Impact of Payment Limits on Farm Reorganizations

Capping direct program payments can have a significant impact on the organization of farms and the more restrictive the caps the greater the incentive to reorganize. Such caps limit profitability of production on larger farms and, unless strictly enforced, are likely to result in an increase in the number of farm reorganizations to avoid the payment limit. The sharp increase in deficiency payments in 1986 substantially increased the incentive to reorganize. The Dorgan-Penny Bill would provide additional incentive.

Agricultural Stabilization and Conservation Service (ASCS) data show that the number of wheat farms with base acreage increased by 99,192 from 1985 to 1986, although the base acreage declined by 1.3 million acres.(1) Corn farms with base acreage increased by 162,484, while base acreage declined by 1.4 million. A large number of these new farms are likely the result of reorganizations, however, estimates of reorganizations are not published by ASCS.

Data from the Farm Cost and Returns Survey (FCRS) showing FCRS farms classified by volume of production provide new information on the number of farms where the operator could benefit finacially from a reorganization.(2) In 1985, just over 1.5 percent of the FCRS farms producing corn and 14.5 percent of production would have been affected by the $50,000 limit. In 1986, those affected rose to over 7 percent of the producers and 38 percent of the production. For wheat, 2.25 percent of the FCRS farms producing wheat and 20 percent of production would have been affected in 1985. In 1986, 8.2 percent of the these farms and 44 percent of production would have been affected. Producers would have had the incentive to create about 10,000 new corn and wheat producer units to bring them under the $50,000 limit, in 1985 (table 1).(3) By 1986, the incentive existed to create as many as 50,000 new corn farms and 47,000 new wheat farms.

The Dorgan-Penny Bill, H.R. 923, would limit deficiency payments with a per producer cap, which is the lower of 80 percent of base acreage production or 30,000 bushels of corn or 20,000 bushels of wheat. Production in excess of these limits would not qualify for deficiency payments. The number of farms producing corn and wheat by volume of production class and an estimate of the potential new farms that might occur through reorganization to bring production under the bushel caps are shown in table 2. The estimate should be considered to be on the upper side of the potential number of new farms as a result of the bill, because many new farms have already been organized in 1986 to bring direct payments under the $50,000 limit. Thus, the Dorgan-Penny Bill suggests an incentive to create an additional 40,000 to 45,000 farms over the implied reorganizations in 1986 (table 1).

Figures 1 through 4 show the impact of bushel limits on bushels receiving payments by volume of production class for corn. Figures 5 through 8 show actual and potential deficiency payments with and without the $50,000 payment limit. Figures 6 and 8 are cumulative and show the effect of limits on budget exposure.

The data suggest that capping program payments with either a dollar or bushel limit will not produce much in the way of targeting benefits, because all producers remain eligible for payments up to the cap. And the cap produces a significant economic incentive to reorganize the firm into smaller units. The data also show that caps may not be particularly useful in reducing budget exposure.

The following sections of this paper address issues associated with the biologically induced variability in commodity output. The behavior of the sector under market pricing and the ability of commercial firms to deal with the sources of price and quantity variability are examined. The possibilities for quantity and price stabilization, as opposed to price support, are considered. And, a proposed quantity triggered stocks program is presented.

BIOLOGICAL SOURCES OF QUANTITY AND PRICE VARIABILITY

Agricultural production is a biological process, subject to seasonality, perishability of output, and weather related problems. These factors are manageable to some extent, because we can modify the environment using inputs that permit adequate returns for investing in the environmental modification. The implications of allowing the commercial sector to deal with these problems under free market conditions are considered in the following sections.

Seasonality

Seasonality results in an imbalance between output and consumption on an intra annual basis. It results in depressed prices at harvest and higher prices in other periods of the year. Seasonality of production is the primary reason for commercial storage. Consumption -- final demand -- tends to be stable and evenly distributed through time. For the most part no more or less grain would be required on any given day, week or month (except for seasonality in livestock production). However, harvest of grain tends to take place in a limited number of days or weeks and an entire years supply is available early in the marketing year. Commercial storage serves to allocate stocks (production) through out the marketing year.

If the commodity can be stored, producers build storage or contract for storage prior to harvest so they can obtain a return from selling the commodity in periods of short seasonal supply. Producers decide among the returns from holding seasonal inventory and the returns from immediate sale. Although seasonality results in intra-annual price variability the prices differences are due to the cost of storage and the relatively constant demand among seasons.

Perishability

For some commodities, perishability precludes storage and, because production is seasonal, intra-annual price instability is a virtual certainty. Abundant supplies are available in some seasons and shortages occur in others. Production of perishable commodities is a high risk venture, yet, producers are able to cope with the problem. Perishability is not a major factor with respect to grains, because they are easily stored, yet perishability does impact on the level of investment for commercial storage facilities.

The Weather Factor

Weather results in unplanned changes in output that shift the quantity available for market. Because of the combination of an inelastic demand and weather induced supply shifts, prices and earnings change dramatically.

The following sections isolate specific weather phenomena and evaluate how such conditions suggest a role for public or private sector intervention in markets.

Local Random Events: Farmers are subject to weather conditions that may

Footnotes
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(1) An ASCS farm is usually an ownership unit. An ASCS producer may have
several ASCS farms under his management. On the otherhand it is possible to
have more than one producer on an ASCS farm.

(2) FCRS farms would be more closely associated with ASCS's definition of a
producer than they would with an ASCS farm, but would undercount producers,
because only the operator would be associated with the farm. Partners and
landlords would not be identified.

(3) For both the Dorgan-Penny and current Act, it was assumed that all farms
affected by the limit create at least one new unit. For classes with farms
producing at more than twice the limit, the total production for the class was
divided by the limit to estimate the number of new units. This likely produces
an under estimate.

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Table 1 Corn and Wheat Producers, by Volume of Production, 1985 FCRS.
Potential Reorganizations Due to $50,000 Limit.

Volume of Production:	:	Corn		:	Wheat		
	: Number of Corn Farms	1985 Potential New Farms	1986 Potential New Farms	: Number of Wheat Farms	1985 Potential New Farms	1986 Potential New Farms
bu.		———————————— number ————————————					
0-999	89930			81707		
1000-4999	157958			131894		
5000-9999	84929			48665		
10000-149	57233			25885		
15000-199	35603			11430		11430
20000-249	31525			9614		9614
25000-299	21809			5080		5080
30000-349	17330			2732		2732
35000-399	11515			1985	227	2085
40000-449	10661			2262	309	2610
45000-499	6967		6967	632	273	953
50000-549	4682		4682	1456	616	2385
55000-599	3654		3654	751	423	1474
60000-649	3265		3265	728	548	1678
65000-699	2419		2419	217	130	430
70000-749	3682		3682	214	200	564
75000-799	3017		3017	232	287	770
80000-849	2695		2695	150	153	416
85000-899	1168		1216	105	131	337
90000-949	1724		1690	51	57	149
95000-999	745	140	973	14	28	64
100000 +	6178	4608	15719	515	1992	4076
Total	558689	4748	49978	326319	5375	46847

Table 2 Potential New Corn and Wheat Farms From Dorgan-Penny

Volume of Production :	Corn Farms in 1985	Potential New Farms 1/ :	Wheat Farms in 1985	Potential New Farms 1/
bu.	------------- number ------------------------			
0-999	89930		81707	
1000-4999	157958		131894	
5000-9999	84929		48665	
10000-14999	57233		25885	
15000-19999	35603		11430	
20000-24999	31525		9614	9614
25000-29999	21809		5080	6825
30000-34999	17330		2732	4399
35000-39999	11515	11515	1985	3697
40000-44999	10661	10661	2262	4724
45000-49999	6967	6967	632	1509
50000-54999	4682	4682	1456	3860
55000-59999	3654	3654	751	2128
60000-64999	3265	3479	728	2255
65000-69999	2419	3020	217	726
70000-74999	3682	5127	214	774
75000-79999	3017	4673	232	895
80000-84999	2695	4673	150	615
85000-89999	1168	2232	105	456
90000-94999	1724	3536	51	236
95000-99999	745	1670	14	70
100000 +	6178	26060	515	4567
Total	558689	91948	326319	47349

1/ Implied reorganization as a result of 30,000 bushel limit on corn deficiency payments and a 20,000 bushel limit on wheat deficiency payments
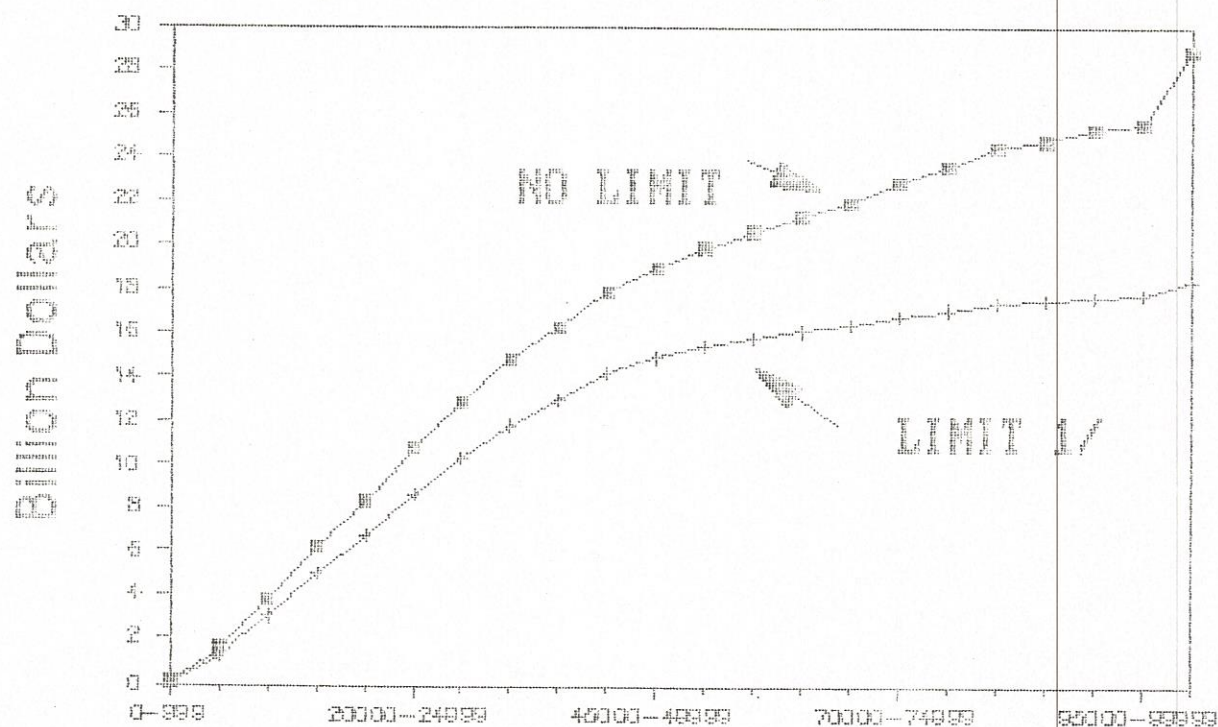
Figure 1 Impact of 30,000 Bushel Limit on the distribution of corn payments

Volume of production class, bushels
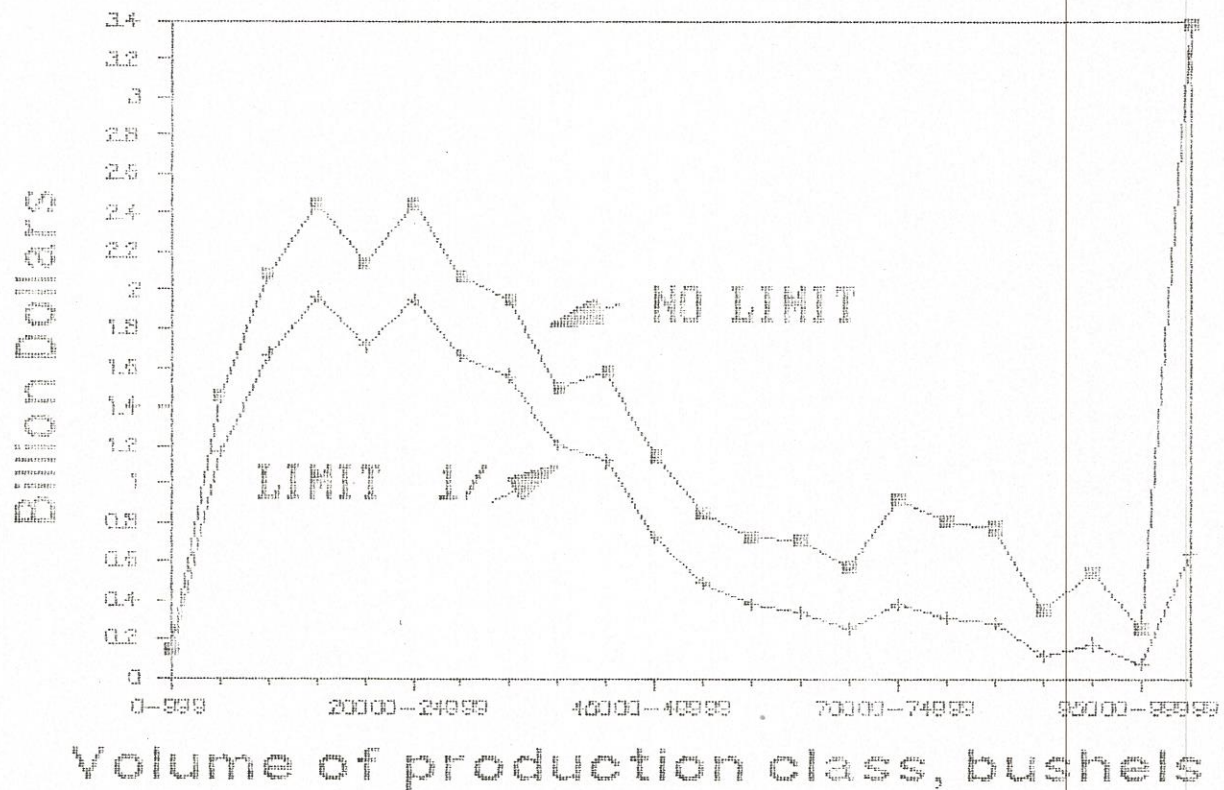
1/ 80 percent of base to 30,000 bushels
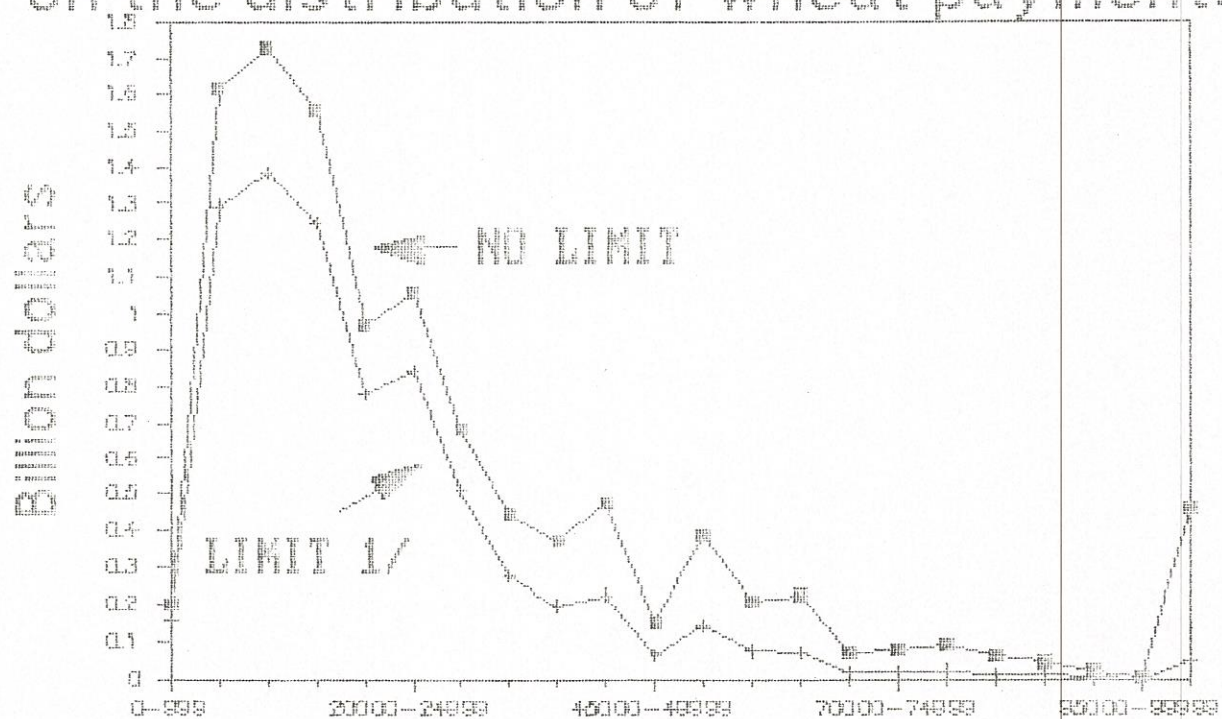then 30,000 bushels per farm

Figure 2 Cumulated impact of 30,000 bushel limit
on payments to corn producers

Volume of production class, bushels
1/ 80 percent of base to 30,000 bushels
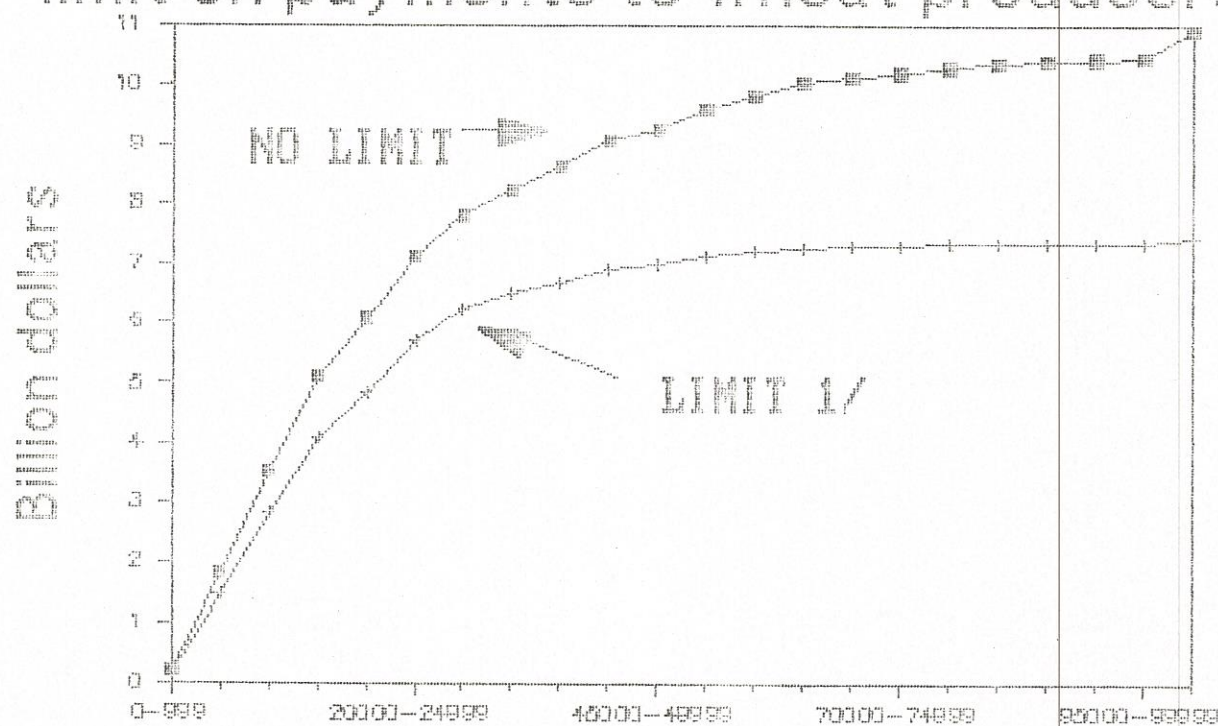then 30,000 bushels per farm

Figure 3 Impact of 20,000 bushel limit on the distribution of wheat payments

Volume of production class, bushels
1/ 80 percent of base to 20,000 bushels
then 20,000 bushels per farm

Figure 4 Cumulated impact of 20,000 bushel limit on payments to wheat producers

NO LIMIT

LIMIT 1/

$ millions of base

Volume of production class, bushels

1/ 80 percent of base to 20,000 bushels

then 20,000 bushels per farm

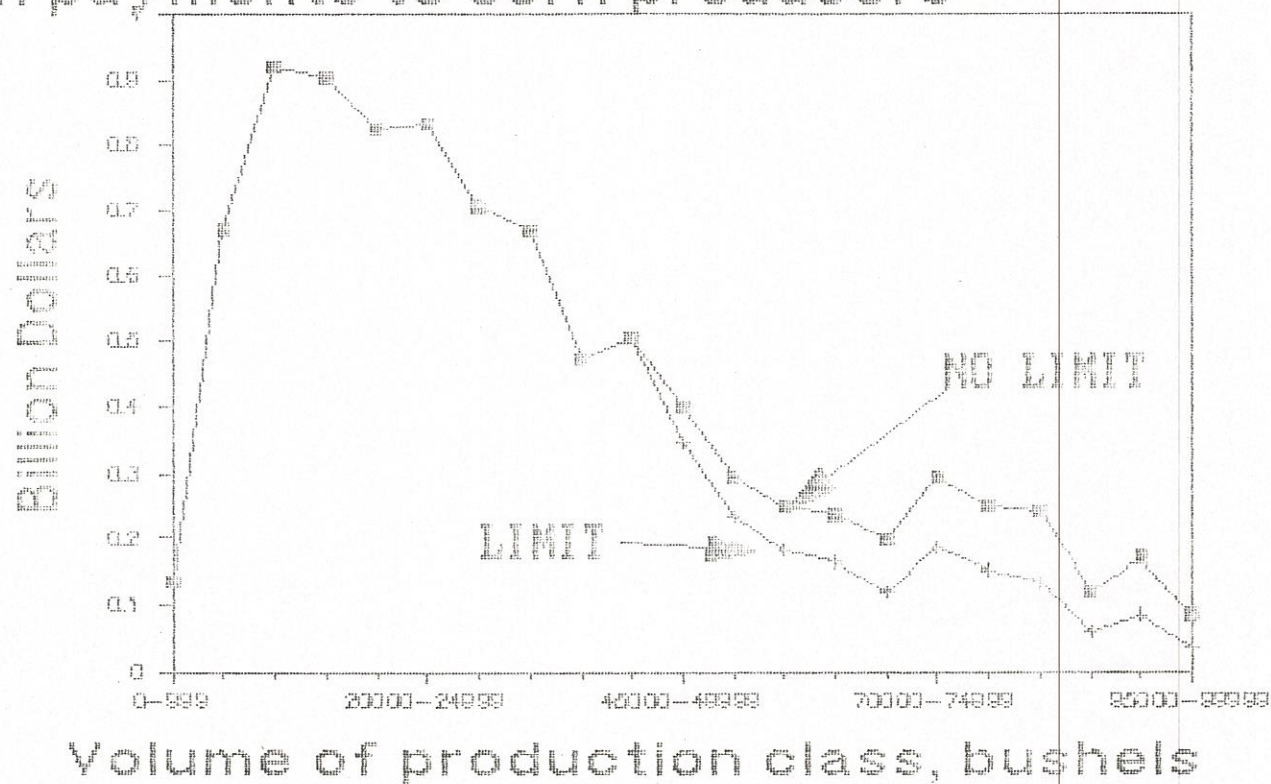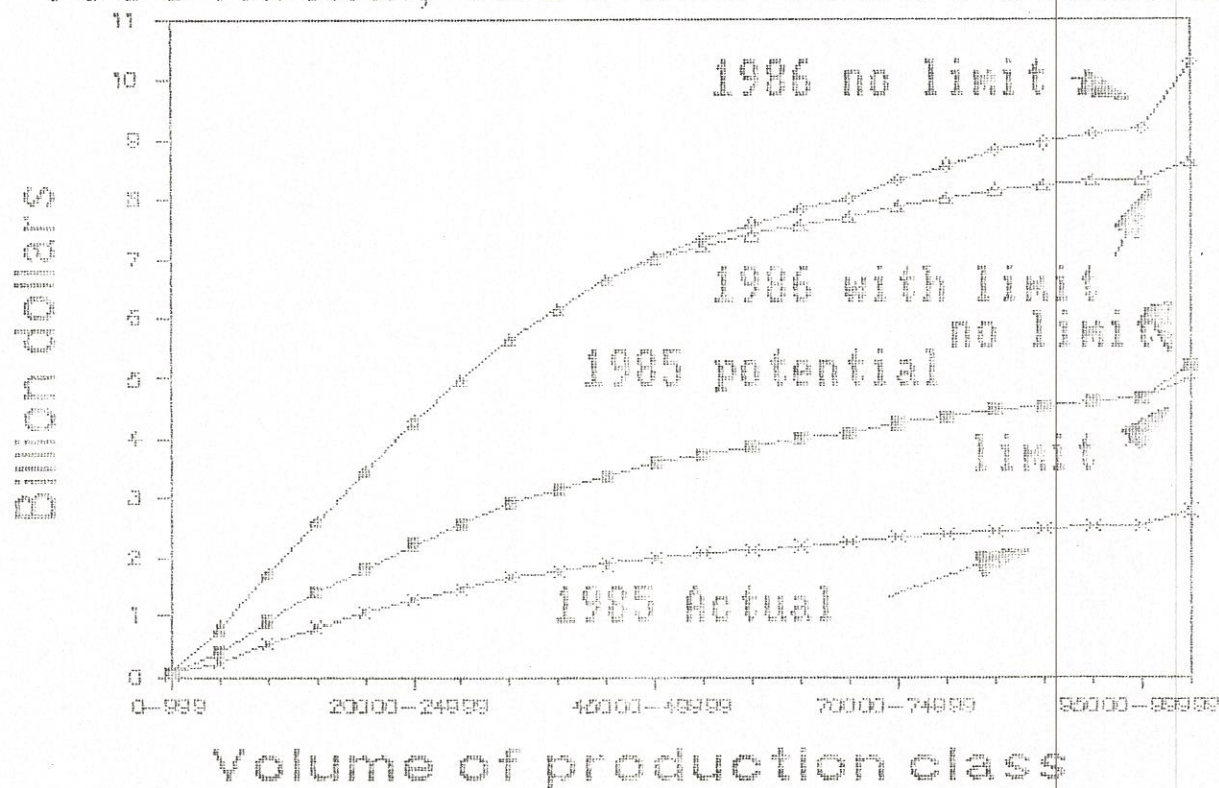Figure 5 Estimated impact of $50,000 limit
on payments to corn producers

Volume of production class, bushels

Figure 6: Corn Deficiency Payments
1985 Actual, 1985 and 1986 Potential

1986 no limit

1986 with limit
no limit
1985 potential
limit

1985 Actual

Volume of production class

5,000 bushel units

Potential assumes 100 % participation

1985 Actual from FCRS

Figure 7 Estimated impact of $50,000 limit on payments to wheat producers
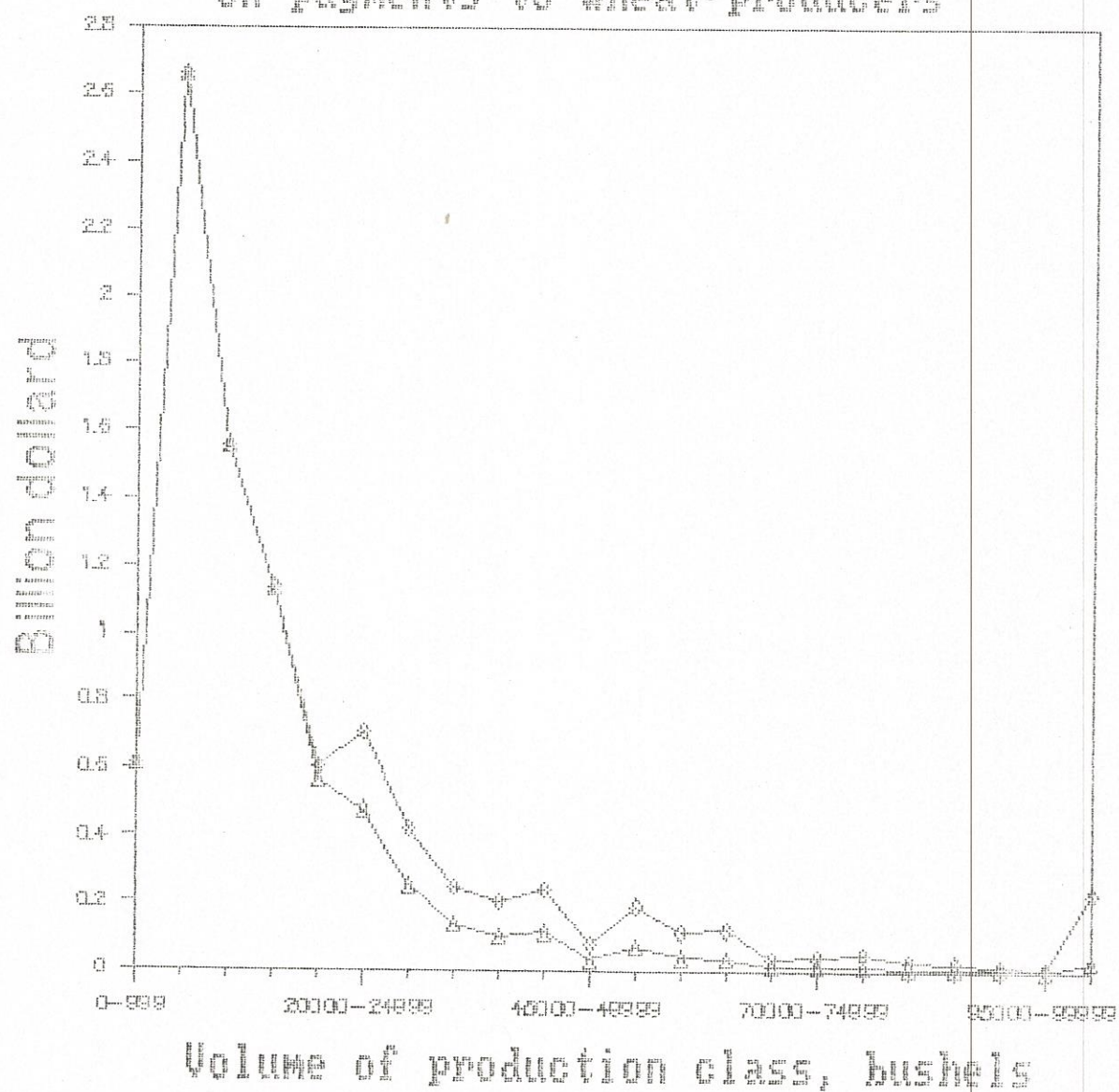
Volume of production class, bushels

Figure 8 Wheat deficiency payments
1985 Actual, 1985 and 1986 potential