March 1984

A.E. Ext. 84-3

THE IMPACT OF THE MILK DIVERSION PROGRAM ON MILK PRODUCTION IN NEW YORK

Robert D. Boynton

and

Andrew M. Novakovic

Department of Agricultural Economics
New York State College of Agriculture and Life Sciences
A Statutory College of the State University
Cornell University, Ithaca, New York 14853

It is the policy of Cornell University actively to support equality of educational and employment opportunity. No person shall be denied admission to any educational program or activity or be denied employment on the basis of any legally prohibited discrimination involving, but not limited to, such factors as race, color, creed, religion, national or ethnic origin, sex, age or handicap. The University is committed to the maintenance of affirmative action programs which will assure the continuation of such equality of opportunity.

Preface

Robert D. Boynton and Andrew M. Novakovic are Associate and Assistant Professors, respectively, in the Department of Agricultural Economics at Cornell University. This bulletin was prepared for publication by Wendy Barrett.

The authors wish to thank Frank Walkley, New York State Executive Director of the Agricultural Stabilization and Conservation Service, for generously providing county summaries of the sign-up under the Milk Diversion Program. The assistance of Amos Dykeman and Jean Krebs of the State ASCS office is also gratefully acknowledged.

The data used in this publication are the latest sign-up numbers released by ASCS. It is possible, however, that revised milk diversion program sign-up numbers could be subsequently issued.

Additional copies of this bulletin can be requested from the authors or from:

Publications Office
Department of Agricultural Economics
Warren Hall
Cornell University
Ithaca, New York 14853-0398

Introduction

The purpose of this paper is two-fold: first, to summarize the results of the recent sign-up under the new Milk Diversion Program for New York, by counties and regions and second, to interpret these results and analyze their implications. The Milk Diversion Program (MDP) is one of four components of the Dairy Production Stabilization Act of 1983 (DPSA), which also included an initial 50¢/hundredweight cut in the support price (with authorization for other adjustments in 1985), a 50¢/hundredweight nonrefundable assessment on milk marketed, and a national dairy promotion program funded by dairy farmers. For further details on the DPSA, see Novakovic 1983.

The basic feature of the MDP is cash payments to farmers who signed a contract agreeing to market less milk between January 1, 1984 and March 31, 1985 than they did during a specified base period. Participating farmers can receive a payment of $10 per hundredweight on the difference between actual marketings and base marketings; however, an individual farmer's actual marketings for this period must be at least 5% less than his/her base marketings to qualify for the program and no payment will be made for reductions of more than 30% below base marketings. Beyond this, there are a host of specific provisions and restrictions in the MDP, which establish eligibility and compliance criteria. The interested reader is referred to Boynton and Novakovic [1984a] for further details.

Given their understanding of the MDP and their best estimates of the relative benefits of participating versus not participating, farmers across the country had from November 29, 1983 (when the DPSA became law) until January 31, 1984 to decide whether or not they wished to participate in the MDP. If they chose to participate they also had to decide on the size of their marketing reduction below their base (this will be referred to as the "diversion level")

and how they would achieve this level of marketings. Each farmer was confronted with a unique set of circumstances and economic factors which affected these decisions. The kinds of decisions farmers had to make and the factors affecting their choices are discussed elsewhere by Boynton and Novakovic [1984b]. The next section of this paper summarizes the participation decisions that New York farmers made.

The Sign-Up in New York

The Number of Participants

As shown in Table 1, 1,490 production units enrolled in the MDP in New York.[1/] This represents about 10.5% of the commercial dairy farms in the state (or about 8.8% of all the farms with milk cows). At the county level, the relative number of farmers participating in the MDP ranged from a low of 4.8% in Niagara to a high of 24.6% in Greene.[2/] The relative sign-up was greatest in the Western Plateau area and in the Hudson Valley (see Figure 1).

Contracted Diversion Levels

Participating farmers agreed to sell 367.3 million pounds of milk less during the 15 months of the program than they did during their base period, representing an average 22% reduction below their base, as shown in Table 2. The highest contracted diversion level among counties in the state--27.5%--occurred in Niagara, which also had the lowest percentage of participating farmers. Essex (17.2%) and Monroe (15.4%) farmers signed up for the lowest

---

[1/] Although an MDP production unit may not correspond exactly to one's concept of a dairy farm or a dairy farmer, the two terms will be used interchangeably in this paper.

[2/] This excludes counties which had fewer than three participants.

Table 1. Production Units (Farms) Participating in the Milk Diversion Program

Area	No. Units Participating	Participating Units as a % of Total Farms[a/]
NEW YORK	1,490	10.5
Allegany	33	10.8
Cattaraugus	68	14.7
Chautauqua	98	20.0
Steuben	44	8.5
WESTERN PLATEAU	243	13.7
Erie	37	12.5
Genesee	17	8.4
Livingston	22	10.6
Monroe	12	15.4
Niagara	6	4.8
Orleans	7	9.0
Wyoming	40	8.5
WESTERN PLAIN	141	9.7
Broome	16	8.4
Chemung	11	13.3
Chenango	30	6.1
Delaware	68	12.6
Greene	17	24.6
Otsego	77	12.4
Schuyler	8	9.8
Tioga	22	9.6
Tompkins	12	7.6
EASTERN PLATEAU	261	10.6
Ontario	18	11.3
Seneca	6	7.1
Yates	7	6.7
Wayne	13	8.0
CENTRAL PLAIN	44	8.6
Cayuga	27	8.0
Cortland	29	8.4
Madison	32	6.4
Onondaga	24	10.0
Oswego	15	7.8
CENTRAL	127	7.9
Fulton	19	21.6
Herkimer	44	9.0
Montgomery	54	13.7
Oneida	62	9.8
Schoharie	42	16.1
ONEIDA/MOHAWK	221	11.9
Albany	11	19.6
Rensselaer	20	10.5
Saratoga	24	18.2
Schenectady	3	13.0
Washington	57	12.1
NORTHERN HUDSON	115	13.2
Clinton	22	6.9
Essex	11	17.2
Franklin	32	8.5
Jefferson	54	7.9
Lewis	49	8.7
St. Lawrence	72	8.1
NORTHERN	240	8.3
Orange	30	12.5
Sullivan	16	13.2
Ulster	10	21.7
SOUTHEASTERN	56	13.8
Columbia	21	11.7
Dutchess	20	14.8
SOUTHERN HUDSON	42	13.2

a/ This percentage is calculated by dividing the number of participating units by an estimate of the number of commercial farms in each area. Some similar USDA numbers have been reported which are based on estimates of the number of farms with milk cows rather than the number of commercial farms.

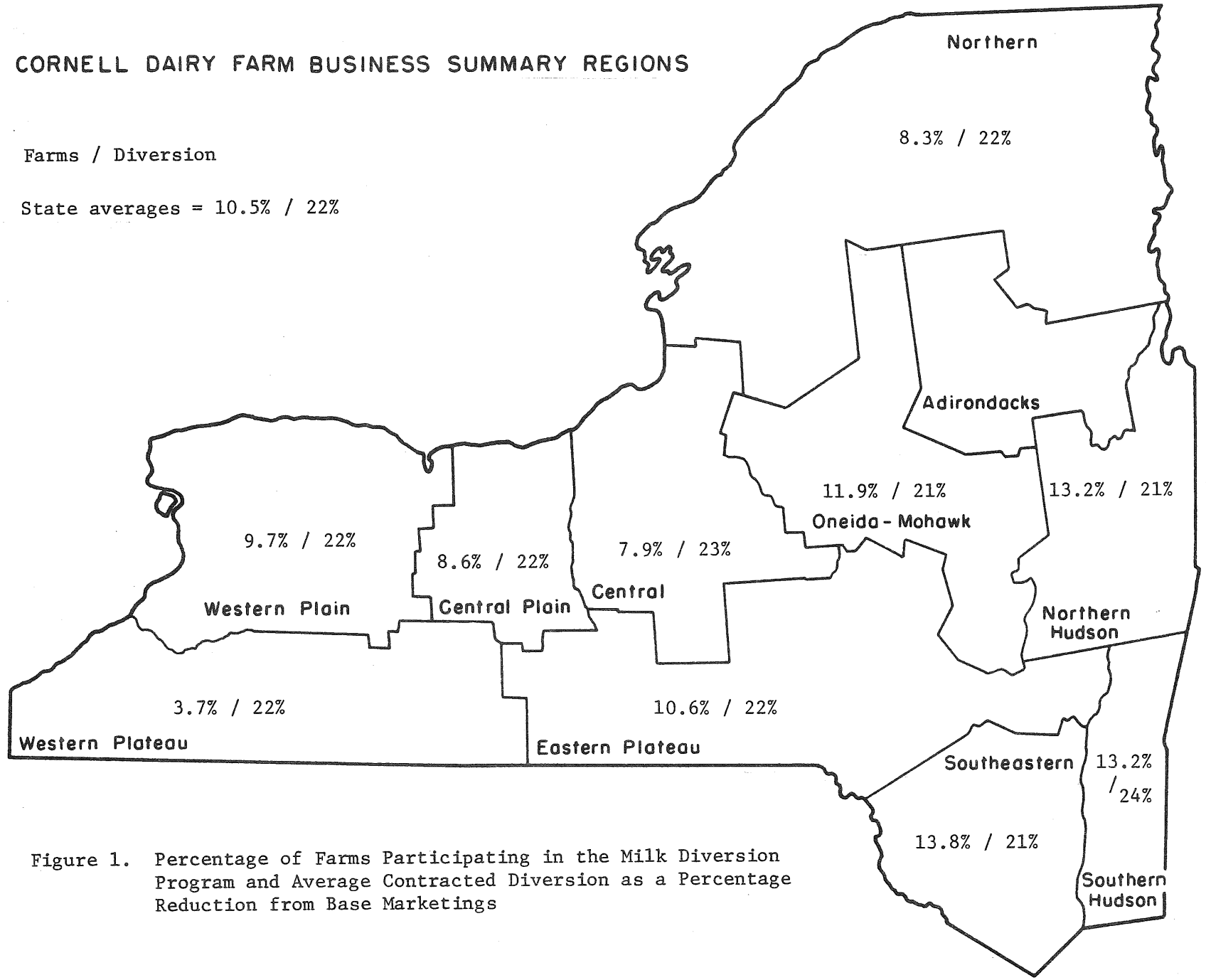

Figure 1. Percentage of Farms Participating in the Milk Diversion Program and Average Contracted Diversion as a Percentage Reduction from Base Marketings

Table 2. Base and Diverted Marketings for Participating Units, 15 months

Area	Base Marketings	Diverted Marketings	Average % Contracted Diversion Below Base
	(million lbs.)		(%)
NEW YORK	1672.1	367.3	22.0
Allegany	21.6	4.3	19.7
Cattaraugus	68.9	16.5	24.0
Chautauqua	106.1	22.1	20.9
Steuben	37.9	8.7	22.8
WESTERN PLATEAU	234.5	51.6	22.0
Erie	41.4	8.7	21.1
Genesee	27.1	5.6	20.8
Livingston	35.9	8.0	22.2
Monroe	13.1	2.3	17.3
Niagara	4.1	1.1	27.5
Orleans	8.2	1.8	22.2
Wyoming	58.0	13.5	23.4
WESTERN PLAIN	187.6	41.1	21.9
Broome	30.6	6.9	22.7
Chemung	10.0	2.4	24.0
Chenango	32.1	7.1	22.0
Delaware	99.3	21.2	21.3
Greene	17.6	4.2	24.0
Otsego	74.7	17.8	23.8
Schuyler	8.2	2.1	26.0
Tioga	23.1	4.5	19.6
Tompkins	13.6	2.9	21.4
EASTERN PLATEAU	309.2	69.1	22.4
Ontario	24.2	5.3	22.0
Seneca	5.6	1.2	20.5
Yates	5.4	1.2	23.1
Wayne	11.0	2.4	22.2
CENTRAL PLAIN	46.2	10.2	22.0
Cayuga	27.3	6.3	23.2
Cortland	36.4	8.6	23.6
Madison	33.4	8.0	23.8
Onondaga	27.1	5.6	20.5
Oswego	20.6	4.8	23.5
CENTRAL	144.9	33.3	23.0

-continued-

Table 2. (continued)

Area	Base Marketings	Diverted Marketings	Average % Contracted Diversion Below Base
	(million lbs.)		(%)
Fulton	13.9	3.0	21.5
Herkimer	38.0	9.0	23.7
Montgomery	50.9	9.8	19.3
Oneida	66.8	13.6	20.3
Schoharie	47.0	10.2	21.7
ONEIDA/MOHAWK	216.6	45.6	21.1
Albany	12.6	2.5	20.2
Rensselaer	30.8	6.7	21.7
Saratoga	30.9	7.4	24.0
Schenectady	2.9	0.7	25.3
Washington	79.0	16.0	20.3
NORTHERN HUDSON	156.3	33.4	21.4
Clinton	24.0	5.0	20.7
Essex	12.7	2.2	17.2
Franklin	29.0	6.7	23.2
Jefferson	67.8	16.5	24.4
Lewis	55.3	11.4	20.7
St. Lawrence	65.9	14.4	21.9
NORTHERN	254.6	56.3	22.1
Orange	33.1	7.0	21.1
Sullivan	19.9	3.6	18.1
Ulster	10.8	2.6	23.8
SOUTHEASTERN	63.7	13.1	20.6
Columbia	28.1	5.7	20.2
Dutchess	29.2	7.7	26.5
SOUTHERN HUDSON	58.4	13.7	23.6

level on average, although these two counties had a relatively large number of farmers sign up. It does not appear that there is a strong relationship, inverse or otherwise, between the relative number of farmers participating in a county and their contracted diversion level. As shown in Table 2 and Figure 1, contracted diversion levels are very close to the state average in all regions, with the highest level in the Southern Hudson area.

Reduction Methods

Farmers who enrolled in the MDP were asked to indicate one or more methods by which they would achieve their reduced marketings; these included reducing the size of the dairy herd, changing the feed ration, reducing the number of milkings per day, and other methods (e.g., feeding milk to calves instead of marketing it). The relative number of farmers indicating they would use each method is shown in Table 3; because farmers could select more than one method the rows do not sum to 100%.

For all New York participants, 73% said they would increase culling, 69% plan to change their feed rations, 5% intend to revert to 2 times/day milking from 3 times/day, and 42% indicated they would use other methods. In most counties this general pattern was repeated; culling was the most popular method, followed closely by feeding changes, with changes in milking frequency the least often checked. In 14 of the 50 counties culling ranked below feeding changes; this seemed to be particularly common in the Northern region of New York.

The range in the relative number of farmers who selected a particular method is rather large across counties. In Sullivan and Ulster, 10% or less of the participants indicated they would do any extra culling. In Monroe and Orleans, all the participants checked the culling method. The relative use of

Table 3. Marketing Reduction Methods Chosen

Area	Extra Culling	Ration Changes	Changing From 3x/day to 2x/day Milking	Other Means
	(%)			
NEW YORK	72.6	69.1	4.9	42.2
Allegany	60.6	51.5	15.2	30.3
Cattaraugus	72.1	72.1	5.9	42.7
Chautauqua	75.5	72.5	2.0	42.9
Steuben	31.8	59.1	2.3	56.8
WESTERN PLATEAU	64.6	67.1	4.9	43.6
Erie	81.1	78.4	0	13.5
Genesee	58.8	52.9	17.7	76.5
Livingston	95.5	68.2	4.6	54.6
Monroe	100.0	41.7	0	66.7
Niagara	66.7	50.0	0	0
Orleans	100.0	100.0	0	100.0
Wyoming	87.5	62.5	10.0	30.0
WESTERN PLAIN	84.4	66.0	5.7	40.4
Broome	87.5	75.0	0	18.8
Chemung	45.5	63.6	0	18.2
Chenango	66.7	80.0	6.7	36.7
Delaware	67.7	52.9	7.4	48.5
Greene	76.5	52.9	5.9	64.7
Otsego	83.1	77.9	3.9	36.4
Schuyler	62.5	75.0	12.5	62.5
Tioga	90.9	72.7	4.6	63.6
Tompkins	75.0	75.0	8.3	33.3
EASTERN PLATEAU	75.1	68.6	5.4	38.3
Ontario	83.3	61.1	0	22.2
Seneca	66.7	66.7	0	50.0
Yates	71.4	57.1	0	57.1
Wayne	92.3	46.2	0	7.7
CENTRAL PLAIN	81.8	56.8	0	27.3
Cayuga	77.8	63.0	11.1	33.3
Cortland	69.0	55.2	10.3	37.9
Madison	78.1	65.6	0	31.3
Onondaga	75.0	70.8	8.3	45.8
Oswego	73.3	20.0	13.3	46.7
CENTRAL	74.8	58.3	7.9	37.8

-continued-

Table 3. (continued)

Area	Extra Culling	Ration Changes	Changing From 3x/day to 2x/day Milking	Other Means
	(%)			
Fulton	79.0	73.7	0	68.4
Herkimer	59.1	68.2	0	38.6
Montgomery	96.3	92.6	0	57.4
Oneida	71.0	72.6	6.5	64.5
Schoharie	78.6	57.1	2.4	45.2
ONEIDA/MOHAWK	76.9	73.8	2.3	54.3
Albany	54.6	81.8	0	36.4
Rensselaer	80.0	70.0	5.0	35.0
Saratoga	70.8	75.0	4.2	25.0
Schenectady	66.7	66.7	0	0
Washington	87.7	80.7	8.8	28.1
NORTHERN HUDSON	79.1	77.4	6.1	28.7
Clinton	81.8	81.8	13.6	45.5
Essex	45.5	54.6	9.1	63.6
Franklin	59.4	71.9	3.1	37.5
Jefferson	68.5	74.1	5.6	48.2
Lewis	71.4	65.3	10.2	34.7
St. Lawrence	58.3	72.2	2.8	51.4
NORTHERN	65.0	71.3	6.3	45.4
Orange	76.7	90.0	0	20.0
Sullivan	0	81.3	0	31.3
Ulster	10.0	100.0	0	90.0
SOUTHEASTERN	42.9	89.3	0	35.7
Columbia	95.2	85.7	4.8	19.1
Dutchess	80.0	35.0	5.0	40.0
SOUTHERN HUDSON	88.1	59.5	4.8	28.6

changes in ration as a reduction method ranged from a low of 20% in Oswego to a high of 100% in Orleans.

While these numbers may provide some insights into the methods which farmers will use to reduce their marketings, it should be recognized that farmers are in no way bound to use any or all of the methods they checked, nor are these data a good indication of the extent to which any particular farmer will rely on one method versus another. The data which follow, however, provide some information on the intensity of herd reduction by participating farmers.

Planned Additional Culling

Participating farmers were asked to indicate their normal culling rates and the additional number of cattle they planned to cull during the 15 months of the program. This information is summarized in Table 4, which shows average herd sizes as reported by participating farmers for the fourth quarter of 1983, planned additional culling from January 1984 to March 1985, and planned extra culling as a percent of estimated normal culling.

The average herd size of New York participants is 57 cows and ranges from around 35 cows in Allegany and Yates to 99 cows in Broome County. As shown in Table 4 and Figure 2, the largest participating herds are east of the Hudson River and in the Western Plain region.

The planned additional culling represents about half of the normal culling estimated by participating farmers, but there is a tremendous range in this figure. Six counties report intended additional culling which equals or exceeds normal culling, with a high of 22% above normal in Tioga County. Additional culling is reported to be only about one-fourth of normal culling in six other counties, with a low of 2% of normal in Sullivan County.

Table 4. Average Herd Size and Extra Culling Planned by Participating Units During the 15-Month Program

Area	Average No. of Cows Milked, 4th Qtr. 1983	Intended Extra Cow Culling	Extra Culls as a % of Normal Culling
NEW YORK	57	8	50.6
Allegany	36	6	110.2
Cattaraugus	53	5	37.0
Chautauqua	55	7	45.9
Steuben	47	3	23.9
WESTERN PLATEAU	50	6	42.9
Erie	52	8	60.4
Genesee	83	9	36.6
Livingston	86	20	75.9
Monroe	59	8	32.0
Niagara	39	6	103.1
Orleans	54	7	51.7
Wyoming	73	9	33.8
WESTERN PLAIN	67	10	48.2
Broome	99	9	35.9
Chemung	54	6	47.5
Chenango	52	7	43.4
Delaware	68	10	55.3
Greene	52	4	24.1
Otsego	48	5	41.4
Schuyler	61	7	47.8
Tioga	57	15	122.4
Tompkins	74	14	77.0
EASTERN PLATEAU	60	8	51.7
Ontario	67	11	42.6
Seneca	51	7	84.8
Yates	34	3	30.8
Wayne	44	9	57.1
CENTRAL PLAIN	53	8	48.1
Cayuga	53	6	45.3
Cortland	55	10	68.7
Madison	53	7	50.3
Onondaga	59	4	24.5
Oswego	63	9	59.0
CENTRAL	56	7	49.1

-continued-

Table 4. (continued)

Area	Average No. of Cows Milked, 4th Qtr. 1983	Intended Extra Cow Culling	Extra Culls as a % of Normal Culling
Fulton	43	4	45.9
Herkimer	47	4	38.0
Montgomery	52	7	46.8
Oneida	53	8	57.5
Schoharie	59	13	99.4
ONEIDA/MOHAWK	52	8	58.2
Albany	56	4	26.5
Rensselaer	73	9	43.1
Saratoga	62	13	98.4
Schenectady	49	5	64.0
Washington	66	6	36.9
NORTHERN HUDSON	65	8	48.0
Clinton	53	9	47.8
Essex	55	9	57.2
Franklin	49	2	16.3
Jefferson	67	14	96.3
Lewis	60	8	64.3
St. Lawrence	49	6	45.5
NORTHERN	56	8	58.2
Orange	50	7	104.8
Sullivan	57	-	2.3
Ulster	48	1	8.4
SOUTHEASTERN	52	4	38.2
Columbia	70	11	71.8
Dutchess	61	10	49.2
SOUTHERN HUDSON	65	10	59.2

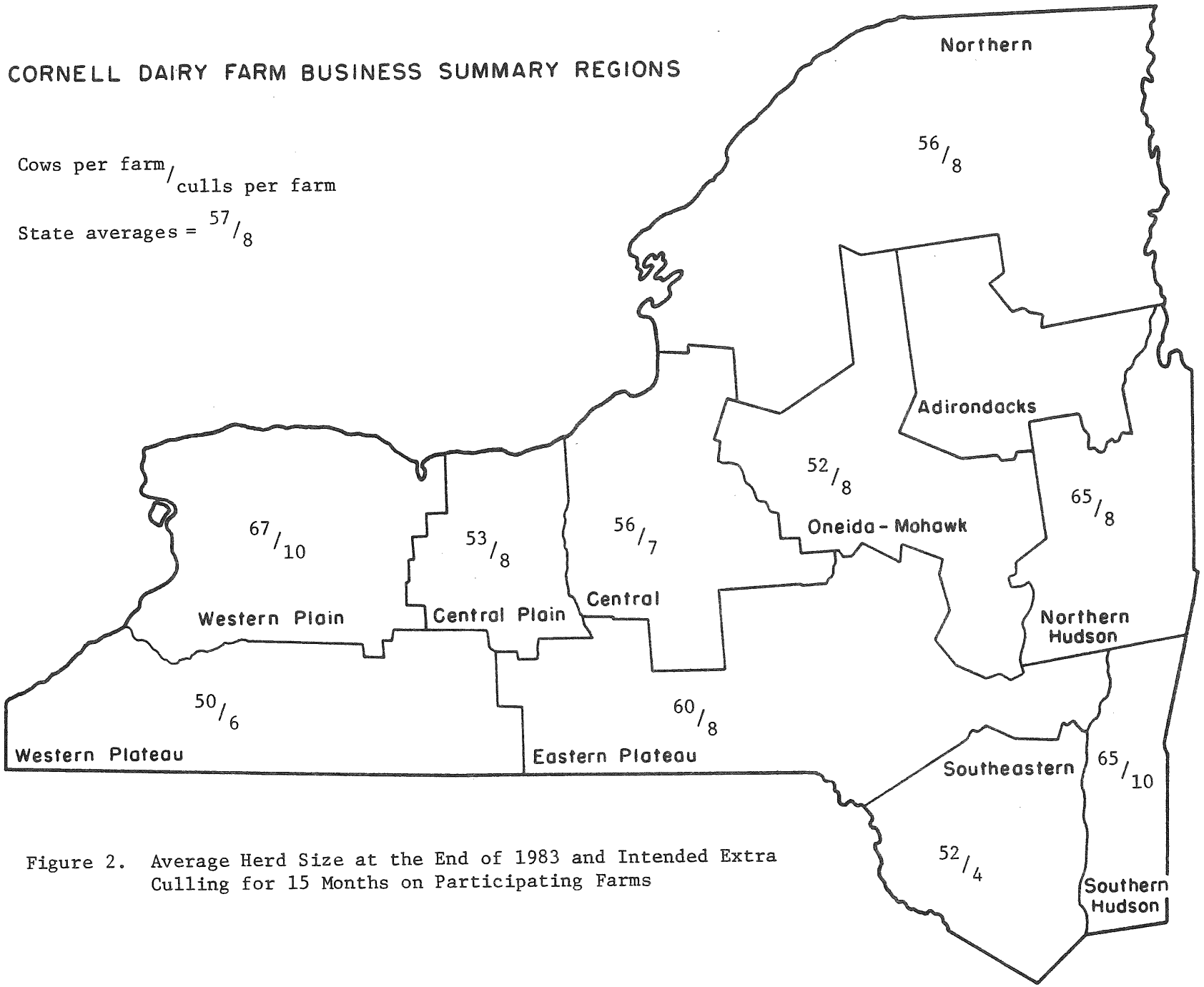

Figure 2. Average Herd Size at the End of 1983 and Intended Extra Culling for 15 Months on Participating Farms

Implications for New York Milk Production

Although it is tempting to infer a decrease in 1984 marketings, relative to 1983 levels, from the level of diverted marketings (see Table 2), it is probably inadvisable to do so. The contracted level of diverted marketings is a poor estimate of future changes in total marketings for four reasons. The first three reasons result from the fact that the diversion levels reported represent cutbacks relative to base marketings not marketings in 1983 or expected marketings in 1984. The first of these reasons involves farmers whose marketings were greater in 1983 than they were during the base period. These farmers must first reduce their current sales levels down to their base before they become eligible for payments, but the amount of these reductions is not reported in contracted diversions. This would cause the reported diversion levels to understate the level of new reductions or reductions relative to more recent marketings.

The second factor has the opposite effect. For various reasons, many participating farmers actually had lower marketings in 1983 than during their base period. They are eligible to receive payments based on cuts they achieved before the MDP began. While perfectly legal, this implies that some diversion monies will pay for old reductions. In these cases, corresponding declines in 1984 marketings (relative to 1983) will not be achieved.

Using data on county level production by participating farmers in 1983 and their reported diverted marketings (Table 2), a rough estimate was made of the net effect of these two factors. These estimates, reported in Table 5, indicate that the effect of the second factor dominates the first. In New York, the expected net diversion relative to 1983 production (adjusted diversion in Table 5) is about 70% of the reported diverted marketings. In other words, the increases and decreases in marketings during 1983 relative to the base period not captured in the reported diversion volumes, net out to a decrease in 1983

Table 5. 1983 Marketings of Participants and an Estimate of the Marketing Reductions to be Realized in 1984 Under the Milk Diversion Program

Area	1983 Marketings[a/]	12-Month Base Less 1983 Marketings[b/]	Adjusted Diversion[c/]	Adjusted Diversion as Share of Reported Diversion
	(million lbs.)			(%)
NEW YORK	1247.4	88.8	204.9	69.8
Allegany	15.9	1.4	2.0	58.6
Cattaraugus	51.5	3.5	9.7	73.8
Chautauqua	79.2	5.6	12.2	68.7
Steuben	27.4	3.1	3.9	55.3
WESTERN PLATEAU	173.9	13.5	27.7	67.2
Erie	31.9	1.0	5.9	84.9
Genesee	21.3	0.3	4.2	93.4
Livingston	27.6	1.0	5.4	84.7
Monroe	12.0	-1.5	3.3	181.8
Niagara	3.2	<0.1	0.9	95.8
Orleans	6.3	0.3	1.2	79.3
Wyoming	41.3	5.1	5.7	52.9
WESTERN PLAIN	143.5	6.3	26.5	80.8
Broome	22.6	1.7	3.8	69.8
Chemung	7.8	0.2	1.7	91.4
Chenango	22.9	2.5	3.1	55.0
Delaware	72.3	6.4	10.4	62.0
Greene	12.8	1.2	2.2	65.2
Otsego	52.9	6.4	7.7	54.4
Schuyler	6.9	-0.4	2.1	123.4
Tioga	16.8	1.6	2.0	55.3
Tompkins	9.5	1.6	0.8	33.0
EASTERN PLATEAU	224.5	21.2	33.8	61.5
Ontario	19.1	0.3	4.0	92.6
Seneca	4.0	0.6	0.4	37.8
Yates	3.5	0.8	0.2	19.9
Wayne	8.4	0.6	1.4	72.1
CENTRAL PLAIN	34.9	2.3	5.9	72.5
Cayuga	19.0	2.7	2.3	45.5
Cortland	24.4	4.7	2.1	31.2
Madison	24.4	2.3	4.1	64.0
Onondaga	20.2	1.7	2.8	62.5
Oswego	15.7	0.6	3.2	83.3
CENTRAL	103.7	12.1	14.5	54.5

-continued-

Table 5. (continued)

Area	1983 Marketings[a/]	12-Month Base Less 1983 Marketings[b/]	Adjusted Diversion[c/]	Adjusted Diversion as Share of Reported Diversion
	(million lbs.)			(%)
Fulton	9.9	1.3	1.1	44.74
Herkimer	27.6	2.7	4.5	62.05
Montgomery	41.9	-1.1	9.0	114.31
Oneida	51.6	1.7	9.1	84.16
Schoharie	35.2	2.4	5.8	70.61
ONEIDA/MOHAWK	166.2	7.1	29.4	80.66
Albany	8.7	1.4	0.6	31.56
Rensselaer	23.1	1.3	4.0	75.26
Saratoga	22.7	2.1	3.9	65.28
Schenectady	2.5	-0.2	0.8	137.13
Washington	59.9	2.9	9.8	77.18
NORTHERN HUDSON	116.9	7.5	19.1	71.98
Clinton	17.0	2.3	1.7	43.30
Essex	8.6	1.8	≤0.1	-1.80
Franklin	21.8	1.7	3.8	69.73
Jefferson	53.1	1.3	12.0	90.13
Lewis	42.3	2.0	7.1	78.08
St. Lawrence	49.4	4.0	7.7	66.09
NORTHERN	192.3	13.0	32.4	71.32
Orange	26.2	≤0.1	5.5	100.01
Sullivan	14.8	1.1	1.8	63.10
Ulster	7.8	0.7	1.3	63.36
SOUTHEASTERN	48.8	1.8	8.6	82.75
Columbia	21.1	1.5	3.0	66.58
Dutchess	18.9	4.3	1.8	29.60
SOUTHERN HUDSON	40.6	6.1	4.9	44.82

a/ Actual reported marketings for the January 1983 through November 1983 period, with December 1983 marketings estimated as the average of October and November 1983.

b/ This figure is a measure of the net decrease in the marketings of participating farms between their base period and 1983. A positive (negative) number indicates that 1983 marketings averaged below (above) base period marketings for the total number of participants.

c/ This figure is calculated by subtracting the net decrease in marketings (column 2) from the contracted quantity of diverted milk (adjusted to 12 months, see Table 2). This figure does not take into account the possible decrease in 1984 marketings due to participating farms selling even less milk than their contracts indicate (e.g., whole farm retirement) or the possible increases in marketings of non-participating farms.

marketings of participating New York farmers equal to 30% of their reported diverted marketing. This implies a total new reduction (relative to 1983) in the marketings of New York MDP participants of about 205 million pounds in 1984 (rather than the 292 million pounds of reported diversions) or about 1.8% of the milk produced in New York in 1983. Net diversion percentages for each region of the state are shown in Figure 3.

The third factor works in the same direction as the first. In this instance it is recognized that the reported diversion volume does not take into account those participating farmers who will reduce more than the level indicated on their contracts. For example, a number of participants may retire from dairy farming in 1984; even if they sign up for the maximum level--30%--the contract would fail to report the remaining portion of the reduction. This would also result in reported diversion levels that underestimate the actual reduction.

The fourth and final factor that will affect the estimate of 1984 milk production and marketings involves what the farmers will do who did not sign up for the MDP. Some nonparticipants will increase their production, some will decrease production or retire, and there will be a few new entrants to the dairy business. The net increase or decrease in the marketings of nonparticipants is harder to calculate than what participating farmers will do, but it seems likely that on net the nonparticipants will increase output over their 1983 levels. If a normal improvement in production per cow on the nonparticipating farms is assumed, this would imply an increase in production of 150 to 200 million pounds in New York in 1984.

Based on a consideration of these factors, it would appear that the milk production increase of nonparticipating farmers will more or less offset the decrease in marketings of farmers participating in the MDP, such that milk

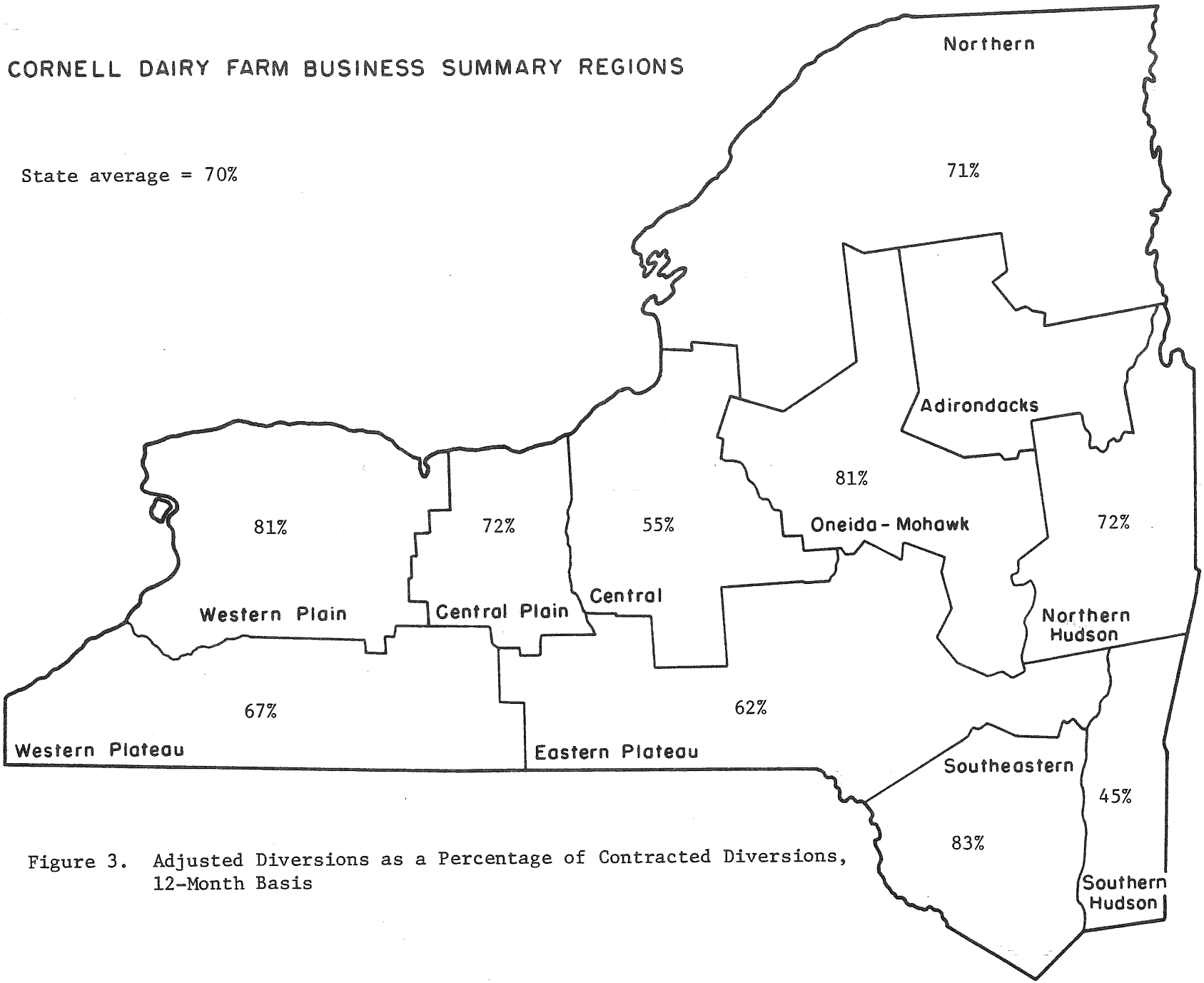

Figure 3. Adjusted Diversions as a Percentage of Contracted Diversions, 12-Month Basis

production in New York in 1984 seems likely to be close to the 11,691 million pounds estimated for 1983. Two forces that could act to reduce New York's 1984 marketings below those in 1983 are whole farm sellouts by participating farmers (the third factor discussed previously) and the possibility that to the extent possible contracting producers will use the 3 percent diversion leeway above their contracted diversion percentage to qualify for payments on reductions in excess of the contracted amount.

REFERENCES

Boynton, Robert D. and Andrew M. Novakovic (1984a). "A Summary and Interpretation of ASCS Rules and Procedures Governing the Operation of the Milk Diversion Program," Cornell Agr. Economics Staff Paper No. 84-1, January.

Boynton, Robert D. and Andrew M. Novakovic (1984b). "Dairy Farmers Must Decide," Hoard's Dairyman, Vol. 129, No. 1, January 10, p. 13.

Novakovic, Andrew M. (1983). "A Detailed Summary of the Dairy Production Stabilization Act of 1983 (a.k.a. The Compromise Bill)," Cornell Agr. Economics Staff Paper No. 83-26 (Revised), December.