

4th Quarter 2011 | 26(4)

## DISTRIBUTIONAL IMPACTS OF CAPPING ELIGIBILITY FOR COMMODITY PROGRAM PAYMENTS

Eric Wailes, Eddie Chavez, Diana Danforth, Bruce Ahrendsen, and Bruce Dixon

JEL Classification Code: Q12, Q18

Keywords: Adjusted Gross Income, Commodity Payments, Eligibility, Means Test

U.S. government farm commodity program funding is being targeted for reduction to help decrease the federal budget deficit. While commodity program payments are mandatory, program funding can be altered annually through the fiscal year appropriations. Toward that end, Congress has initiated a review of the current legislation which will expire in 2012 (Harwood, 2009). Currently, forces influencing the review include the burgeoning federal budget deficit, historically high but volatile farm commodity prices, and agricultural trade agreements which seek to reduce trade distortions (Chavez and Wailes, 2011). To help reduce government expenditures, capping eligibility using a means test for commodity program payments was used in both the 2002 and 2008 farm bills and may be one of the items Congress looks at to reduce farm commodity program expenditures. This paper examines the impact of limiting eligibility to recipients who have an Adjusted Gross Income (AGI) of more than \$250,000.

**Table 1**

### Importance of Reasons for Enrolling in ACRE

Reason	Percent citing	Mean score (5-point scale)	
		Operators who enrolled some units	Operators who enrolled all units
Wanted more risk protection	97	4.08	4.42
Believed ACRE payments would exceed the 20% of the direct payment given up	95	3.67	3.19
Farm had high yield variability	86	2.06	1.93
Lender or farm manager advised it	83	1.65	1.67
Landlord wanted to enroll farm	80	1.57	1.28

### Adjusted Gross Income and Government Program Payments

In the United States, government farm program payments are an important component of income for farm businesses. For the period 2000-2009, the government spent an average of \$10.84 billion annually on various commodity support programs such as commodity payments, marketing loans, counter-cyclical payments, ACRE payments and crop market loss assistance (FAPRI-MU, 2010). Means testing income for eligibility for farm program payments became effective with the passage of the 2002 Farm Security and Rural Investment Act. Eligibility was to be denied to an individual taxable entity with average adjusted gross income (AGI) over \$2.5 million for the previous three taxable years, with an exception granted for operations with 75% or more of the average AGI from farming,

**Table 2**

**Annual Average Commodity Program Payments Received by U.S. Farm Operators with Government Payments, by Adjusted Gross Income (AGI), by Production Specialty, 2007-2009.**

Production Specialty*	AGI ≤\$250,000			AGI >\$250,000		
	Per Farm, \$	Total, \$ Mil	% of Total	Per Farm, \$	Total, \$ Mil	% of Total
General cash gain	12,421	693.1	63.3	38,364	402.3	36.7
Wheat	14,937	452.7	77.2	44,536	134.1	22.9
Corn	9,713	975.3	60.8	26,967	628.0	39.2
Soybeans	7,265	319.5	17.1	33,811	129.8	28.9
Grain sorghum	17,501	28.8	13.5	55,151	10.4	26.5
Rice	54,789	137.7	67.0	70,475	67.9	33.0
Tobacco	14,144	105.9	66.0	184,988	54.5	34.0
Cotton	39,571	219.8	53.5	107,104	191.4	46.6
Peanuts	54,724	64.5	79.7	86,113	16.5	20.4
General Crop	3,541	840.7	80.3	16,108	206.0	19.7
Fruits/nuts /vegetables /nursery	9,047	138.4	69.2	29,875	61.6	30.8
Beef cattle	5,454	796.6	86.3	13,646	126.5	13.7
Hogs	10,180	73.1	58.5	26,243	51.7	41.5
Poultry	3,912	26.2	62.4	19,781	15.8	37.6
Dairy	13,495	480.7	78.4	33,901	135.5	21.6
General livestock	2,868	69.6	76.9	16,735	29.0	23.1
<b>All production specialties</b>	<b>7,137</b>	<b>5,449.5</b>	<b>70.7</b>	<b>29,483</b>	<b>2,258.0</b>	<b>29.3</b>
<b>All crops</b>	<b>7,928</b>	<b>3,976.3</b>	<b>67.6</b>	<b>32,297</b>	<b>1,902.4</b>	<b>32.4</b>
<b>All livestock</b>	<b>5,622</b>	<b>1,473.2</b>	<b>80.6</b>	<b>20,108</b>	<b>355.6</b>	<b>19.4</b>

\*Based on value of production.

Source: Estimated from the Agricultural Resource Management Survey, 2007-2009

ranching or forestry. The Food, Conservation and Energy Act of 2008 further tightened eligibility limits. First, it separated AGI into two components—farm AGI and nonfarm AGI. The eligibility limit on farm AGI is \$750 thousand and on nonfarm AGI, \$500 thousand. Congress may seek to lower the current income eligibility cap for commodity program payments to reduce federal expenditures. Using 2004 IRS tax data and Agricultural and Resource Management Survey (ARMS) data, Durst (2007) analyzed the effects of a \$200,000 AGI eligibility cap on 2004 farm program payments. His results indicated that a \$200,000 AGI cap on eligibility would have affected an estimated 1.5% of all farm operator households. Qiu and Goodwin (2011) analyzed separate limits for farm AGI and non-farm AGI at \$200,000 and reported results by commodity and region. They found that current limits and the \$200,000 limits had the most significant impact on rice and cotton as percentages of number of producers and acreage affected. Total impact, however, was found to be greatest on corn, soybean and wheat producers because of the much larger acreages planted to these crops.

### Imposing a \$250,000 Cap on AGI

The present study focuses on analyzing the impact on recipients of government farm program payments that results from imposing a \$250,000 cap on combined farm and non-farm AGI. This proposed cap failed as an amendment to the Fiscal Year 2012 House Agriculture Appropriations Bill submitted by Rep. Flake (R-AZ) (House Appropriations Committee, 2011). While the amendment failed, efforts to reduce the federal budget deficit will persist, including reduction of farm program spending through means testing.

For this study, data were obtained for the three-year period 2007-2009 from the ARMS, conducted by USDA's Economic Research Service, (ERS) and National Agricultural Statistics Service, (NASS). A limit of \$250,000 or less in AGI was used as the eligibility criterion for receiving commodity program payments.

AGI is defined as net farm income plus off-farm income with capital gains minus adjustments. Adjustments are allowable deductions, including health and dental insurance costs, out-of-pocket health/medical expenses, contribution to retirement/pension plans, and other contributions such as alimony, child support, and charitable donations. Commodity program payments are defined as direct government payments minus conservation payments. Thus, the full farm population is divided into two groups based on AGI: 1) Those with AGI equal to or less than \$250,000, and 2) those with AGI greater than \$250,000. Because IRS tax data was not available, the estimates of this study are upper limits, since we have assumed the term "farm operator" to be an individual taxable entity.

**Table 3**

**Annual Average Numbers of U.S. Farm Operators with Government Payments, by Adjusted Gross Income (AGI), by State, 2007-2009.**

State	AGI ≤\$250,000		AGI >\$250,000	
	Number of Farms	% of Total	Number of Farms	% of Total
Alabama	15,664	96.8	517	3.2
Arizona	2,043	84.9	364	15.1
Arkansas	8,339	88.3	1,100	11.7
California	6,496	77.4	1,897	22.6
Colorado	13,130	90.0	1,314	9.1
Florida	2,873	93.3	207	6.7
Georgia	16,051	92.7	818	7.3
Idaho	7,613	90.3	7,778	9.7
Illinois	45,362	85.4	3,004	14.6
Indiana	28,621	90.5	7,949	9.5
Iowa	68,629	89.6	3,475	10.4
Kansas	39,256	91.9	1,592	8.1
Kentucky	38,554	96.0	1,592	4.0
Louisiana	8,876	88.5	1,150	11.5
Michigan	16,639	95.5	779	4.5
Minnesota	51,725	89.8	5,893	10.2
Mississippi	15,636	89.9	1,765	10.1
Missouri	97,926	93.5	2,657	6.6
Montana	11,084	93.0	832	7.0
Nebraska	30,218	86.4	4,777	13.7
Nevada/Utah	3,516	92.3	293	7.7
New Mexico	4,532	93.1	338	6.9
New York	11,206	94.2	697	5.9
North Carolina	25,975	93.1	1,106	6.9
North Dakota	24,429	86.4	3,846	13.6
Ohio	30,818	89.3	3,678	10.7
Oklahoma	28,983	93.3	2,090	6.7
Oregon	5,239	92.4	433	7.6
Pennsylvania	13,342	96.0	554	4.0
South Carolina	7,570	91.0	750	9.0
South Dakota	20,161	84.9	3,589	15.1
Tennessee	22,485	95.3	1,104	4.7
Texas	34,671	89.9	3,907	10.1
Virginia	14,849	96.5	541	3.5
Washington	6,435	89.5	753	10.5
Wisconsin	39,831	93.9	2,592	6.1
Wyoming	3,002	93.3	216	6.7
Northeast*	12,812	93.0	969	7.0
<b>All States</b>	<b>763,592</b>	<b>90.9</b>	<b>76,586</b>	<b>9.1</b>

\* Northeast states are combined to meet the ARMS threshold count requirement, includes Maine, Vermont, New Hampshire, Connecticut, Massachusetts, Rhode Island, Delaware, New Jersey and West Virginia. Alaska and Hawaii are not covered by ARMS survey

Source: Estimated from the Agricultural Resource Management Survey, 2007-2009

In this study, the appropriations bill amendment offered by Rep. Flake of Arizona is interpreted to mean that those farm operators with AGI greater than \$250,000 would be considered ineligible for commodity farm program payments. These payments are described in section 1001D(b)(1)(C) of the Food Security Act of 1985 (7 U.S.C. 1308-3a(b)(1)(C)). The program payment eligibility criterion for the current crop year is established based on the annual average of the three-year period AGI preceding the previous crop year. The three-year annual average criterion is similar to the means test formulation currently in effect as mandated by the 2002 and 2008 Farm Bills. For example, the eligibility for 2011 is based on the annual average AGI for the three-year period 2007-2009. Since the latest ARMS data available to the authors are for 2009, it is not possible to compare our results with actual payments for 2011. Thus, the annual average payments for the three-year period 2007-2009 are used to estimate the 2011 payments for ineligible farm operators, which become the estimated potential government savings for 2011.

### Distributional Impacts

The results are presented in Tables 1 through 4. Table 1 shows the average number of farm operators by AGI group for the three-year period of 2007-2009—which is used to establish payment limit eligibility for crop year 2011—by production specialty. Production specialty in the ARMS data set is determined by the dominant crop or livestock enterprise by income source. Table 2 shows the commodity payments received by U.S. farm operators with government program payments by AGI group for the three-year eligibility period of 2007-2009 by production specialty. Tables 3 and 4 show the same information for average farm numbers and average payments received by state. All farm numbers and commodity payment levels are estimates based on the ARMS data and the expansion factors provided in the ARMS data set. To preserve clarity, we do not preface each number below with “estimated” but the figures are estimates.

For the three-year period 2007-2009, Table 1 shows that an annual average of 840,178 U.S. farm operators received government farm program payments of which 763,592—or 90.9%—had average annual AGI equal to or less than \$250,000 and 76,586—or 9.1%—had average annual AGI greater than \$250,000.

Of the annual average number of farms receiving government farm program payments over the same period, 560,478 were crop farms—66.7%—and 279,700 were livestock farms—33.3%. For crops, 58,903—10.5%—had AGI greater than \$250,000 while for livestock, 17,682—6.3%—had AGI greater than \$250,000.

On the basis of production specialty, Table 1 shows that the largest percent shares of farm operators with AGI greater than \$250,000 were rice—27.7%, cotton—24.4%, hogs—21.6%, corn—18.8%, and general cash grain—15.8%. The lowest value was for tobacco at 3.8%. If the \$250,000 eligibility AGI cap had been implemented for 2011, 9.1% of all farm operators would be affected.

Table 2 shows that the annual average commodity program payments for all farm operators with AGI equal to or less than \$250,000 was \$5.45 billion—70.7%—while the annual average commodity program payments for farm operators with AGI greater than \$250,000 totaled \$2.26 billion—29.3%. By production specialty, the largest annual average percent shares of commodity program payments for farms with AGI greater than \$250,000 were to farms dominated by cotton—46.6%, hogs—41.5%, corn—39.2%, poultry—37.6%, and general cash grain—36.7%. The lowest value was for farms with mostly beef cattle—13.7%. The top dollar recipients of

cash grain—36.7%. The lowest value was for farms with mostly beef cattle—13.7%. The top dollar recipients of

**Table 4**

Annual Average Commodity Program Payments Received by U.S. Farm Operators with Government Payments, by Adjusted Gross Income (AGI), by State, 2007-2009.

State	AGI ≤\$250,000			AGI >\$250,000		
	Per Farm, \$	Total, \$ Mil	% of Total	Per Farm, \$	Total, \$ Mil	% of Total
Alabama	4,019	63.0	72.8	45,575	23.5	27.2
Arizona	43,533	88.9	68.2	113,677	41.4	31.8
Arkansas	17,578	146.6	59.4	91,104	100.2	40.6
California	23,238	151.0	60.7	51,608	97.9	39.3
Colorado	8,363	109.8	76.0	26,467	34.8	24.1
Florida	11,711	33.6	72.9	60,502	12.5	27.1
Georgia	10,533	169.1	76.6	40,772	51.5	23.4
Idaho	6,381	48.6	77.4	17,314	14.2	22.6
Illinois	6,590	298.9	64.9	20,788	161.7	35.1
Indiana	4,777	136.7	60.9	29,172	87.6	39.1
Iowa	5,873	403.1	69.4	22,390	178.0	30.6
Kansas	7,935	311.5	78.8	24,053	83.6	21.2
Kentucky	3,867	149.1	87.6	13,258	21.1	12.4
Louisiana	11,535	102.4	69.9	38,360	44.1	30.1
Michigan	5,882	97.9	78.6	34,192	26.6	21.4
Minnesota	2,829	301.5	69.6	22,338	131.6	30.4
Mississippi	7,754	121.2	64.0	38,715	68.3	36.0
Missouri	4,869	184.7	73.1	25,567	67.9	26.9
Montana	8,074	89.5	73.4	39,110	32.5	26.7
Nebraska	8,564	258.8	70.8	22,349	106.7	29.2
Nevada/Utah	8,622	30.3	89.8	11,738	3.4	10.2
New Mexico	10,852	49.2	85.9	24,007	8.1	14.2
New York	6,968	78.1	83.2	22,264	15.8	16.8
North Carolina	12,139	181.8	63.8	39,391	103.3	36.2
North Dakota	7,739	108.3	55.2	37,998	146.1	44.8
Ohio	4,567	140.7	68.8	17,374	63.9	31.2
Oklahoma	6,759	195.9	79.4	24,300	50.8	20.6
Oregon	6,391	335.	75.7	24,848	10.8	24.3
Pennsylvania	3,780	50.4	82.3	19,549	10.8	17.7
South Carolina	11,072	83.8	73.2	40,873	30.7	26.8
South Dakota	6,755	136.2	69.1	16,968	60.9	30.9
Tennessee	3,874	87.1	68.0	37,121	41.0	32.0
Texas	13,089	453.8	69.5	50,928	199.0	30.5
Virginia	4,105	61.0	74.6	38,345	20.8	25.4
Washington	16,540	106.4	78.1	39,595	29.8	21.9
Wisconsin	5,415	215.7	83.4	16,526	42.8	16.6
Wyoming	4,483	13.5	81.1	14,563	3.1	18.9
Northeast*	6,723	86.1	73.6	31,904	30.9	26.4
All States	7,137	5,449.5	70.7	29,483	2,258.0	29.3

\* Northeast states are combined to meet the ARMS threshold count requirement, includes Maine, Vermont, New Hampshire, Connecticut, Massachusetts, Rhode Island, Delaware, New Jersey and West Virginia. Alaska and Hawaii are not covered by ARMS survey.

Source: Estimated from the Agricultural Resource Management Survey, 2007-2009

commodity program payments for farms with AGI over \$250,000 were to those dominated by corn—\$628.0 million, general cash grain—\$402.3 million, general crops—\$206.0 million, cotton—\$191.4 million, and wheat—\$134.1 million.

Ignoring tobacco because of the buyout program, the top dollar recipients of commodity program payments per farm operator with AGI over \$250,000, were farms with large portions of cotton—\$107,104, peanuts—\$86,113, rice—\$70,475, and grain sorghum—\$53,151. If the \$250,000 eligibility cap had been implemented for 2011, the potential government savings for crop year 2011 would have been \$2.26 billion from all farm operators—of which \$1.90 billion—84.2%—would come from crop farms, and \$355.6 million—15.8%—would come from livestock farms.

The average numbers of farms by state by AGI group are shown in Table 3. The percent of farm operators with AGI greater than \$250,000 was highest for California—22.6%, Arizona—15.1%, South Dakota—15.1%, Illinois—14.6%, and Nebraska—13.7%. Alabama had the lowest value, at 3.2%.

Table 4 presents the commodity program payments received by state by AGI group. On an annual average basis, the top ten recipient states of commodity program payments for farms with AGI over \$250,000 were Texas—\$199.0 million, Iowa—\$178.0 million, Illinois—\$161.7 million, North Dakota—\$146.1 million, Minnesota—\$131.6 million, Nebraska—\$106.7 million, North Carolina—\$103.3 million, Arkansas—\$100.2 million, California—\$97.9 million, and Indiana—\$87.6 million. If these payments were eliminated, these ten states would account for 58.1% of the potential government commodity program savings.

On a per farm operator basis, the top recipients of commodity program payments for farms with AGI over \$250,000 were in Arizona—\$113,677, North Carolina—\$93,391, Arkansas—\$91,104, Florida—\$60,502, California—\$51,608, and Texas—\$50,928. Nevada and Utah received the lowest average payments of \$11,738.

If the \$250,000 AGI limit were effective, the percent loss of program payments would be highest for North Dakota—44.8%, followed by Arkansas—40.6%, California—39.3%, Indiana—39.1%, and North Carolina—36.2%.

### Concluding Observations

During the FY 2012 agricultural appropriations markup an attempt was made to restrict commodity program payment eligibility even more than under the law existing at that time. A 2012 appropriations bill amendment which came very close to being adopted would have made an individual or taxable entity with a combined AGI greater than \$250 thousand ineligible for commodity program payments. This study estimates the upper limit of the potential budget savings and distributional impacts by state and commodity had this more restrictive eligibility means test been applied in 2011. Since access to actual tax returns used to determine cap eligibility was not available this upper limit was used. Based on the ARMS data set, an estimated 9.1% of all farms—10.5% of crop farms, and 6.3% of livestock farms—would have been ineligible to receive commodity program payments under the proposal. Estimated budget savings in 2011 would be \$2.3 billion from all farms. Corn farms would account for the largest annual savings of \$628 million. Ten states would account for 58% of savings in 2011. The percent loss of total commodity program payments to farmers by state would have been largest for North Dakota—44.8% and Arkansas—40.6% and smallest for Nevada/Utah—about 10%.

This analysis shows that \$2.3 billion in annual expenditure savings could be achieved potentially by lowering the eligibility cap on current commodity program payments to \$250,000 of AGI. However, the distribution of these impacts is far from uniform when viewed by crop and by State. Some states and commodities will experience disproportional reductions in payments. As the debate continues on how best to reduce the federal deficit by reformulating farm policy, distributional impacts of proposed policy changes as presented here need to be considered.

#### **For More Information**

Chavez, Eddie C. and Eric J. Wailes. 2011. Analysis of U.S. rice policy in a global stochastic framework. Paper presented at the Southern Agricultural Economics Association Annual Meeting, Corpus Christi, TX, February 5-8. Available at:

[http://ageconsearch.umn.edu/bitstream/98846/2/AGRMStochasticAnalysis\\_Chavez%20and%20Wailes\\_2\\_2011.pdf](http://ageconsearch.umn.edu/bitstream/98846/2/AGRMStochasticAnalysis_Chavez%20and%20Wailes_2_2011.pdf)

Durst, Ron L. 2007. Effects of reducing the income cap on eligibility for farm program payments. EIB-27. U.S. Dept. of Agriculture, Econ. Res. Serv. September 2007. Available at:

<http://ageconsearch.umn.edu/bitstream/59027/2/eib27.pdf>

FAPRI-MU. 2010. Crop insurance: background statistics on participation and results. FAPRI-MU report #10-10.

Available at: [http://www.fapri.missouri.edu/outreach/publications/2010/FAPRI\\_MU\\_Report\\_10\\_10.pdf](http://www.fapri.missouri.edu/outreach/publications/2010/FAPRI_MU_Report_10_10.pdf)

Food Security Act of 1985 (7 U.S.C. 1308-3a(b)(1)(C)). Section 1001D(b)(1)(C).

Harwood, Joy. 2009. An overview of the U.S. agricultural economy and the 2008 farm bill. *Agricultural and Resource Economics Review* 38(1) 8-17.

House Appropriations Committee. 2011. Summary: fiscal year 2012 agriculture appropriations bill. June 13, 2011.

Available at: [http://appropriations.house.gov/UploadedFiles/6.13.11\\_FY\\_12\\_Agriculture\\_Conference\\_Summary.pdf](http://appropriations.house.gov/UploadedFiles/6.13.11_FY_12_Agriculture_Conference_Summary.pdf)

Qiu, Feng and Barry K. Goodwin. 2011. The implications of binding farm program payment limits associated with income means testing. Poster presented at the Agricultural and Applied Economics Association Annual Meeting, Pittsburgh, PA, July 24-26. Available at:

[http://ageconsearch.umn.edu/bitstream/103733/2/AAEAPoster\\_MeansTest\\_201107.pdf](http://ageconsearch.umn.edu/bitstream/103733/2/AAEAPoster_MeansTest_201107.pdf)

U.S. Department of Agriculture, Farm Service Agency. 2009. fact sheet. average adjusted gross income 2009 and subsequent crop years. March 2009.

*Eric Wailes (ewailes@uark.edu) is Distinguished Professor, Department of Agricultural Economics and Agribusiness, University of Arkansas, Fayetteville, Arkansas. Eddie Chavez (echavez@uark.edu) is Program Associate, Department of Agricultural Economics and Agribusiness, University of Arkansas, Fayetteville, Arkansas. Diana Danforth (ddanfort@uark.edu) is a Senior Program Associate, Department of Agricultural Economics and Agribusiness, University of Arkansas, Fayetteville, Arkansas. Bruce Ahrendsen (ahrend@uark.edu) is Professor, Department of Agricultural Economics and Agribusiness, University of Arkansas, Fayetteville, Arkansas. Bruce Dixon (bdixon@uark.edu) is Professor, Department of Agricultural Economics and Agribusiness, University of Arkansas, Fayetteville, Arkansas. This study was funded in part by the Arkansas Rice Research and Promotion Board, the Arkansas Soybean Research Board, AgHeritage Farm Credit Services, and Farm Credit Midsouth*

*The views expressed are those of the authors and do not necessarily reflect the positions of the Federal Reserve Bank of Kansas City, the Federal Reserve System, or Purdue University.*

© 1999-2011 Choices. All rights reserved. Articles may be reproduced or electronically distributed as long as attribution to Choices and the Agricultural & Applied Economics Association is maintained.

**The farmdoc project distributes Choices in partnership with  
the Agricultural and Applied Economics Association.**

[click here to visit choicesmagazine.org >>](http://choicesmagazine.org)