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Potential Impacts of Changes to Government Payment Limits for Mississippi Farms

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Abstract

This paper examines the issue of government payment limits and how changes to these limits could impact program crops producers in Mississippi. Economic factors affecting the incidence of payment limits on various program crops are also discussed. The latest proposed change to payment limits, bill S. 667, is evaluated in contrast to the provisions of the current farm bill. Data from other states are also examined in order to obtain a better understanding of the regional differences in the application of payment limits.

Keywords: payment limits, agricultural policy, farm bill

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Introduction

The Congressional debate leading up to the 2002 farm bill—officially entitled the Farm Security and Rural Investment Act (FSRIA)—consisted of several controversial issues, perhaps none more contentious than setting tighter limits on the level of farm program payments. As interest groups began to generate more news coverage of the relatively high levels of government payments some farms received, some members of Congress responded with proposals for new, lower limits on individual farm program payments. Ultimately, Congress did not incorporate these provisions in the final bill that became FSRIA (Farm Security and Rural Investment Act 2002). The issue is far from dead, however, as Congressional supporters have vowed to continue the fight to lower payment limits. Furthermore, as a compromise measure, FSRIA included language requiring the creation of a special commission to investigate the potential impact of payment limits.

The rationale for and against payment limits appears never to have been clearly defined during the farm bill deliberations. The debate about payment limits appears largely to be a discussion of equity among producers. Proponents of greater limitations frequently suggest that by limiting payments smaller and perhaps less financially sound farms will be put on more equal footing with larger and more profitable farms. Thus, most of the payment limit proposals are implicitly attempting to shift the structure of agricultural production to smaller and more “family farm-sized” operations.

While specific limits exist on the three major payment programs—fixed direct payments, counter-cyclical payments, and loan deficiency payments—FSRIA also authorized the continuing use of generic commodity certificates. These commodity certificates allow producers

of the crops that receive the largest relative share of loan deficiency payments (LDPs) to effectively bypass the annual limit on these payments. Hence, the continuation of commodity certificates from the previous farm bill was a significant defeat for supporters of further limitations on government payments.

The previous farm bill, the Federal Agriculture Improvement and Reform (FAIR) Act of 1996, was the first to include decoupled, direct payments to farmers—officially known as production flexibility contract (PFC) payments—and contained substantial limits on these payments (Federal Agriculture Improvement and Reform Act 1996). Limits were also included for loan deficiency payments, although commodity certificates were authorized. The PFC payments were scheduled to decline over the life of the FAIR Act and eventually expire. However, once commodity prices fell from the high levels that existed when the FAIR Act became law, farm groups sought more financial support from Washington. Congress responded by doubling the level of PFC payments and doubling the annual limit on both PFC and loan deficiency payments (Gardner 2002). In addition, Congress began approving ad hoc disaster assistance packages of several billion dollars in 1998, and did so each year until FSRIA replaced the FAIR Act in 2002 (Economic Research Service 2003). Even after the passage of FSRIA, the \$3.1 billion Agricultural Assistance Act of 2003 provided farmers with funds for weather-related disasters and became part of the FY2004 appropriations approved by Congress and signed by President Bush (Consolidated Appropriations Resolution 2003).

Thus, since 1996 federal farm policy has gone from having plans—at least on paper—for substantially reducing the level of support to dramatically escalating it. Table 1 below lists the limits on farm program payments since 1996, including the limits set by FSRIA. The total limits

under the three-entity rule, which allows a farmer to collect up to half the individual payment limit on two additional business ‘entities,’ are also included.

Table 1. Total farm program payment limits, 1996-2002

Payment	FAIR 1996	FAIR 2000	FSRIA 2002
PFC/Direct payments	\$40,000	\$80,000	\$40,000
Counter-cyclical payments	<i>na</i>	<i>na</i>	\$65,000
Loan Deficiency Payments	\$75,000	\$150,000	\$75,000
Total Limit with single entity	\$115,000	\$230,000	\$180,000
Total Limit under three-entity rule	\$225,000	\$460,000	\$360,000
Commodity Certificates	Yes	Yes	Yes

An important aspect of table 1 to clarify is the difference in the total limits from 2000 to 2002. As listed, the total limit of support is \$50,000 (\$100,000 with three entities) less under FSRIA. However, since the authorization of commodity certificates effectively negates the limit on loan deficiency payments, FSRIA would actually provide \$25,000 (\$50,000 with three entities) more when market prices fall below loan rates because of its additional counter-cyclical payments.

Given these recent trends in agricultural legislation, calls for tighter limits on government support may seem out of place. However, pressure created by interest groups as well as increasing budget constraints have created divisions that are more regional than political. These divisions formed the backdrop for the payment limitation provisions that were introduced in the Senate version of the bill that became FSRIA, which took the form of the Grassley-Dorgan amendment. These provisions were subsequently removed in conference, but Senator Grassley has continued to advocate them. In March 2003, Grassley introduced bill S. 667, which contains provisions similar to those of the original Grassley-Dorgan amendment (U.S. Congress, Senate 2003, S4017). These provisions are summarized in table 2.

Table 2. Government program payment limits proposed in S. 667.

Payment	S. 667
Fixed direct payments	\$20,000
Counter-cyclical payments	\$30,000
Loan deficiency payments	\$87,500
Total limit with single entity	\$137,500
Total Limit under three-entity rule	\$275,000
Commodity Certificates	Limited

Several important observations should be made about the provisions in S. 667. First, the current limit on fixed direct payments is halved, and counter-cyclical payments are reduced by more than half. The limit on LDPs actually increases, but commodity certificates are allowed only up to the LDP limit, which would appear to create a firm cap. The three-entity rule is retained under S. 667, effectively doubling each payment limit for a total annual limit of \$275,000. This total limit, in fact, is the same as that proposed in the Senate version of FSRIA, S. 1731 (U.S. Congress, Senate 2001, S12054). While the total annual amount allowed as proposed by S. 667 is greater than originally specified in the FAIR Act (\$225,000), it would effectively be much tighter due to counting commodity certificates towards the limit on LDPs. As evidenced by S. 667, Senator Grassley and other supporters continue to seek Congressional approval of payment limit provisions similar to those found in S. 1731.

This paper examines the issue of government payment limits and how changes to these limits could impact program crops producers in Mississippi. Economic factors affecting the incidence of payment limits on various program crops are also discussed. The latest proposed change to payment limits, bill S. 667, is evaluated in contrast to the provisions of the current farm bill. Data from other states are also examined in order to obtain a better understanding of the regional differences in the application of payment limits.

Recent work on the issue of payment limits has found results similar to those in this study. Food and Agricultural Policy Research Institute (FAPRI 2003) analysis of the same provisions as those of S. 667 found that cotton and rice producers would see their returns reduced more than other program crops, on average approximately five percent less per year over ten years. Ray (2003) stated that stricter payment limitations would not result in significant acreage reductions or changes in commodity prices, but rather changes to crop mixes. He suggests the potential to vary payment limits regionally to reflect differences in the production costs associated with different crops. Conversely, Babcock (2003) argues, “there is no economic efficiency rationale” for payment limitations and that limits are ultimately based on “political and equity concerns.” Fletcher et al. (2003) found that nine of the ten representative farms analyzed in their study would not exceed the current limits of FSRIA for decoupled payments under the three-entity rule. In contrast, under the Senate version of FSRIA, S. 1731, five of these ten farms would exceed its limit for decoupled payments of \$125,000, which includes a spouse allowance.

Economies of Scale

Farm size is relevant to the discussion of payment limits because of the importance of economies of scale. The hypothetical cost curve in figure 1 demonstrates this relationship. According to economic theory, the acreage in production would correspond to the minimum point on the farm’s long-run average cost curve, represented by the vertical dashed line in figure 1 (Mansfield 1994). The farm would maximize profits at this point from the price floor that the loan rate represents. Hence, a payment limit corresponding to the acreage at point A in figure 1 would be inconsequential because the farm would never reach that size, since farming fewer acres would increase profits. However, a payment limit corresponding to B acres in figure 1

would begin to constrain the farm, since production at the most efficient scale would be prevented. The farm would be subject to the market price beyond point B, where a loss would be incurred on each additional acre of production. An even more constraining payment limit would be at point C, where the small farm size would be so cost inefficient as to incur losses on all production, even at the artificial price imposed by the loan rate. If this situation continued to prevail over the long run, a farm would cease production.

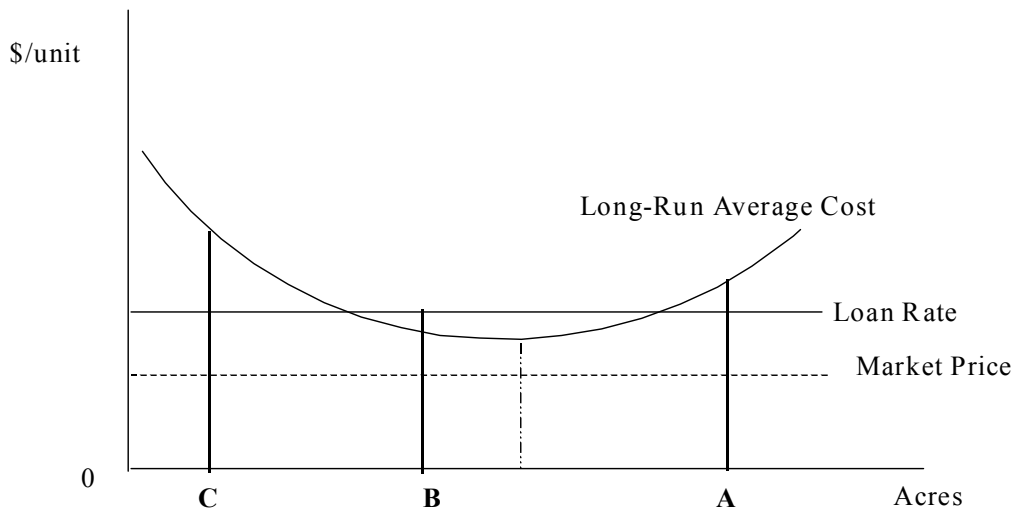
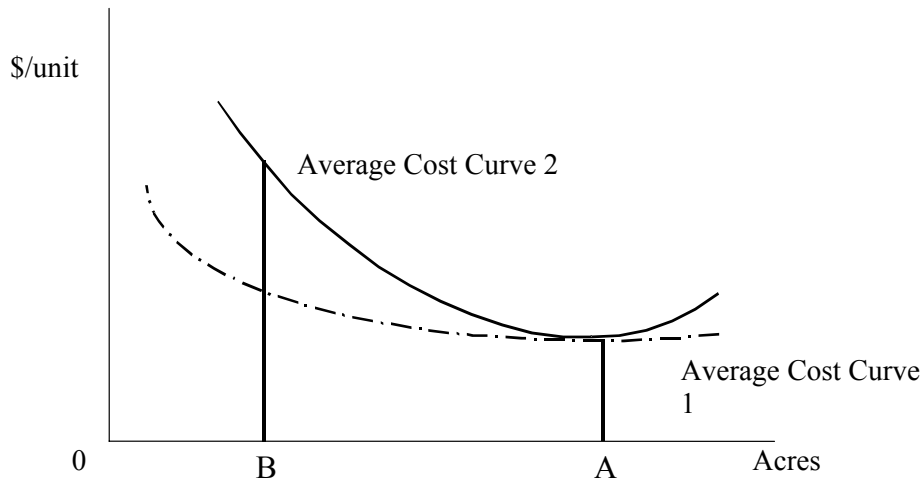


Figure 1. Hypothetical long run cost curve with various payment limits imposed.

Figure 2 below also illustrates how farms with different cost structures could be impacted very differently by payment limits. If payment limit A were imposed that allowed each farm to produce at the minimum point on its average cost curve, then in figure 2 neither farm would be affected. Since both farms reach the minimum of their average costs curves at the same acreages, both farms achieve maximum profits and efficiency. However, if a much more restrictive payment limit for these farms such as that associated with B was imposed that prevented both farms from producing at this most efficient scale, the farm associated with cost curve 2 would be much less profitable or incur a much higher level of losses than the farm

associated with cost curve 1. Hence, as both figures 1 and 2 demonstrate, the more restrictive a payment limitation becomes, the more important becomes an individual farm's cost structure.

Figure 2. Average cost curves for two different farms.



Government Payments and Costs

The difference in government support between commodities could play a role in acreage restrictions. Farms producing commodities that receive more government support will reach payment limitations first, potentially resulting in smaller farm size relative to farms producing less supported commodities. This total level of support impacts the acreage at which the payment limits become binding. As a percentage of per-unit costs, the national loan rate varies relatively little across the five major row crops in Mississippi: cotton, soybeans, corn, wheat, and rice. Information on production costs for Mississippi farms in the northern Delta region of the state was obtained from the survey conducted by Spurlock and Gillis. These costs include line items for labor, repair and maintenance, machinery ownership costs, as well as a land charge. Based on this data, the commodity receiving the highest level of support is cotton, which is estimated at 85.7 percent of its per-unit cost. Wheat receives the second-highest support at 81.7 percent, followed by rice at 76.7 percent, soybeans at 71.3 percent and corn at 68.4 percent.

Following this analysis of the five major program crops, cotton farmers should exceed any loan deficiency payment limitations first and corn farmers should reach these payment limits last.

The relatively small differences in this representation of the loan rate are important because the loan rate represents a price floor for each crop. Hence, the smaller these differences are across crops, the less likely LDPs—which are coupled to current production—are expected to be production distorting. Figure 3 graphically represents these differences.

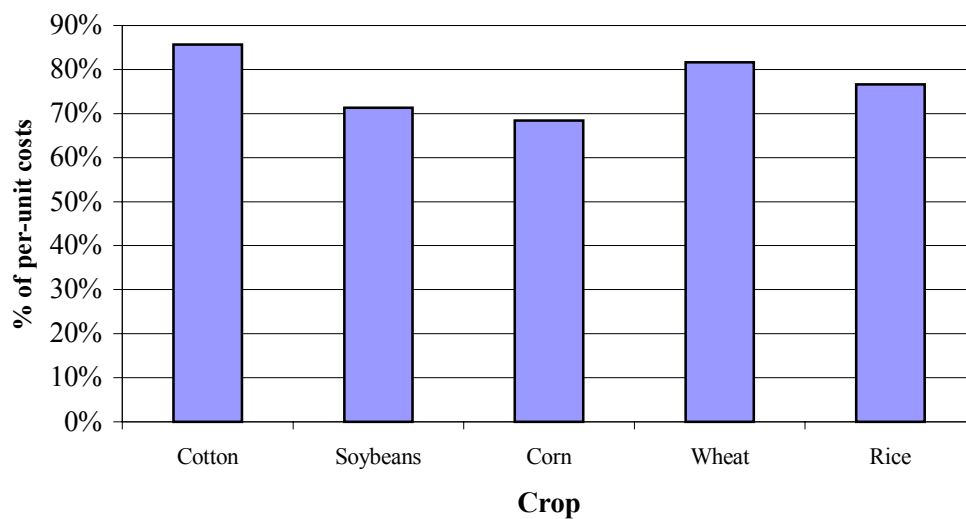


Figure 3. National loan rate as a percentage of per-unit costs, Mississippi

Differences in the number of acres at which payment limits become restrictive can be better understood by examining the decoupled payments. Figure 4 represents information similar to figure 3, except the direct payment rate is expressed as a percentage of the per-unit costs from the survey. Rice has a relatively much higher rate (27.7 percent) than the other four crops examined, although wheat (15.2 percent) follows with the next highest rate. Cotton (11.0 percent), corn (9.7 percent), and soybeans (6.3 percent) in contrast, have the relatively lowest direct rates of the five crops.

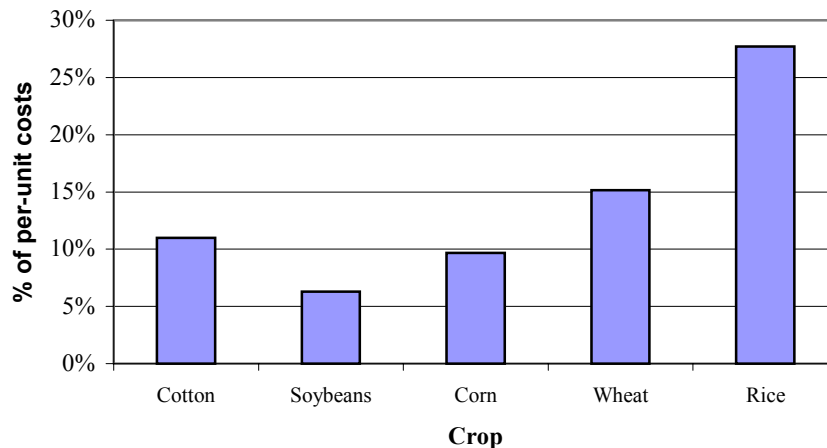


Figure 4. Direct payment rate as a percentage of per-unit costs, Mississippi

Similarly, counter-cyclical payments expressed as a percentage of per-unit costs have relatively larger differences across crops compared to the same manifestation of the loan rate. Figure 5 uses the same data once again and graphically presents these differences, and assumes the maximum counter-cyclical payment rate is paid on each crop. In this case, cotton has the relatively highest payment rate, followed by rice and the other crops in the same order as for the direct payment rate. Hence, cotton would receive the relatively highest level (22.6 percent) of decoupled support when prices are below the loan rate compared to the other crops. Corn (11.75 percent) and soybeans (5.1 percent), on the other hand, would have the relatively lowest level of decoupled support when prices are below the loan rate.

Empirical Analysis

Evidence of a relationship between farm size and payment limits can be seen in data collected from 1,812 crop producer risk management surveys in Indiana, Nebraska, Mississippi, and Texas (Coble, et al. 1999). Each state's agricultural statistics service was contracted to sample from their pool of commercial crop farms. After excluding small noncommercial

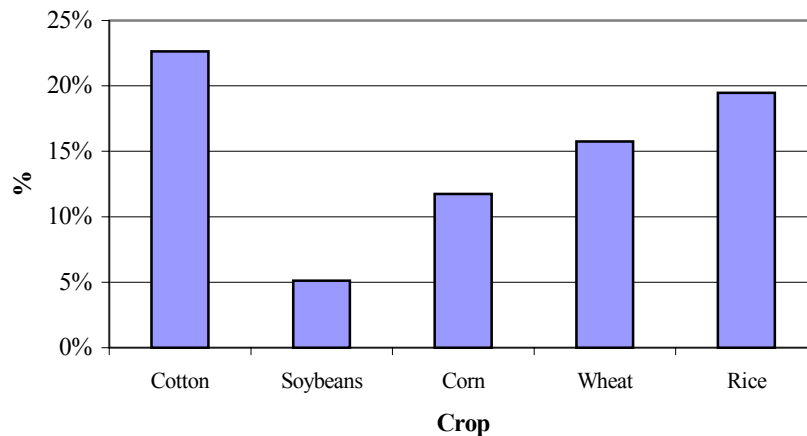


Figure 5. Maximum counter-cyclical rate as a percentage of per-unit costs, Mississippi

farms generating less than \$25,000 in gross income, the sample was stratified across four categories of gross farm income. A total of 6,810 surveys were mailed to producers prior to planting in the spring of 1999. A reminder card was sent two weeks following the first mailing, and a second mailing was sent to those who had not returned a survey two weeks after the postcard reminder. A summary of the data is provided in Coble et al. Institutions participating in the project are Mississippi State University, Purdue University, the University of Nebraska, and Texas A&M University. Overall, 1,812 useable questionnaires were returned for a response rate of 27 percent. Because rice producers were not included in the original survey, the data set was augmented by including data on rice farm crop acreages from the 1999 Mississippi Agricultural and Forestry Experiment Station cropping practice survey of rice producers in Mississippi (Spurlock and Gillis 2002). Selected characteristics of this data set are presented in table 3.

In both surveys, producers were also asked to quantify their total crop acres and acreages of specific crops. The risk management survey also elicited the 1999 expected yield for two

Table 3. Selected characteristics of farms surveyed by state.

	Indiana	Mississippi	Nebraska	Texas
Number of farms	460	550	294	539
Average size (acres)	1,30	1,941	1,116	1,458
Average corn acres	1,048	1,968	1,131	1,872
Average soybean acres	1,052	2,070	1,110	2,092
Average cotton acres	0	2,324	0	1,502
Average wheat acres	1,095	2,795	1,384	1,752
Average rice acres	—	2,635	—	—

major crops. Where the producer did not provide an expected yield, the National Agricultural Statistics Service (NASS) county yield averaged over 1998-2001 was used as a proxy.

The calculation of government payments assumes the current specification of the loan deficiency payments, fixed direct payments, and counter-cyclical payments. FSRIA defined target prices, loan rates, and decoupled payment rates for 2003. Expected payments are calculated under the assumption that base acres are equal to the 1999 actual crop mix of program crops on the farm. Payment yield and actual expected yield are based on either the expected yield elicited in the risk survey or when this expected yield is unavailable, the simple average of 1998-2001 NASS county yields are used as a proxy.

FSRIA did not allow for updates of the fixed payment yield. However, because FSRIA added a soybean fixed payment, soybean producers were allowed to develop a payment yield from the 1998-2001 average yield with an adjustment to the 1980-85 period. A similar adjustment was calculated for all the crops examined and the 1999 expected yield of each crop was modified by this factor. Because of the uncertainty of future prices, sensitivity analysis is used. Market prices and the season average price are evaluated at levels ten percent above the loan rate and at ten percent below the loan rate. The formula for the loan deficiency payment is:

$$\text{LoanDeficiencyPayment} = \text{Min} \left[\text{Payment Limit}, \text{Max} \left(0, \left(\frac{\text{Loan Rate} - \text{Posted Price}}{\text{Rate} - \text{Price}} \right) * \frac{\text{Actual Acres}}{\text{Actual Yield}} \right) \right]$$

The fixed payment is decoupled and is calculated as:

$$\text{Fixed Direct Payment} = \text{Min} \left[\frac{\text{Payment}}{\text{Limit}}, \left(\frac{\text{Decoupled}}{\text{Payment Rate}} * \frac{\text{Payment}}{\text{Percentage}} * \frac{\text{Base}}{\text{Acres}} * \frac{\text{Payment}}{\text{Yield}} \right) \right]$$

Finally, the new counter-cyclical payment is also a decoupled payment calculated as:

$$\text{Counter -cyclical payment} = \text{Min} \left[\frac{\text{Payment}}{\text{Limit}}, \text{Max} \left[0, \left(\frac{\text{Target}}{\text{Price}} - \text{Max} \left(\frac{\text{Season}}{\text{Avg.Price}}, \frac{\text{Loan}}{\text{Rate}} \right) - \frac{\text{Decoupled}}{\text{Payment Rate}} \right) \right] * \frac{\text{Payment}}{\text{Percentage}} * \frac{\text{Base}}{\text{Acres}} * \frac{\text{Payment}}{\text{Yield}} \right]$$

Figure 6 depicts the relative difference in the number of farms by size. This survey data demonstrates that farms in the South generally are more constrained by payment limitations than farms in the Midwest. Based on the survey, farms in the South tend to be larger than farms in the Midwest. Nearly half of farms surveyed in Mississippi and Texas are 1,200 acres or larger, while over half of farms surveyed in Indiana and Nebraska are less than 800 acres. Of the farms surveyed in Indiana and Nebraska, 2.9 percent reached the 3,200-acre size. In Mississippi and Texas, however, 14.3 percent contained a minimum of 3,200 acres. The number of farms decreases as acreage increases for both Southern and Midwestern farms; however, more Mississippi and Texas farms exist in the higher acreage divisions. Midwestern farms are dominant in the lower acreage divisions.

Payment limits can be highly variable with farm size because of the different levels of support between commodities. Specifically, the commodities that receive higher measures of government support reach payment limitations at lower acreages. For the purposes of calculating representative acreage limitations, we used county yields from Bolivar County, Mississippi, from 1998-2001. Bolivar County represents a large cotton and soybean-producing county. These county yields were “updated” according to the provisions of FSRIA in order to illustrate how payments can be based on different program yields. For example, the fixed, direct payment rate

for cotton is \$0.0667 per pound, and given the current payment limitation of \$80,000 per year under the three-entity rule, a cotton farmer with a 660-pound program yield will reach fixed,

direct payment limits at 2,138 acres:
$$\frac{\$80,000}{(660 \times \$0.0667 \times 0.85)} = 2,138.$$

(Decoupled payments are paid on 85 percent of base acreage.) In contrast, a soybean farmer

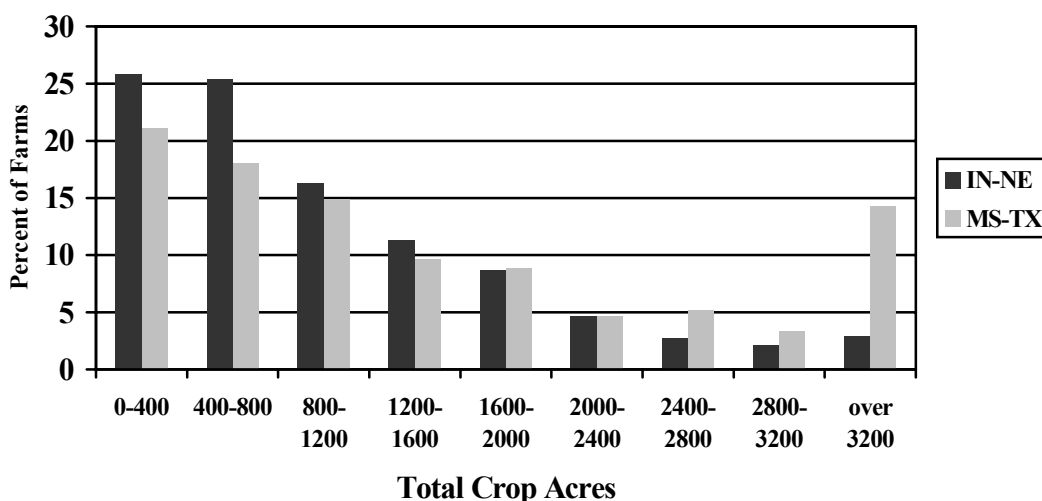


Figure 6. Farm size in Indiana and Nebraska compared to Mississippi and Texas.

with a 24-bushel program yield is paid a fixed, direct payment rate of \$0.44 per bushel and will reach fixed, direct payment limits at 8,912 acres. These typical Mississippi programs yields allow farms to maintain soybean base acreages over four times the size of cotton base acreages without exhausting the current fixed, direct payment limits. For counter-cyclical payments, the acreage restrictions between cotton and soybean farms are more pronounced.

Current limitations for counter-cyclical payments are \$130,000 per year under the three-entity rule. Assuming the maximum possible payment rate of \$0.1373 per pound, a cotton farmer with a 717-pound program yield will exhaust counter-cyclical payments at 1,554 base

acres:
$$\frac{\$130,000}{(717 \times \$0.1373 \times 0.85)} = 1,554.$$
 On the other hand, the maximum counter-cyclical

payment rate for soybeans is \$0.36 per bushel, meaning a soybean farmer with a 29-bushel program yield will reach payment limits at 14,650 acres—over nine times the cotton base acreage.

Payment Limit Proposals

A better picture of how producers across regions are affected by payment limits can be obtained by examining the data from the four-state producer survey. By obtaining each producer's crop mix and expected yield data, government payments are simulated. Market prices are assumed to be ten percent below the loan rate, in order to examine loan deficiency payments and the maximum possible counter-cyclical payments. Thus, government payments would be greatly reduced in this analysis under higher price levels. Other price levels were examined, including prices ten percent above loan rates. Prices above the loan rate do not change direct payments but do eliminate loan deficiency payments and reduce counter-cyclical payments; hence, prices ten percent below the loan rate are included for their resulting impact on payment limits.

A larger percentage of farms surveyed in Mississippi exceeds payment limits than in Nebraska, Indiana, and Texas under FSRIA. When prices fall ten percent below loan rates, 20 percent of the Mississippi farms would exceed counter-cyclical payment limits compared to 1.1 percent of farms in Indiana, 1.7 percent of farms in Nebraska, and 6 percent of farms in Texas. In Indiana and Nebraska, farms are more likely to reach fixed, direct payment limits than counter-cyclical payment limits, but in Mississippi and Texas, farms reach the latter first. Nearly two percent of all farms in both Indiana and Nebraska exceed fixed, direct payment limits. Over four percent of farms in Texas and over 16 percent of farms in Mississippi exceed fixed, direct payment limits.

The percentage of farms exceeding payment limits can also be broken down by commodity produced¹. Rice and cotton farms are most likely to exceed payment limits, and corn, wheat, and soybeans are least likely to exceed payment limits. Of the three types of payments, rice, corn, and wheat farms reach fixed, direct payment limits first, counter-cyclical limits second and loan deficiency payments last. (While producers are generally assumed to use commodity certificates to circumvent the limit on loan deficiency payments, the \$150,000 limit is imposed for comparison.) Cotton and soybean farms follow similar patterns, reaching counter-cyclical limits first, direct payments second, and loan deficiency payments last. Over 64 percent of rice farms surveyed would exceed fixed, direct payment limits, while only 12.7 percent of cotton farms, 5.0 percent of corn farms, 7.2 percent of wheat farms, and 8.5 percent of soybean farms surveyed would exceed fixed, direct payment limits. Rice farmers are also more likely to exceed counter-cyclical payments (54.2 percent of farms surveyed) and loan deficiency payments (22 percent of farms surveyed) than those of other commodities.

The decreased payment limitations proposed in S. 667 would increase the percentage of farms exceeding limits both by state and by commodity produced. Again, Mississippi and Texas farms are more likely to exceed all payment limitations than farmers in other regions of the country, but a greater percentage of Midwestern farms will also exceed payment limits. Under S. 667, an estimated 35.8 percent of farms in Mississippi will exceed fixed, direct payment limits followed by 25.4 percent in Texas, 11.8 percent in Indiana and 11.7 percent in Nebraska. A larger percentage of Mississippi farms will also exceed counter-cyclical payments at 33.7 percent, followed by Texas at 16.3 percent, Indiana at 13.5 percent, and Nebraska at 12 percent.

¹ In the survey, for example, a “cotton farm” is any farm with cotton acreage, but not necessarily to the exclusion of any other crop.

A smaller percentage of farms exceeds loan deficiency payments under S. 667 than under FSRIA. Less than one percent of farms in Texas, Indiana, and Nebraska and only five percent of farms in Mississippi would exceed loan deficiency payments. Figure 7 shows the higher percentage of farms that would exceed fixed, direct payments under S. 667 compared to FSRIA.

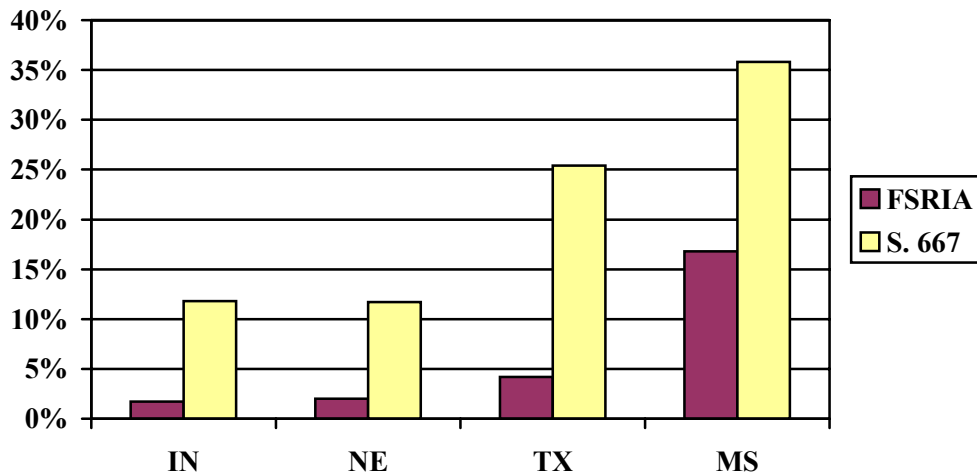


Figure 7. Percent of farms exceeding direct payment limits by survey state.

Large increases in the percentage of farms exceeding payment limitations by crop are also seen under the S. 667 proposal. Rice farms would exceed all payment limits first, followed by cotton, soybeans, wheat, and corn. Rice and soybean farms will exceed counter-cyclical limits first, but cotton, wheat, and corn farms will exceed fixed, direct payments first. Rice farmers will face nearly a 32 percent increase in the number of farms exceeding counter-cyclical payments (86.4 percent compared to 54.2 percent under FSRIA) but only a ten percent increase in farms exceeding fixed, direct payments (74.6 percent compared to 64.4 percent under FSRIA). Cotton farms exceed fixed, direct payments first (44.1 percent compared to 12.7 percent under FSRIA) and counter-cyclical payments second (31.9 percent compared to 18.2 percent under FSRIA). Corn, wheat, and soybean farms all experience more than double the percentage of

farms exceeding both counter-cyclical and fixed, direct payments. Figure 8 depicts the percentages of farms that would exceed payment limits under FSRIA and S. 667.

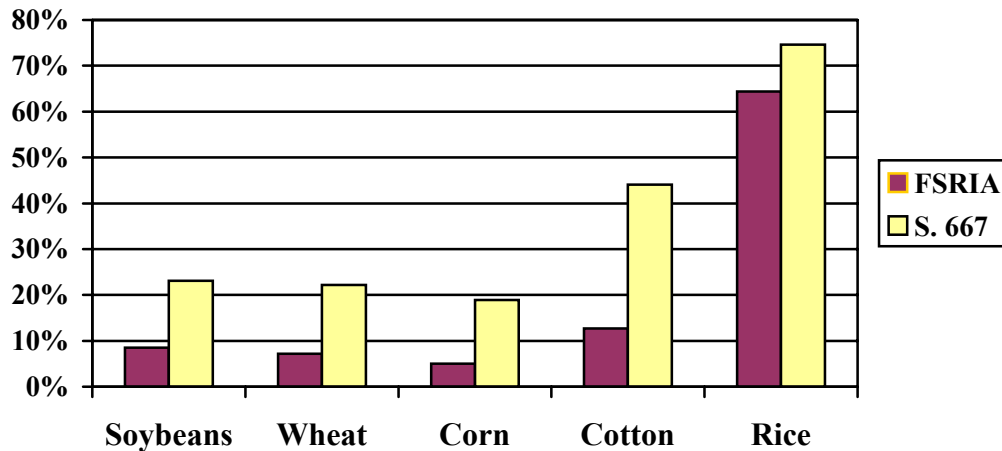


Figure 8. Percent of farms exceeding direct payment limits by crop.

An additional method to analyze the impacts of changes to payment limits is to estimate to what degree payments would be reduced relative to the current limits. Table 4 presents these results for the four states in the survey. As before, market prices are assumed to be ten percent below the loan rate for all crops for purposes of exposition. Although payment limits on decoupled payments are more than halved under S. 667, the percentage reduction in total payments is comparatively small. The percentage reduction in loan deficiency payments for Indiana, Nebraska, and Texas is less than one, and the reduction for Mississippi farms is one-and-a-half. These are reductions because the definite limit of \$175,000 proposed by S. 667 is compared to the unrestricted receipt of loan deficiency payments under FSRIA in order to account for the use of commodity certificates. Hence, the \$175,000 limit on loan deficiency payments would appear to affect only a very small number of producers. A larger percentage reduction occurs in fixed, direct and counter-cyclical payments, with a decrease between three and four percent for both Indiana and Nebraska. Larger reductions are seen in Texas, with fixed,

decoupled payments decreasing by 5.38 percent and counter-cyclical payments decreasing by 8.67 percent. The largest reductions, however, would occur in Mississippi. Mississippi farms would face reductions of 14.03 percent in fixed, direct payments and 16.19 percent in counter-cyclical payments. The regional differences in payment reductions can be attributed to crops grown in the regions.

Table 4. Percentage reduction in payments of FSRIA from limits of S. 667 by state.

State	% reduction in LDP from FSRIA	% reduction in FDP from FSRIA	% reduction in CCP from FSRIA	% reduction in total payments from FSRIA
IN	0.04	3.53	2.91	2.09
MS	1.52	14.03	16.19	11.03
NE	0.08	3.47	3.36	2.30
TX	0.18	5.38	8.67	5.61

Table 5 presents the payment reductions by crop. Rice would face the largest reduction of 4.47 percent in loan deficiency payments, 35.28 percent in counter-cyclical payments and 39.76 percent in fixed, direct payments. Cotton faces the second largest reduction with a 10.98 percent reduction in total payments, followed by soybeans, wheat, and corn, each facing a reduction between four and six percent in total payments.

Table 5. Percentage reduction in payments of FSRIA from limits of S. 667 by crop.

Crop	% reduction in LDP from FSRIA	% reduction in FDP from FSRIA	% reduction in CCP from FSRIA	% reduction in total payments from FSRIA
Soybeans	0.70	8.04	8.61	5.93
Wheat	0.65	6.81	7.61	5.31
Corn	0.29	5.68	6.10	4.14
Cotton	1.13	11.74	17.08	10.98
Rice	4.47	39.76	35.28	27.30

Conclusions

The issue of changes to government payment limits is controversial and will likely continue through the next farm bill debate. Clearly, as our analysis has shown, changes to payment limits affect regions differently because of the different crops that are produced. Mississippi farms will be more affected than those in the Midwest because of the number of rice and cotton farms in the state. These two crops—particularly rice—currently receive higher per-acre decoupled payments relative to other crops, and reach payment limits with smaller base acreages. Loan rates relative to per unit costs, however, are less variable across crops. The changes to loan deficiency payments as proposed in S. 667 would affect a much smaller number of producers than the changes proposed for decoupled payments.

This paper has also discussed how efficiency can be affected by changes to payment limits. Payment limits that prevent a farm from producing at its minimum per unit cost can reduce a farm's profits. Hence, a farm's cost structure ultimately determines how restrictive a payment limit becomes. Further investigation of this issue is needed to understand to what degree economies of scale exist in Mississippi crop production and how they relate to changes to government payment limits.

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