

**Economic Analysis of the U.S. House  
of Representatives Farm Bill, the  
Senate Agriculture Committee  
Farm Bill Proposal, and the Agricultural  
Conservation Rural Enhancement Act of 2001**

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## Abstract

This study analyzes three farm bill proposals that could replace the Federal Agricultural Improvement and Reform Act: The U.S. House of Representatives Bill H.R. 2646, the Senate Agriculture Committee Proposal, and the Agricultural Conservation Rural Enhancement (ACRE) Act. All proposals try to incorporate the additional emergency federal funding that agriculture received in 1998 through 2001 into legislative language.

All proposals provide substantially higher net farm income than the continuation of the FAIR Act. The ACRE Act provides higher net farm income than either the House Bill or the Senate Proposal, however net farm income under the House Bill is higher than under the Senate Proposal given the Food and Agricultural Policy Research Institute's (FAPRI's) commodity price estimates. Regions of the state which produce row crops, corn, and oilseeds, would have higher net farm income under the Senate Proposal. If commodity prices increase faster than FAPRI's estimates, the ACRE Act should provide more support because more of the governmental support is in the form of direct payments. However, if prices lag behind FAPRI's estimates, the Senate Proposal should provide higher support because of the higher loan rates.

**Key Words:** Farm Bill, North Dakota Representative Farms, H.R. 2646, Senate Agriculture Committee Proposal, ACRE Act

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# **Economic Analysis of the U.S. House of Representatives Farm Bill, the Senate Agriculture Committee Farm Bill Proposal, and the Agricultural Conservation Rural Enhancement Act of 2001**

**Richard D. Taylor and Won W. Koo\***

## **Introduction**

This study analyzes three farm bill proposals that could replace the Federal Agricultural Improvement and Reform Act (FAIR Act) which the U.S. Congress passed in 1996. These proposals include the U.S. House of Representatives Bill H.R. 2646, the Senate Agriculture Committee Proposal, and the Agricultural Conservation Rural Enhancement (ACRE) Act of 2001 sponsored by Senators Cochran and Roberts. All three proposals try to incorporate the additional emergency federal funding that agriculture received in 1998 through 2001 into legislation. The existing legislation known as the FAIR Act was based on a number of inaccurate economic assumptions and departed from previous farm legislation. A Production Flexibility Contract provided a payment structure that was decoupled from production; additional planting flexibility was allowed for producers in response to market signals. The bill was designed in order to reduce farmer reliance on federal government support by slowly reducing government payments over the life of the farm bill.

## **Brief Summary of the Alternative Farm Bill Proposals**

The House Committee on Agriculture has passed H.R. 2646. It proposes a number of changes in U.S. farm legislation. The legislation provides the continuation of planting flexibility, fixed payments, and a commodity marketing loan program. H.R. 2646 includes a counter-cyclical feature that is tied to market prices but not to current production. Oilseed marketing loan rates are reduced, but producers have the option to update their bases and include oilseed planting history or to use the existing bases for calculation of fixed and counter-cyclical payments. This payment structure is decoupled from current planting decisions.

Table 1 shows the adjusted loan rates and fixed payment levels proposed by H.R. 2646, the Senate Agriculture Committee Proposal, and the ACRE Act. Under H.R. 2646, the loan rates for wheat and corn are unchanged while the loan rates for barley are increased by \$0.06 and soybeans are reduced by \$0.34. Loan rates for minor oilseeds are reduced \$0.60 per cwt. Compared to the 2002 scheduled payments under the FAIR Act, fixed payments are increased for wheat, corn, and barley, while soybeans and minor oilseeds become eligible for the payments. H.R. 2646 would increase payments \$0.07 per bushel for wheat, \$0.04 per bushel for corn, and \$0.05 per bushel for barley. The payment levels for soybeans and minor oilseeds would be \$0.42 per bushel and \$0.74 per cwt, respectively.

The increases in fixed payments in the House Bill amount to \$1.2 billion per year nationwide for the life of the proposal. Counter-cyclical payments provide an average of \$3.9 billion per year for producers and additional marketing loan revenue totals \$0.26 billion per year.

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<b>Table 1. Loan Rates and Fixed Payments for the Alternative Farm Bill Proposals</b>								
Commodity	Loan Rates			Direct Payment Rates				
	House	Senate	ACRE	House	Senate		ACRE	
	-----\$-----			2002/3	2004/5	2006	-----\$-----	
Wheat	2.58	3.00	2.58	0.53	0.45	0.23	0.11	0.73
Corn	1.89	2.08	1.89	0.30	0.27	0.14	0.07	0.41
Soybeans (bu)	4.92	5.20	4.92	0.42	0.55	0.28	0.14	0.58
Minor oilseeds (cwt)	8.70	9.50	9.30	0.74	1.00	0.50	0.25	1.02
Barley	1.65	2.00	1.65	0.25	0.20	0.10	0.05	0.34

The Senate Proposal, sponsored by Senator Tom Harkin, would raise loan rates for commodities, continue fixed payments, add a counter-cyclical payment, and allow producers to update both base acres and payment yields for determining fixed and counter-cyclical payments. Table 1 shows the proposed loan rates and direct payment rates. The Senate Proposal, compared to H.R. 2646, would raise loan rates 16.3% for wheat (from \$2.58 to \$3.00), 10.1% for corn (from \$1.89 to \$2.08), 5.7% for soybeans (from \$4.92 to \$5.20), 20.7% for minor oilseeds (from \$8.70 to \$9.50), and 21.2% for barley (from \$1.65 to \$2.00). Direct payments would continue under the Senate Proposal, but would decrease in future years. The Senate Proposal is a five-year farm bill with the option of being renewed for another five years. The program yield and base acres could be updated for the years 1998 through 2001, although current yields and acres could be maintained. Direct payments under the Senate Proposal are based on 100% of the base acres compared to 85% for H.R. 2646. A loan program would be established for lentils, field peas, and small and large chickpeas.

The ACRE Act is similar to both the House Bill and the Senate Proposal in that it includes fixed decoupled payments, marketing loans, flexible planting allowances, and the continuation of most of the programs in past farm bills. The main difference is the establishment of a counter-cyclical savings account plan, allowing farmers to deposit funds in an account during prosperous times to be used during times of low income.

Deposits to the account are limited to a maximum of \$10,000 or the level of the adjusted gross revenue from farm returns. The deposits are matched by the government and are held in an interest earning account. The funds can be withdrawn if adjusted gross income falls to 90% of the 5-year average adjusted gross income. The maximum balance in the counter-cyclical savings account may not be more than 150% of the 5-year average adjusted gross revenue.

The ACRE Act and the House Bill maintain similar loan rates except for minor oilseeds. The loan rate for minor oilseeds under the ACRE Act is \$9.30 per cwt compared to \$8.70 under the House Bill. Under the ACRE Act, if the carry-over stock to usage ratio increases to 30% or higher, the Secretary may reduce loan rates for wheat by 10%. If the ratio increases higher than 15%, the Secretary may reduce loan rates for wheat by 5%. If the carry-over stock to usage ratio

for corn increases to 25% or higher, the Secretary may reduce loan rates by 10%. If the ratio increases higher than 12.5%, the Secretary may reduce loan rates for corn by 5%. For the purpose of this study, the authors assumed that loan rates were not reduced. Under the ACRE Act, producers are allowed to update their payment base acres, but the payment yield base is maintained at the historic 1980-85 levels that were in place under the FAIR Act. Direct payments under the ACRE Act are higher than either the House Bill or the Senate Proposal. The fixed payment for wheat is \$0.73 per bushel, compared to \$0.53 for the House Bill and \$0.45 for the Senate Proposal. Direct payment rates are increased to \$0.41 for corn, \$0.58 for soybeans, and \$1.02 per cwt for minor oilseeds.

## **Method**

For this analysis, the North Dakota Representative Farm model, described in Taylor, Koo, and Swenson, was used to evaluate the impacts of the three farm bill proposals on North Dakota farms. The model divides the state into four regions for analysis, but only statewide results will be reported in the study. This analysis is based on the Food and Agricultural Policy Research Institute's (FAPRI's) price forecasts for the commodities produced in the United States.

## **Results**

Table 2 shows the commodity prices used in this study. The prices are expected to increase throughout the forecast period. The increasing prices will reduce government spending during the latter part of the forecast period. The nonrecourse loan rates provide a revenue floor per unit of production. The loan rates for H.R. 2646 and the ACRE Act are lower than those for the Senate Proposal; however, the decoupled counter-cyclical payment is higher under the ACRE Act. Initially, the fixed decoupled payments would be similar under H.R. 2646 and the Senate Proposal but would decline starting in 2004 under the Senate Proposal. The counter-cyclical payments would be higher under the ACRE Act than either H.R. 2646 or the Senate Proposal. If prices trend lower than the forecasted prices, the Senate Proposal will provide more support to agriculture because the marketing loan is available on all current production while fixed payments are based on past or historical production. If prices tend higher than the forecasted prices the House Bill will provide more support than the Senate Proposal because of the higher fixed payments. The ACRE Act should respond similar to the House Bill to varying prices.

Table 3 shows the net farm income for the various size representative farms under the three farm bill proposals. All proposals are similar in their results, but the ACRE Act provides higher average income for the 5-year period for all sizes of farms. The 5-year average net farm income for the large size farm under the ACRE Act is \$13,903 higher than under the Senate Proposal and \$12,170 higher than under the House Bill. The medium size representative farms will average \$7,151 more under the ACRE Act than under the Senate Proposal and \$5,738 more than under the House Bill. The 5-year average net farm income for the small size farm under the ACRE Act is \$3,485 higher than the Senate Proposal and \$1,985 higher than the House Bill. Figure 1 shows the net farm income for the large, medium, and small size representative farms. The results for the ACRE Act and the House Bill are very similar because of the similar loan rates. The difference between the two bills is that the ACRE Act has a higher fixed direct payment than the House Bill and the ACRE Act has an additional savings program. The net income for the Senate Proposal falls in the later years because of the decreasing direct payments.

Year	S Wheat	D Wheat	Barley	Canola	Sunflowers	Soybeans	Corn
	-----\$/bu-----			-----\$/cwt-----		-----\$/bu-----	
2002	2.79	2.67	1.83	6.78	6.66	4.08	1.52
2003	2.89	2.82	1.84	7.04	7.05	4.21	1.54
2004	2.96	2.92	1.88	7.38	7.52	4.37	1.58
2005	3.03	3.02	1.93	7.60	7.87	4.47	1.65
2006	3.13	3.17	2.00	7.83	8.23	4.58	1.73
2007	3.22	3.30	2.07	8.15	8.65	4.72	1.79
2008	3.28	3.38	2.14	8.41	9.04	4.85	1.86
2009	3.36	3.50	2.20	8.64	9.39	4.96	1.92
2010	3.45	3.63	2.29	8.80	9.68	5.04	2.00

	House	Senate	ACRE	House	Senate	ACRE	House	Senate	ACRE
	-----Large-----			-----Medium-----			-----Small-----		
2002	131,379	137,634	142,738	68,940	71,947	74,095	32,186	32,140	34,000
2003	142,927	148,520	155,438	75,620	77,040	81,567	34,257	33,551	36,312
2004	135,585	136,033	148,028	73,414	72,840	79,334	33,490	32,172	35,534
2005	127,691	108,669	140,040	70,185	60,794	76,059	31,762	27,843	33,786
2006	118,695	116,757	130,883	66,075	64,551	71,872	30,398	28,892	32,386
5 yr	131,255	129,522	143,425	70,847	69,434	76,585	32,419	30,919	34,404

There are some regional differences in the three proposals. The ACRE Act provides highest net farm income for all sizes of farms in all regions but the Senate Proposal provides higher net farm income in the Red River Valley and the South Central regions of the state than the House Bill. However, in the North Central and the West regions, the House Bill provides higher net farm income than the Senate Proposal. The main reason for this variation is the different crop mix that the regions produce. The Red River Valley and the South Central regions produce more corn and soybeans; the North Central region produces wheat, sunflowers, and canola; and the West region produces mainly wheat and barley. The ability to update the payment yields under the Senate Proposal is a large advantage to corn producers in the state. Average corn yields have increased from about 62 bu/acre in 1981-85 to about 112 bu/acre in 1998-2001. Other crop yields have increased as well but not to the extent of corn.

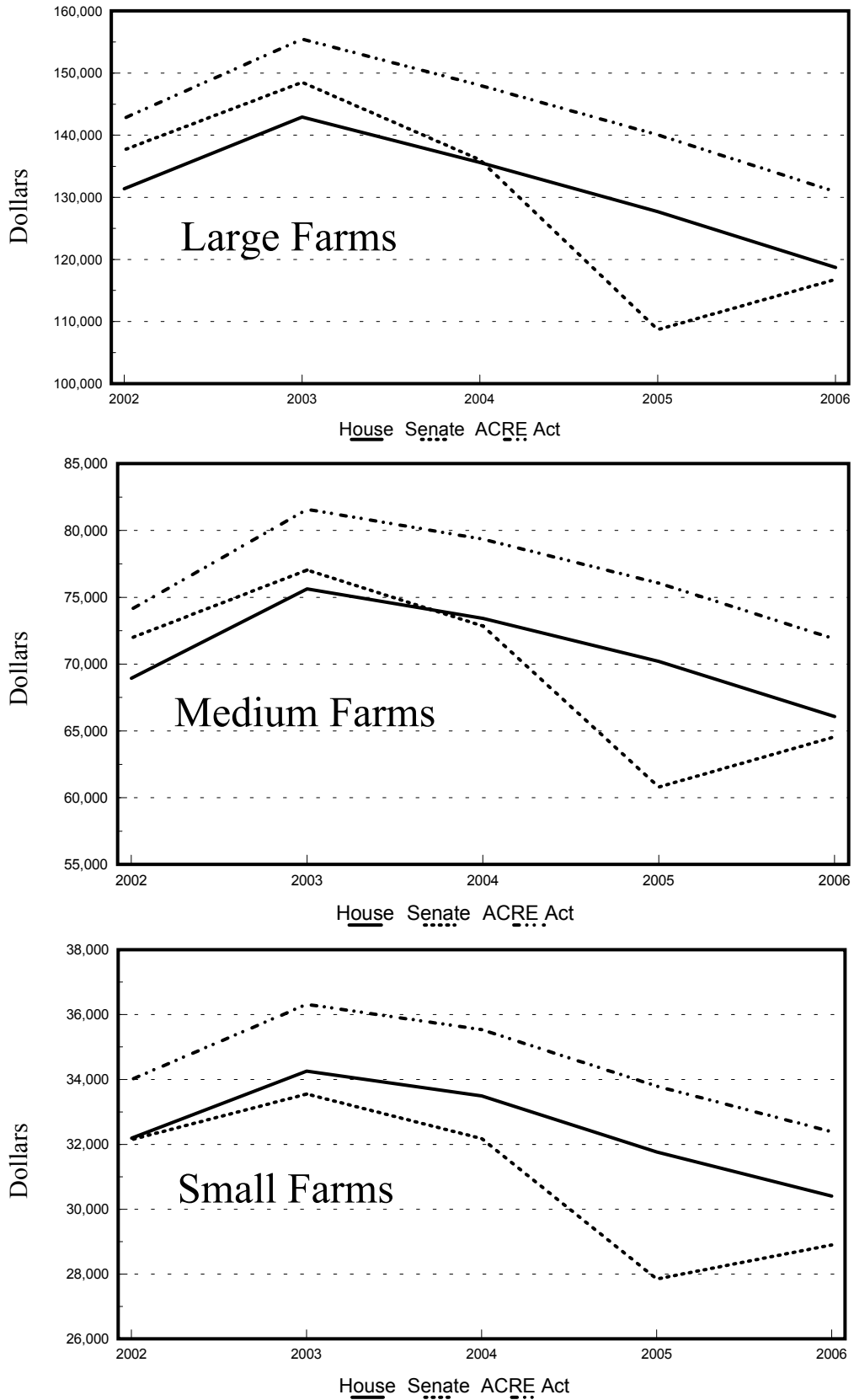


Figure 1. Net Farm Income for North Dakota Representative Farms under Various Farm Bill Proposals

Table 4 compares the contributions under the counter-cyclical savings account plan. It was assumed that producers would deposit 10% of their net farm income into the plan up to the maximum of \$10,000. At the end of the five years, the large size farms would have \$100,000 in the plan (not including interest income), medium size farms would have \$76,585, and small size farms would have \$34,404 in the plan. No withdrawals were made. The large size farms would benefit most from the plan, because they would have a higher level of net farm income available to be deposited and matched by the government.

	Farmer Contributions			Government Contributions			Total Contributions		
	Large	Medium	Small	Large	Medium	Small	Large	Medium	Small
2002	10,000	7,409	3,400	10,000	7,409	3,400	20,000	14,819	6,800
2003	10,000	8,157	3,631	10,000	8,157	3,631	20,000	16,313	7,262
2004	10,000	7,933	3,553	10,000	7,933	3,553	20,000	15,867	7,107
2005	10,000	7,606	3,379	10,000	7,606	3,379	20,000	15,212	6,757
2006	10,000	7,187	3,239	10,000	7,187	3,239	20,000	14,374	6,477
Total	50,000	38,293	17,202	50,000	38,293	17,202	100,000	76,585	34,404

## Summary

All three proposals provide substantially higher net farm income than the continuation of the FAIR Act. The ACRE Act provides higher net farm income than either the House Bill or the Senate Proposal, and the House Bill provides higher net farm income than the Senate Proposal given FAPRI's commodity price estimates. Regions of the state which produce row crops, corn, and oilseeds, would have higher net farm income under the Senate Proposal, while areas which grow mainly small grains would benefit more from the House Bill. If future commodity prices deviate from the price estimates, the results could change. If prices increase faster than FAPRI's estimates, the ACRE Act should provide more support because more of the governmental support is in the form of direct payments. However, if prices lag behind FAPRI's estimates, the Senate Proposal may provide higher support because of the higher loan rates.

## References

- Food and Agricultural Policy Research Institute . *FAPRI 2001 U.S. and World Agricultural Outlook*. Iowa State University, Ames, 2001.
- Food and Agricultural Policy Research Institute. *FAPRI Analysis of the Grain, Oilseed, and Cotton Provisions of the Agricultural Act of 2001, H.R. 2646*. Iowa State University, Ames, 2001.
- North Dakota Agricultural Statistics Service. *North Dakota Agricultural Statistics 2001*. Fargo, North Dakota, 2001.
- North Dakota State Board for Vocational and Technical Education. *North Dakota Farm and Ranch Business Management, Annual Report 2000*. North Dakota State University, Fargo, 2000.
- Taylor, Richard D., and Won W. Koo. *Economic Analysis of Alternative Farm Bill Proposals*. Agribusiness & Applied Economics Report No.468, Department of Agribusiness and Applied Economics, Center for Agricultural Policy and Trade Studies, North Dakota State University, Fargo, October 2001.
- Taylor, Richard D., and Won W. Koo. *Economic Analysis of the Farmers Union Farm Bill Proposal*. Agribusiness & Applied Economics Report No. 460, Department of Agribusiness and Applied Economics, Center for Agricultural Policy and Trade Studies, North Dakota State University, Fargo, August 2001.
- Taylor, Richard D., Won W. Koo, and Andrew L. Swenson. *2001 North Dakota Agricultural Outlook: Representative Farms 2001-2010*. Agribusiness & Applied Economics Report No. 465, Department of Agribusiness and Applied Economics, Center for Agricultural Policy and Trade Studies, North Dakota State University, Fargo, October 2001.