



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

April 1981

A.E. Res. 81-3

THE NEW YORK STATE FOOD INDUSTRY

Mary Stewart Law

Department of Agricultural Economics
Cornell University Agricultural Experiment Station
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.

THE NEW YORK STATE FOOD INDUSTRY

by

Mary Stewart Law

Acknowledgements

This study was done under the direction of Professor Max E. Brunk. Assistance was provided by Raymond Paolino, Director of Research and Statistics of the New York State Department of Commerce, and Maurice Guerrette of the Food Control Division in the Department of Agriculture and Markets. Their assistance and advice is gratefully acknowledged.

TABLE OF CONTENTS

	Page
Importance of New York State Agricultural Production to the United States Food Industry	1
New York State Farming Sector	3
Food Industry Employment	5
United States Food Manufacturing Employment-New York State's Position	9
Employment by Product Group	11
Value Added	13
Synergetic Interaction Among Sectors of the Food Industry	14
Future of the New York Food Industry	17
Importance of the Food Industry by Economic Regions	19
Binghamton Economic Area	22
Buffalo Economic Area	24
Capital Economic Area	26
Elmira Economic Area	28
Mid Hudson Economic Area	30
Mohawk Economic Area	32
Northern Economic Area	34
Rochester Economic Area	36
Syracuse Economic Area	38
Upstate Area	40
Downstate Area	40
New York State	41
Statistical Addendum	42

The New York State Food Industry

The food industry is a vital and integral part of the New York State economy. With food manufacturing serving as the economic hub, farming and agricultural production is linked on one side with retailing and the food distribution system on the other; the productivity and health of each affect all other phases of food production and marketing. Ultimately, a harmonic relationship among these sectors helps to provide plentiful supplies of food for New York State residents at reasonable prices. With nearly one-fourth of every retail dollar being spent on food in New York State, the efficient operation of the food industry is paramount.^{1/} Additionally, locally grown and manufactured foodstuffs are of increasing importance as transportation costs become a larger item in the cost of food to consumers.

The following report examines and analyzes the New York State food industry in terms of its role in the US economy as well as its role within the state. The economic effects of synergism within the food industry are discussed, indicating the total value of the industry to the state. Not only is the industry a significant component of the New York State economy, it is also vital to the economic stability of many regions within the state. Thus, the food industry in each region is examined according to its contribution to employment.

Importance of New York State Agricultural Production to the United States Food Industry

Aggregate statistics often provide little indication of an industry's importance to a state. For example, New York State ranked only 23rd among

^{1/} 1977 Census of Retail Trade, U.S. Bureau of the Census, U.S. Department of Commerce.

all states in terms of both the total number of farms and cash receipts from farm marketings during 1979. However, aggregate data disguise the importance of New York State as one of the nation's leading suppliers of dairy products and numerous specialty, land intensive agricultural products (Table 1). Without this source of supply, the cost of many important items in a North-eastern consumer's food basket could be much higher.

Table 1. Cash Receipts from Farm Marketings and Production Ranking: Selected Commodities, New York State, 1979.

Selected Commodity	Cash Receipts (\$ mill.)	Ranking Among States
Dairy Products	1,317.0	3
Eggs	83.4	14
Apples	112.0	2
Cherries	10.0	2 (tart)
Grapes	44.8	2
Sweet Corn	17.0	1
Cabbage	18.4	1,3 ^{a/}
Cauliflower	5.9	3
Onions	34.2	3
Snap Beans	23.6	3
Beets	3.0	2
All Commodities	2,240.1	23

^{a/} Processed and fresh, respectively.

Source: New York Agricultural Statistics, 1979, New York Crop Reporting Service.

Dairy products provide a major source of income for New York farmers, over half the agricultural income in 1979. The state ranks first or second in production of many cheeses and third in the total amounts of both milk and cheese produced. In conjunction, New York ranks second in pounds of veal produced. Eggs are another major livestock product in the state, ranking New York 14th in overall production.

New York State is also a major fruit producing area. Only Washington State produces more apples than New York. However, the Empire State, with three major production regions, produces a large amount of apples for processing as well as for the fresh market. The state also ranked second in tart cherry production, with receipts from both sweet and tart cherry production totaling almost \$10 million. Grapes are the third major fruit crop grown in the state and are used for both juice and wine.

Fresh vegetable production in the state surpassed that of Arizona in 1979, making New York the fourth most important state in this regard. Sweet corn is a major fresh market crop, as are cabbage and cauliflower. Onions are the top cash vegetable crop; total production ranks third in the nation. New York also ranks third in snap beans produced for the fresh and processed markets. It ranks first in production of cabbage for kraut and is the second largest supplier of beets for canning. In all, the state ranks seventh in the production of vegetables for the processing industry.^{2/}

New York State Farming Sector

A strong agricultural sector benefits all residents of New York State. Not only is farming a major source of income for many thousands of persons and families, it is also a way of life. Urban residents, as well, benefit from this healthy and diversified farming industry through the availability of reasonably priced food. Expansion of production within the state means that less must be imported in supplying consumers with the large variety of food products demanded by a very cosmopolitan population. This applies to processed foods as well, as a stable agricultural base gives processors the assurance they need to invest in production facilities in an area.

^{2/} New York Agricultural Statistics, 1979, New York State Crop Reporting Service, New York State Department of Agriculture and Markets.

There are many statistics available which describe the farming sector in New York State. In general, these figures suggest that the agricultural base in New York State is both expanding and diversifying and that producers are willing to invest in the future of the state. The steady decline in the number of farms in New York State during the 20th Century came to a halt in the 1970s. The Census of 1978 indicated there were about 50,000 farms in the state similar to the number in 1974. About 10 million of the state's 30 million acres are in farms with a modest increase shown in the Census data between 1974 and 1978.

Farmers have not escaped the effects of inflation, as production expenses have risen almost 30 percent during the four-year period ending 1978. At the same time, realized net farm income rose over 30 percent. However, a closer look at farm income trends shows that this 7.6 percent annual increase is deceiving. The 1978 net income of \$328 million represents a return to more normal levels of income over the depressed yearly incomes received between 1974 and 1977. Aggregate net income received in 1969 and 1970, for instance, was greater than that received by New York State producers in 1978.^{3/} The state average debt-to-asset ratio increased about 14 percent in four years to reach 18.4 percent in 1978. This places New York State sixteenth among the states in debt ratio ranking, considerably above the US average of 16.8 percent. While this reflects the rising costs involved in farming, it is also an indication of producer optimism toward the future of New York State agriculture.

A strong and expanding agricultural sector, however, does not automatically give rise to a thriving food industry. By the very nature of

^{3/} New York Agricultural Statistics, 1979, New York State Crop Reporting Service, New York State Department of Agriculture and Markets.

their products, farmers are highly dependent on the food processing and marketing sectors. Perishability dictates that produce and livestock and dairy products, all dominant in New York agriculture, move quickly to markets or processors. Unless a favorable environment exists within which the food industry can operate, negative repercussions will be felt by all producers and ultimately, consumers.

Food Industry Employment

As with all industrial states in the Northeast, New York State has experienced a myriad of economic problems during the 1970 decade. Perhaps the most significant of these problems has been the deteriorating employment situation, especially in the manufacturing sector. In its effort to be socially responsive, New York State developed an economic environment relatively inconducive to private enterprise. Manufacturing concerns, particularly, moved to states with more favorable taxation policies and environmental legislation. Many other factors also contributed to this industrial exodus. During the latter part of the decade, however, the consequences of the direction in which New York State was heading were recognized, and measures have been taken to ameliorate the economic climate of the state.

Using the number of employees covered by unemployment compensation as an indicator, many employment sectors have experienced a reversal in employment trends (Table 2), most noticeable among them being the trades and service industries.

Table 2. Annual Average Employment^{a/} by Industry:
New York State, 1979 and 1974.

Industry	1974		1979	
	Employees	Percent of Total	Employees	Percent of Total
Agriculture ^{b/}	16,730	.3	26,144	.4
Mining	8,444	.1	6,914	.1
Construction	261,613	4.6	209,846	3.6
Manufacturing	1,580,676	27.8	1,497,612	25.7
Food Products	(102,136)	(1.8)	(94,038)	(1.6)
Transport.	432,574	7.6	413,361	7.1
Communication, Utilities				
Wholesale Trade	448,037	7.9	450,046	7.7
Retail Trade	994,659	17.5	1,026,397	17.6
Finance Insurance, Real Estate	575,772	10.1	601,765	10.3
Service Industries	1,358,242	23.9	1,577,652	27.0
Unclassified	4,901	.1	23,893	.4
Total	5,681,648	100.0	5,833,630	100.0
Government			1,267,559	

a/ Employees covered by unemployment compensation. b/ Relatively few agricultural employees are covered by unemployment insurance.

Source: Annual Averages of Covered Employment, New York State Department of Labor; County Business Patterns, U.S. Bureau of the Census.

Governor Carey has this to say about the economic recovery in New York State between 1975 and 1980. "There have been small, but encouraging increases in our traditional manufacturing industries, including machinery, printing and publishing, and instruments and a growth in investment in food production and processing. For the first time since the Korean war, manufacturing employment in New York State has increased in four successive years. Our output has grown by 12 percent."^{4/}

^{4/} Source: A special report of Governor Hugh L. Carey entitled "The New York State Economy in the 1980's".

Total industry employment in the state as indicated by unemployment compensation records was 5.83 million in 1979 compared with 5.68 million in 1974. These data exclude government employees which numbered 1.27 million in 1979.

Through these difficult times, though, the food industry has remained strong. Summarizing the components of the food industry, employment in 1979 was 425,182 (Table 3). This compares with 443,035 in 1969. The production sector in 1979 consisted of 65,000 farm family workers, 34,000 hired hands, 8,684 individuals custom servicing agriculture and 3,966 farm product raw material handlers. Excluding eating establishments, these direct agricultural producers made up 26.7 percent of total food industry employment. Over the past ten years employment in the production sector reveals a very modest decline, 2.6 percent. There has been a rather significant decline of 13.7 percent in food manufacturing employment though much of this results from plant consolidation. Food wholesaling which accounts for 11.8 percent of all food industry employment also has shown a rather significant decline in numbers reflecting an 8.3 percent decrease while food retailing is the only major industry sector to show an increase in employment, 2.9 percent. The proportion of employment in the various sectors of the food industry varies greatly between downstate and upstate areas. A detailed breakdown of this structure is presented in a regional breakout at the end of this report.

Looking at trends in manufacturing over time, it can be seen that food processing has remained a consistently important contributor to the state's economy. Only four major manufacturing industries in New York State employ more than the 94,000 employed in food processing, and none is more widely disbursed throughout the state. In total, more than one of every four

Table 3. Food Industry Employment: New York State, 1969 and 1979.

Industry Sector	1969		1979		Percent Change 1969-79
	Employees	Percent of Total	Employees	Percent of Total	
Production	116,650	26.3	113,561	26.7	- 2.6
Manufacturing	108,993	24.6	94,038 ^{a/}	22.1	-13.7
Wholesaling	54,746	12.4	50,228 ^{b/}	11.8	- 8.3
Retailing	162,646	36.7	167,355 ^{c/}	39.4	+ 2.9
Total ^{d/}	443,035	100.0	425,182	100.0	- 4.0

a/ Average of monthly midweek numbers of employees covered by unemployment compensation. b/ Adjusted for straight line trend between 1969 and 1977. c/ Adjusted for straight line trend between 1969 and 1978. d/ Does not include eating establishments having 239,505 employees in 1978 or agriculturally related activities, farm machinery, florists, farm and garden stores, equipment dealers and agriculturally related manufacturing.

Source: County Business Patterns, U.S. Census Bureau and New York Agricultural Statistics, 1979.

employed persons in New York State works in the manufacturing area.^{5/} The number of manufacturing plants and number of employees, both measures of economic viability, have decreased since 1974. Unfortunately this trend can be seen in virtually all the major manufacturing industries (Table 4). The number of reporting units in food production fell over 16 percent in the five-year period ending 1979, while the actual annual average employment dropped by less than 8 percent. While any decline in a productive industry should be cause for concern, these figures indicate some of the reduction in the number of firms is due to industry consolidation and merger activity, rather than to a reduction in employment.

^{5/} Employees covered by unemployment compensation.

Table 4. Number of Plants and Employees^{a/} by Major Manufacturing Industries: New York State, 1974 and 1979.

Major Industry	1974		1979		Percent Change 1974-1979	
	Plants	Employment	Plants	Employment	Plants	Employment
Food Products ^{b/}	2,022	102,135	1,692	94,038	-16.4	- 7.9
Apparel	8,288	199,116	7,386	177,115	-10.9	-11.0
Printing & Publishing	6,042	154,557	5,940	154,767	- 1.7	.1
Chemicals	986	76,606	886	73,552	-10.1	- 4.0
Fabricated Metals	2,566	88,845	2,385	84,958	- 7.1	- 4.4
Nonelectrical Machinery	2,783	171,705	2,641	173,796	- 5.1	1.2
Electrical Machinery	1,486	160,705	1,454	163,393	- 2.2	1.7
All Manufacturing	36,245	1,580,676	33,148	1,497,612	- 8.5	- 5.3

a/ Average of monthly midweek numbers of covered employees. b/ Sum of three digit SIC categories.

Source: Annual Averages of Covered Employment: New York State, New York State Department of Labor.

United States Food Manufacturing Employment - New York State's Position

As with agricultural production, food manufacturing in New York State contributes significantly to the total value of food processed in the United States. This makes intuitive sense, since a burgeoning agricultural sector can only be maintained in conjunction with a responsive manufacturing sector.

A comparison between the food manufacturing industries of the United States and those of New York State is a measure of the relative viability of the various food product groups processed in the state. During 1977 ^{6/}

^{6/} Latest year available for comparable data.

approximately five percent of the US population employed in food manufacturing worked in New York State. Almost 20 percent of the food manufacturing employees were employed by bakeries (Table 5). This is considerably above the United States average of slightly more than 14 percent. Comparing the percentage employment in other product groups, New York also has a higher proportion of its food manufacturing workers in the confectionary group and in the dairy products group. Assuming the efficient allocation of resources, the state appears to be competitive in five of the remaining product groups except meat and perhaps oils. Realizing this, the meat industry of New York has chosen to specialize. It now ranks as the second largest processor of veal in the country, importing a substantial amount from other states.

Table 5. Number of Employees^{a/} in Food Manufacturing by Product Group: United States and New York State, 1977.

Product Group	New York State		United States ^{b/}	
	Employees	Percent	Employees	Percent
Livestock	7,500	10.0	309,400	20.4
Dairy	10,100	13.4	157,000	10.4
Fruit & Vegetables	10,900	14.5	233,700	15.4
Grain Milling	5,200	6.9	113,800	7.5
Bakery	14,400	19.1	221,600	14.6
Confectionary	9,700	12.9	104,700	6.9
Beverages	10,300	13.7	194,800	12.9
All Other	7,100	9.5	180,400	11.9
All Food Products	75,200 ^{c/}	100.0	1,515,400	100.0

^{a/} Includes administrative employees. ^{b/} Preliminary report. ^{c/} Does not add due to rounding.

Source: 1977 Census of Manufactures.

The Census of Manufacture taken every five years reveals a more precipitous decline of employment in the food manufacturing sector; there being reported 75,200 food industry employees in 1977, 82,800 in 1972 and 103,300 in 1967. Employment in the food industry is more accurately recorded by the average monthly midweek employment covered by unemployment compensation hence these data have been used throughout this report except in computing employee productivity. The distribution of employees among product groups within the food industry is very similar for the two data sources.

Employment by Product Group

Like the manufacturing industries, major product groups comprising the food processing industry have experienced their own decline since 1974 in the number of plants and employees (Table 6). This has largely been the result of improved technology, consolidations and changes in marketing distribution. The dairy industry is an excellent example. Though dairy processing plants decreased in number by over 36 percent in the five years ending in 1979, total employment in the industry dropped by less than half of that, 14 percent. And in terms of income, dairy accounts for more than half the farm receipts in New York State.

The interdependence of food producer and processor, an important link in the overall picture of the food industry, is clearly evident. We have seen that New York State is a major producer of many fruits and vegetables in the United States. The dominance of the state in fresh fruit and vegetable production will continue, as New York farmers have expanded their output and brought more cropland into production. Fruit and vegetable processors have responded to the expansion. More efficient and larger plants have been built, replacing the small and outdated, and employment has actually increased. An average of more than 13,300 New Yorkers were

Table 6. Food Manufacturing Plants and Employees^{a/} by Type of Product:
New York State, 1974 and 1979.

Product Group	Number				Percent Change	
	1974		1979		1974-1979	
	Plants	Employment	Plants	Employment	Plants	Employment
Livestock	244	9,296	195	8,227	-20.1	-11.5
Dairy	426	14,749	272	12,681	-36.2	-14.0
Fruit & Veg.	214	12,306	194	13,307	- 9.3	8.1
Grain Milling	117	5,955	111	6,076	- 5.1	2.0
Bakery	404	20,488	393	17,441	- 2.7	-14.9
Confectionary	104	11,595	85	9,028	-18.3	-22.1
Beverages	264	17,051	218	15,987	-17.4	- 6.2
All Other	249	10,695	224	11,291	-10.0	5.6
All Food Products	2,022	102,135	1,692	94,038	-16.4	- 7.9

a/ Average of monthly midweek employment covered by unemployment compensation.
Source: Annual Averages of Covered Employment: New York State, New York State Department of Labor.

employed in produce processing during 1979. Virtually all of these plants are located in Upstate New York because the perishability of the product requires processing to occur as close to production areas as possible.

Bakery and sugar and confectionary products are sectors of food manufacturing which are located throughout the state. Together, these products accounted for an average employment in 1979 of greater than 26,400 persons. Beverage production, also with plants located throughout the state, employed an additional 16,000 state residents. Though employment is down from earlier levels, the result of increased technology and mechanization, they remain major sources of employment.

In summary, the employment scenario in food manufacturing is one of an industry that has gone through major change. Technology, mechanization and

distribution changes have affected all nine of the major product groups. But for the most part, each has adjusted to these changes and remained competitive, thus keeping industry and jobs in New York State. This is especially true of food manufacturers in the upstate region.

Value Added

Value added^{7/}, as defined and computed by the US Bureau of the Census, is one measurement that facilitates comparison of economic activity between industries and product groups. This is accomplished by eliminating the cost of goods sold, thereby avoiding double-counting the value of products as they progress through the manufacturing process. Put simply, value added is computed by determining the value of shipment in an industry, subtracting the cost of materials and adjusting for changes in inventory levels.

During 1977 over \$44.6 billion was added to the value of manufactured goods in New York State (Table 7). This placed New York second only to California in value added by state, and represented 7.7 percent of total United States value added. Value added to food products in the state totalled \$3.3 billion, contributing 7.4 percent to the state total. Measured on a per employee basis, value added is an indicator of productivity as well as economic activity. The food industry is one of the most productive in the state as well as the nation when viewed in such a manner. While the value added per employee for all New York industries has lagged behind that of the US, productivity in the food industry of New York State has out-

^{7/} Value Added by Manufacture, by Census definition, is the value of shipments less the cost of material, containers, fuel, purchased electricity, and contract work. This is then adjusted by the addition of value added by merchandising operations (sales value less the cost of merchandise sold without further manufacture, processing or assembly) plus the net change in finished goods and work in progress inventories between the beginning and end of the year.

stripped that of most other industries. Value added per food industry employee was over \$43,600 in 1977, 67 percent above the average for all other industries in New York State. Gains in food industry productivity are estimated to have continued at the pace set during the 1970 decade, with value added per food manufacturing worker reaching more than \$62,754 in 1980.

Table 7. Value added by Manufacture: Total and per Employee^{a/} by Product Group; New York State and United States, 1977.

Product Group	Value Added by Manufacture			
	New York State		United States	
	Total (\$ mill.)	Per Employee (\$)	Total (\$ mill.)	Per Employee (\$)
Livestock	237.3	31,224	7,422.6	23,990
Dairy	372.6	36,891	5,819.1	37,064
Fruit & Vegetables	421.4	38,661	7,759.4	33,200
Grain Milling	374.9	72,096	6,756.7	59,373
Bakery	435.5	30,243	7,119.5	32,128
Confectionary	522.7	53,887	4,094.7	39,109
Beverages	597.4	58,000	9,862.8	50,630
All Other	332.8	46,223	7,398.0	41,008
All Food Products	3,294.8	43,640	56,232.8	37,108
Other Industries	41,382.1	26,076	525,408.1	29,277
All Industries	44,676.9	28,815	581,640.9	29,819

a/ Includes administrative employees.

Source: 1977 U.S. Census of Manufactures, preliminary reports MC77-S-1(P) and MC77-A-33(P), United States Bureau of the Census, United States Department of Commerce.

Synergetic Interaction Among Sectors of the Food Industry

The food industry is big business. Excluding eating and drinking places, approximately 425,000 New York State residents are employed in the process of getting food to consumers. Put in terms of total private sector

employment, almost eight percent are employed in the food industry or one of every thirteen New York residents. Excluding farm income, these workers inject nearly \$4.9 billion into the communities in which they live.^{8/} To this is to be added the net farm incomes of approximately 25,000 commercial farm families.

The expanding agricultural base in the state will continue to create a favorable environment in which processors can operate. This sector of the food industry has been one of the few bright spots in New York State manufacturing. It has experienced less attrition in jobs and production facilities than most other types of manufacturing. This is due to the high productivity of its employees in addition to its ties to agricultural production regions. Value added to manufactured food products by each New York State employee, \$43,640 in 1977 and \$62,754 in 1980, is much greater than the US average and surpasses by far both the national and state average for all manufacturing. Value added by state food manufacturing during 1980 is estimated at \$5.98 billion.^{9/}

The food distribution sector of New York State is also one of the most productive. The state ranked either number one or two in the number of food wholesale and retail establishments as well as retail sales in 1977 (Appendix Tables 1 and 2). Grocery wholesaling receipts increased by over 72 percent between 1972 and 1977 and accounted for over 12 percent of the respective United States sales in 1977. New York State food stores, meanwhile, represented over 13 percent of all sales in the nation's food stores.

^{8/} Based on 1979 employment levels and average annual increases in payrolls as reported by the New York State Department of Labor.

^{9/} Based on 1979 employment in SIC 20 and the average annual growth of value added in 3 and 4 digit SIC codes as reported in the 1977 and 1972 U.S. Census of Manufactures.

Within New York State, food stores contributed 18 percent to total retail trade.

The preceding statistics portray the food industry as one of the largest in terms of employment, income and productivity. But even these measures understate the total economic impact of the industry in New York State. All industries and jobs are not created equally. Industries which purchase inputs originating within the state have a greater impact on the state economy than those which import goods and services from other states. The same holds true for consumers. In other words, the more times a dollar can change hands in an area, the greater the benefit to all concerned. The food industry has consistently purchased a high percentage of its inputs from local or regional sources. For example, an estimated two-thirds of the state's value added in fruit and vegetable freezing and canning involves the processing of New York State produce.^{10/}

This accumulating effect has given rise to the concept of "economic multipliers" in an attempt to measure more accurately the impact of an industry on growth in the state's economy. A series of income multipliers were estimated for various industries in 1977.^{11/} The multiplier for Food Manufacturing, 3.04, was 45 percent above the second highest, 2.1 in Other Manufacturing (Appendix Table 3). This multiplier implies that if production for sale to final users increases by enough to increase food manufacturing payrolls a million dollars, total New York income will increase by \$3.04 million. Each dollar is "recycled" more than three times.

^{10/} Toward the Year 1985--Food Manufacture, New York State College of Ag. and Farm Supplies and Services, Special Cornell Series Number 12, 1970, p.8.

^{11/} David L. Call, The Role of Agriculture in the Economy of New York State, No. 77-29, April 1977.

Future of the New York Food Industry

The future of the food industry in New York State is a bright one. Continued growth is projected for all major sectors, thus maintaining the state's important position in food retailing, wholesaling, and the processing and production of many agricultural commodities. Financial commitments of farmers have increased along with the number of acres brought into production thereby expanding the agricultural base of New York State. The food industry is a leader in terms of value added by manufacture, surpassing the state and national averages of value added per employee. The state's distribution and retailing sectors rank either first or second among all states in total sales and number of employees.

Additional forces also indicate prosperity for the New York State food industry, as local and regional production and manufacturing will become increasingly important. Spearheaded by transportation costs, chronic inflation will increase demand for locally and regionally produced and manufactured foodstuffs (Appendix Table 6). There will be an increasing tendency to substitute local products for those imported from other states in an effort to reduce marketing costs.

The interdependence among the various sectors of the food industry is clearly evident. Manufacturers provide outlets for producers' commodities and, reciprocally, processors are dependent on a stable and consistent source of supply. Wholesalers rely on each of these sectors of the food industry for products to distribute to retailers. The last link in the food industry chain is the consumer. One of the world's largest consumer markets is found within the borders of the state, New York City, and the state is strategically located with respect to many other large markets. This gives both the wholesaling and retailing sectors of New York State a

competitive advantage unavailable to food industry concerns of other states.

This interdependence has a rippling effect which can filter through the entire economy of the Empire State. Economic indicators such as employment and value added, while portraying the industry as a growing and highly productive part of the economy, understate its true value to the state.

These indicators point to a future which appears conducive to the success of the state's food industry. Implicit growth is not, however, a foregone conclusion, as economic development strategists tend to have an external versus internal perspective. Growth potential existing within the state has often been overlooked in favor of attracting new industry to the state. While a diverse economic base is desirable, increased economic growth and prosperity might be more easily achieved by improving the economic and regulatory environment of existing industry. This is particularly true with an industry such as food production and marketing, as it is one of the state's most productive industries and is a significant contributor to the value added within New York State. The result of attempts to improve the economy of New York State through existing industry, which currently exhibits signs of expansion and competitive economic advantage in many areas of production and manufacturing, will likely be greater than the results achieved through attempts to attract new business not currently operating in the state.

Efforts to attract new industry might, in fact, be self-defeating. Any industry will carefully evaluate the business climate of a state or area before conducting operations in that area. Undoubtedly, one of the concerns will be how well the state cares for those industries already located within its boundaries. Any exodus of industry will be interpreted as a warning to others which might be considering locating in the state or area being

abandoned. Such rationale dictates that development efforts can best attract new industry by creating a favorable environment for industries currently operating in New York State, thereby giving the best possible example of how new industry will fair. The most effective ambassadors can be the present industry of New York State, including the food industry.

Importance of the Food Industry by Economic Regions

The major sectors of the food industry are farmers, manufacturers, wholesalers and retailers. Agricultural services is a minor sector, delivering valuable inputs. While each has a unique function, every sector is dependent on the efficient operation of the others. This interdependency exists in the food industry, more than any other, because of the perishability of its products. The food industry, unlike other industries, cannot rely on inventories and storage if one link in the production and marketing chain falters. Some processed products have a shelf life of a few years, but many do not. And unprocessed products must be marketed and consumed in a matter of days.

Because time and distance are such important variables in food production and marketing, geographic specialization has arisen alongside task specialization. Processors are located near producers, and retailers are predominant in urban areas. This has resulted in certain agricultural products and their processing and/or distribution becoming integral parts of the economies of specific geographic regions. Thus, to understand the full impact of the food industry in New York State, it is necessary to examine its role in each economic region of the state.

The following section evaluates each of the nine upstate economic areas as delineated by the New York State Department of Commerce (Exhibit 1). Practically all the agricultural production and most of the food manufac-

turing occurs in the nine upstate economic areas. In contrast a high proportion of the state's food wholesaling and retailing takes place downstate. The food industry, while it plays a major role in economies of downstate areas, is more dominant in the economies of Upstate New York regions.

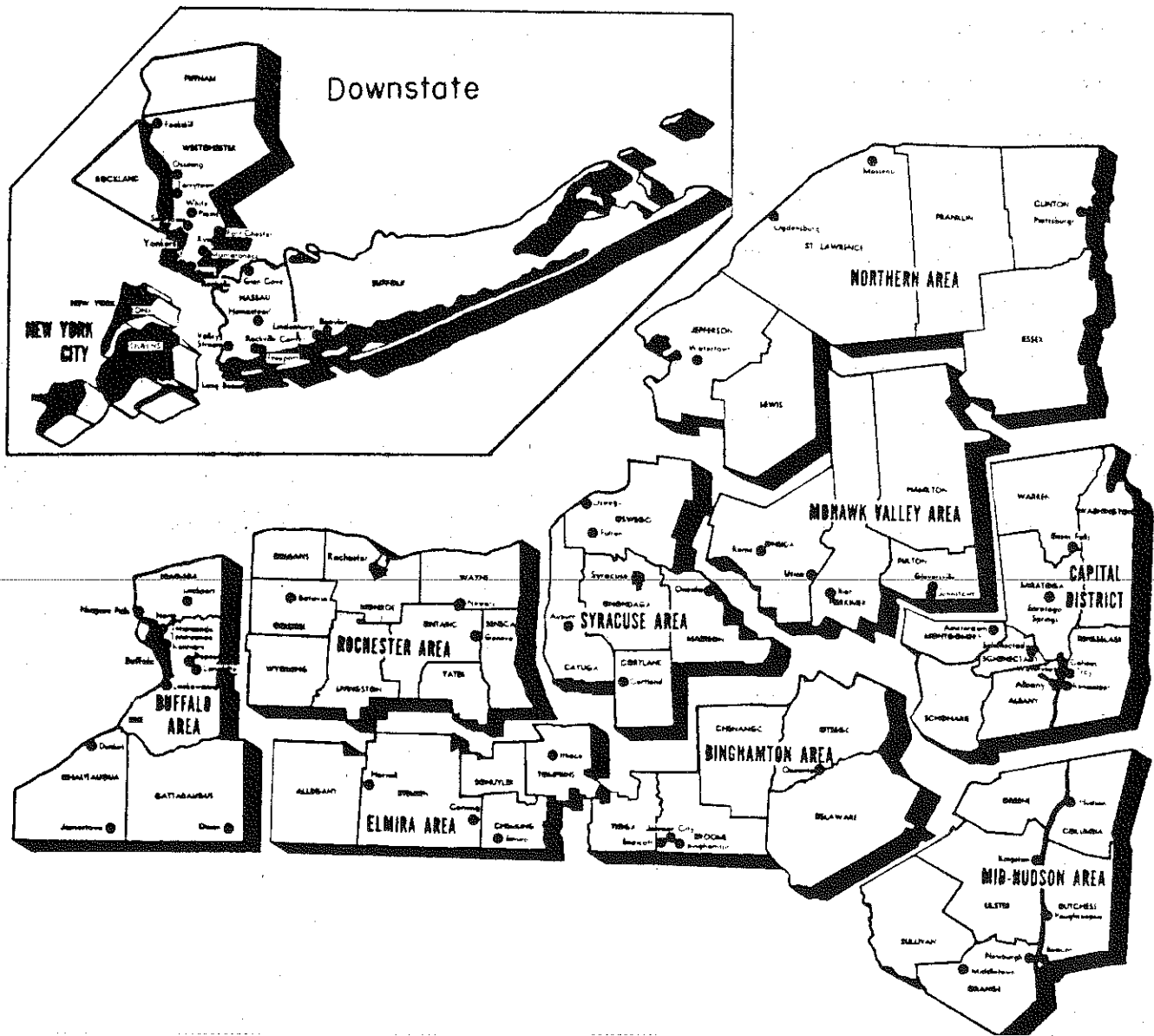
In making these regional comparisons, family labor used in agriculture was determined by applying the percentage of farms (1978 Census) in each area to the total number of family labor in the state reported by New York State Agricultural Statistics, 1979. Employees in the agricultural services sector also were distributed by farm numbers while hired labor was distributed in proportion to gross farm sales.

Establishment and employment data taken from food inspection reports will be used in addition to the 1979 annual average figures from the New York State Department of Labor. A regional comparison of these data is found in the Statistical Addendum (Table 4). Most of the food inspection data were collected by inspectors during 1980, as inspection is a continuous process. Establishments inspected earlier than late 1979 tend to be small, family operators. The food inspection data were expanded by a factor of 1.323 to bring the totals into line with employment reported in County Business Patterns, U.S. Bureau of the Census. Lacking any other basis for expansion, all types of food manufacturing were expanded by this same factor.

Both wholesale and retail food trade employment figures were taken from County Business Patterns data for 1978 adjusted to 1979 assuming a straight line trend between 1969 and 1978.

Table 8. Number of Employees in the Food Industry, New York State, 1979.

Economic Area	Production	Manufacturing	Wholesaling	Retailing	Total
Binghamton	12,000	3,200	500	3,700	19,400
Buffalo	14,700	16,800	4,300	18,200	54,000
Capital	10,100	7,400	2,300	9,100	28,900
Elmira	9,600	4,000	500	3,300	17,400
Mid Hudson	10,000	2,700	1,800	8,000	22,500
Mohawk	6,400	2,400	700	3,400	12,900
Northern	11,500	2,600	400	3,100	17,600
Rochester	20,100	12,000	1,600	11,900	44,600
Syracuse	11,700	9,600	2,500	8,600	32,400
Total Upstate	106,200	60,600	14,600	68,400	249,800
Downstate	7,400	33,400	35,600	99,000	175,400
New York	113,600	94,000	50,200	167,400	425,200



Binghamton Economic Area

Located in south central New York State, this five-county region accounts for about ten percent of all the farms in the state and over twelve percent of the land in agricultural production. Food industry employment in this area is dominated by direct agricultural employment, this being 12,000 employees with 7,000 of those farm family workers. Dairy products are a major manufactured agricultural product. About ten percent of all New York State dairy products are manufactured in the Binghamton Area.

Manufacturing of all types is well represented in the Binghamton Area, as 42 percent of the 125,000 employed persons work in manufacturing. Leather and paper products manufactured here, both by-products of agricultural production, figure significantly in overall state production. Only 3 percent of all employed persons are engaged in food manufacturing.

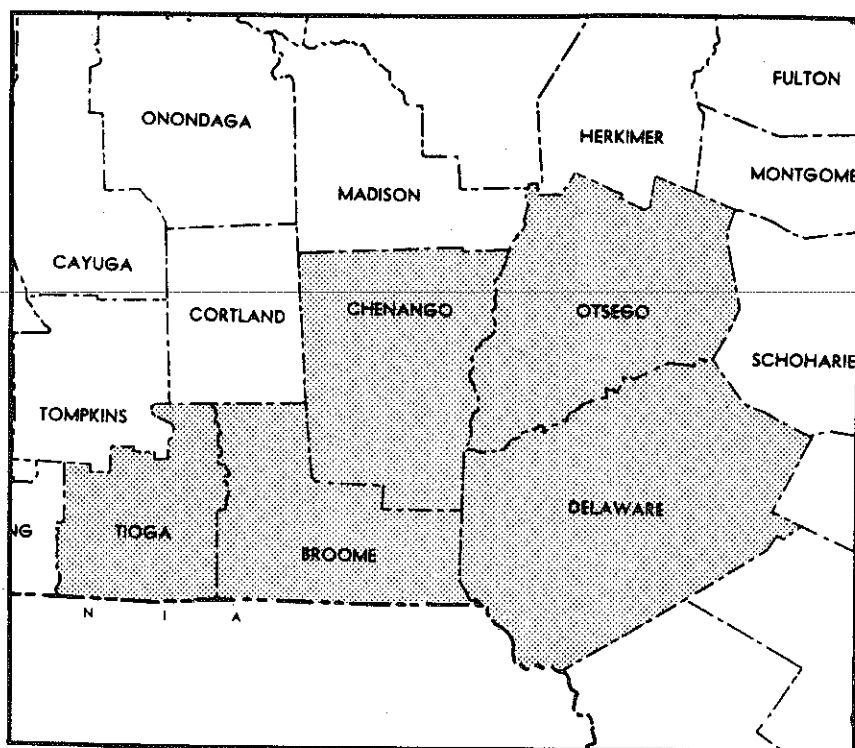
Most of the people employed in food processing assist in the manufacturing of dairy products, 1,409. Bakeries also employ a large number of people, 863, though many of these are part-time employees. Of the 3,328 food manufacturing employees, approximately 300 are seasonal or part-time workers.

Wholesale and retail trade also figure significantly in the total economy of the Binghamton Area with 515 employed in food wholesaling and 3,679 in food retailing. Food distribution accounts for 21.4 percent of all food industry employment in the Binghamton Area.

Table 9. Food Industry Employment Structure: Binghamton Area, 1979.

Industry	Number Employees	Food Manufacturing		Percent of Food Industry
		Percent of Total	Percent Part-time	
Agriculture	11,998			61.8
Family	7,046			
Hired	3,403			
Services	1,549			
Food Manufacturing	3,242	100.0	9	16.7
Livestock	37	1.1	12	
Dairy	1,247	38.5	*	
Fruit & Vegetables	71	2.2	8	
Grain Milling	220	6.8	1	
Bakery	815	25.1	16	
Confectionary	301	9.3	3	
Beverages	201	6.2	4	
All Other	350	10.8	51	
Food Wholesaling	515			2.6
Food Retailing	3,679			18.9
Total Food Industry	19,434			100.0

* Less than .5 percent



Buffalo Economic Area

Aside from being an industrial center, the five-county Buffalo economic region is one of the major crop production areas in New York State. Over 600,000 acres were in agricultural production during 1978. The Area contributed almost eleven percent to the total value of agricultural products sold in the state, \$200 million. Of this amount, greater than 36 percent of the value was realized from crop production. Grape production is a major income generator. Approximately 59 percent of the New York State vineyard acreage is found in the Buffalo Economic Area. Apple orchard and vegetable acreage is also high, respectively nine and thirteen percent of the state total.

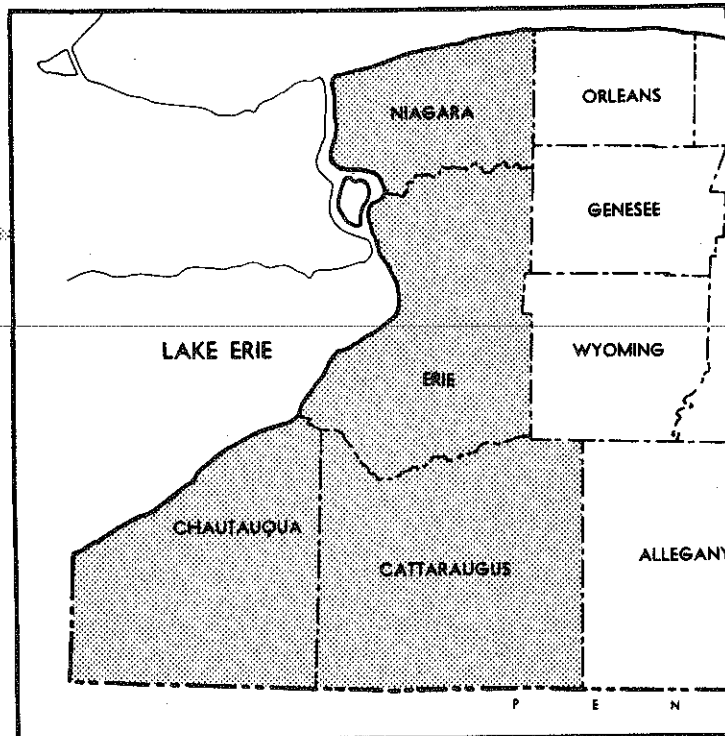
Manufacturing is the largest industry sector in the Buffalo region, employing over 172,000 of the 481,000 workers in the Area during 1979. The food manufacturing sector is quite large. More than 300 establishments employ approximately 16,764 area residents. Bakery, meat, fruit and vegetables and grain milling dominate food manufacturing. Approximately ten percent of food manufacturing employment is part-time with most of these workers found in fruit and vegetable processing. These are largely seasonal workers.

Food distribution is also important to the economic base of the Area. Food warehousing and distributing establishments, 200 in number, employ some 4,273 persons. This represents 8.5 percent of the total state employment in this category. Including the number of retailers, some 22,500 New Yorkers are employed by the food distribution industry making up better than 40 percent of all agriculturally related employees in the Area.

Table 10. Food Industry Employment Structure: Buffalo Area, 1979.

Industry	Number Employees	Food Manufacturing		Percent of Food Industry
		Percent of Total	Percent Part-time	
Agriculture	14,737			27.3
Family	9,068			
Hired	3,675			
Services	1,994			
Food Manufacturing	16,764	100.0	10	31.1
Livestock	2,128	12.7	*	
Dairy	1,442	8.6	1	
Fruit & Vegetables	2,957	17.6	35	
Grain Milling	2,734	16.3	1	
Bakery	4,280	25.5	12	
Confectionary	1,082	6.5	5	
Beverages	1,033	6.2	10	
All Other	1,108	6.6	17	
Food Wholesaling	4,273			7.9
Food Retailing	18,214			33.7
Total Food Industry	53,988			100.0

* Less than .5 percent



Capital Economic Area

The eight counties comprising the Capital Economic Area is characterized by a fairly diverse agricultural base. Land in farms totals almost one million acres, 60 percent of which is devoted to crop production. Livestock, dairy, fruits and vegetables are also well represented in the agricultural sector of this area.

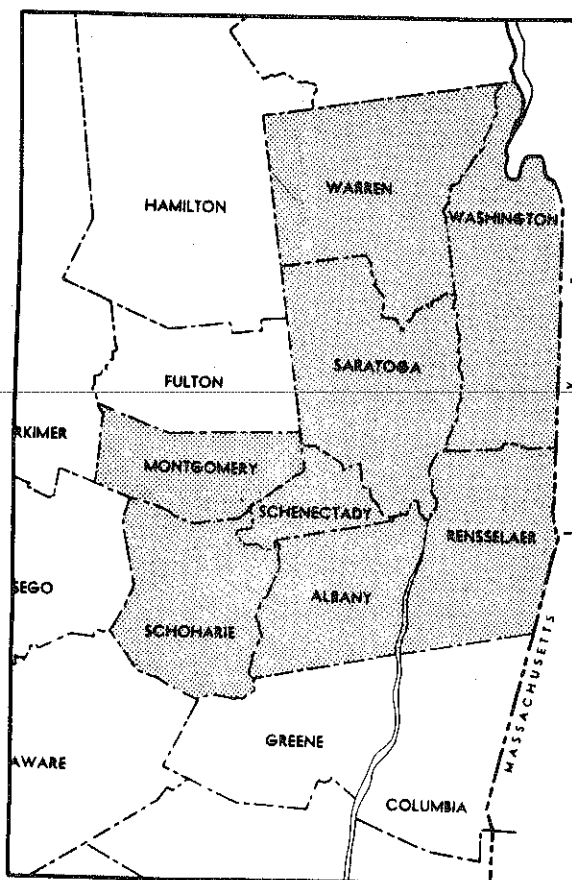
Close to the state average, 29 percent of all employed persons in the Capital Area work in manufacturing but of those only 1 out of 10 are in food manufacturing there being 7,422 food manufacturing employees. Instrument and nonelectric machinery manufacturers were the major employment sectors in 1979. Livestock and livestock products is the major component of food processing, employing some 1,873 persons. Dairy product manufacturing with 1,060 employees also is important to the economy. The Area accounted for ten percent of the total pounds of milk produced in New York State. Bakeries also employ a substantial number of area residents. Approximately 1,200 persons are employed by manufacturers of confectionary products. Fruit and vegetable processing accounts for a like number of employees.

The food industry located in the Capital Economic Area employs an estimated 28,923 New York State residents. Retailing is the largest sector of the food industry accounting for 31.5 percent of all food industry employees. The Area is a major distribution center with 2,300 engaged in food wholesaling.

Table 11. Food Industry Employment Structure: Capital Area, 1979.

Industry	Number Employees	Food Manufacturing		Percent of Food Industry
		Percent of Total	Percent Part-time	
Agriculture	10,063			34.8
Family	5,884			
Hired	2,864			
Services	1,315			
Food Manufacturing	7,422	100.0	3	25.7
Livestock	1,873	25.2	1	
Dairy	1,060	14.3	1	
Fruit & Vegetables	1,256	16.9	2	
Grain Milling	524	7.1	*	
Bakery	486	6.5	14	
Confectionary	1,221	16.5	1	
Beverages	660	8.9	14	
All Other	342	4.6	26	
Food Wholesaling	2,300			8.0
Food Retailing	9,138			31.5
Total Food Industry	28,923			100.0

* Less than .5 percent



Elmira Economic Area

Manufacturing industries are more important to the Elmira Economic Area than the three previously discussed areas. Virtually 40 percent of the working population was employed by manufacturers in 1979. Food manufacturing occupies a relatively minor position in the manufacturing sector, accounting for 3,976 employees of which 5 percent were part-time.

Wine production is the Area's major agricultural claim to fame. According to the 1978 Census of Agriculture, 138 farms had grape production acreage. And unlike the western grape growing area of New York State, utilization is primarily wine instead of juice. The average market value of products sold per farm stands well above the state average, \$165,000 compared to \$39,000. This largely reflects the high market value of grapes.

Dairy products are also a major component of the food industry in the Elmira Economic Area. Almost one-third of all food manufacturing employment is found in dairy product production. Additionally, 13 of the state's 97 milk plants are located in this region, ranking it third among all upstate areas.

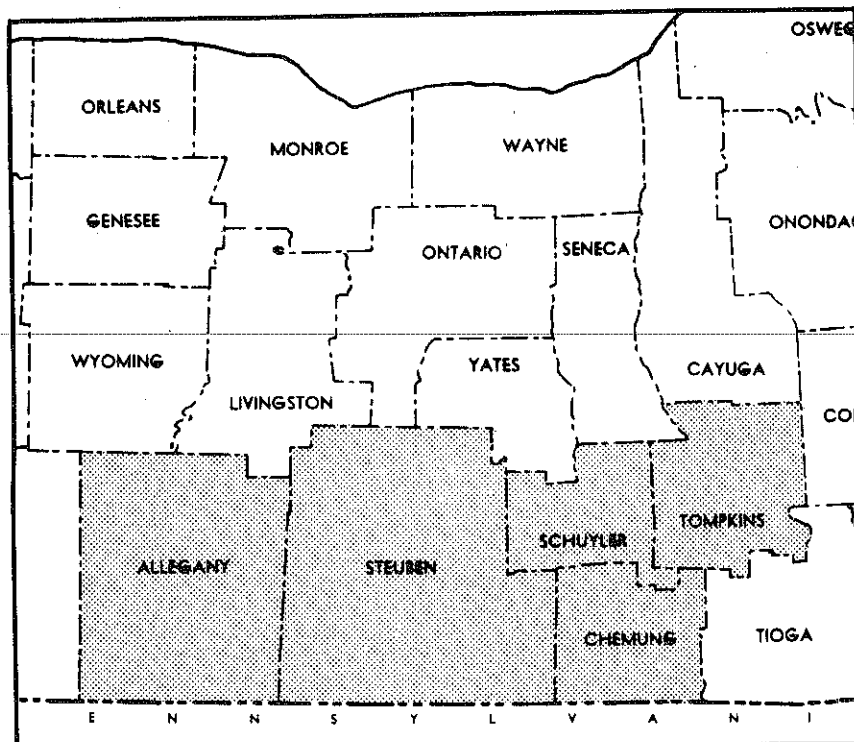
Beverage production employment contributes 21 percent to the total employment in food manufacturing making soft drink production as well as wine significant. Fruit and vegetable processing employs 694 workers largely the result of produce production in the muckland sections of the Area.

In total, an estimated 16 percent of all employment in the Elmira Economic Area is directly related to the food industry. There are 9,599 engaged in direct agricultural production, 508 in food wholesaling and 3,286 in food retailing.

Table 12. Food Industry Employment Structure: Elmira Area, 1979.

Industry	Number Employees	Food Manufacturing		Percent of Food Industry
		Percent of Total	Percent Part-time	
Agriculture	9,599			55.3
Family	5,915			
Hired	2,383			
Services	1,301			
Food Manufacturing	3,976	100.0	5	22.9
Livestock	58	1.5	*	
Dairy	1,087	27.3	*	
Fruit & Vegetables	694	17.5	2	
Grain Milling	13	.3	25	
Bakery	244	6.1	13	
Confectionary	414	10.4	2	
Beverages	831	20.9	10	
All Other	635	16.0	10	
Food Wholesaling	508			2.9
Food Retailing	3,286			18.9
Total Food Industry	17,369			100.0

* Less than .5 percent



Mid Hudson Economic Area

The Mid Hudson Economic Area is the southernmost upstate region. While it is located in close proximity to the populous downstate area, the Mid Hudson region has a very strong agricultural industry. Over 10,000 are employed in primary agriculture, working on and servicing more than 3,400 farms. Farm family workers number 5,161 and hired labor 3,713.

The Hudson Valley apple producing region is included in this economic area and has a nationwide reputation of producing top quality fresh market fruit, largely for the nearby Metropolitan New York market. As of 1979, 25,800 acres of orchards were located in the Mid Hudson Economic Area on over 360 farms. The Hudson Valley and the mucklands of Orange county are major sources of supply for produce consumed in New York City. About twelve percent of the state's vegetable acreage is found in this area.

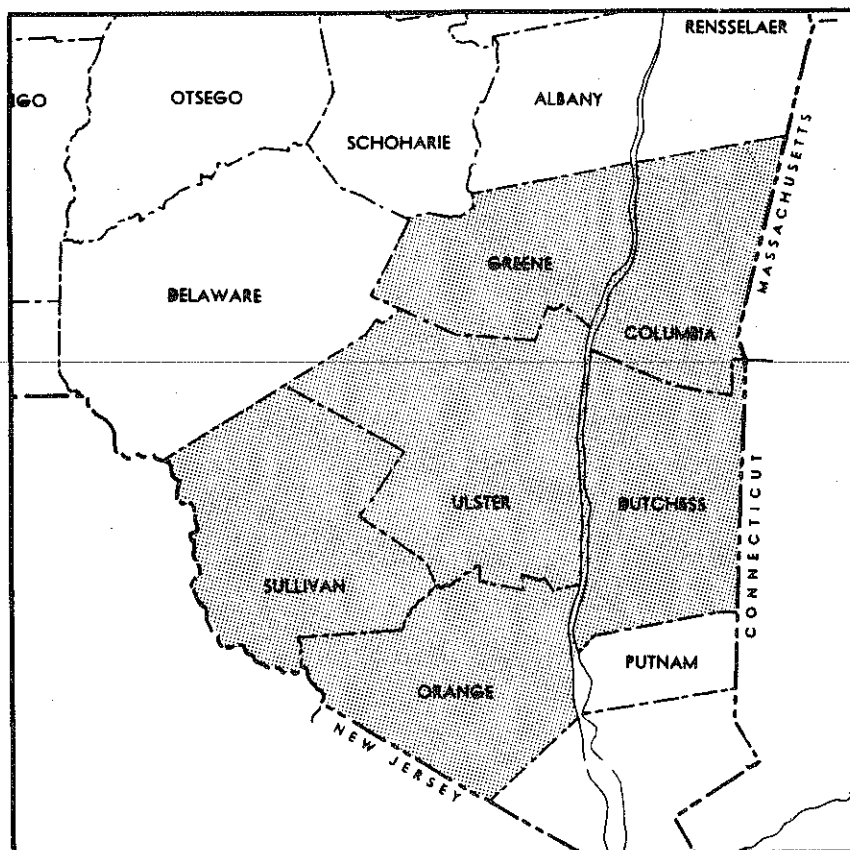
Manufacturing is the single most important employment sector in the Mid Hudson Economic Area, employing some 64,000 workers in 1978 out of a total employment base of 193,000. Machinery manufacturers employ the greatest number of persons. Employment in food manufacturing numbers 2,680. The category of meat and livestock products and beverage manufacturing together account for better than half of all food manufacturing activity. The growing popularity of apple juice has contributed to this employment.

Food wholesaling is also a major employer, providing jobs for about 1,800 New Yorkers in the Area. This represents 8.1 percent of the total estimated number of employees of the food industry, 22,526. Food retailing accounts for 35 percent of food industry employment, a figure slightly below the state average.

Table 13. Food Industry Employment Structure: Mid Hudson Area, 1979.

Industry	Number Employees	Food Manufacturing		Percent of Food Industry
		Percent of Total	Percent Part-time	
Agriculture	10,009			44.4
Family	5,161			
Hired	3,713			
Services	1,135			
Food Manufacturing	2,680	100.0	13	11.9
Livestock	557	20.8	*	
Dairy	253	9.4	*	
Fruit & Vegetables	174	6.5	16	
Grain Milling	35	1.3	4	
Bakery	530	19.8	20	
Confectionary	91	3.4	18	
Beverages	822	30.7	22	
All Other	218	8.1	23	
Food Wholesaling	1,835			8.2
Food Retailing	8,002			35.5
Total Food Industry	22,526			100.0

* Less than .5 percent



Mohawk Economic Area

The agricultural sector of the food industry in the Mohawk Economic Area is not as large as that found in most other economic areas. It is, however, quite diverse. Direct farm employment amounts to 6,444 workers with 3,797 of those being farm family members. Agricultural production accounts for half of all the employment in the food industry of the Area.

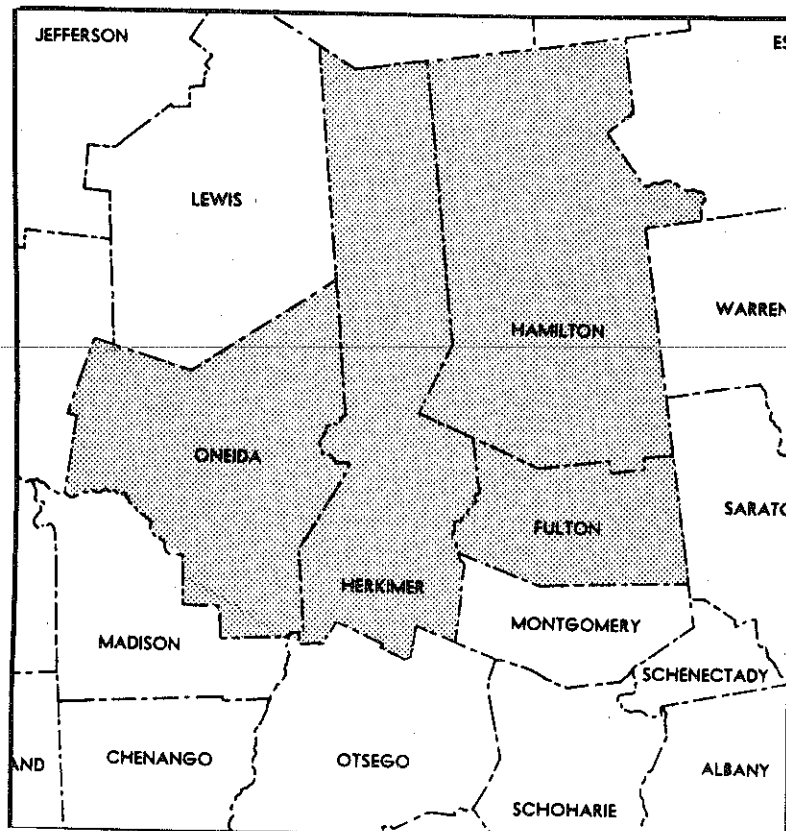
Manufacturing is the largest private employment sector in the Mohawk Economic Area, employing 38 percent out of a total employment base of 100,000. Food manufacturing accounts for 2,366 jobs with bakeries contributing 40 percent of the employment positions. Manufacturers of dairy products are also major employers of Area residents. The category of livestock and livestock products is a relatively important one compared to its overall role in New York State processing. Many firms located in the Area manufacture leather products.

The food industry in the Area employs 12,920 residents or about 13 percent of all employed persons in the Area. Of this, food retailing accounts for 27 percent of food industry employment and food wholesaling 5 percent.

Table 14. Food Industry Employment Structure: Mohawk Area, 1979.

Industry	Number Employees	Food Manufacturing		Percent of Food Industry
		Percent of Total	Percent Part-time	
Agriculture	6,444			49.9
Family	3,797			
Hired	1,755			
Services	892			
Food Manufacturing	2,366	100.0	8	18.3
Livestock	222	9.4	*	
Dairy	624	26.4	*	
Fruit & Vegetables	0	0	0	
Grain Milling	0	0	0	
Bakery	952	40.2	14	
Confectionary	20	.8	60	
Beverages	418	17.7	4	
All Other	130	5.5	45	
Food Wholesaling	660			5.1
Food Retailing	3,450			26.7
Total Food Industry	12,920			100.0

* Less than .5 percent.



Northern Economic Area

The six northernmost counties in New York State together make up the Northern Economic Area. This region has a very strong agricultural base. Almost 14 percent of all New York State farm land is found in the Area. Over \$233 million in income earned by residents of the Area resulted from the sale of agricultural products in 1978. There are 11,530 persons engaged in primary agricultural production with better than 9700 of these being employed on the farm.

Out of a total employment base of 84,422 workers, 27 percent are engaged in manufacturing with 12 percent of these engaged in food manufacturing. The processing of dairy products account for 56 percent of all food manufacturing employment. Area milk production exceeded 1.8 billion pounds in 1978. Receipts from dairy products sold during 1978 represented an estimated 76 percent of all agricultural receipts in the Area. This makes the dairy business very valuable to the economic base of the Northern Economic Area.

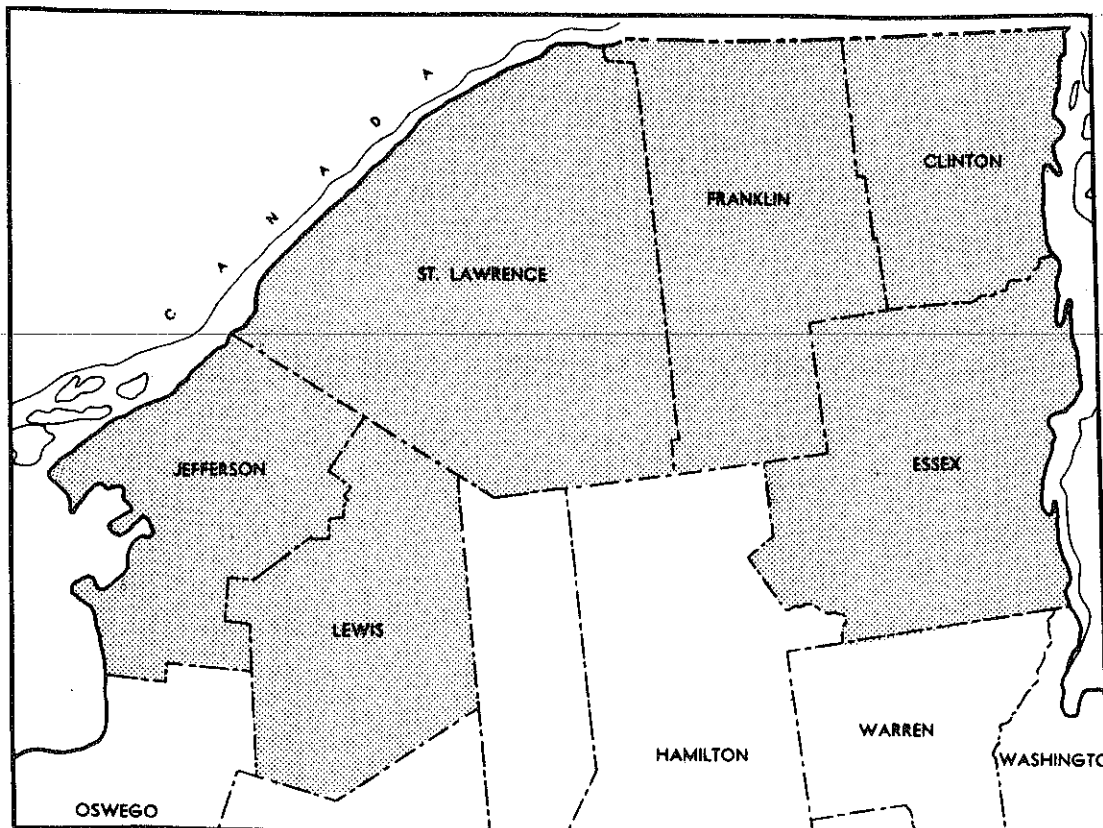
Maple syrup production is quite substantial in the Northern Area. In fact, production in this Area is the major reason New York State ranks second in the nation in maple syrup production. Producers of syrup comprise a large part of the miscellaneous food manufacturing category.

Looking at the overall food industry picture, the retail sector employs 3,100 Area residents while food wholesaling employs another 350 workers. In total, 17,566 New Yorkers work in the food industry in the Northern Economic Area.

Table 15. Food Industry Employment Structure: Northern Area, 1979.

Industry	Number Employees	Food Manufacturing		Percent of Food Industry
		Percent of Total	Percent Part-time	
Agriculture	<u>11,530</u>			65.7
Family	5,468			
Hired	4,250			
Services	1,812			
Food Manufacturing	<u>2,586</u>	<u>100.0</u>	9	14.7
Livestock	43	1.7	*	
Dairy	1,461	56.5	*	
Fruit & Vegetables	125	4.8	70	
Grain Milling	33	1.3	*	
Bakery	190	7.3	13	
Confectionary	13	.5	25	
Beverages	204	7.9	16	
All Other	517	20.0	27	
Food Wholesaling	<u>350</u>			2.0
Food Retailing	<u>3,100</u>			17.6
Total Food Industry	17,566			100.0

* Less than .5 percent



Rochester Economic Area

The Rochester Economic Area is the largest in terms of number of counties. Much of the nine-county area is considered industrial but, viewed as an integral economic area, it is one of the most agriculturally productive in New York State.

Almost 15 percent of all farms are located in the Area which includes 17 percent of the state's land area in farms. A large part of the state's fruit production is found here. Over 38 percent of all orchard acres are near the southern shore of Lake Ontario. Thirteen percent of the state's milk production is produced in this Area. Almost 20 percent of all cattle on New York farms are also found in the Area. Perhaps most significant, nearly 40 percent of the vegetables produced in New York State are grown in the Rochester Economic Area.

There are 44,606 persons associated with the food industry in this Area with 20,074 involved in direct agricultural production. Farm family labor makes up more than half of this number.

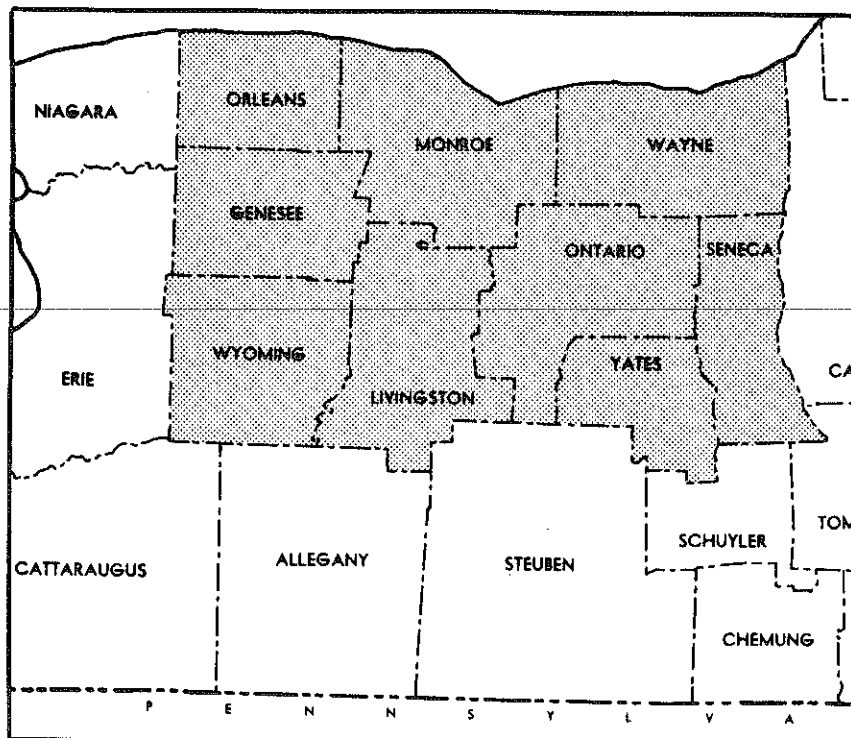
As food manufacturing is found in tandem with food production, the food processing industry is very sizeable in the Rochester Area. Nearly 12,000 New Yorkers are employed in food manufacturing. Fruit and vegetable processing, especially canning, is the largest category, employing 5,437 persons 34 percent of which are part-time or seasonal workers. This type of food manufacturing represents 44 percent of the total. Beverage production is also a major employment source with about 3,000 workers.

Indicative of the Area's large population, food retailing employment totals 10,874 and wholesaling 1,660. The activities combined make up better than 28 percent of all food industry employment in the Area.

Table 16. Food Industry Employment Structure: Rochester Area, 1979.

Industry	Number Employees	Food Manufacturing		Percent of Food Industry
		Percent of Total	Percent Part-time	
Agriculture	20,074			45.0
Family	11,082			
Hired	6,555			
Services	2,437			
Food Manufacturing	11,998	100.0	22	26.9
Livestock	456	3.8	*	
Dairy	478	4.0	2	
Fruit & Vegetables	5,437	45.3	34	
Grain Milling	420	3.5	3	
Bakery	833	7.0	20	
Confectionary	156	1.3	10	
Beverages	2,991	24.9	15	
All Other	1,227	10.2	8	
Food Wholesaling	1,660			3.7
Food Retailing	10,874			24.4
Total Food Industry	44,606			100.0

* Less than .5 percent



Syracuse Economic Area

Like the Rochester Area, the Syracuse Economic Area is known for its industrial base. Agriculture and the food industry, however, are central parts of the total area economy. More than ten percent of the New York State farm land, as well as the total market value of production, is found in this five-county region. The Area is also a major producer of dairy products. There are 11,737 persons in the Area involved in direct agricultural production which account for 37 percent of all employees engaged in the food industry.

Manufacturing is the largest private employment sector in the Syracuse Economic Area, employing 30 percent of all workers in 1979. Food manufacturing numbers 9,593 and represents 12 percent of the total manufacturing sector, ranking the Syracuse Area number one in terms of the importance of the food processing sector. Beverage producers employ the largest number of workers, 5,548 or 58 percent of all employees in food manufacturing. Dairy processors employ 1,120 additional area residents while manufacturers in the produce, grain milling and bakery categories each provide jobs for 7 or 8 hundred persons. Workers in the Syracuse Area food manufacturing companies are highly productive, adding much to the value of manufactured goods in the Area.

Syracuse is a major distribution center serving other areas as well. In food wholesaling there are 2,458 employees making up 8 percent of all persons engaged in the food industry.

Food retailers number 8,639 or 27 percent of the 32,006 persons associated with the food industry in the Area. The four major employment sectors of the food industry provide jobs for more than 32,000 Syracuse Area residents.

Table 17. Food Industry Employment Structure: Syracuse Area, 1979.

Industry	Number Employees	Food Manufacturing		Percent of Food Industry
		Percent of Total	Percent Part-time	
Agriculture	11,737			36.2
Family	6,662			
Hired	3,611			
Services	1,464			
Food Manufacturing	9,593	100.0	4	29.6
Livestock	251	2.6	1	
Dairy	1,120	11.7	*	
Fruit & Vegetables	787	8.2	5	
Grain Milling	838	8.7	*	
Bakery	680	7.1	26	
Confectionary	24	.3	50	
Beverages	5,548	57.8	1	
All Other	345	3.6	24	
Food Wholesaling	2,458			7.6
Food Retailing	8,639			26.6
Total Food Industry	32,427			100.0

* Less than .5 percent

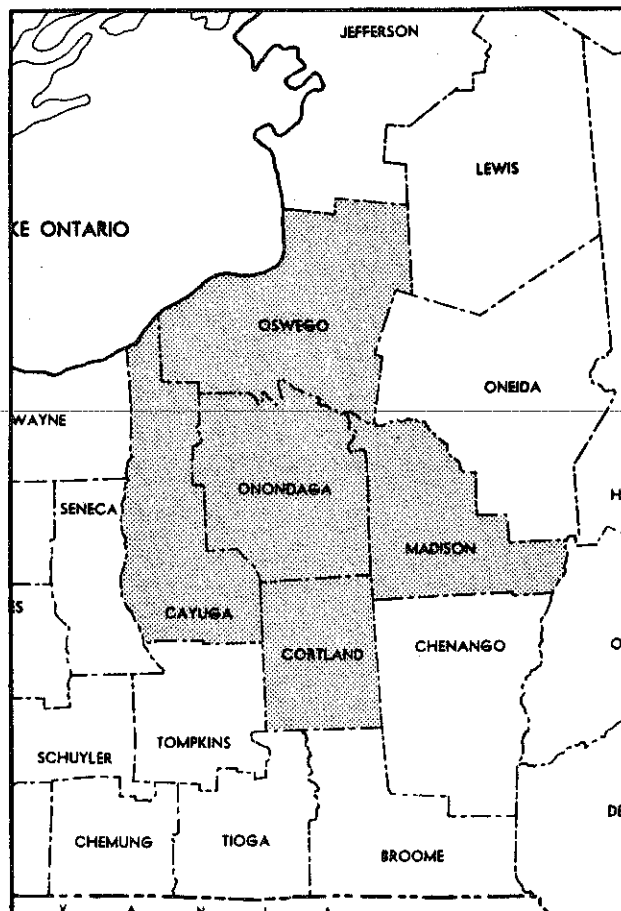


Table 18. Food Industry Employment Structure: Upstate Area, 1979.

Industry	Number Employees	Food Manufacturing		Percent of Food Industry
		Percent of Total	Percent Part-time	
Agriculture	106,191			42.5
Family	60,083			
Hired	32,209			
Services	13,899			
Food Manufacturing	60,627	100.0	10	24.3
Livestock	5,626	9.3	*	
Dairy	8,772	14.5	*	
Fruit & Vegetables	11,500	19.0	30	
Grain Milling	4,816	7.9	1	
Bakery	9,008	14.9	15	
Confectionary	3,323	5.5	4	
Beverages	12,709	19.9	8	
All Other	4,873	8.0	20	
Food Wholesaling	14,559			5.8
Food Retailing	68,382			27.4
Total Food Industry	249,757			100.0

* Less than .5 percent

Table 19. Food Industry Employment Structure: Downstate Area, 1979.

Industry	Number Employees	Food Manufacturing		Percent of Food Industry
		Percent of Total	Percent Part-time	
Agriculture	7,370			4.2
Family	4,917			
Hired	1,791			
Services	662			
Food Manufacturing	33,411	100.0	3	19.0
Livestock	2,601	7.8	1	
Dairy	3,909	11.7	*	
Fruit & Vegetables	1,807	5.4	7	
Grain Milling	1,260	3.8	2	
Bakery	8,433	25.2	11	
Confectionary	5,705	17.1	1	
Beverages	3,278	9.8	2	
All Other	6,418	19.2	3	
Food Wholesaling	35,669			20.3
Food Retailing	98,973			56.5
Total Food Industry	175,423			100.0

* Less than .5 percent

Table 20. Food Industry Employment Structure: New York State, 1979.

Industry	Number Employees	Food Manufacturing		Percent of Food Industry
		Percent of Total	Percent Part-time	
Agriculture	<u>113,561</u>			26.7
Family	65,000			
Hired	34,000			
Services	14,561			
Food Manufacturing	<u>94,038</u>	<u>100.0</u>	8	22.1
Livestock	8,227	8.7	1	
Dairy	12,681	13.5	*	
Fruit & Vegetables	13,307	14.2	24	
Grain Milling	6,076	6.5	1	
Bakery	17,441	18.5	13	
Confectionary	9,028	9.6	2	
Beverages	15,987	17.0	7	
All Other	11,291	12.0	10	
Food Wholesaling	<u>50,228</u>			11.8
Food Retailing	<u>167,355</u>			39.4
Total Food Industry	425,182			100.0

* Less than .5 percent

STATISTICAL ADDENDUM

Table 1. Grocery Wholesale Trade: Establishments and Sales, United States and New York State, 1977.

	United States		New York State	
	Establishments (Number)	Sales (\$000)	Establishments (Number)	Sales (\$000)
Grocery Products	3,178	41,038.9	250	23,989.6
Frozen Food	2,709	12,888.7	286	1,496.3
Dairy Products	3,924	15,027.7	472	2,015.4
Poultry Products	1,899	6,614.3	136	57.3
Confectionary Products	2,620	6,121.9	258	662.3
Seafood Products	1,875	3,846.5	211	680.8
Meat Products	5,125	25,011.2	686	2,941.4
Fruits & Vegetables	5,776	14,754.0	487	1,181.2
Other Grocery Distributors	6,665	19,702.8	1,336	7,125.3

Source: 1977 Census of Wholesale Trade, US Bureau of the Census,
 United States Department of Commerce.

Table 2. Food Retailing: Establishments and Sales, United States and New York State, 1977.

	<u>Establishments</u>	<u>Sales</u>	
	(Number)	(\$ Million)	Percent
<u>United States</u>			
Food Stores	171,592	130,600.6	95.0
Grocery Stores	126,635	122,136.7	88.8
Other	44,957	8,463.9	
<u>New York State</u>			
Food Stores	<u>22,873</u>	<u>12,611.0</u>	<u>100.0</u>
Grocery Stores	12,802	10,948.0	86.8
Retail Bakeries	2,288	315.2	2.5
Meat & Seafood	3,270	763.5	6.1
Fruit & Veg. Markets	1,242	186.2	1.5
Candy, Nuts, Coffee	1,403	85.9	.7
Other Food Stores	1,868	312.2	2.5
New York as a Percent of US	13.3	9.7	

Source: 1977 Census of Retail Trade, US Bureau of the Census,
United States Department of Commerce.

Table 3. Economic Multipliers by Industry; Their Effect on \$1 Million of Income, New York State, 1977.

Industry	Economic Multiplier	Impact on \$1 Million Income in New York State
Food Manufacturing	3.04	\$3,040,000
Other Manufacturing	2.10	2,100,000
Construction	1.92	1,920,000
Finance & Insurance	1.61	1,610,000
Business and Personnel Service	1.41	1,410,000

Source: The Role of Agriculture in the Economy of New York State, No.77-29, April 1977.

Table 4. Comparison of Food Manufacture Data Sources: Food Inspection Data ^{a/} and Department of Labor Data ^{b/}, New York State.

Area	Food Inspection	Dept. of Labor	Percent Difference From Dept. Labor	
			Employment	Establishments
<u>New York State</u>				
Employment	71,082	94,037	-24.4	36.4
Establishments	2,306	1,690		
<u>Upstate</u>				
Employment	45,905	48,647	- 5.6	68.3
Establishments	1,452	863		
<u>Downstate</u>				
Employment	25,177	45,390	-44.5	3.3
Establishments	854	827		
<u>Upstate Economic Area</u>				
<u>Binghamton</u>				
Employment	2,514	974	248.5	134.6
Establishments	122	52		
<u>Buffalo</u>				
Employment	12,894	12,326	4.6	51.0
Establishments	305	202		
<u>Capital</u>				
Employment	6,051	5,973	1.3	37.2
Establishments	129	94		
<u>Elmira</u>				
Employment	2,931	3,778	-22.4	195.2
Establishments	124	42		
<u>Mid Hudson</u>				
Employment	2,141	2,469	-13.3	35.1
Establishments	127	94		
<u>Mohawk</u>				
Employment	1,912	1,891	1.1	66.1
Establishments	93	56		
<u>Northern</u>				
Employment	2,007	1,910	5.1	172.7
Establishments	150	55		
<u>Rochester</u>				
Employment	8,522	10,229	-16.7	39.8
Establishments	246	176		
<u>Syracuse</u>				
Employment	6,933	7,663	- 9.5	69.6
Establishments	156	92		

^{a/} Includes establishments inspected by the US Department of Agriculture as reported by the New York State Department of Commerce.

^{b/} 1979 Annual Averages of Covered Employment.

Table 5. Tax Collections From Food Manufacturing Employment, New York State and Upstate Economic Areas, 1980.

Region	Full Time Equivalent Employees ^{a/}	Est. Tax Revenue per Full-time employee ^{b/}	Tax Collections
Binghamton Area	2,381	956	\$ 2,276,236
Buffalo Area	12,239	1,089	13,328,271
Capital Area	5,930	958	5,585,140
Elmira Area	2,848	846	2,409,408
Mid Hudson Area	1,993	846	1,686,078
Mohawk Area	1,835	888	1,629,480
Northern Area	1,888	858	1,619,904
Syracuse Area	6,807	1,274	8,672,118
Rochester Area	7,568	964	7,295,552
New York State	67,883	\$1,184	\$80,373,472

^{a/} Based on food inspection data and 1980 survey of part-time employees. Approximately 62 percent of the reported portion of seasonal employees were surveyed to determine the average yearly hours worked by part-time employees. Data was categorized by three and four digit codes in SIC 20 and SIC 514. A full time employee was estimated to work 2000 annual hours.

^{b/} Based on the New York State Department of Commerce average tax revenue calculation of \$1200 per manufacturing job and average income of \$16,734. Computations were adjusted according to relative manufacturing wages earned in each Area and the variation of average Area wages in food manufacturing and wholesaling.

Table 6. Changes in Marketing Cost Indices for Processing, Wholesaling and Retailing: United States, 1978 and 1979.

Index	Processing		Wholesaling and Retailing	
	<u>1978</u> 1967=100	<u>1979</u> Change Percent	<u>1978</u> 1967=100	<u>1979</u> Change Percent
Marketing Cost Index	221.9	247.4	232.3	257.0
Labor	237.2	257.8	249.2	271.3
Packaging Materials	207.2	230.9	187.4	210.8
Advertising	181.3	197.4	181.3	197.4
Fuel and Power	353.0	455.1	317.0	392.8
Other Utilities	161.6	164.4	142.4	143.1
Rent	199.2	216.4	199.2	216.4
Maintenance and Repair	224.6	247.9	227.0	250.3
Property Taxes and Insurance	274.6	298.8	228.8	234.3
Business Services	194.7	210.4	197.0	213.2
Supplies	202.0	231.5	192.2	216.3
Short Term Interest	220.5	251.3	220.5	251.3
Transportation	220.5	251.3	220.5	251.3

Source: Harry H. Harp, The Food Marketing Cost Index: A New Measure For Analyzing Food Price Changes, Technical Bulletin 1633, National Economics Division; Economics, Statistics, and Cooperative Service; U.S. Department of Agriculture, Washington, D.C., August 1980.

Table 7. Selected Agricultural Statistics: Economic Areas and New York State, 1978.

Area	Number of Farms	All Farms		Market Value of Sold Products	
		Total (thousand acres)	Orchards ^{a/}	Total Crops (thousand dollars)	Dairy ^{a/}
Binghamton	4,672	1,151.6	.2 ^{b/}	186,537	108,902
Buffalo	6,016	950.7	35.0	201,481	97,411
Capital	4,147	918.5	2.6 ^{b/}	163,852	87,667 ^{b/}
Elmira	3,923	939.4	5.9	130,622	71,661 ^{b/}
Mid Hudson	3,423	667.7	25.8	203,593	57,578 ^{b/}
Mohawk	2,518	545.8	.3	96,192	71,898 ^{b/}
Northern	5,466	1,362.1	4.6 ^{b/}	233,148	178,587
Rochester	7,353	1,649.8	50.4	316,721	113,301
Syracuse	4,418	1,022.0	3.3 ^{b/}	198,354	13,852
Upstate New York	41,936	9,207.6	128.1	1,720,500	800,856
Percent of State	85.0	92.8	98.7	90.4	79.3
New York State	49,323	9,916.8	129.8	1,902,846	1,009,502

^{a/} For farms with sales totaling at least \$2,500.

^{b/} Regional estimate, due to some county statistics withheld to avoid disclosure of individual businesses, is based on farm averages derived from counties in the region where information is not withheld.

Source: 1978 Census of Agriculture, Preliminary Reports, United States Bureau of the Census.