

AN ECONOMIC ANALYSIS OF CHANGES IN MILK PRODUCTION IN THE NEW YORK MILKSHED

REGIONAL DIFFERENCES IN THE NEW YORK MILKSHED

Progress Report 2



G. J. Conneman

Department of Agricultural Economics
Cornell University Agricultural Experiment Station
New York State College of Agriculture
A Contract College of the State University
Cornell University, Ithaca, New York

This is the second in a series of progress reports on Cornell University Agricultural Experiment Station State Project 58, An Economic Analysis of Long-Run Changes in Milk Production in the New York Milkshed. This project is being conducted by the Department of Agricultural Economics at Cornell in cooperation with the Departments of Agricultural Economics at the Universities of Connecticut, Delaware, Maryland, Pennsylvania State, Rutgers and Vermont, and the Market Administrator, New York-New Jersey Milk Marketing Area.

This report deals with regional differences in the milkshed. The first report (A. E. Res. 135) discussed the purpose and sampling design of the study.

Subsequent reports will discuss changes in the milkshed as well as provide a basic analysis of the causes of change.

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1
Definitions	3
REGIONS IN THE NEW YORK MILKSHED	3
General Description	4
REGIONAL DIFFERENCES	7
Size of Herd	7
Crop Acres Per Producing Unit	10
Method of Delivering Milk	10
Off-farm Employment	13
Age of Operator	16
SUMMARY	17

REGIONAL DIFFERENCES IN THE NEW YORK MILKSHED

INTRODUCTION

The geographic area of the New York Milkshed covers parts of six states: New York, New Jersey, Pennsylvania, Maryland, Delaware, and Vermont (see figure 1). Dairy farmers within this area are associated with several different markets. However, the majority of producers in the entire area deliver milk to plants regulated by the New York-New Jersey Order.^{1/}

All areas in New York State have producers whose milk is priced by the New York-New Jersey Order, except for a few counties in the western part of the State which are associated with the Rochester and Niagara Frontier Markets. In these markets milk is produced primarily for local use, and is priced by separate State Orders. In the area east of the Hudson River, the majority of producers deliver to markets in New England. Milk delivered by producers to local markets in several counties in northern and southwestern New York is not priced by any federal or state order. A relatively small number of producers in New York State sell unapproved milk to cheese factories and other manufacturing outlets.

Producers in Pennsylvania whose milk is priced by the New York-New Jersey Order are concentrated in two areas -- in the northern part, along the New York-Pennsylvania state line, and in an area in central Pennsylvania which extends from Williamsport on the north to the Pennsylvania-Maryland border on the south, and from Altoona on the west to Reading on the east. The central Pennsylvania area also contains large numbers of producers who deliver to markets regulated by other federal orders, and to local (secondary) markets within Pennsylvania which are regulated by the Pennsylvania Milk Control Commission.

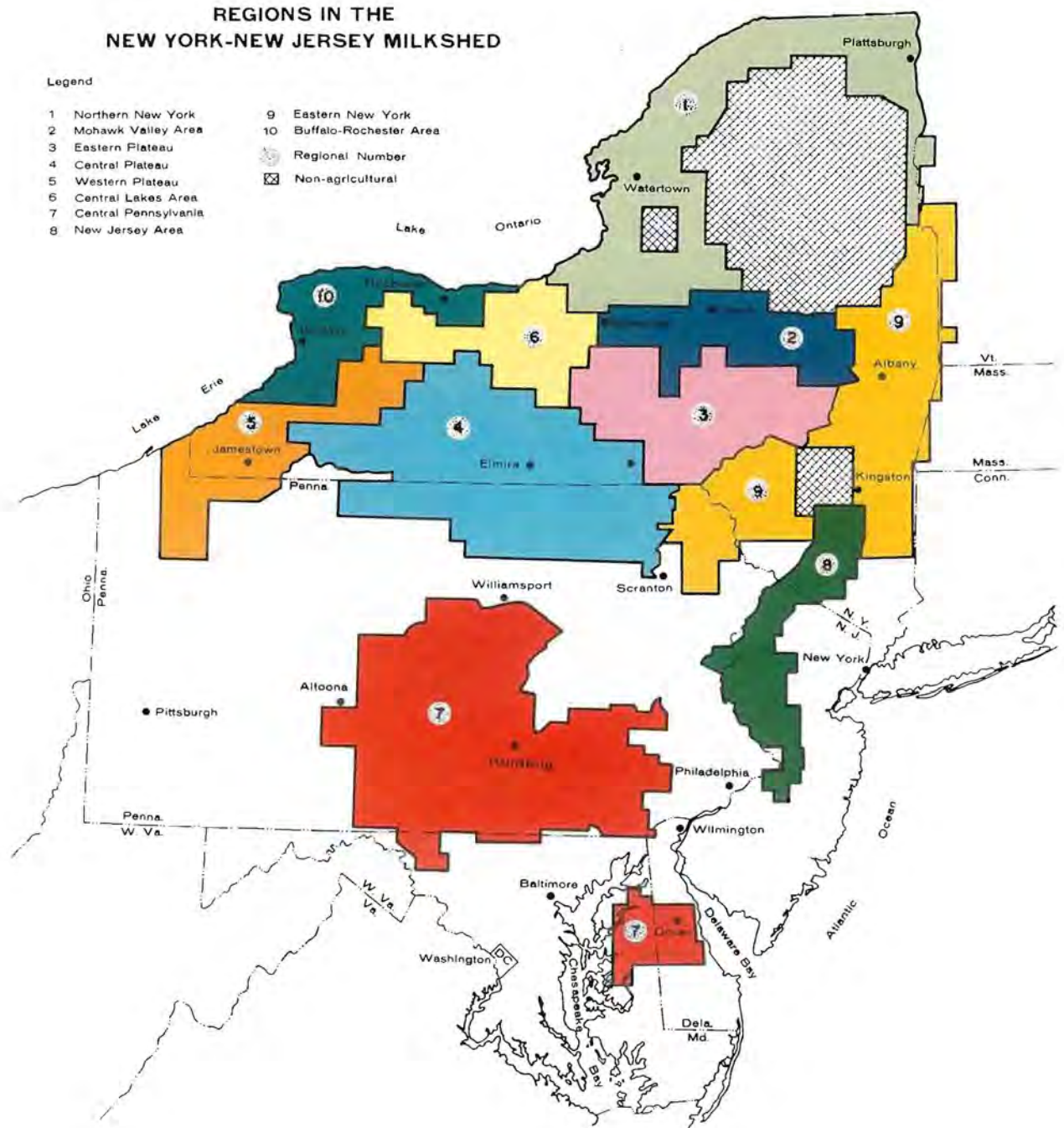
In New Jersey producers delivering to New York-New Jersey Order plants are located in the northern part of the state.

^{1/} The New York-New Jersey Milk Order is in fact a regulatory system consisting of a federal milk marketing order (No. 2) and concurrent orders issued by the State Milk Control Agencies of New York and New Jersey. These orders are administered by a joint agency, the Market Administrator, New York-New Jersey Milk Marketing Area.

The primary purpose of these orders is to fix minimum prices to be paid by handlers for milk produced for the specified marketing area. The marketing area includes New York City and immediately adjacent counties of New York State, as well as 13 counties of Northern New Jersey and all or parts of 35 counties of Upstate New York.

The production area for this market (New York-New Jersey Milkshed) embraces most of New York State as well as substantial parts of New Jersey and Pennsylvania, and relatively small areas in other neighboring states.

Figure 1



Just as all farmers do not deliver milk to the same market, many other differences exist between different areas of the milkshed. Soil resources, farm organization, and production potential differ widely from area to area. The purpose of this report is to show some of the differences that exist between regions in the milkshed. Differences in size of herd, number of crop acres, method of delivering milk, off-farm employment, and age of operator are reported.

This report is based on information obtained from a representative sample of milk producers.^{2/} The differences reported pertain to June 1960. The report deals with characteristics of the regions relating to producers who deliver milk to New York-New Jersey Order plants. In the regions where large numbers of producers deliver to other markets, appropriate comments are made on the characteristics of these producers and how they affect the overall regional picture.

Definitions

A producing unit is defined as consisting of that bundle of farm resources -- land, buildings, cattle and machinery -- under the single management and control of one or more operators. A producing unit may therefore include more than one farm (as that term is often defined), and will include all the milk cows under one management, even though the cows are milked in more than one barn.

An operator or a producer is defined as an individual who manages and controls a producing unit, and who delivers milk to market, however small the amount, including intermittent shippers. A producing unit may have more than one operator. References in this report to farms or producers, unless otherwise noted, refer to producing units and operator(s) as defined above.

REGIONS IN THE NEW YORK MILKSHED

Ten regions were delineated in the New York-New Jersey Milkshed area for purposes of the study. The aim was to delineate areas within which the natural resources for dairy farming and alternative enterprises were similar. The present use of resources and potential future development were taken into account.


In defining these regions, use was made of soil maps, census data, type of farming studies, economic regions studies, climatic and topographic data, pricing zones, seasonality of milk production, and studies of trends in cow numbers and intensity of farming.

^{2/} A detailed description of the overall purpose of the study and the sample design is contained in A. E. Res. 135.

The location of milk producers in all of New York State with the exception of the area east of the Hudson River had been plotted on topographic maps by the Market Administrator's office. In the area east of the Hudson River and in other states only the location of New York-New Jersey Order producers had been plotted.

A large plastic-covered map of the milkshed area was prepared on which the number of producers on each topographic map was indicated. Tentative regional boundaries were sketched on this map, based on general knowledge of the areas. Boundaries as indicated by soil maps, type of farming areas, etc. were superimposed on this basic map. Final boundaries were determined after field observations. Political boundaries (state, county, township) were given only minor consideration in defining regions. In general, boundaries between regions were drawn to follow boundaries between topographic maps. An attempt was made to make regions of sufficient size so the sample obtained by using a uniform sampling rate in each region would be large enough to allow valid statements to be made about each region.

In two of the regions, major sub-regions existed that were large enough and important enough to be defined separately. These were the Black River Valley area of Region 1 (which is located between Watertown and Utica, adjacent to the Adirondack Mountains), and the eastern half of Region 4.

Three areas within New York State were classified as non-agricultural -- the Adirondack Mountains, the Catskill Mountains and the Tug Hill area. These areas are indicated by  on the map on page 2. Relatively few dairy farms were located in these three areas.

The regions as defined for purposes of this study, cover all of New York State, and parts of Pennsylvania, New Jersey, Vermont, Delaware and Maryland. The final regional boundaries are indicated in figure 1.

General Description

Each region as defined for purposes of this study is briefly described in terms of its location, topography, soils, climate, milk markets, and type of farming.

Region 1 (Northern New York)--Region 1 covers a horseshoe-shaped area around the Adirondack Forest Preserve, and is mostly located in New York State with the exception of a small area in western Vermont. It extends north from Syracuse to the Canadian border and then to a point south of Port Henry, New York.

The areas that are farmed are mostly at elevations of 200 to 600 feet. The growing season is rather short because the region is located so far north. The

topography is generally level. Soils vary from the clays and loams on tills to the sandy soils in the foothills of the Adirondack Forest Preserve. With the exception of the Black River Valley (that part of the region located between Watertown and Utica and adjacent to the Adirondack Mountains), it is an extensive dairy region. Milk production is highly seasonal with a sharp peak occurring in the spring. The great majority of dairymen in this region deliver to plants regulated by the New York-New Jersey Marketing Order. Some dairymen located along the Vermont border deliver milk to various New England markets. Also scattered throughout the region are a few farmers who produce milk for local cheese factories or local fluid markets.

Region 2 (Mohawk Valley Area)--Region 2 covers a narrow area in east-central New York which extends from Syracuse to Amsterdam.

This is an intensive dairy region with soils of medium to high lime, with moderate to good drainage. The climate is favorable for forage crops. Topography is not generally limiting. It is one of the more intensive dairy regions in the milkshed. Almost all producers deliver milk to plants regulated under the New York-New Jersey Order. Although it is mainly a dairy region, vegetables are grown on some farms, both in the upland and on the organic soils located in the area.

Region 3 (Eastern Plateau)--The Eastern Plateau extends from Ithaca to Albany going from west to east, and from south of Syracuse to the northeastern corner of Pennsylvania. The climate of the area is cool and wet; soils are acid; hillsides are steep. Valleys generally have level topography and are well-drained. Most producers deliver to the New York-New Jersey market.

Region 4 (Central Plateau)--This region includes the hill and valley area of southern New York and northern Pennsylvania. From west to east, it extends from Jamestown, New York, to Binghamton, New York, and from south to north from Williamsport, Pennsylvania, to a point near Canandaigua, New York. Hill farms frequently have steep topography, and soils are acid and imperfectly drained. Valley farms generally have fairly level topography with acid, well-drained soils. Most farms are from 1000 to 2000 feet in elevation. Hilliness increases from west to east. Soil drainage is better in the east than in the west.

Although dairy farming predominates throughout the region, differences exist between the eastern half and the western half of this region. The eastern half developed as a dairy region earlier because it was located nearer to market, and on the main lines of the railroads. This accounts for various differences in the two halves, including seasonal variation in milk production. Although most producers deliver to New York-New Jersey Order plants, a few farms scattered throughout the area produce milk for local cheese factories.

Region 5 (Western Plateau)--This region is located in the southwestern portion of New York State and includes a small area in northwestern Pennsylvania.

The region is similar in many ways to Region 4, but the hills are somewhat broader. Vegetable crops are raised on some of the best valley land. Soils vary widely, and the area is well adapted to dairying. Roughly 60 percent of the producers deliver to the New York-New Jersey market, while the remainder deliver to the Niagara Frontier or other local markets.

Region 6 (Central Lakes Area)--This region extends from Syracuse to Batavia. It has favorable topography and climate, and contains fertile, high-lime soils with excellent drainage. Cash crops and dairy are both common. The dairy enterprise is frequently combined with cash crops.

About 60 percent of the producers deliver to New York-New Jersey Order plants. Most of the rest deliver milk to the Rochester or Niagara Frontier markets which are regulated by State Orders. Some milk is produced for local fluid markets.

Region 7 (Central Pennsylvania)--Region 7 covers an area in central Pennsylvania which extends from Williamsport in the north to the Pennsylvania-Maryland border, and from Altoona in the west to Reading in the east. It also includes a small area on the Delaware-Maryland peninsula. In central Pennsylvania, milk production is usually found on farms where other livestock, cash crops, and grain crops are also important. The topography through the middle part of this region varies from steep hills to level valleys. There are both sandstone and limestone valleys in the area.

The southeastern part includes the fertile farming land centering on Lancaster County, Pennsylvania. Overall, Region 7 contains large numbers of producers who deliver to markets regulated by several federal orders, and to local (secondary) markets within Pennsylvania which are regulated by the Pennsylvania Milk Control Commission.

Region 8 (New Jersey Area)--Region 8 includes the northern counties of New Jersey and a part of southeastern New York. It extends from Middletown, New York, in the north, to a point south of Trenton, New Jersey. It is an intensive and specialized dairy area. Nearly all producers deliver to the New York-New Jersey market.

Climate is milder than in other areas of the milkshed and the growing season is longer. In the past this area has been favored by its location close to market, and locational premiums have been paid. Land values are high and urban-suburban influences are strong.

Region 9 (Eastern New York)--This region includes the eastern part of New York State, a small area in western Vermont, and the northeastern part of Pennsylvania. The southern two-thirds of this region is located within the "Nearby Zone" as defined by the New York-New Jersey Order. Special locational premiums are paid to producers within this zone.

The three parts of this region are distinctly different. The portion in north-eastern Pennsylvania is similar in soils, climate, topography, and markets to the Central Plateau (Region 4). The eastern portion of the region (the part located in New York State east of the Hudson River) is in specialized dairying. Topography is level to moderately limiting. The growing season is fairly long. Rainfall is favorable, and soils, although acid, are responsive to fertilizer and other practices. In this eastern portion of the region, the great majority of producers deliver to various milk markets in New England. The remainder of Region 9 is highly variable in topography and intensity of dairying.

Region 10 (Buffalo-Rochester Area)--Region 10 includes the area in western New York near Buffalo and Rochester not included in Regions 5 or 6. It has characteristics that are similar to Regions 5 and 6. In addition it is subject to urban-surburban influences. All producers deliver to either the Niagara Frontier or Rochester markets in New York State.

REGIONAL DIFFERENCES

Size of Herd

Wide differences exist among regions in the number of cows kept per producing unit. Considering all regions together, the average size of herd for a sample of 1,172 New York-New Jersey Order producers was 28 cows in June 1960. This varied from 20 cows in Central Pennsylvania (Region 7), to 46 cows in the New Jersey Area (Region 8). The regional differences in size of herd of New York-New Jersey Order producers are shown in table 1 and in figure 2.

In Northern New York (Region 1), farmers in the central part of the Region (the Black River Valley) kept more cows than dairymen in other parts of the Region, averaging 35 cows per producing unit as compared to 28 in the rest of the Region. Similarly, in the Central Plateau (Region 4), producers in the eastern half averaged 31 cows per unit compared to 25 cows in the western section of the Region.

TABLE 1. SIZE OF HERD BY REGION
1,172 New York-New Jersey Order Producers, June 1960

Number	Region Name	Number of producers	Average size of herd (cows)
1	Northern New York	231	30
2	Mohawk Valley Area	123	34
3	Eastern Plateau	168	27
4	Central Plateau	194	28
5	Western Plateau	53	26
6	Central Lakes Area	52	27
7	Central Pennsylvania	150	20
8	New Jersey Area	77	46
9	Eastern New York	124	25
	ALL REGIONS	1,172	28

In Regions 5, 6, 7, and 9, producers who delivered to markets other than the New York-New Jersey market kept more cows per producing unit than their neighbors who delivered to Order 2 plants (see table 2).

TABLE 2. SIZE OF HERD BY REGION AND MILK MARKET
Sample of Producing Units, June 1960

Number	Region Name	Producers delivering to:		All producers
		N.Y.-N.J. market	Other markets**	
		Average size of herd--cows		
5	Western Plateau	26	34	28
6	Central Lakes Area	27	30	28
7	Central Pennsylvania	20	23	21
9	Eastern New York	25	34	27
10	Rochester-Buffalo Area	*	31	31

* No producers in this region deliver to the New York-New Jersey market.

** Markets include:

Regions 5, 6, and 10 -- Niagara Frontier and Rochester

Region 7 -- Other Federal Order markets, and local markets regulated by the Pennsylvania Milk Control Commission

Region 9 -- Various New England milk markets, and local fluid markets

Figure 2

SIZE OF HERD BY REGION
 Sample of New York-New Jersey Order Producers,
 June 1960

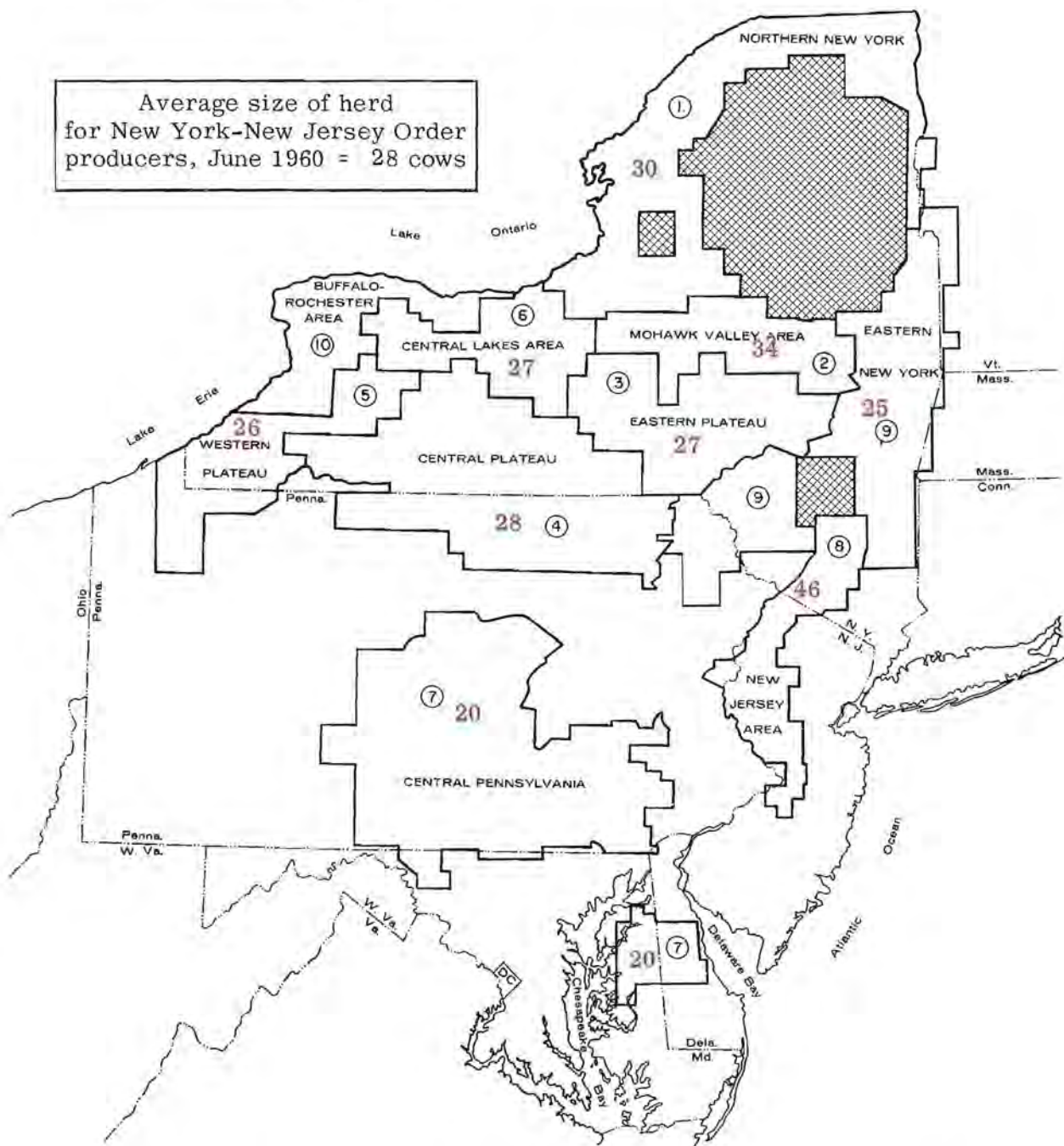


Figure 2 shows by region the average size of herd in June 1960 for a sample of 1,172 New York-New Jersey Order producers. In Regions 5, 6, 7, and 9, producers who delivered to markets other than the New York-New Jersey market kept more cows per producing unit than their neighbors who delivered to Order 2 plants. (See Table 2.)

Crop Acres per Producing Unit

Differences also exist among regions in the number of crop acres per producing unit. The average for a sample of 1,172 New York-New Jersey Order producers in all regions in June 1960 was 114 crop acres, and varied from 88 in the Eastern Plateau (Region 3) to 179 in the Central Lakes Area (Region 6).

Regional differences in the amount of cropland per producing unit appear to be associated with soil, topography, and type of farming. For example, in the Central Lakes Area (Region 6), where crop acres per unit averaged 181, dairy farmers also raise cash crops. Medium to high-lime soils and level topography make this possible. In the Eastern Plateau (Region 3), particularly in the southern part of this Region, the amount of tillable land is limited by rough topography.

The intensity of farming as measured by crop acres per cow varied from region to region. By this measure, the most intensive region was the New Jersey Area where cows per producing unit averaged 46, and crop acres per producing unit averaged 135, or 2.9 crop acres per cow. (See Table 3.)

TABLE 3. CROP ACRES PER PRODUCING UNIT BY REGION
1,172 New York-New Jersey Order Producers, June 1960

Number	Region Name	Number of producers	Average crop acres per producing units	Average crop acres per cow
1	Northern New York	231	116	3.9
2	Mohawk Valley Area	123	132	3.9
3	Eastern Plateau	168	88	3.3
4	Central Plateau	194	120	4.3
5	Western Plateau	53	92	3.5
6	Central Lakes Area	52	179	6.6
7	Central Pennsylvania	150	107	5.4
8	New Jersey Area	77	135	2.9
9	Eastern New York	124	94	3.8
ALL REGIONS		1,172	114	4.1

Method of Delivering Milk

Only 12 per cent of a sample New York-New Jersey Order producers delivered milk in bulk on June 1, 1960. The sample included 1,172 producers. The proportion of producers with bulk tanks varied widely from region to region. Also, the date of the shift to bulk was not the same in all regions. (See Table 4 and Figure 3.)

TABLE 4. PERCENTAGE OF PRODUCERS WITH BULK TANKS
BY REGION
1,172 New York-New Jersey Order Producers, June 1960

Number	Region Name	Number of producers	Per cent with tanks
1	Northern New York	231	10%
2	Mohawk Valley Area	123	20
3	Eastern Plateau	168	4
4	Central Plateau	194	16
5	Western Plateau	53	15
6	Central Lakes Area	52	13
7	Central Pennsylvania	150	1
8	New Jersey Area	77	27
9	Eastern New York	124	10
	ALL REGIONS	1,172	12%

In the New Jersey Area (Region 8), over one-fourth of the producers had tanks. As has already been pointed out, producers in this area kept a larger number of cows per unit than any other region in the milkshed, averaging 46 cows. Also, they were among the first to make the shift to bulk. Over half of the producers with bulk tanks in Region 8 had installed a tank prior to 1958.

The Mohawk Valley Area (Region 2) had the next highest proportion of producers with bulk tanks, 20 per cent in June 1960. In this region the shift to bulk also had come early, with more than half of the producers with tanks in 1960 having installed them prior to 1958. Producers in this area also kept a larger than average number of cows per producing unit.

Two regions in the milkshed had relatively few New York-New Jersey Order producers who delivered in bulk: the Eastern Plateau (Region 3) and Central Pennsylvania (Region 7). Only four per cent of the producers in the Eastern Plateau and only one per cent in Central Pennsylvania delivered in bulk in June 1960. In Central Pennsylvania, herds are generally small and the dairy enterprise is frequently found on farms where other livestock, cash crops, and grain crops are also important. In the Eastern Plateau, relatively few milk plants offered producers premiums to change to bulk which accounts, in part, for the small percentage of tanks in this area.

In the Central Plateau (Region 4), 16 per cent of the producers delivered milk in bulk in 1960. However, only one-third of these producers installed tanks prior to 1958. Although 15 per cent of the New York-New Jersey producers in the Western Plateau (Region 5) had tanks in June 1960, only one-third of these had switched to bulk prior to 1958.

PERCENTAGE OF PRODUCERS WITH BULK TANKS BY REGION
 Sample of New York-New Jersey Order Producers,
 June 1960

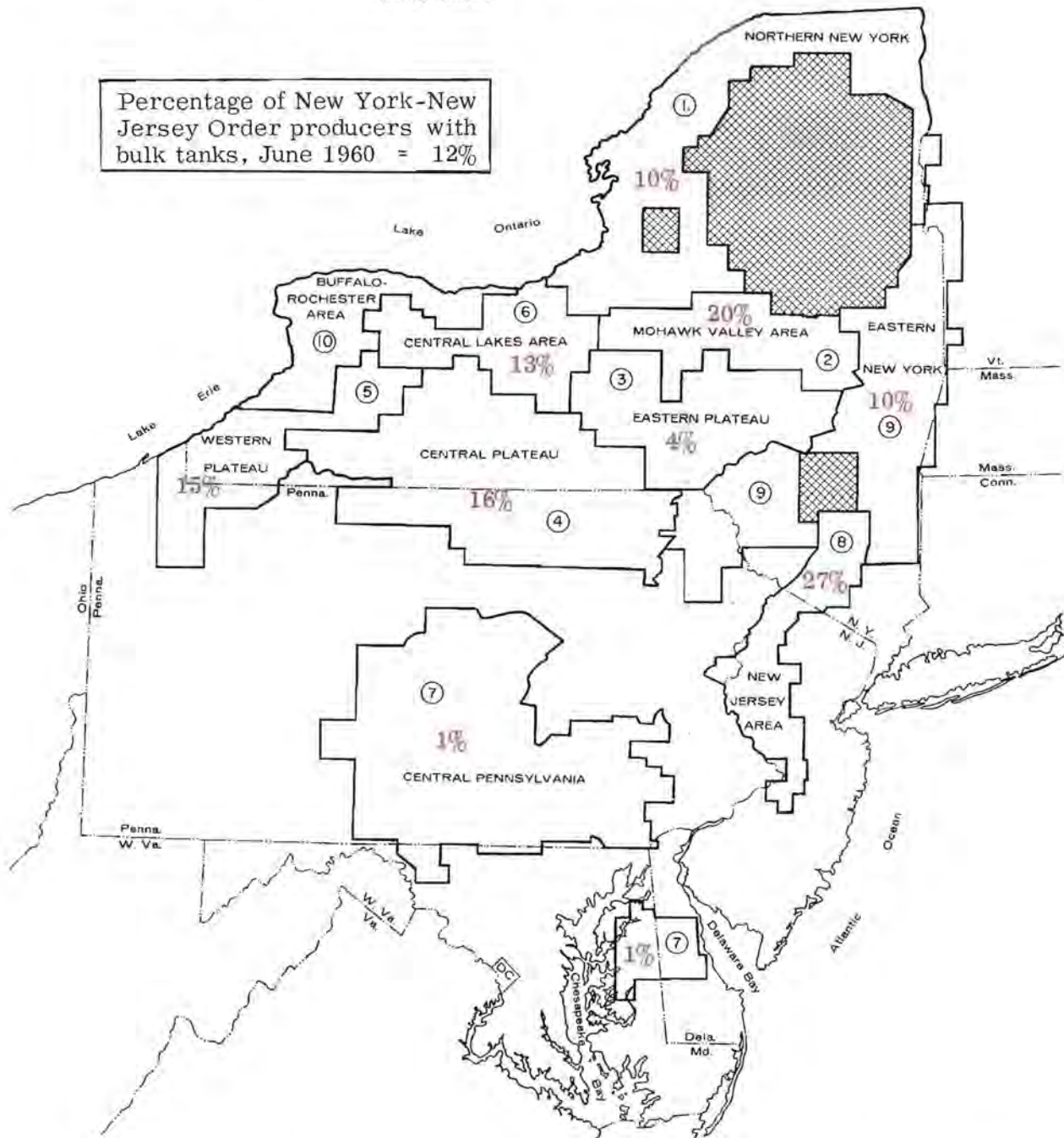


Figure 3 shows by region the percentage of New York-New Jersey Order producers with bulk tanks in June 1960. The sample included 1,172 producers. In Regions 5, 6, 7, and 9, a higher percentage of producers who delivered to markets other than the New York-New Jersey market had bulk tanks than their neighbors who delivered to Order 2 plants. (See Table 5.)

The Western Plateau, Central Lakes Area, Central Pennsylvania, and Eastern New York (Regions 5, 6, 7 and 9) contain large numbers of producers who deliver to milk markets other than the New York-New Jersey market. Compared to their neighbors, relatively few New York-New Jersey producers had tanks in 1960 in Regions 5, 6, 7, and 9. This comparison is shown in table 5.

TABLE 5. PERCENTAGE OF PRODUCERS WITH BULK TANKS
BY REGION AND MILK MARKET
Sample of Producing Units, June 1960

Number	Region Name	Producers delivering to:		All producers
		N, Y., -N. J. market	Other markets**	
		<u>Per cent of producers with tanks</u>		
5	Western Plateau	15%	45%	26%
6	Central Lakes Area	13	50	28
7	Central Pennsylvania	1	26	11
9	Eastern New York	10	59	20
10	Rochester-Buffalo Area	*	33	33

* No producers in this region deliver to the New York-New Jersey market.

** Markets include:

Regions 5, 6, and 10 -- Niagara Frontier and Rochester

Region 7 -- Other Federal Order markets, and local markets regulated by the Pennsylvania Milk Control Commission

Region 9 -- Various New England milk markets, and local fluid markets

Off-farm Employment

Off-farm employment has become more commonplace among dairy farmers. In June 1960, one out of four New York-New Jersey Order producers in a sample of 1,172 producers had a job that involved 30 or more days of work off the farm.

One out of eight operators held a full-time off-farm job, i.e., 120 or more days of work off the farm. Factory workers, carpenters, plumbers, mechanics, road workers, construction workers, and truck drivers were the most common full-time jobs.

One out of eight milk producers worked part-time off the farm, i.e., between 30 and 119 days of work off the farm. Types of part-time work included driving a school bus, hauling milk, driving a truck, doing carpentry work, or working as a town official (e.g., assessor, supervisor, justice of the peace).

The pattern of off-farm employment was not uniform among regions (see table 6 and figure 4). In the New Jersey area (Region 8), less than 10 per cent of the New York-New Jersey Order producers had an off-farm job in June 1960. On the other hand, in Northern New York (Region 1), Eastern Plateau (Region 3), Central Plateau (Region 4), and Western Plateau (Region 5) nearly one-third of the dairymen worked off the farm.

The variation among regions in the proportion of producers with off-farm jobs is probably explained by many interrelated factors. Low incomes in dairying in recent years have likely contributed to the decision of many milk producers to work off the farm. For some producers, a part-time or full-time job off the farm often is a transition out of farming. In some areas this transition has been taking place for a number of years. The availability of off-farm jobs in an area, and the profitability of alternative farm enterprises compared to dairying, may also account, in part, for the variation in the regional pattern of off-farm employment.

TABLE 6. PERCENTAGE OF PRODUCERS WITH OFF-FARM EMPLOYMENT BY REGION
1,172 New York-New Jersey Order Producers, June 1960

Number	Region Name	Number of producers	Per cent with off-farm job:		
			Part- time*	Full- time**	Total
1	Northern New York	231	14%	16%	30%
2	Mohawk Valley Area	123	8	9	17
3	Eastern Plateau	168	12	16	28
4	Central Plateau	194	17	14	31
5	Western Plateau	53	13	15	28
6	Central Lakes Area	52	10	8	18
7	Central Pennsylvania	150	5	13	18
8	New Jersey Area	77	3	6	9
9	Eastern New York	124	10	15	25
	ALL REGIONS	1,172	11%	13%	24%

* Part-time off-farm job: 30 to 119 days of work off the farm.

** Full-time off-farm job: 120 or more days of work off the farm.

Among New York-New Jersey Order producers, as the size of herd increased, the percentage of producers with off-farm jobs decreased. Over 40 per cent of the producers with less than 10 cows had off-farm jobs, compared to about 15 per cent of the producers with 50 or more cows.

PERCENTAGE OF PRODUCERS WITH OFF-FARM EMPLOYMENT BY REGION
 Sample of New York-New Jersey Order Producers,
 June 1960

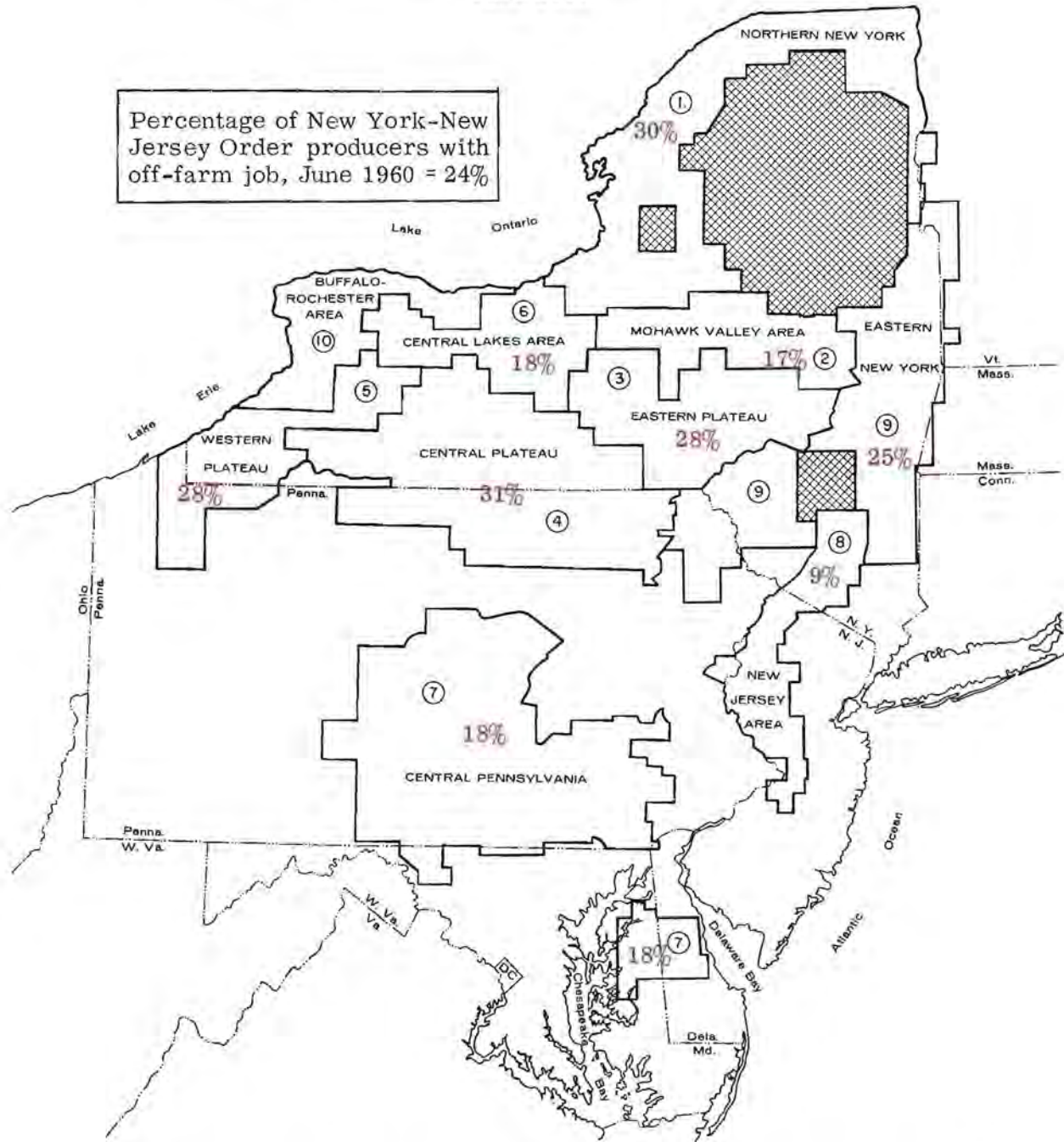


Figure 4 shows by region the percentage of New York-New Jersey Order producers with off-farm employment (part-time and full-time) in June 1960. The sample included 1,172 producers. Producers who delivered to other milk markets had employment off the farm in about the same proportion as New York-New Jersey Order producers.

Producers who delivered to milk markets other than Order 2 had employment off the farm in about the same proportion as New York-New Jersey Order producers.

Age of Operator

The average age of operator was essentially uniform from region to region (see table 7). For the sample of New York-New Jersey Order producers, the average age was 44.4 years. Two out of five operators were less than 40 years of age, and one out of three was over 50 years old. On the average, operators between 20 and 40 years of age kept larger herds than operators over 50 years of age.

TABLE 7. AGE OF OPERATOR BY REGION
1,172 New York-New Jersey Order Producers, June 1960

Number	Region Name	Average age of operator	Per cent of operators:	
			less than 40 years	over 50 years
1	Northern New York	44.5	41%	37%
2	Mohawk Valley Area	44.6	40	35
3	Eastern Plateau	45.5	36	36
4	Central Plateau	44.5	41	35
5	Western Plateau	46.6	38	38
6	Central Lakes Area	42.7	46	29
7	Central Pennsylvania	41.7	44	26
8	New Jersey Area	42.7	42	26
9	Eastern New York	46.2	33	41
	ALL REGIONS	44.4	40%	34%

One hundred and thirteen (113) of the 1,172 New York-New Jersey Order producing units in the sample had more than one operator, i.e., a partnership of one type or another. The age of the second operator was not included in the previous distributions and averages. Including the 113 "second" operators, the average age for all operators was 45.3 years. A distribution of age of operator is shown in table 8.

The average age of operator did not differ significantly between New York-New Jersey Order producers, and producers who delivered to other markets.

TABLE 8. DISTRIBUTION OF AGE OF OPERATOR
1,172 New York-New Jersey Order Producing Units, June 1960

Age of operator	All producing units*		All operators**	
	Number	Per cent	Number	Per cent
less than 20	16	1%	17	1%
20 - 29	126	11	130	10
30 - 39	323	28	333	26
40 - 49	304	26	327	26
50 - 59	236	20	263	21
60 - 69	129	11	159	12
70 and over	38	3	56	4
TOTAL	1,172	100%	1,285	100%

* Includes age of one operator only.

** Includes 113 "second" operators associated with the 1,172 farm units.

SUMMARY

This report describes some of the regional differences in the New York milkshed. Differences in the size of herd, number of crop acres, method of delivering milk, off-farm employment, and age of operator are reported for a sample of 1,172 New York-New Jersey Order producers for June 1960. These five factors are summarized in table 9.

Regions 5, 6, 7, and 9 contain large numbers of producers who deliver to milk markets other than the New York-New Jersey market. In these regions, the age of operator, off-farm employment, and crop acres per producing unit did not differ significantly between the two groups of producers. However, distinct differences did exist in the number of cows kept per producing unit, and the method of delivering milk. (See Table 2 and Table 5.) These differences affect the overall regional picture in Regions 5, 6, 7, and 9.

TABLE 9. REGIONAL DIFFERENCES IN THE NEW YORK MILKSHED*
1,172 New York-New Jersey Order Producers, June 1960

Number	Region	Number of sample producers	Average size of herd (cows)*	Crop acres per producing unit	Per cent producers with bulk tanks*	Per cent producers with off-farm job:		Average age of operator
	Name					part- time	full- time	
1	Northern New York	231	30	116	10%	14%	16%	44.5
2	Mohawk Valley Area	123	34	132	20	8	9	44.6
3	Eastern Plateau	168	27	88	4	12	16	45.5
4	Central Plateau	194	28	120	16	17	14	44.5
5	Western Plateau	53	26	92	15	13	15	46.6
6	Central Lakes Area	52	27	179	13	10	8	42.7
7	Central Pennsylvania	150	20	107	1	5	13	41.7
8	New Jersey Area	77	46	135	27	3	6	42.7
9	Eastern New York	124	25	94	10	10	15	46.2
	ALL REGIONS	1,172	28	114	12%	11%	13%	44.4

* Regions 5, 6, 7, and 9 contain large numbers of producers who deliver to milk markets other than the New York-New Jersey market. In these regions, the average size of herd, and percentage of producers with bulk tanks differ between these two groups of producers. These differences affect the overall regional picture in Regions 5, 6, 7, and 9. (See Table 2 and Table 5.)