

NET FARM INCOME IMPACTS OF ALTERNATIVE RISK MANAGEMENT BILLS

FAPRI Policy Working Paper #04-99
October, 1999

Gary Adams
Chad Hart
Bruce Babcock
Pat Westhoff

Prepared by the Food & Agricultural Policy Research Institute (FAPRI)

University of Missouri
101 S. Fifth Street
Columbia, Missouri 65201
(573) 882-3576

Iowa State University
578 Heady Hall
Ames, Iowa 50011-1070
(515) 294-1183

NET FARM INCOME IMPACTS OF ALTERNATIVE RISK MANAGEMENT BILLS

At the request of Senator Richard Lugar, Chairman of the Committee on Agriculture, Nutrition and Forestry, FAPRI has analyzed impacts of two alternative risk management proposals. The first proposal is the Farmers' Risk Management Act of 1999, sponsored by Senator Lugar (IN) and co-sponsored by Senators McConnell (KY), Fitzgerald (IL), and Helms (NC). The second proposal is the Risk Management for the 21st Century Act, put forth by Senator Roberts (KS) and co-sponsored by Senator Kerrey (NE) and others¹.

The analysis focuses on the impacts on U.S. net farm income and government outlays. In addition, state-level payments and net indemnities under each proposal are estimated. The impacts of the bills are measured against the FAPRI January 1999 baseline, details of which are found in Staff Report #1-99.

Scenario Assumptions

The Lugar bill makes risk management payments totaling \$5.1 billion to eligible producers for the 2001-2004 crops. Payment allocations will be determined so as to spend \$1.275 billion in each year. The annual payments for each producer are based on their FCIC actual production history (APH) established for the 2000 crop for each Federally insurable commodity grown by the producer. To be eligible for payments, producers must use at least 2 approved risk management practices each year. The bill designates 8 possible choices such as purchasing crop insurance, utilizing futures or options, or diversifying production. The proposal also reduces the potential for underwriting gains or losses associated with catastrophic crop insurance (CAT) policies for the 2001-04 period.

The Roberts/Kerrey bill encourages producers to increase their crop insurance coverage by increasing premium subsidies and thereby making higher levels of coverage more affordable. In addition, it creates a multi-year disaster APH adjustment for producers who have suffered a natural disaster during at least three of the preceding five years. The bill also opens up insurance to cover livestock as well. However, in this analysis, the livestock provisions have been dropped so that the budgetary costs of the program are similar to those of the Lugar proposal. In addition, the Roberts/Kerrey program is assumed to be in place for crop years 2001-2004. Due to the timing of

¹ Additional co-sponsors of the Risk Management for the 21st Century Act are Senators Craig (ID), Burns (MT), Baucus (MT), Grassley (IA), Santorum (PA), Crapo (ID), Johnson (SD), Thomas (WY), Brownback (KS), Hagel (NE), Daschle (SD), Harkin (IA), Enzi (WY), Inhofe (OK), and Conrad (ND).

expenditures, some costs for the Roberts/Kerrey proposal fall in fiscal year 2005. Participation in crop insurance is estimated to increase by roughly 5.5 percent over baseline levels. The average insurance coverage level increases to between 70 and 75 percent. We assume that a vast majority of insured producers take advantage of the additional premium subsidy for risk management activities.

Impacts on Farm Income and Government Costs

Impacts on net farm income and government outlays are presented in Table 1. FAPRI's analysis of the Lugar bill suggests that net farm income would increase by \$4.94 billion above baseline levels for the 2001-05 period. The increase is the result of \$5.10 billion in risk management payments and an additional \$0.31 billion in net insurance indemnities. These are offset to some extent by an increase of \$0.47 billion in expenses due to changes in capital consumption and net rent to non-operator landlords. Net outlays and budget authority are estimated to increase by \$5.64 and \$5.65 billion, respectively, over the FY2001-05 period.

For the Roberts/Kerrey bill, net farm income is projected to increase by \$3.52 billion above the baseline for the 2001-05 period. This is the result of an increase in net indemnities of \$3.70 billion, with production expenses rising by \$0.19 billion. Under this bill, net outlays and budget authority are projected to rise by \$5.42 billion above baseline levels for the FY2001-05 period.

Comparison of State-Level Impacts

Payments and additional net indemnities under the two proposals have been estimated for each state (Table 2). It should be pointed out that the state-level results are estimates of additional payments and not impacts on farm income. As with the U.S. farm income estimates, a portion of the additional payments would be offset with marginally higher expenses. However, FAPRI does not currently maintain farm income models on a state-level basis.

In developing the estimates for each state, there are a few critical assumptions that should be addressed. Under the Lugar proposal, risk management payments are allocated based on the APH established for the 2000 crop and the average FCIC price level for each crop. Based on these data, the Secretary then determines the payment rate that will fully allocate the available funds. Effectively, the payment rate reflects the percentage of the total value of insurable crops that can be covered by the risk management payments. Using recent historical data for the value of production of insurable crops, the payment rate percentage was estimated at 1.5%. Using the estimated payment rate and the value of production of insurable crops for each state, payments under the Lugar bill are estimated in Table 2. *The estimated payments are less than \$5.1 billion due to the lack of state-level data for insurable nursery crops and a few specialty crops. However, the payments do account for the following crops: corn, sorghum, oats, barley, wheat, rice, rye, soybeans, flax, peanuts, sunflower, canola, upland and ELS cotton, dry edible beans and peas, wrinkled seed peas, Austrian winter peas, lentils, tobacco, sugarbeets, sugarcane, citrus, almonds, walnuts, snap beans, processed tomatoes, processed sweet corn, green peas, nectarines, plums, prunes, hay, potatoes, apples, apricots, grapes, cranberries, and pears.*

State-level estimates of additional net indemnities under both proposals are based on the proportion of 1999 crop-year total premiums for crop insurance in the individual states and the assumption of actuarially fair insurance across all states, crops, and policies. Varying loss patterns would create different results.

The state-level results reinforce the net farm income impacts for the U.S. as a whole. Given the payment structure under the Lugar proposal, the majority of states would realize greater payments under the Lugar proposal than under the Roberts/Kerrey alternative. For example, Illinois would be expected to receive \$414 million under the Lugar bill and \$197 million under Roberts/Kerrey. However, there are a couple of notable exceptions. Both Texas and North Dakota receive substantially higher payments under the Roberts/Kerrey proposal. In the case of Texas, estimated net indemnities under Roberts/Kerrey total \$491 million (the most for any state), as compared to \$233 million under the Lugar proposal. Under the Lugar proposal, California is estimated to receive the most of any state, with payments and net indemnities of \$534 million.

Concluding Remarks

The two proposals generate approximately the same level of outlays over the FY2001-05 period. However, the direct payments under the Lugar bill produce a substantially higher impact on U.S. farm income. It is important to note that payments under the Roberts/Kerrey bill are only triggered by crop losses. As a result, the payments will be more targeted than those made under the Lugar proposal.

Finally, this analysis does not incorporate any potential acreage or price impacts associated with the two proposals. The lower cost of risk to a farmer could induce additional production in higher risk areas and thereby lower prices. The net effect would most likely be a negative to farm income and a positive to government expenditures, but in aggregate, the magnitude of the impacts are uncertain.

Table 1. Impacts of Alternative Risk Management Bills *

	2001	2002	2003	2004	2005	2001-05 Sum
Lugar Bill						
	(Billion \$, Change from Baseline)					
Crop Insurance						
Net Outlays (FY)	0.033	0.119	0.129	0.156	0.104	0.541
Budget Authority (FY)	0.117	0.123	0.138	0.171	0.000	0.549
Risk Management Payments						
Net Outlays (FY)	1.275	1.275	1.275	1.275	0.000	5.100
Total Government Costs						
Net Outlays (FY)	1.308	1.394	1.404	1.431	0.104	5.641
Budget Authority (FY)	1.392	1.398	1.413	1.446	0.000	5.649
Net Farm Income (CY)	1.245	1.237	1.227	1.230	0.000	4.939
Roberts/Kerrey Bill						
Crop Insurance						
Net Outlays (FY)	0.490	1.357	1.375	1.379	0.824	5.424
Budget Authority (FY)	1.353	1.368	1.383	1.306	0.007	5.417
Net Farm Income (CY)	0.879	0.880	0.888	0.868	0.004	3.519

* Government Outlays and Budget Authority are on a fiscal year basis. Net Farm Income is calendar year.

Table 2. State-Level Comparison of Payments and Net Indemnities

State	Lugar Act		Total	Roberts/Kerrey Act	Difference Lugar - R/K
	Risk Payments*	Add'l Net Indemnities		Add'l Net Indemnities	
(Thousand Dollars)					
Alabama	27,557	3,781	31,338	44,592	(13,254)
Alaska	0	7	7	87	(80)
Arizona	28,153	1,098	29,251	12,947	16,304
Arkansas	132,945	6,314	139,259	74,461	64,798
California	516,011	17,827	533,839	210,255	323,584
Colorado	80,773	4,934	85,707	58,193	27,515
Connecticut	2,363	318	2,681	3,756	(1,075)
Delaware	7,713	171	7,885	2,020	5,865
Florida	140,342	6,389	146,731	75,357	71,374
Georgia	86,990	10,026	97,016	118,252	(21,236)
Hawaii	8,427	143	8,570	1,685	6,885
Idaho	84,646	2,932	87,578	34,584	52,994
Illinois	397,040	16,739	413,779	197,422	216,357
Indiana	199,937	8,722	208,659	102,867	105,791
Iowa	440,099	23,292	463,391	274,705	188,687
Kansas	204,708	14,445	219,152	170,358	48,795
Kentucky	94,697	3,193	97,890	37,654	60,236
Louisiana	76,118	4,826	80,945	56,920	24,025
Maine	7,498	443	7,941	5,225	2,716
Maryland	19,367	753	20,120	8,882	11,238
Massachusetts	9,580	299	9,879	3,526	6,353
Michigan	87,564	4,226	91,791	49,847	41,944
Minnesota	303,046	24,187	327,233	285,257	41,975
Mississippi	73,761	5,209	78,970	61,431	17,539
Missouri	137,382	8,315	145,697	98,071	47,626
Montana	77,192	5,113	82,305	60,299	22,006
Nebraska	252,684	16,425	269,110	193,719	75,391
Nevada	10,377	12	10,389	141	10,248
New Hampshire	1,380	19	1,398	222	1,177
New Jersey	6,644	225	6,868	2,649	4,219
New Mexico	9,531	917	10,447	10,814	(366)
New York	48,213	818	49,031	9,648	39,383
North Carolina	128,081	7,703	135,784	90,851	44,933
North Dakota	170,879	29,636	200,515	349,522	(149,007)
Ohio	146,087	4,279	150,366	50,462	99,903
Oklahoma	65,069	5,258	70,327	62,016	8,311
Oregon	57,597	1,242	58,839	14,652	44,188
Pennsylvania	67,230	931	68,162	10,985	57,177
Rhode Island	288	9	297	103	193
South Carolina	33,059	2,451	35,510	28,904	6,606
South Dakota	153,206	13,829	167,035	163,098	3,937
Tennessee	54,818	3,224	58,042	38,022	20,020
Texas	191,732	41,603	233,334	490,659	(257,325)
Utah	16,189	100	16,289	1,178	15,112
Vermont	527	38	565	443	121
Virginia	34,455	2,480	36,936	29,255	7,681
Washington	145,376	3,630	149,006	42,817	106,189
West Virginia	1,756	143	1,899	1,687	212
Wisconsin	128,566	5,005	133,571	59,027	74,544
Wyoming	19,340	414	19,754	4,883	14,871
Sum	4,986,994	314,094	5,301,088	3,704,408	1,596,680

* Total payments are less than \$5.1 billion due to the exclusion of insurable nursery crops and some specialty crops from the estimates.