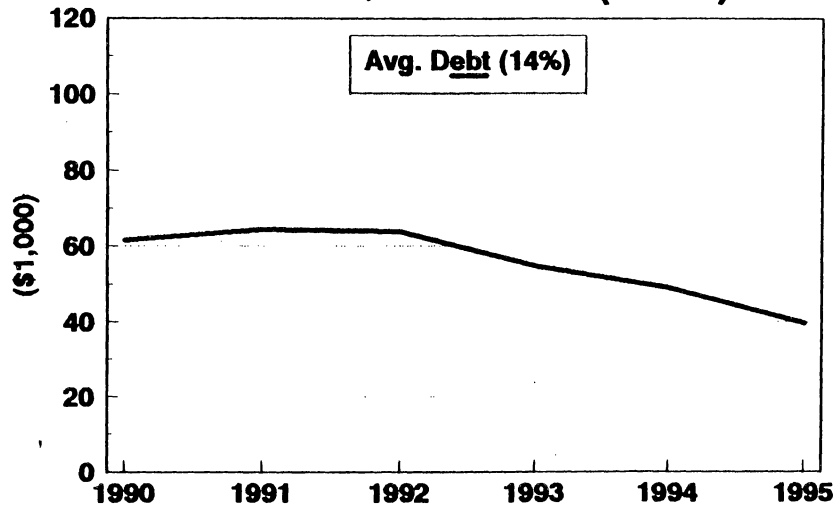
Present Value Ending Net Worth - Discounted value of net worth in the last year simulated.

Annual Cash Receipts - Total cash receipts from crops, dairy, livestock, government payments, and other farm related activities.

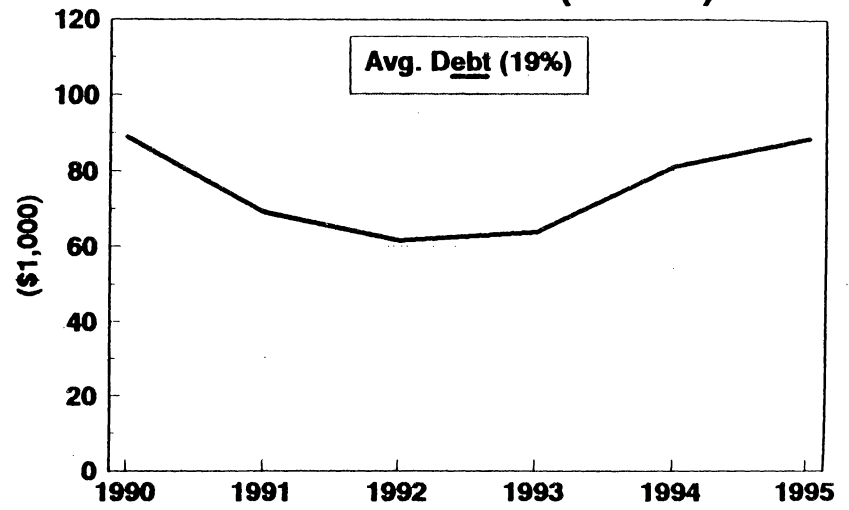
Annual Cash Expenses - Total cash costs for crops, dairy, and livestock production, including interest costs and fixed cash costs; excludes depreciation.

Annual Net Cash Income - Total cash receipts minus total cash expenses; excludes family living expenses, principal payments, and costs to replace capital assets.

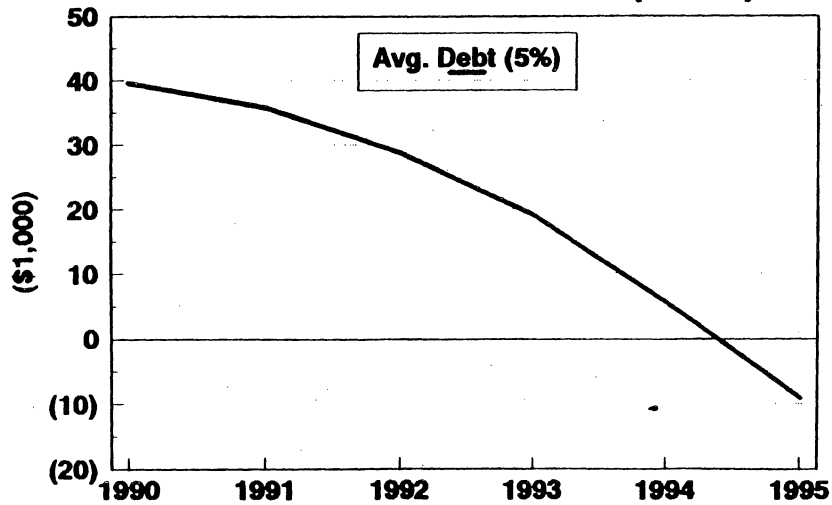
**Net Cash Farm Income
Montana Cow/Calf Ranch (MTLC)**



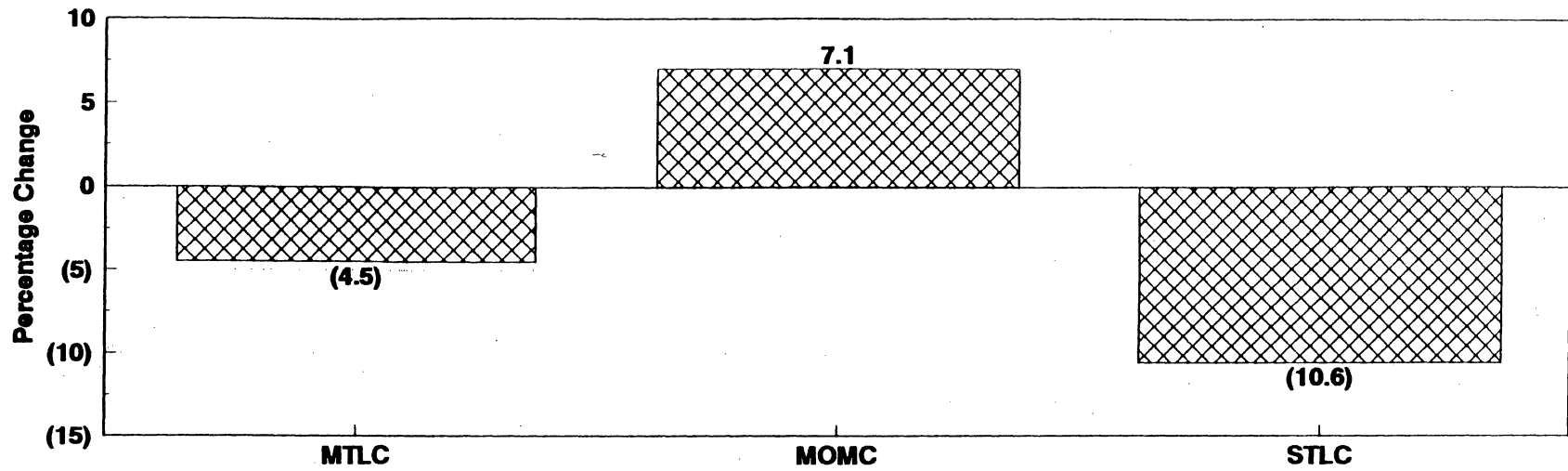
**Net Cash Farm Income
Missouri Cattle Ranch (MOMC)**



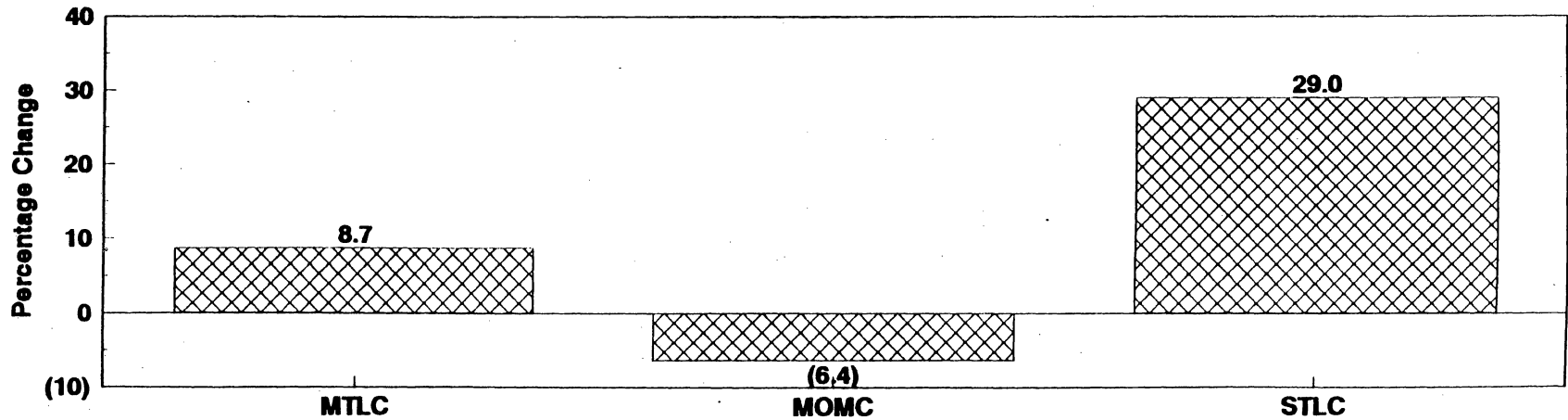
**Net Cash Farm Income
South Texas Cow/Calf Ranch (STLC)**



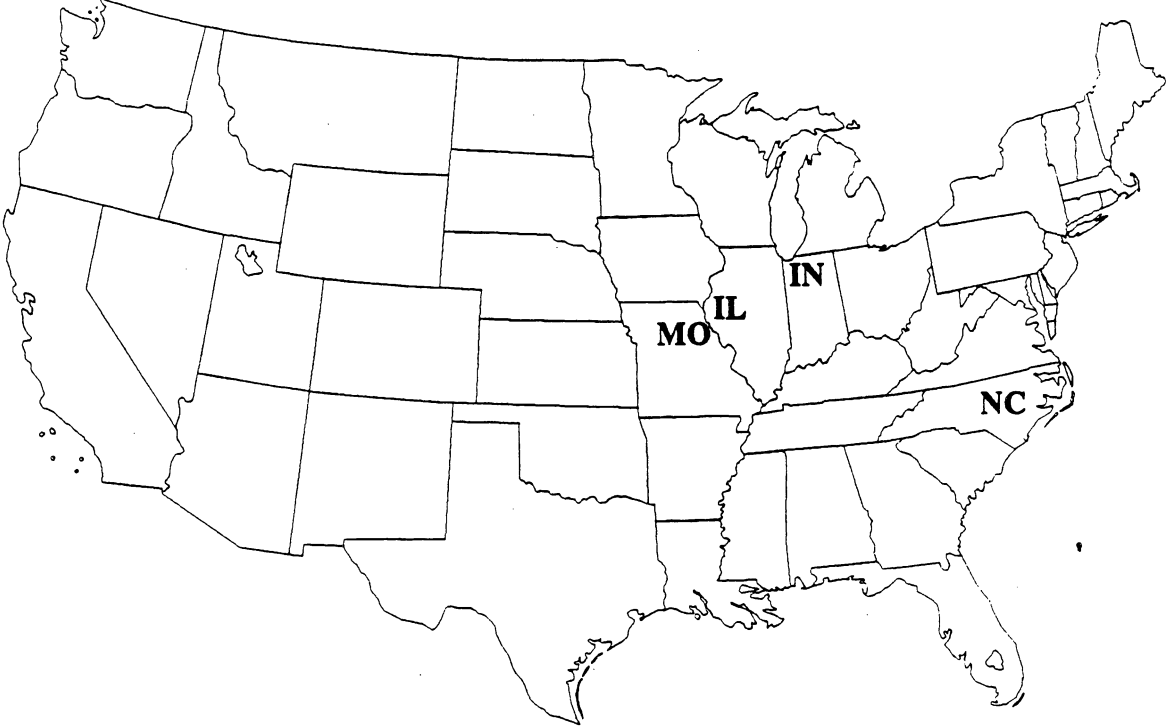
Real Change in Net Worth for All Cattle Ranches, 1990-1995



Annual Percentage Change in Receipts Needed to Maintain Real Net Worth from 1990 to 1995: Cattle Ranches



Panel Farms Producing Hogs



CHARACTERISTICS OF PANEL FARMS PRODUCING HOGS

- MOMH** a moderate size North Central Missouri (Carroll County) hog farm with 75 sows. In 1992, the farm grows 160 acres of corn, 80 acres of soybeans, 80 acres of wheat, and 40 acres of hay. The farm also has 25 mother cows. Hogs generate about 72 percent of gross receipts for the farm.
- MOLH** a large North Central Missouri (Carroll County) hog farm with 225 sows. The farm grows 333 acres of corn, 333 acres of soybeans, and 333 acres of wheat in 1992. The farm generates about 73 percent of its total receipts from hogs.
- ILMH** a moderate size Western Illinois (Knox County) hog farm with 200 sows. The farm grows 500 acres of corn, 350 acres of soybeans, 25 acres of wheat, and 17 acres of alfalfa in 1992. About 79 percent of gross receipts for the farm come from hogs.
- ILLH** a large Western Illinois (Knox County) hog farm with 400 sows. The farm grows 720 acres of corn and 600 acres of soybeans in 1992. About 83 percent of cash receipts are generated by the hog enterprise.
- INMH** a moderate size hog farm in North Central Indiana (Carroll County) with 150 sows. In 1992, the farm grows 600 acres of corn, 175 acres of soybeans, and 25 acres of wheat. The farm generates about 58 percent of the gross receipts from hogs.
- INLH** a large hog farm in North Central Indiana (Carroll County) with 600 sows. In 1992, the farm grows 1,800 acres of corn, 400 acres of soybeans, and 50 acres of wheat. Hog sales account for about 67 percent of total receipts for the farm.
- NCMH** a moderate size hog farm in Eastern North Carolina (Wayne County) with 350 sows. The farm grows 30 acres of hay to dispose of waste from the farrow-to-finish hog operation. About 99 percent of gross receipts come from the sale of hogs.
- NCLH** a large hog farm in Eastern North Carolina (Wayne County) with 10,000 sows. The operation contracts with individual farmers who provide on-site management, labor, and facilities. All receipts are generated from the sale of hogs.

Characteristics of Panel Farms Producing Hogs

	MOMH	MOLH	ILMH	ILLH	INMH	INLH	NCMH	NCLH
Total Acreage	430	1020	950	1500	800	2250	50	0
Owned Acres	320	520	350	750	280	1125	50	0
Leased Acres	110	500	600	750	520	1125	0	0

Assets	-- (\$1,000) --							
Real Estate	302.0	695.0	930.0	1987.5	750.0	2975.0	712.5	0.0
Machinery	86.5	289.2	358.3	382.0	280.2	834.2	69.3	20.0
Livestock, Other	40.5	67.2	58.9	109.2	50.8	162.1	120.2	2441.3

Livestock Numbers								
Number of Sows	75	225	200	400	150	600	350	10000
Number of Cows	25	0	0	0	0	0	0	0

Debt/Asset Ratio*	0.21	0.22	0.20	0.21	0.26	0.21	0.25	0.58
Machinery	0.10	0.10	0.05	0.05	0.10	0.10	0.21	0.21
Land	0.30	0.30	0.21	0.21	0.23	0.23	0.21	0.21

1992 Gross Receipts**	-- (\$1,000) --							
Total	162.8	474.5	412.3	864.1	436.6	1631.7	611.8	18268.1
Hog	116.5	348.4	325.1	715.1	251.6	1096.2	603.6	18268.1
Crop	34.1	126.1	87.2	149.0	185.0	535.5	8.2	0.0
Cattle	12.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0

1992 Planted Acreage	-- (Acres) --							
Total	360	999	892	1,320	800	2,250	30	0
Corn	160	333	500	720	600	1800		
Soybean	80	333	350	600	175	400		
Wheat	80	333	25		25	50		
Hay	40		17				30	

* Total debt/asset ratio reflects accrued taxes that are not reflected in machinery and land debt.

** Receipts for 1992 are included to indicate the relative importance of each enterprise to the farm; these values do not reflect price and yield risk so they differ from the average annual cash receipts in subsequent tables.

HOG IMPACTS

- Net cash farm incomes on all hog farms follow the hog price pattern projected by FAPRI. All farms are able to weather the drop in hog prices through 1992 and experience a sharp rebound through 1995.
- All eight hog farms experience real growth in excess of 30 percent over the study period. The large Indiana (INLH) operation grows by 71 percent, combining a relatively low cash expense to revenue relationship with receipts of approximately \$2 million.
- The large North Carolina (NCLH) farm earns more than the reported 67 percent increase in real net worth because the owners draw cash reserves down to \$2 million each year.

Implications of the 1990 Farm Bill and FAPRI January 1992 Baseline on Panel Farms that Produce Hogs.

	MOMH	MOLH	ILMH	ILLH	INMH	INLH	NCMH	NCLH
Probability Success (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.0
Probability of Lower Equity (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0
Average Change in Real Net Worth (%)	30.10	55.39	33.70	40.35	36.90	70.87	52.24	67.54
Average Annual Ratio of Expenses to Receipts (%)	61.82	62.44	61.76	71.94	54.11	61.87	77.12	87.90
Average Present Value Ending Net Worth (\$1000)	442.19	1274.39	1442.91	2742.50	1101.77	5376.91	1034.96	3259.12
Average Annual Cash Receipts (\$1000)	186.45	544.94	484.34	1012.05	489.58	1877.51	742.08	21889.51
Average Annual Cash Expenses (\$1000)	115.20	340.10	298.82	727.66	264.86	1161.25	571.88	19215.08
Average Annual Net Cash Income (\$1000)	71.25 (7.16)	204.83 (7.14)	185.52 (8.86)	284.39 (11.38)	224.72 (3.88)	716.26 (5.38)	170.21 (15.75)	2674.43 (34.71)
Average Cash Receipts (\$1000)								
1990	199.53	583.58	512.59	1096.58	517.74	1990.33	817.08	24228.13
1991	179.90	527.55	465.32	994.28	461.85	1799.49	733.72	21812.00
1992	164.40	475.93	422.09	868.39	439.57	1641.72	616.01	18398.72
1993	172.17	502.52	445.43	919.23	464.45	1755.99	664.66	19771.62
1994	194.26	570.42	507.53	1051.03	510.40	1969.39	776.75	22936.30
1995	208.45	609.63	553.10	1142.78	543.47	2108.14	844.27	24922.26
Average Net Cash Income (\$1000)								
1990	86.91	246.09	223.35	393.88	259.94	861.36	256.08	5494.30
1991	68.36	192.37	179.26	274.19	206.75	681.00	162.88	2859.90
1992	51.85	147.76	127.50	158.55	177.29	497.52	63.06	-327.79
1993	58.06	165.22	144.53	188.26	198.00	592.27	94.37	561.07
1994	74.98	219.55	198.89	302.05	240.15	780.94	193.41	3220.83
1995	87.33	258.02	239.62	389.42	266.22	884.49	251.42	4893.29

Values in parentheses are coefficients of variation for the preceeding mean value.

Probability of Economic Success - Chance that the farm will earn a return on initial equity greater than 0.058.

Probability of Lower Equity - Chance that the farm will experience a decrease in net worth after adjusting for inflation.

Change in Real Net Worth -Percentage change in real net worth over the simulation period, 1990-1995.

Average Annual Ratio of Expenses to Receipts - Ratio of all cash expenses to all farm receipts including government payments.

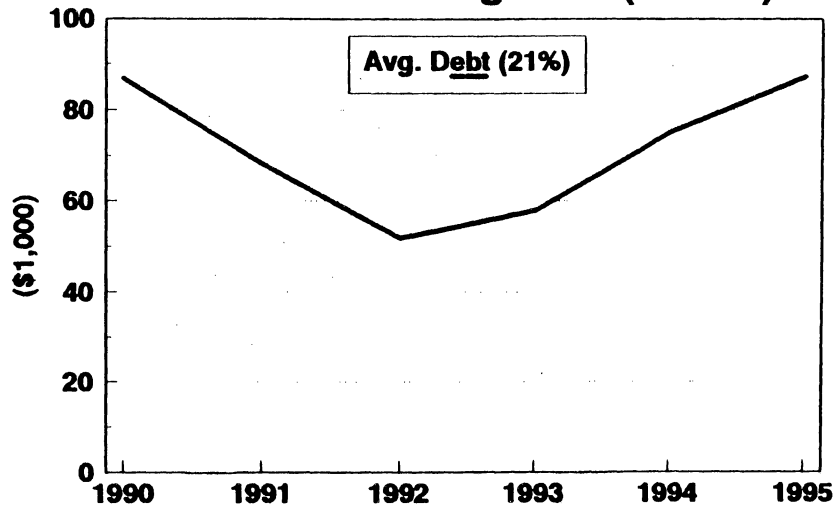
Present Value Ending Net Worth - Discounted value of net worth in the last year simulated.

Annual Cash Receipts - Total cash receipts from crops, dairy, livestock, government payments, and other farm related activities.

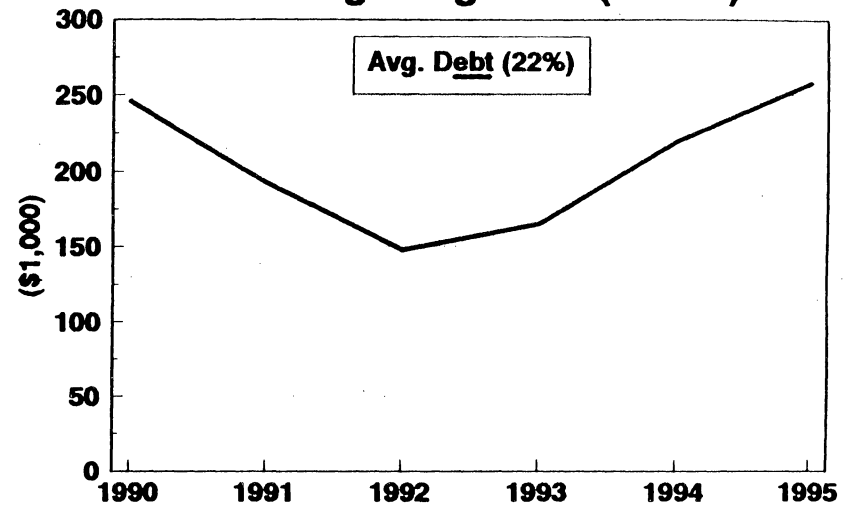
Annual Cash Expenses - Total cash costs for crops, dairy, and livestock production, including interest costs and fixed cash costs; excludes depreciation.

Annual Net Cash Income - Total cash receipts minus total cash expenses; excludes family living expenses, principal payments, and costs to replace capital assets.

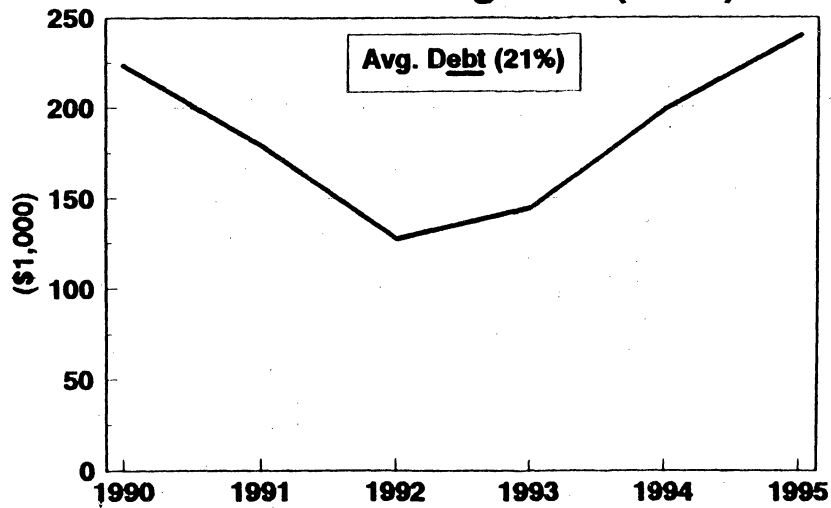
**Net Cash Farm Income
Missouri Moderate Hog Farm (MOMH)**



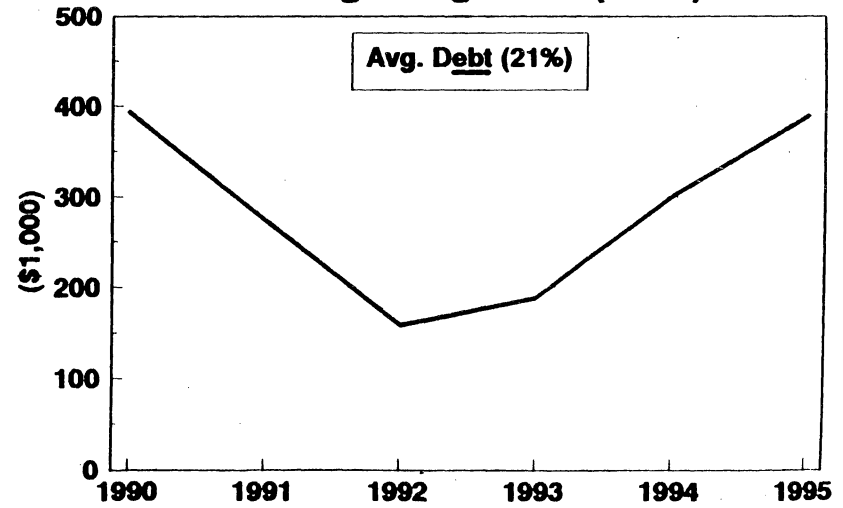
**Net Cash Farm Income
Missouri Large Hog Farm (MOLH)**



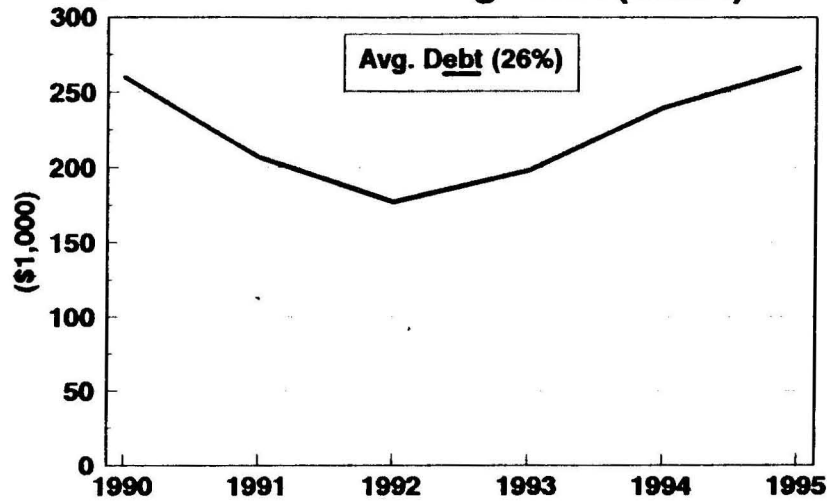
**Net Cash Farm Income
Illinois Moderate Hog Farm (iLMH)**



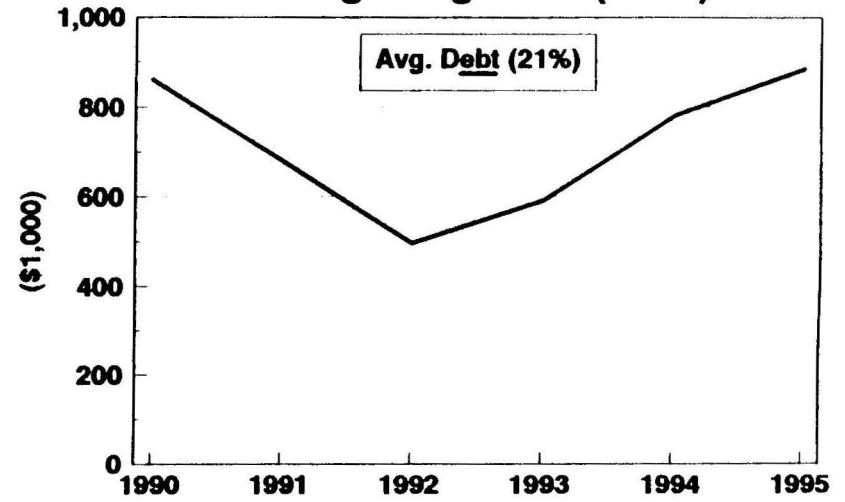
**Net Cash Farm Income
Illinois Large Hog Farm (ILLH)**



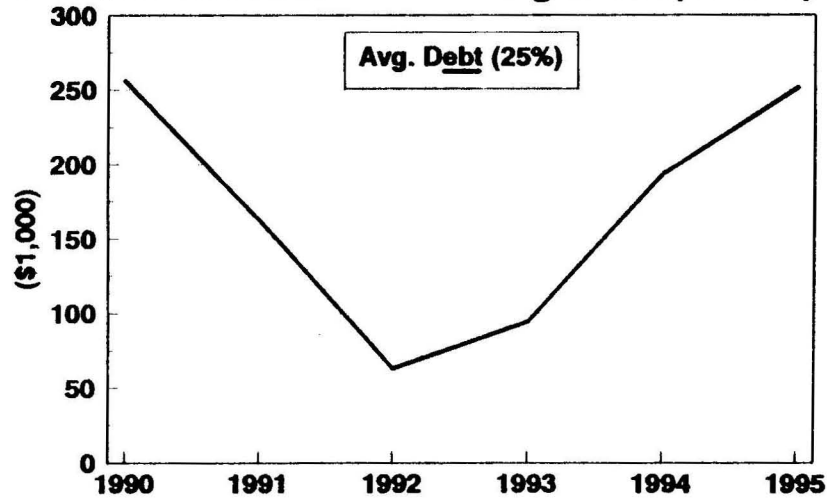
**Net Cash Farm Income
Indiana Moderate Hog Farm (INMH)**



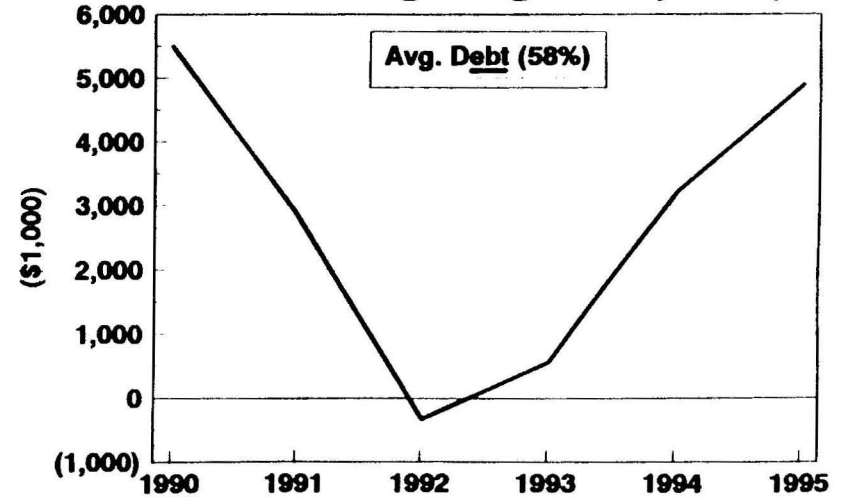
**Net Cash Farm Income
Indiana Large Hog Farm (INLH)**



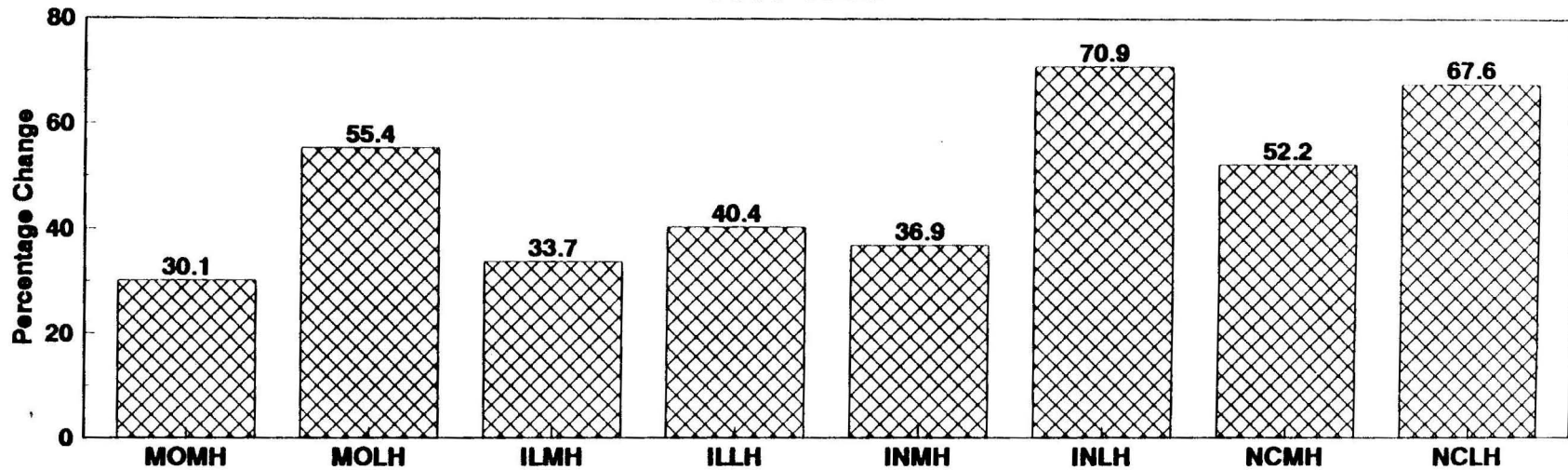
**Net Cash Farm Income
North Carolina Moderate Hog Farm (NCMH)**



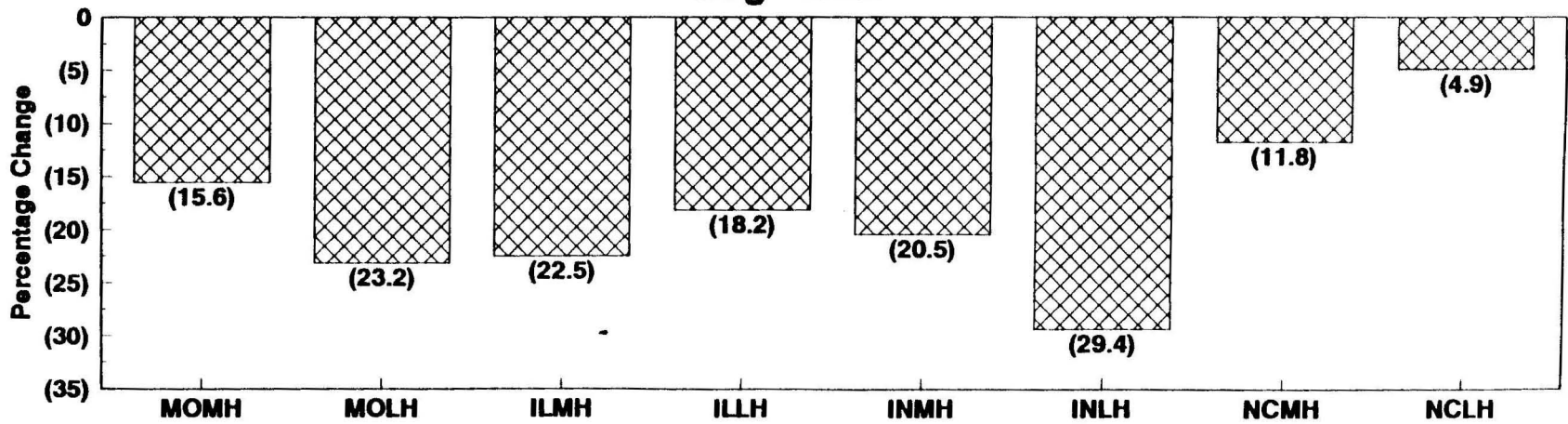
**Net Cash Farm Income
North Carolina Large Hog Farm (NCLH)**



Real Change in Net Worth for All Hog Farms, 1990-1995



Annual Percentage Change in Receipts Needed to Maintain Real Net Worth from 1990 to 1995: Hog Farms



PANEL FARM COOPERATORS

Grain Farms

Washington

Facilitators

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

Panel Participants

Mr. Richard Largent	Mr. Peter Collins
Mr. John Whitman	Mr. Asa Clark
Mr. Henry Suess	Mr. David Harlow
Mr. Earl Crowe	

Kansas

Facilitators

Mr. Tim Stuckey - Extension Agricultural Economist, Wellington, Kansas, Kansas State University
Mr. Gerald Le Valley - Sumner County Agricultural Extension Agent
Dr. Fred Delano - Agricultural Economist, Kansas State University

Panel Participants

Mr. Paul Nye	Mr. Thomas Ostrander
Mr. Leroy Hoopes	Mr. Ronald Frazier
Mr. Jim Mathes	Mr. Nick Steffen
Mr. Lauren Ostrander	Mr. Donald Applegate
Mr. Harold Hainsworth	Mr. David Messenger
Mr. Rae Reuser	Mr. Don Casner

Texas Northern High Plains

Facilitators

Dr. Steve Amosson - Extension Economist-Management, Amarillo, Texas, Texas A&M University
Mr. Brad Johnson - Sunray Coop., Sunray, Texas

Panel Participants

Mr. Wesley Spurlock	Mr. Kenneth Keisling
Mr. Marion Garland	Mr. Ronnie Williams
Mr. Gary Keisling	Mr. Tom Moore
Mr. Charles Dooley	

North Dakota

Facilitators

Mr. Dwight Aakre - Extension Associate, Farm Management, North Dakota State University
Mr. Lester Stuber - Barnes County Agricultural Extension Agent

Panel Participants

Mr. Mike Clemens	Mr. Ray Haugen
Mr. Jack Formo	Mr. Arvid Winkler
Mr. Greg Shanenko	Mr. Jon Owen
Mr. Jim Broten	Mr. Greg Mueller
Mr. Lloyd Thilmony	Mr. Wade Burns

Iowa

Facilitators

Mr. Bill Coeffy - Webster County Extension Agriculturalist
Dr. William Edwards - Agricultural Economist, Iowa State University

Panel Participants

Mr. Phil Naeve	Mr. Dennis Ammen
Mr. Larry Lynch	Mr. John Ricke
Mr. Don Sandell	Mr. Britt Shelton
Mr. Bob Anderson	Mr. Virgil Gordon
Mr. Larry Lane	

Missouri

Facilitator

Mr. Paul Taylor - Area Extension Specialist, Carrollton, Missouri, University of Missouri - Columbia

Panel Participants

Mr. Larry Davies	Mr. D.J. Tweedie
Mr. Clifford Lyons	Mr. Ron Gibson
Mr. Ron Linneman	Mr. Ron Venable
Mr. Glenn Kaiser	Mr. Charles Reid
Mr. Gerald Kitchen	Mr. Jack Harriman
Mr. John Vogelsmeier	Mr. Tommie Tweedie

Nebraska

Facilitators

Mr. Roland Cooksley - Phelps County Agricultural Extension Agent
Dr. Roger Selley - Extension Farm Management Specialist, University of Nebraska

Panel Participants

Mr. Frank Hadley	Mr. Tom Schwarz
Mr. Gary Robison	Mr. Scott Davis
Mr. Kerry Blythe	Mr. Johnny Nelson
Mr. Brian Johnson	Mr. Dave High
Mr. Charles Wohlgemuth	

South Carolina

Facilitators

Mr. Toby Boring - Extension Agricultural Economist, Clemson University
Dr. Johnny Jordan - Dept. of Agricultural Economics, Clemson University
Dr. Mike Hammig - Dept. of Agricultural Economics, 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	

Texas Blacklands

Facilitators

Mr. Ronald Leps - Williamson County Agricultural Extension Agent
Mr. Christopher Sansone - Williamson County Extension Entomologist

Panel Participants

Mr. Wilbert Vorwerk	Mr. Emzy Boehm
Mr. James Stone	Mr. Wilburn Beckhusen
Mr. Ron Schlabach	

Texas Coastal Bend

Facilitator

Mr. Darwin Anderson - San Patricio and Aransas County Agricultural Extension Agent

Panel Participants

Mr. John Hunt

Mr. Darby Salge

Mr. Howard Salge

Mr. Erich Schneider

Mr. Wesley Schmidt

San Patricio and Aransas County Field Crop Committees

Cotton Farms

California

Facilitators

Dr. R. Tom Kerby - Extension Specialist, University of California Cooperative Extension
Mr. Gene Lundquist - Calcot Limited, Bakersfield, California

Panel Participants

Mr. Jerry Davis	Mr. Hubert Holterman
Mr. Larry Starrh	Mr. Fred Starrh
Mr. Jim Crettol	Mr. Jim Nickel
Mr. Wayne Waldrip	Mr. Richard Young
Mr. Ken Kirschenman	Mr. Roger Frantz

Mississippi

Facilitators

Dr. David Laughlin - Agricultural Economist, Mississippi State University
Mr. Fred Cook - Agricultural Economist, Delta Branch Experiment Station, Mississippi State University

Panel Participants

Mr. Harley Metcalfe	Mr. W.P. Brown
Mr. Ellis Palasini	Mr. Robert Carson
Mr. Robroy Fisher	Mr. Rives Carter
Mr. Kenneth Hood	Mr. Lawrence Long

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. Norris Barron	Mr. Nolan Vogler
Mr. Donald Vogler	Mr. Tom Anderson
Mr. Milton Schneider	Mr. Bradley Boyd
Mr. Kent Nix	Mr. Dave Nix

Texas Rolling Plains

Facilitators

Mr. Gary Stanford - Formerly Jones County Agricultural Extension Agent
Mr. Stan Bevers - Extension Economist-Management, Texas A&M University

Panel Participants

Mr. Ed Ekdahl	Mr. Mark Lundgren
Mr. Marvin McDuff	Mr. B.C. Spraberry
Mr. Ronnie Richmond	Mr. Darrell Richards
Mr. Denis Olson	

Texas Blacklands

Facilitators

Mr. Ronald Leps - Williamson County Agricultural Extension Agent
Mr. Christopher Sansone - Williamson County Extension Entomologist

Panel Participants

Mr. Wilbert Vorwerk	Mr. Emzy Boehm
Mr. James Stone	Mr. Wilburn Beckhusen
Mr. Ron Schlabach	

Texas Coastal Bend

Facilitator

Mr. Darwin Anderson - San Patricio and Aransas County Agricultural Extension Agent

Panel Participants

Mr. John Hunt

Mr. Darby Salge

Mr. Howard Salge

Mr. Erich Schneider

Mr. Wesley Schmidt

San Patricio and Aransas County Field Crop Committees

Rice Farms

Texas - West of Houston

Facilitator

Dr. Ed Rister - Agricultural Economist, Texas A&M University

Panel Participants

Mr. Curt Mowery	Mr. Jacko Garrett
Mr. Leonard Steffens	Mr. Hal Koop
Mr. L.G. Raun	Mr. Layton Raun
Mr. Loy Sneary	Mr. Steve Balas
Mr. Dale Hunt	Mr. J.D. Woods, Jr.

California

Facilitators

Mr. Jack Williams - Sutter & Yuba Counties, Farm Advisor, University of California Cooperative Extension

Panel Participants

Mr. Bill Baghet	Mr. Jeff Norton
Mr. Alan Catlet	Mr. Frank Rosa
Mr. Jack DeWit	Mr. Brett Scheidel
Mr. Gordon Galloway	Mr. Walt Trevethan
Mr. Bill McLaughlin	Mr. Wayne Vineyard

Arkansas

Facilitators

Mr. Randy Smith - Economist, Riceland Foods

Dr. Bobby Coats - Agricultural Extension Specialist, Little Rock, Arkansas, University of Arkansas

Panel Participants

Mr. Joe Rennie
Mr. Jerry Don Clark
Mr. Roger Pohlner
Mr. Gary Sitzer

Dairy Farms

Washington

Facilitator

Mr. David C. Grusenmeyer - Extension Dairy Agent, Bellingham, Washington

Panel Participants

Mrs. Star Hovander

Mr. Keith Boon

Mr. Rod DeJong

Mr. Dick Bengen

Mr. Ed Pomeroy

Mr. Greg McKay

Mr. & Mrs. Ron and Linda Bronsema

Mr. Dave Buys

Mr. Duane Vander Griend

Mr. Jim Heeringa

Mr. & Mrs. Pete and Shelli DeJager

Mr. & Mrs. Dale and Gina DeVries

California

Facilitators

Dr. Bees Butler - Agricultural Economist, University of California - Davis

Mr. Jim Grubele - Dairyman's Cooperative Creamery, Tulare, California

Panel Participants

Mr. Dave Ribeiro

Mr. Bill Van Beek

Mr. John Zonneveld

New Mexico

Facilitators

Mr. Alfred Gonzales - El Paso County Agricultural Extension Agent

Mr. Bob Smith - Associated Milk Producers, Inc., Amarillo, Texas

Mr. Mike Tallmon - Associated Milk Producers, Inc., Canutillo, Texas

Dr. Tom McGuckin - Associate Professor of Economics, New Mexico State University

Panel Participants

Mr. Von Hilburn

Mr. Rick Silva

Mr. Joe Gonzales

Mr. Steve Marasovich

Texas Erath County

Facilitators

Mr. Sonny Pride - Associated Milk Producers, Inc., Arlington, Texas

Mr. John Cowan - Associated Milk Producers, Inc., Arlington, Texas

Mr. Joe Pope - Erath County Agricultural Extension Agent

Dr. Robert Schwart - Dairy Economist, Texas Agricultural Extension Service, Texas A&M University

Panel Participants

Mr. Bryan Parrish

Mr. Von Scott

Mr. S.L. Fine

Mr. R.J. Kerr

Mr. Larry Dee Gibson

Mr. Larry Ricks

Mr. Jack Parks

Mr. J.M. Howle, Jr.

Mr. Dan Paxton

Texas Hopkins County

Facilitators

Dr. Robert Schwart - Dairy Economist, Texas Agricultural Extension Service, Texas A&M University

Mr. Raymond Haygood - Associated Milk Producers, Inc., Sulphur Springs, Texas

Panel Participants

Mr. E.G. Durgin

Mr. Al Minter

Mr. Mike Hoybook

Mr. Dwight Alexander

Mr. Hershel Kelsoe

Mr. Doyle Wood

Mr. Dan Humphrey

Missouri

Facilitator

Mr. Ron Young - Christian County Dairy Specialist, Ozark, Missouri

Panel Participants

Mr. John Mallonee
Mr. & Mrs. Doug and Marcia Owen
Mr. & Mrs. Ray and Margaret Schooley
Mr. & Mrs. David and Kathie Hedspeth
Mr. & Mrs. Phil and June Barnhart
Mr. & Mrs. Freddie and Mary Martin
Mr. John Atkinson
Mr. Wayne Whitehead

Georgia

Facilitator

Dr. Dale H. Carley - Professor, Dept. of Agricultural Economics, University of Georgia

Panel Participants

Mr. Lamar Anthony	Mr. Bud Wiley
Mr. Everett Williams	Mr. Bud Butcher

Florida

Facilitator

Dr. Dan Webb - Extension Dairy Scientist, University of Florida

Panel Participants

Mr. Rick Dressel	Mr. John Peachey
Mr. Charles Williams	

Wisconsin

Facilitators

Mr. Jeff Key - Winnebago County Agricultural Extension Agent

Dr. Gary Frank - Extension Farm Management Specialist, University of Wisconsin

Panel Participants

Mr. John Lenz	Mr. Joe Bonlender
Mr. Larry Engel	Mr. Pete Van Wychen
Mr. Ronald Miller	Mr. Doug Hodorff
Mr. Pete Knigge	Mr. Fred Kasten
Mr. Edwin Davis	Mr. Jerome Schmidt
Mr. Dean Hughes	Mr. Terry Madigan

Western New York

Facilitator

Dr. Wayne Knoblauch - Professor, Dept. of Agricultural Economics, Cornell University

Panel Participants

Mr. Gary Van Slyke	Mr. Dick Popp
Mr. Willard DeGolyer	Mr. Bill Fitch
Mr. George Mueller	Mr. Mark Smith
Mr. Dale Van Erden	

Central New York

Facilitator

Dr. Wayne Knoblauch - Professor, Dept. of Agricultural Economics, Cornell University

Panel Participants

Mr. Gary Mutchler	Mr. Ron Space, Jr.
Mr. Bill Head	Mr. Mike Learn
Mr. David Shurtleff	Mr. Leonard Kimmich
Mr. and Mrs. Tom Brown	

Vermont

Facilitators

Dr. Stu Gibson - Extension Dairy Specialist, University of Vermont

Dr. Chris Woelfel - Dairy Specialist, Texas Agricultural Extension Service, Texas A&M
University

Panel Participants

Mr. Steve Hurd

Mr. Steven Jones

Mr. Richard Hall

Mr. John Osha

Mr. Tim Bisson

Mr. Ray Bisson

Mr. Kim Harvey

Mr. David Conant

Mr. Dave Tooley

Mr. Stanley Scribner

Mr. Albert Neddo

Mr. Paul Gingue

Mr. Paul Miller

Beef Cattle Producers

Montana

Facilitators

Mr. Olaf Sherwood - Custer County Agricultural Extension Agent

Dr. Alan Baquet - Farm Management Specialist, Montana State University

Panel Participants

Mr. Keith Powell

Mr. Dee Murray

Mr. Donald Ochsner

Mr. Jean Robinson

Mr. Art Drange

Texas - South Central

Facilitators

Mr. L. R. Sprott - Livestock Specialist, Texas Agricultural Extension Service, Texas A&M University

Mr. Joe Adams - Gonzales County Agricultural Extension Agent

Panel Participants

Mr. Joel Egg

Mr. William Miller

Mr. Ace Fairchild

Mrs. Susan Miller

Mrs. J. Carter Thomas

Missouri

Facilitator

Mr. Mike Killingsworth - Area Extension Specialist, Maryville, Missouri, University of Missouri - Columbia

Panel Participants

Mr. Jack Baldwin

Mr. Gary Ecker

Mr. Don Mobley

Mr. Kevin Rosenbohm

Mr. Roger Vest

Hog Farms

Illinois

Facilitators

Mr. Don Teel - Knox County Agent, Galesburg, Illinois
Dr. Dick Kessler - Agricultural Economist, University of Illinois

Panel Participants

Mr. Steve England	Mr. Sterling Saline
Mr. Dale Carlson	Mr. Jim Erickson
Mr. Gary Bowman	Mr. Lance Humphreys
Mr. Mike Hennenfent	Mr. C. Clark Main
Mr. Louis Rogers	Mr. Dale E. McKee
Dr. Donald G. Reeder	

Indiana

Facilitators

Mr. Steve Nichols - Carroll County Agricultural Extension Agent
Dr. Don Pershing - Extension Farm Management Specialist, Purdue University
Dr. Chris Hurt - Extension Farm Management Specialist, Purdue University

Panel Participants

Mr. Glenn Brown	Mr. Ernie Wyant
Mr. Larry Trapp	Mr. Brad Burton
Mr. Ed Nelson	Mr. Fred Wise
Mr. Sam Zook	Mr. Bill Pickard

Missouri

Facilitator

Mr. Paul Taylor - Area Extension Specialist, Carrollton, Missouri, University of Missouri - Columbia

Panel Participants

Mr. William Charles	Mr. R. David Hemme
Mr. Dale Miles	Mr. Gary L. Sanders
Mr. Vernon Thoeni	Mr. Robert S. Mayden
Mr. John Vogelsmeier	Mr. Matt Reichert
Mr. Herbert Kiehl	Mr. Richard Clemens

North Carolina

Facilitators

Dr. Kelly Zering - Agricultural Economist, North Carolina State University
Mr. Mike Regans - Wayne County Agricultural Extension Agent

Panel Participants

Mr. Ben Outlaw	Mr. Brewer Ezzell
Mr. David John Overman	Mr. Mark Rix
Mr. Charlie McClenny	Ms. Mary Ann Martin
Mr. Ronald Parks	Mr. R.H. Mohesky
Mr. David Sanderson	

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