

ILLINOIS FARM INCOME SITUATION – 2000 AND 2001

Dale Lattz, Paul Ellinger, and Gary Schnitkey
Department of Agricultural and Consumer Economics
University of Illinois at Urbana-Champaign

Executive Summary

Estimates of 2000 financial performance for 1,037 Illinois grain farms are compared to actual financial performance in 1997, 1998 and 1999. Projections for 2001 under certain conditions were also analyzed. Projections for 2000 indicate that:

- The average net farm income for these farms in 2000 is projected at \$32,414. It would be \$16,598 without the additional market loss assistance and oilseed payments. The average net farm income for the same farms was \$50,187 in 1997, \$13,827 in 1998 and \$33,180 in 1999.
- Approximately 16 percent of the farms will have negative net incomes during 2000.
- Projected net farm income levels for 2000 are the highest in the west southwest and southeastern regions of Illinois. Projected incomes are lowest in the northwest region.
- Government farm program payments, including market loss assistance and oilseed payments, continue to have a very significant effect on farm incomes. Net farm income levels would be negative if not for the total of all types of government farm program payments (AMTA, market loss assistance, oilseed, loan deficiency payments and/or marketing loan gains).
- Projected 2000 net income levels do not lead to an overall strengthening of the financial position of Illinois grain farms. The general financial condition will deteriorate somewhat between 1999 and 2000. Some farms, however, will face severe financial stress.
- Over 75 percent of the farms are projected to have net worth declines between 1999 and 2000, with the average net worth decline being negative 7.3 percent.
- Actual net farm income and net worth changes on individual farms will depend on a number of factors, including actual grain yields, the efficiency and equity position of the farm, land ownership and lease arrangements, actual valuation changes in machinery and land, and strategies used in marketing the 1999 and 2000 crops.
- Without significant increases in grain prices, several factors could result in lower income in 2001 than in 2000.

Illinois Farm Income Situation – 2000 and 2001

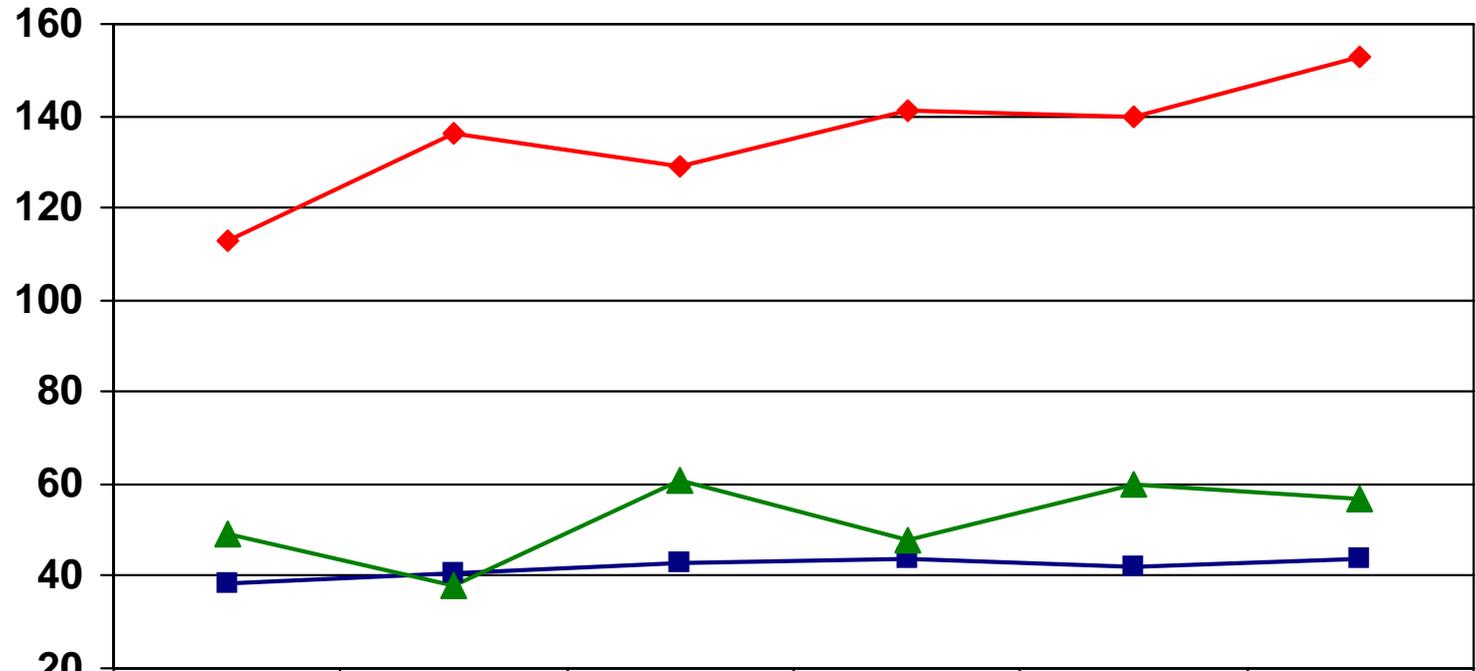
by Dale Lattz,
Paul Ellinger and
Gary Schnitkey



Objectives of study

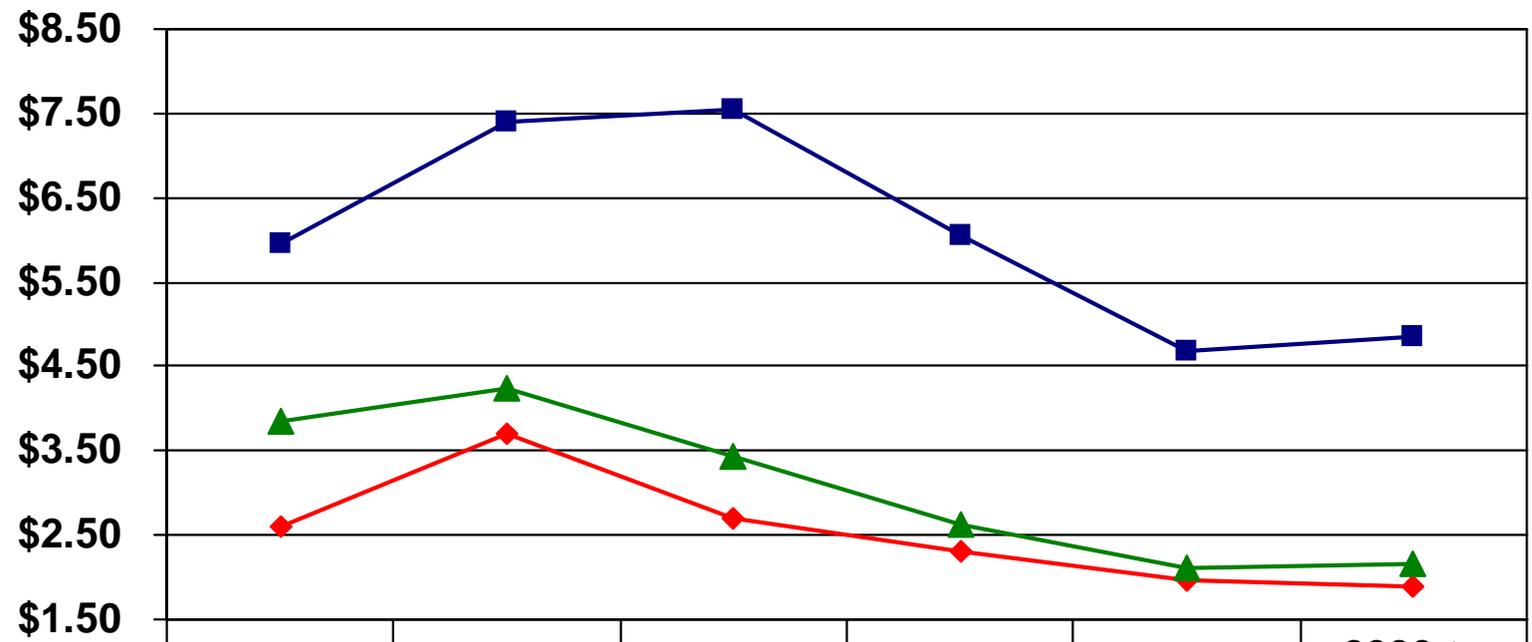
- Evaluate the financial condition of Illinois grain farms.
- Examine the impact of Federal government farm programs.
- Develop a tool to evaluate alternative policy scenarios.

Good Yields in 2000



	1995	1996	1997	1998	1999	2000 est.
◆ Corn	113	136	129	141	140	153
■ Soybeans	39	41	43	44	42	44
▲ Wheat	49	38	61	48	60	57

Low Commodity Prices



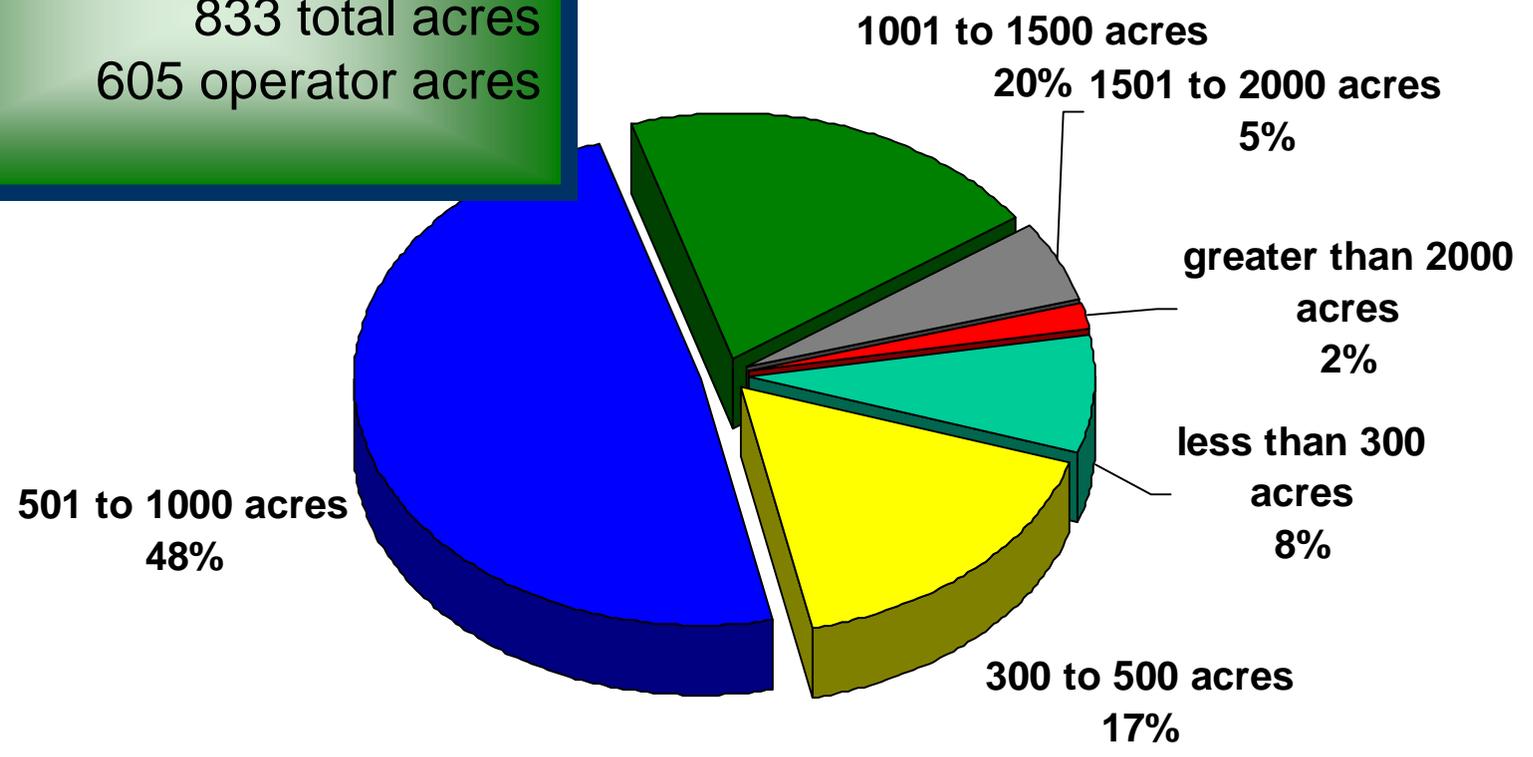
	1995	1996	1997	1998	1999	2000 to date
◆ Corn	\$2.61	\$3.71	\$2.70	\$2.30	\$1.97	1.90
■ Soybeans	\$5.96	\$7.41	\$7.55	\$6.05	\$4.68	4.85
▲ Wheat	\$3.85	\$4.25	\$3.43	\$2.63	\$2.11	2.16

Approach

- Use a sample of Illinois FBFM grain farms with historical financial records.
- Use projections of NASS yields and prices to determine revenue for each farm.
- Adjust historical expenses and financial data for each farm.
- Project net farm income and net worth change for each farm in the sample.

Sample Farms by Size

1037 grain farms
Average farm:
833 total acres
605 operator acres



Key Assumptions

- Net prices received ~ Loan Rates
 - Corn: \$1.95 / bu.
 - Soybeans: \$5.45/ bu.
 - Wheat: \$2.60 / bu.
- Marketing margins on old crop
 - Corn: \$0.10 / bu. – 50% of crop
 - Soybeans: \$0.15/ bu. – 50% of crop
- Pricing opportunities on new crop
 - Corn 0.05 / bu. – 20% of crop
 - Soybeans 0.05 / bu. – 20% of crop
- Net price includes Loan Deficiency Payments
- Use NASS November report of district projections of yields

Estimated Yields



FBFM Adjusted Yields Crop Reporting District	Soybean Yield		Corn Yield	
	1999	2000	1999	2000
Northwest	52	49	156	149
Northeast	49	49	151	162
West	46	49	147	159
Central	51	49	166	163
East	48	46	155	147
West Southwest	49	50	157	179
East Southeast	43	47	131	152
Southwest	39	40	106	141
Southeast	34	42	117	147
NASS Weighted Average	47	47	146	157

November 2000 NASS projections.
Yields adjusted to represent differences
between NASS and FBFM

Other Key Assumptions

- Average increase in farm size 3.0%
- Operating expenses increase
 - Crop expenses - - 4%
 - Fuel and oil - - 25%
 - All other expenses - - 1%
- Machinery market values and depreciation decrease; 5% from 1999
- Interest expense increase; 2% from 1999
(overall interest expense not rates)
- Other farm income increase; 3% from 1999

Net Farm Income

1997	\$ 50,187	}	Actual
1998	13,827		
1999	33,180		
2000	32,414		Estimate

Net farm income does not include:

- Payments for operator labor/family withdrawals
- Nonfarm income
- Income taxes

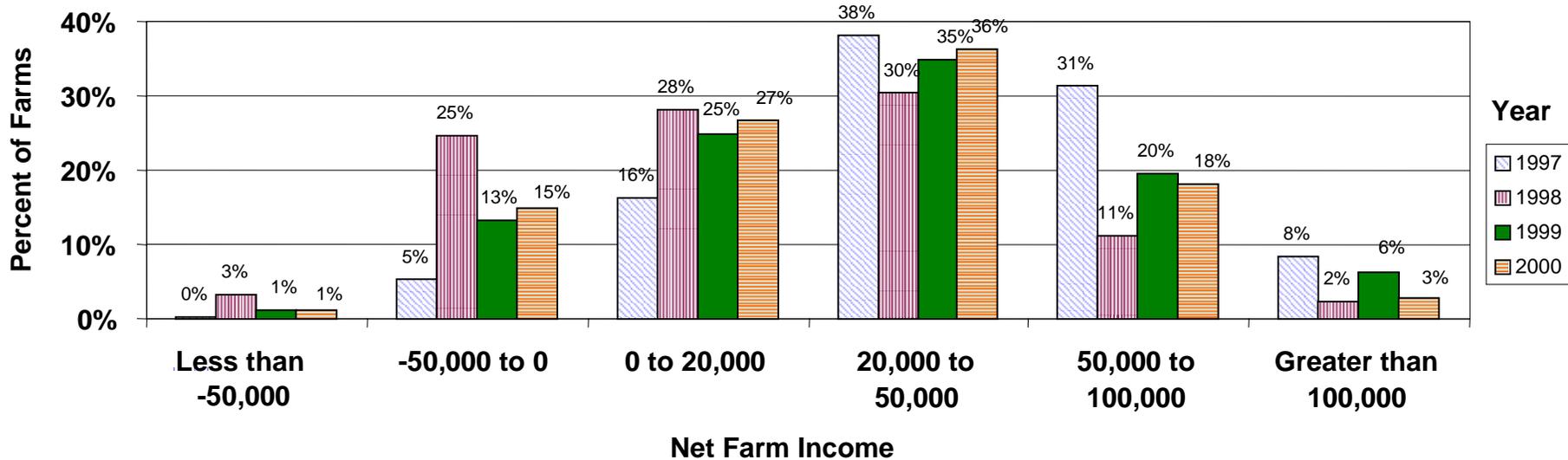
Net Farm Income by Region



Crop Reporting District	1997	1998	1999	2000
Northwest	47,791	20,925	35,802	18,440
Northeast	51,752	26,169	25,458	29,539
Central & West	44,727	20,027	33,834	25,769
East	52,920	10,886	41,400	26,780
West Southwest	46,240	22,753	36,191	42,824
East Southeast	47,916	7,454	27,560	36,828
Southwest	50,280	963	27,127	23,708
Southeast	37,278	(15,018)	26,653	45,096
NASS Weighted Average	50,187	13,827	33,180	32,414

Distribution of Net Farm Income

Distribution of Net Farm Incomes of 1,037 Illinois Grain Farms:
1997, 1998, 1999 and 2000



Significance of Government Payments

	Average	
Net Farm Income	\$ 32,414	
Government Payments	50,277	↓
AMTA		12,379
Market loss assistance		13,451
Oilseed provisions		2,365
Loan deficiency payments		22,082

Price Assumptions	
	Cash Price/Bu.
Corn	1.80
Soybeans	4.50
Wheat	2.00

Changes in Net Worth

- + Net farm income
- + Nonfarm income
- Family living withdrawals
- Income taxes
- + / - change in asset values (mchy, land, etc.)
- = Change in market value net worth

Change in Net Worth

<u>Annual Change</u>		<u>Average</u>	<u>Median</u>
1997-98	actual	11.25%	2.05%
1998-99	actual	9.64%	4.47%
1999-00	projected	-7.31%	-3.49%

Assumptions:

- **no change in land values**
- **5% decline in machinery values**

What commodity price levels are needed if government payments are eliminated?

- To achieve Net Farm Income of \$32,414 with 2000 estimated yields

Commodity prices would need to increase 16% over current loan rates

Corn	\$2.27
Soybeans	\$6.33
Wheat	\$3.02

- To achieve Net Farm Income of \$50,000 with 2000 estimated yields

Commodity prices would need to increase 26% over current loan rates

Corn	\$2.46
Soybeans	\$6.87
Wheat	\$3.28

Conclusions for 2000

- Grain farms only, no livestock returns
- 2000 incomes projected slightly lower than 1999 and still at relatively low levels
- Government program payments have significant impact on income
- In general, financial health remaining stable
- Higher commodity prices needed to break out of income slump

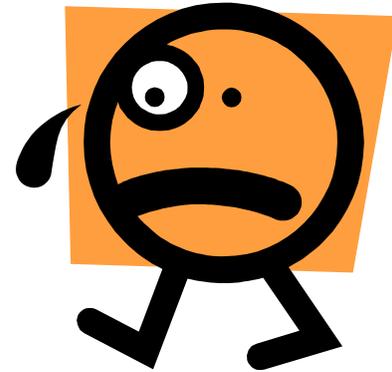
What About 2001 and Beyond

Outline

- What could cause 2001 net incomes to go down from 2000 levels?
- Mitigating factors
- And beyond

Objective

- Objective is not to be pessimistic
- Rather focus on adjustments



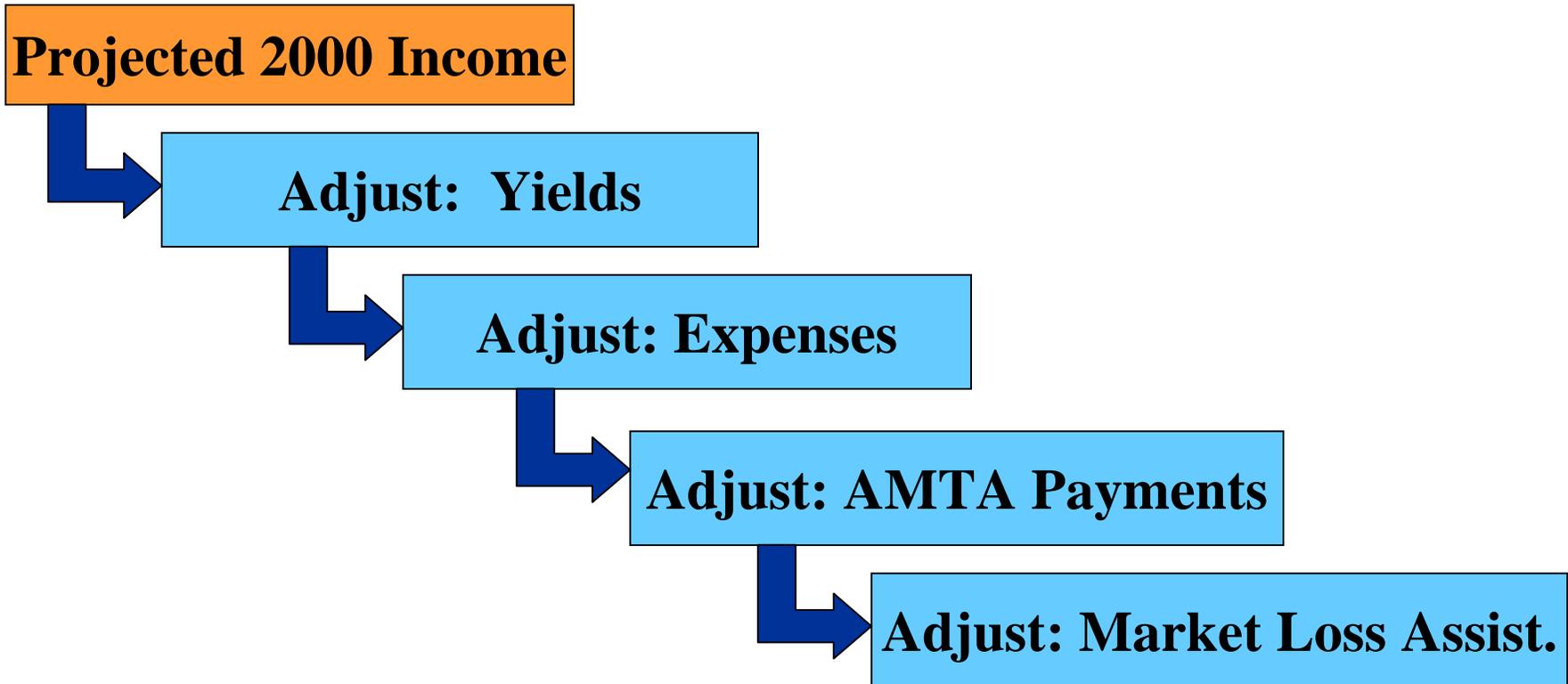
2000 Projected Income

- \$32,414 projected net income for 2000
- Based on:
 - Above average yields (except East and East Southeast CRD)
 - Market Loss Assistance payments

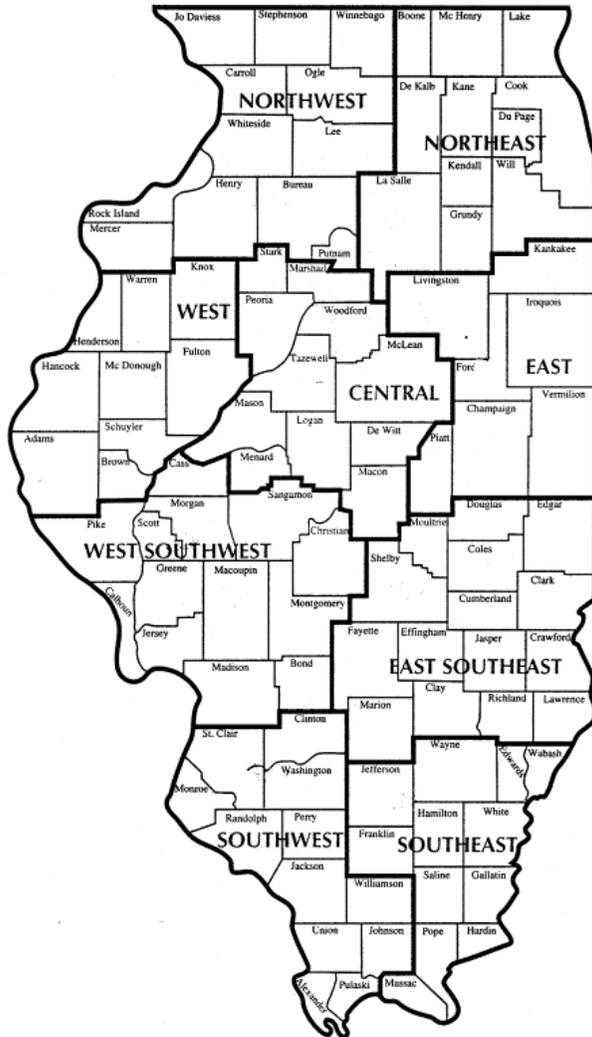
Project 2001 Net Farm Income

- Use 2000 net income as base
- Receive loan rate prices
 - Either through LDP or market price
 - **Implies: status quo market conditions**
- “Adjust” 2000 income to reflect adverse, but possible, 2001 conditions

Projecting 2001 Income



2000 Versus Typical Corn Yields



Crop Reporting District	2000 Yield	"Typical" Yield
Northwest	149	141
Northeast	162	151
West	159	147
Central	163	155
East	147	153
West Southwest	179	149
East Southeast	152	155
Southwest	141	111
Southeast	147	120
Weighted Average	157	144

The 2000 yields based on NASS projections, adjusted to reflect FBFM farm yields. "Typical" yields represent expected 2001 yields by district.

Projecting 2001 Income

ITEM	PROJECTED INCOME
Projected 2000 Income	\$32,414
Adjust: Yields	\$24,342
Adjust: Expenses	
Adjust: AMTA Payments	
Adjust: Market Loss Assist.	

Net Farm Income By Region



Crop Reporting District	Projected 2000 Income	Income with "Typical" Yields
Northwest	18,440	13,904
Northeast	29,539	25,776
Central and West	25,769	25,528
East	26,780	34,532
West Southwest	42,824	21,701
East Southeast	36,828	25,731
Southwest	23,708	9,931
Southeast	45,096	14,092
Weighted Average	32,414	24,342

Expense Adjustments

- Fuel costs
 - \$4 increase per tillable acre
- Nitrogen fertilizer costs
 - \$7 increase per corn acre
- P and K fertilizer costs
 - \$2 increase per tillable acre
- Drying (higher LP price, higher moisture(?))
 - \$5 increase per tillable acre

Projecting 2001 Income

ITEM	PROJECTED INCOME
Projected 2000 Income	\$32,414
Adjust: Yields	\$24,342
Adjust: Expenses	\$20,492
Adjust: AMTA Payments	
Adjust: Market Loss Assist.	

AMTA Payment Adjustments

Projected rates per base bushel

	2000	2001
Corn	\$.334	\$.260
Wheat	\$.588	\$.460

Projecting 2001 Income

ITEM	PROJECTED INCOME
Projected 2000 Income	\$32,414
Adjust: Yields	\$24,342
Adjust: Expenses	\$20,492
Adjust: AMTA Payments	\$17,752
Adjust: Market Loss Assist.	

Market Loss Assistance Payments

- In 2000:
 - \$.363 per base corn bu.
 - \$.637 per base wheat bu.
 - \$.1408 per documented soybean bu.
- In 2001:
 - For projections, nothing

Projecting 2001 Income

ITEM	PROJECTED INCOME
Projected 2000 Income	\$32,414
Adjust: Yields	\$24,342
Adjust: Expenses	\$20,492
Adjust: AMTA Payments	\$17,752
Adjust: Market Loss Assist. 	\$1,937

Mitigating Factors

1. Unexpected increase in price
2. Decrease in other costs
3. Adjustments in leasing arrangements
4. Likely continuation of marketing loss assistance payments

Prices to Have \$50,000 of Net Income

Item	Corn	Soybeans
Projected 2000 Income	\$2.26	\$5.80
Adjust: Yields	\$2.33	\$5.96
Adjust: Expenses	\$2.37	\$6.07
Adjust: AMTA Payments	\$2.41	\$6.17
Adjust: Market Loss Assist.	\$2.59	\$6.63
U.S. Avg. (75 to 00)	\$2.36	\$6.00

And Beyond

- Who knows?
- Return to average price (\$2.36 corn, \$6.00 soybeans) still requires gov't payments to reach income levels of mid 1990s.
- Likely improve over 1998 -- 2000 incomes