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ABSTRACT

Symposium participants concentrated on maintaining the economic viability of agriculture through improved agribusiness techniques including increased individual and collective marketing strategies and greater responsiveness to consumer demands. Related problems were decline of roads and bridges, competition with nonagricultural users for rural resources, and bureaucratic barriers to agricultural progress. Trends indicated declines in agricultural production, farm income, and number and size of farms and increases in direct marketing by farmers, debt-to-asset ratios, and property taxes. Among the strengths noted were low land prices, abundant resources and effective conservation practices, access to capital, human, and information resources, legislative support, and a strong agriculture-related economy. Goals centered around production, processing, and marketing improvements; preservation and expansion of the agricultural land base; and financial and regulatory policies conducive to agricultural development. Appended lists, maps, and charts reflect supporting data relative to population growth, land use and agricultural acreage, farm income and farm product sales, patterns of food consumption and expenditures, and agricultural employment. (MM)

AGRICULTURE IN NEW YORK STATE:
A PRELIMINARY REPORT

NEW YORK STATE LEGISLATIVE COMMISSION ON RURAL RESOURCES

SENATOR CHARLES D. COOK, CHAIRMAN

MARCH 1, 1984

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RURAL FUTURES

LEGISLATIVE COMMISSION ON RURAL RESOURCES
STATE OF NEW YORK
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The Commission on Rural Resources was established by Chapter 428 of the Laws of 1982, and began its work February, 1983. A bipartisan Commission, its primary purpose is to promote a state-level focus and avenue for rural affairs policy and program development in New York State.

The Commission provides state lawmakers with a unique capability and perspective from which to anticipate and approach large-scale problems and opportunities in the state's rural areas. In addition, legislators who live in rural New York are in the minority and look to the Commission for assistance in fulfilling their responsibilities to constituents.

The Commission seeks to amplify the efforts of others who are interested in such policy areas as agriculture; business, economic development, and employment; education; government and management; environment, land use, and natural resources; transportation; housing, community facilities, and renewal; human relations and community life; and health care. It seeks to support lawmakers' efforts to preserve and enhance the state's vital rural resources through positive, decisive action.

In order to obtain a clearer picture of key problems and opportunities, the Commission invited people to informal discussions at a Statewide Rural Development Symposium, held October 5-7, 1983. It was the first such effort of its kind in the state and nation. Workshop participants undertook in-depth examinations of key policy areas the Commission believed were critical to the state's future rural development.

Symposium participants focused their discussions on ends, not means. In short, the objective was to identify key trends, strengths, weaknesses, goals, and opportunities for advancement; not to present solutions. Once a clearer picture of these findings is drawn, the next step will be to identify and propose the required, and hopefully innovative, recommendations. This task will be the subject of a second, follow-up symposium. Another unique feature of the first symposium was the opportunity it provided participants to share their thinking with colleagues from throughout the state over a three-day period of intensive dialogue.

The Commission is happy to announce that the objective of the Symposium was accomplished. Preliminary reports, based on the findings, are being issued as planned, in connection with a series of public hearings it is sponsoring across the state. The aim of these hearings is to obtain public commentary on the preliminary reports. Following these, a final symposium report will be prepared for submission to the Governor and the State Legislature. It will also serve as a resource report for the second statewide symposium on recommendations.

The Commission is comprised of five Assemblymen and five Senators with members appointed by the leader of each legislative branch. Senator Charles D. Cook (R.-Delaware, Sullivan, Greene, Schoharie, Ulster Counties) serves as Chairman. Assemblyman William L. Parment (D.-Chautauqua) is Vice Chairman and Senator L. Paul Kehoe (R.-Wayne, Ontario, Monroe) is Secretary. Members also include: Senator William T. Smith (R.-Steuben, Chemung, Schuyler, Yates, Senaca, Ontario); Senator Anthony M. Masiello (D.-Erie); Senator Thomas J. Bartosiewicz (D.-Kings); Assemblywoman Louise M. Slaughter (D.-Monroe, Wayne); Assemblyman Michael McNulty (D.-Albany, Rensselaer); Assemblyman John G.A. O'Neil (R.-St. Lawrence); and Assemblyman Richard Coombe (R.-Sullivan, Delaware, Chenango).

PREFACE

The Legislative Commission on Rural Resources publishes herein one of nine preliminary reports from the First Statewide Legislative Symposium on Rural Development held October 5-7, 1983. Not only was this effort a "first" for New York State, but for the nation as well.

The purpose of the Symposium, and the public hearings that will follow, is to catalog the strengths of rural New York, to define its problems, and to establish goals for the next two decades. Neither the Symposium nor the hearings will deal with strategy to develop our resources, address our problems, or accomplish our goals. That will be the thrust of a later Commission effort.

For the moment, it is our purpose to foster as objectively and exhaustively as possible, an understanding of where we are and where we want to go.

The Symposium reports in each subject area encompass the oral and written findings of the respective workshops, along with responses given at the Commission hearing where the reports were presented to State legislators for comment and discussion. Incorporated into this preliminary report is subsequent comment from group participants on points they felt needed amplification. Also appended to the published product is basic resource material intended to clarify points made in the reports.

I wish to personally congratulate the Symposium participants on the very sound and scholarly documents they have produced. However, their work is only preliminary to the final product which will be issued by the Commission once the hearing process is complete.

Those who read this report are urgently invited to participate in the public hearings that will be held throughout rural New York, or to submit comments in writing to the Commission. Your support, disagreement or commentary on specific points contained in the Symposium report will have a strong influence on the final report of the Commission.

Please do your part in helping to define sound public policy for rural New York during the next two decades.

Senator Charles D. Cook

Chairman

Legislative Commission on Rural Resources

INTRODUCTION

Agriculture continues to be a dominant industry in New York State, one that exerts substantial multiplier effects on regional economies. New York agricultural products make their way into local, state, national, and global markets. In addition, agriculture continues to be a major force that enhances the quality of life and landscape throughout New York State.

The agriculture industry produces a variety of food, forage, forest, ornamental, and animal products on nearly ten million acres of land. An important goal for the state is to ensure the continued availability and productive potential of farmland. We have witnessed a dramatic decline in acres harvested in agriculture over the last thirty years, with only a slight reversal of this trend during the 1970s.

The economic viability of agriculture was the major concern of workshop participants, who well recognize the high-risk, high-cost environment farmers typically operate in. Wide recognition of the need for increased individual and collective marketing strategies and greater responsiveness to consumer demands is now evident as New York producers seek to compete with other states and nations. Our agriculture industry faces heightened pressure from other states to attract food processing and manufacturing firms. Participants attributed the recent loss of a number of these firms to other states to a comparatively poor climate for agribusiness, and voiced the need for a reversal of this trend.

Another critical problem facing the agriculture industry is the gradual and insidious decline of roads and bridges which are vital to the agriculture industry, as well as other users. There is also increased concern that the growing number of non-farm residents in rural areas will further dilute the

influence of the agriculture community in state and local decision making. Members of the farm community have already noted the increasing incidence of nuisance complaints received from other users of the state's rural resources. An example is the attribution of algae in some New York City reservoirs to river front farm pastures upstream.

One major policy question involves the means to develop a more innovative marketing strategy for New York agricultural products, and to engage the participation of all components of New York's agricultural products industry in the success of this venture. Another is the question of some government bureaucratic procedures and regulatory measures people feel are serious barriers to innovation and progress in the agriculture industry. These subjects will be given considerable attention by lawmakers and others in the months and years ahead.

WHERE RURAL NEW YORK IS TODAY

Trends

- Growth of population in rural areas during the 1970s; assumed to be continuing in the 1980s.

- Increasing pressure from other states and nations competing in limited markets.

- Decline of $139 million in total market value of New York agricultural products sold between 1969 and 1978 (adjusted to 1980 dollars). Also, the average per-acre market value of agricultural products produced in New York declined from $249 to $241 between 1969 and 1978.

- Net farm income declined $78.5 million in the two years following its peak of $454.1 million in 1979.

- Increasing pressure from other states to attract firms in the food processing and manufacturing sectors. Over the last decade, the number of food manufacturing firms in New York State declined by one-third and employment in these firms fell 22 percent.

- Gradual decline of secondary roads and bridges vital to the agriculture industry.

- Recent increase in number of people engaged in direct marketing. In 1979 one-fifth of the farmers operating in New York engaged in some form of direct marketing. This may represent a return to levels of direct marketing common in the earlier part of the century.

- Increase in debt-to-asset ratio in agriculture industry from 16.3 to 22.1 percent between 1973 and 1982.

- The rate of decline in number of farms in New York slowed during the 1970s. However, there were about 990 fewer farms in 1982 than in 1978.

- Total farmland acreage increased by 496,200 acres between 1974 and 1978. However, it declined by about 280,000 acres between 1978 and 1982. (Data on trends in the amount of prime agricultural land in New York being lost to development are not available.)

- Growing development pressure in the rural land market leading to increases in agricultural land prices and higher property taxes. The average value of an acre of farmland rose from $326 in 1975 to $544 in 1982.

- The moderate-size farm is a declining segment of all farming:

  - Increase in the number of small (under 50 acres) farms in recent years. In 1978, 18.5 percent of all farms were under 50 acres.

This figure increased to 22.1 percent in 1982.

- The percentage of the state's farmland acreage owned by large farms (greater than 500 acres) is growing; it rose from 28.5 to 30.2 between 1974 and 1978. (Data are not yet available for 1982.)

- Increase in producer-owned processing facilities operated on a cooperative basis.

- Declining number and increasing average size of dairy farms. However, total acreage in dairy farms declined slightly in the state between 1974 and 1978 (1982 data are not yet available).

- The dairy industry continues to be the largest sector of New York agriculture. Moreover, the market value of dairy products increased as a proportion of cash receipts from all New York agricultural products between 1978 and 1982.

- National food consumption patterns have changed little overall in the last two decades, with some major exceptions. Consumption of dairy products has declined as a percent of annual per capita consumption, while poultry consumption has increased.

- Increase in the number of farms producing specialty items.

Strengths and Assets

- Land area and its diverse ownerships; relatively low land prices.

- Soil capabilities; New York State's long history of soil and water conservation activities.

- Climate conducive to the production of a wide variety of crops and products.

- Abundance of surface and subsurface water resources; generally well-distributed rainfall.

- Statewide diversity of agricultural products, including food, forage, forest, ornamental, animals.

- Access to a variety of capital sources for most farmers.

- Proximity to local, large regional, and world markets.

- Interstate highway network, rail system, ports, and waterways that link New York producers in agricultural regions to suppliers, processing facilities, and markets throughout the state and world.

- Management skills and expertise of people involved in agriculture.

- Information, research, and development resources, especially SUNY College of Agriculture and Life Science at Cornell, the Agricultural and Technical Colleges, and the Cooperative Extension Service.

- Proximity of processing and manufacturing facilities to most New York State farmers, although this advantage may be lessening.

- Large contribution of agriculture industry to New York State's economy. While employment in agricultural production and services was 172,559, total agriculture related employment amounted to 567,548 in 1978. The agriculture-related economic multiplier is much higher than in most other industries. Also, the value added per employee in food manufacturing ranks higher than the average for all other New York manufacturing industries.

- Long history of legislative support of agriculture.

Weaknesses or Problem Areas

- Lack of innovative and progressive individual and collective marketing of many commodities. Strong need for better communication and linkages among producers, wholesalers, retailers, shippers, and other intermediaries in order to strengthen New York State products in domestic and international markets.

- New York State institutional and individual consumption of local production represents a large, under-exploited potential market.

- Some firms in food processing and manufacturing have been leaving New York recently. However, it is not clear if this represents a net loss of production capacity. Still, much of the food consumed in New York is processed out-of-state, e.g., kosher meat products processed elsewhere.

- Opportunities and problems anticipated in future agricultural production, marketing, and land use are not adequately dealt with by current state and local public policy.

- Research and development efforts have not been targeted to areas of critical need, such as improved marketing or improved efficiencies that would lower costs of production (e.g., the wine and grape industry). Need for a comprehensive and coordinated agricultural research agenda in New York State.

- Improvements in production and management practices are not proceeding as rapidly and effectively as needed in order for farmers to remain competitive (e.g., the herd average of milk production in New York State is 12,500 pounds annually, while it could be 17,000. Also, it takes the average dairy farmer 30 months to bring a heifer to production, whereas the industry goal is 24 months).

- Foreign competition and competition from other states have

successfully captured some of New York's markets, and provide a continuing challenge.

- High production/overhead costs in the agriculture industry relative to other industries, states, and countries. Both capital purchases and operating expenses in New York are well above the national averages. Real estate taxes, for instance, are among the highest in the nation. Also, New York farmers average the fifth highest monthly electicity bill in the nation.

- New York has a comparatively poor business climate, which is attributed to the high income tax on agribusiness relative to other states. Certain aspects of environmental regulation also affect the climate for agribusiness.

- The average age of farm operators in New York is 50, while the average age of all employed persons in the state is 39. There is concern the young farmer cannot get into the farm business.

- Storage facilities for certain perishable products (such as potatoes, apples, cabbage, onions, and radishes) are limited, and the marketing period for these commodities is therefore shortened.

- Conflicts with non-farm community members exist concerning farm smells and sounds, use of chemicals, trespass, surface and subsurface water pollution, and use of farm equipment.

- Political recognition of and responsiveness to agricultural interests has been ambivalent. However, the potential for future farmer-rural nonfarmer alliances to influence decision making may be growing as the rural share of the state's population increases.

- A continuing preoccupation by the Federal government with several commodities grown primarily in other regions of the United States has put New York at a disadvantage with its own agricultural policies and programs.

- Although New York State as a whole produces a wide variety of agricultural products, many substate areas, for example the Tug Hill region, lack agricultural diversity and therefore may be at risk economically.

- Harvested acreage has increased recently. However, we may be witnessing the statewide substitution of marginal agricultural land for prime, since most of the state's prime agricultural land is in urban fringe areas undergoing development.

- The existing secondary and rural road and bridge system is declining across the state and needs to be maintained and upgraded since a modern, efficient transportation network is essential to the achievement of a competitive edge in all markets.

- Although farmers and farm organizations have access to many sources of capital, they are not widely aware of state and local sources of

preferential interest monies that would aid basic agribusiness development.

- Public misconceptions regarding agricultural practices and economics abound.
- There is a continuing bias against career opportunities in agricultural production and marketing by school guidance counselors and students.

GOALS FOR RURAL NEW YORK

- Continue to maintain and enhance New York's land base for production of agricultural products.
- Expand food processing, manufacturing, and storage facilities within the state.
- Expand and/or diversify production in order to meet new marketing opportunities.
- Develop foreign and domestic markets for New York products. Place greater emphasis on New York State consumption of in-state production. Expand public and private promotion of New York State's agricultural products.
- Improve New York consumers' understanding and support of a vital, efficient food and agricultural industry.
- Encourage innovative marketing and entrepreneurial activities in agriculture.
- Encourage a continuing dialogue among the segments of the food industry; identify common interests.
- Establish a comprehensive agenda for agriculture related research and development in New York to include marketing, as well as breeding, pest control, production techniques, equipment, and storage.
- Increase state influence on Federal food and agriculture policy.
- Encourage the continuation of a long tradition of family farms.
- Maximize utilization of the state's abandoned and marginal farmlands for such uses as pasture, forage production, and tree crops. Research has shown that it may cost less to rehabilitate certain lands than for the farmer to purchase new land ready for production.
- Increase student awareness of the New York State agriculture sector in public school systems.

PUBLIC POLICY QUESTIONS TO BE ADDRESSED

- How can public and private cooperation develop more effective marketing strategies? In particular, to:

  - Foster a continuing dialogue among components of the agricultural industry that is conducive to innovative marketing and entrepreneurial activities.

  - Research new products and marketing opportunities (e.g., metric packaging, unsalted butter, new varieties of barley for breweries, better adapted varieties of grapes for the New York wine industry, specialty items) to improve the competitiveness of New York State products.

  - Expand promotion of New York State agricultural products and public awareness of New York agriculture.

- How can the loss of processing and manufacturing firms from New York State to other states be reversed?

- How do we ensure the continued productivity of the land base?

  - Preservation of prime, unique, or important farmlands, especially in rapidly developing areas.

  - Provision of stronger incentives to keep land in farms where land is highly suited to agriculture.

  - Encourage nonagricultural development on lands not suitable for agriculture.

- How do we encourage New York agricultural lands to be used for their highest value use? Is there a need for state-wide crop planning based on soil capability, future markets, climate, regional diversity, and other relevant factors to help farmers make crop decisions?

- Current tax and regulatory structure: do they impose undue hardship on various agricultural industries? Are there ways to reduce real property taxes on producers? To minimize bureaucratic "red tape" while continuing to serve the public interest?

- How can conflict between agriculture and nonagricultural uses of rural land (e.g., nuisance complaints, use of chemicals, trespassing) be resolved or mitigated?

- How can we foster an ongoing dialogue among agriculture and food production industries, and those state agencies that have an impact on them (e.g., Department of Environmental Conservation and State Board of Equalization and Assessment)?

- Are there unanticipated, negative effects of commercial bank deregulation that should be addressed by public policy?

- Can the prospects for beginning farmers, who face prohibitively high start-up costs and heavy debt payments, be improved?

- Where property development rights are removed from agricultural lands, how will landowners and local taxpayers be fairly compensated? How will the local tax base be protected?

- Climate, soil, and marketing influences are diverse across New York State. How can agriculture policy, research, and practices recognize and capitalize on this variability in order to realize the full potential of New York? In addition, how can sufficient diversity be promoted within regions in order to provide greater regional economic stability?

- What policies and programs would contribute to greater technology transfer in areas of basic and applied research and management innovation in order to develop new markets and product lines, and to achieve lower costs of production in today's competitive environment?

- What should be the main focus of New York's agriculture? How do we rank related objectives, including: production of food and fiber, economic development, maintenance of adequate nutritional standards, provision of open space, air quality improvement, and other benefits?

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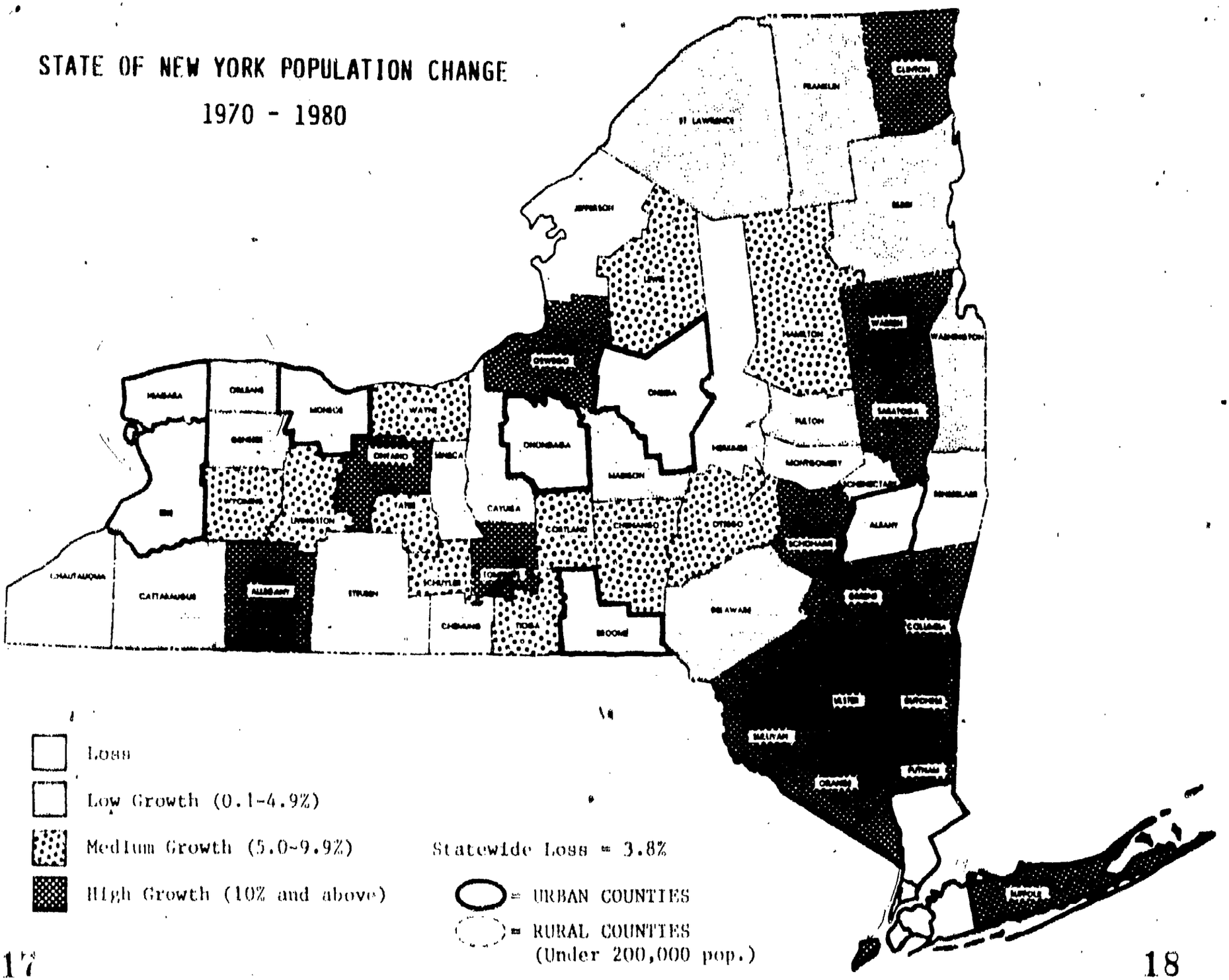
APPENDIX

STATE OF NEW YORK POPULATION CHANGE
1970 - 1980



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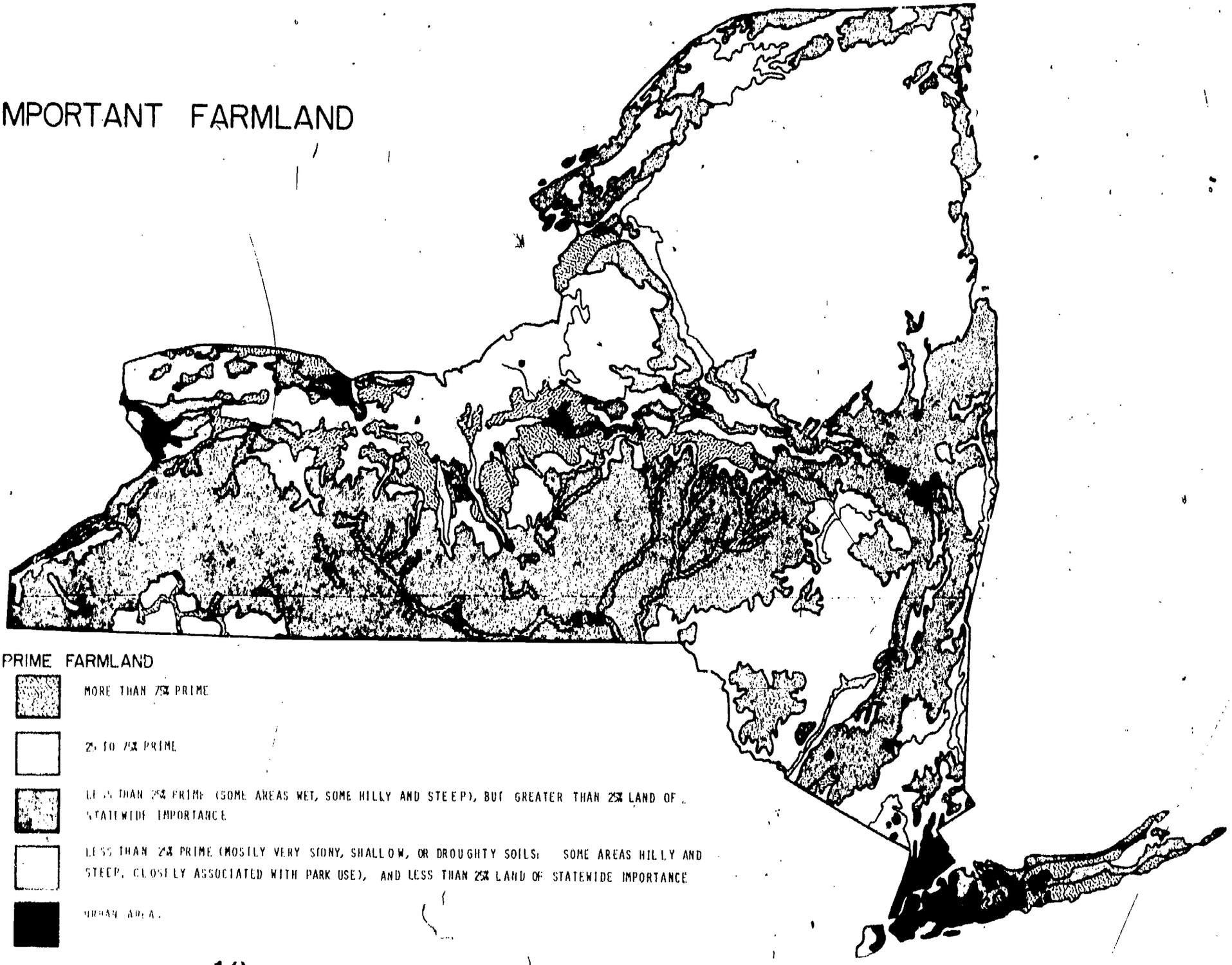
Source: U.S. Bureau of the Census, 1980 Census of Population and Housing.

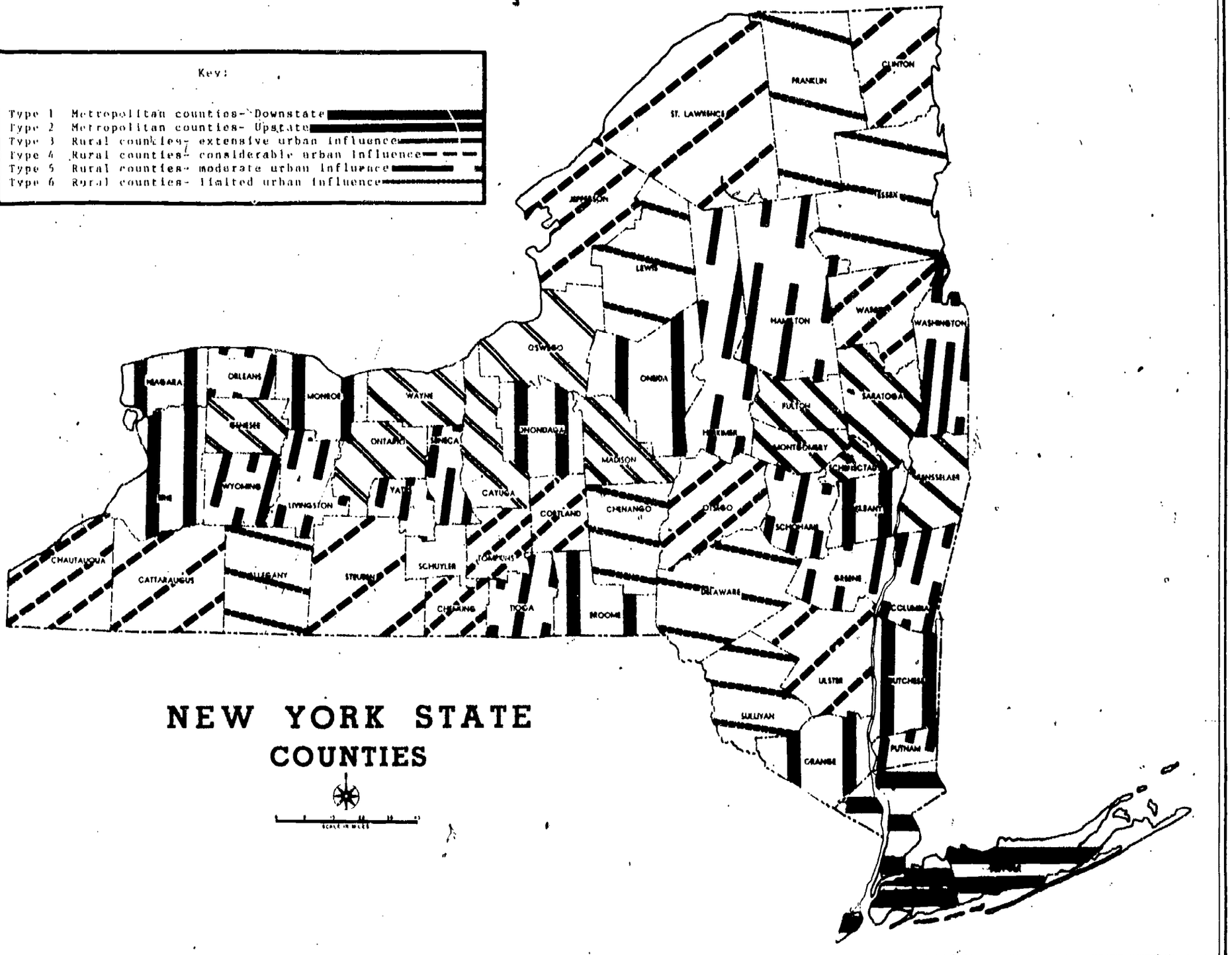
IMPORTANT FARMLAND

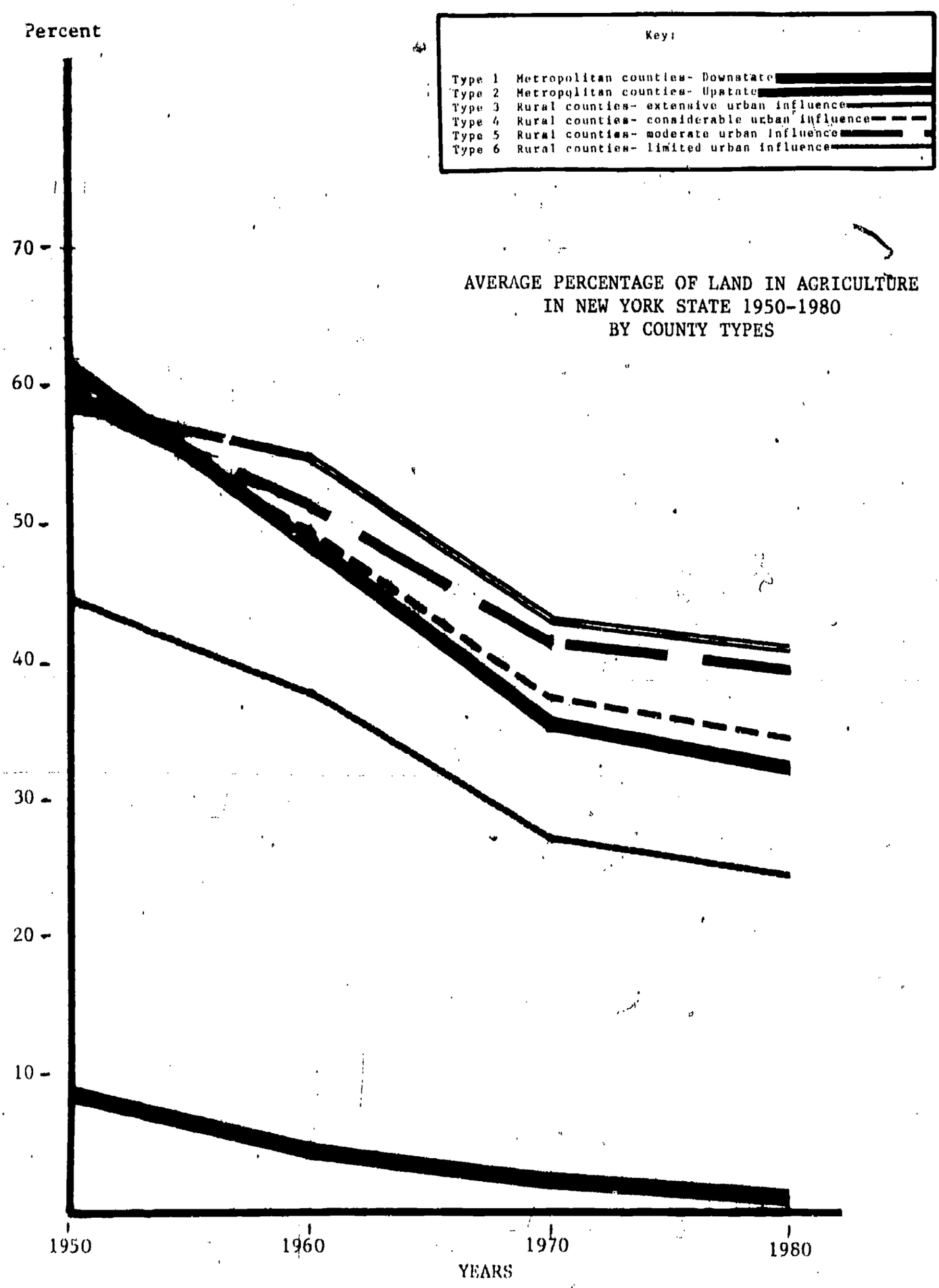


PRIME FARMLAND

- MORE THAN 75% PRIME
- 25 TO 75% PRIME
- LESS THAN 25% PRIME (SOME AREAS WET, SOME HILLY AND STEEP), BUT GREATER THAN 25% LAND OF STATEWIDE IMPORTANCE
- LESS THAN 25% PRIME (MOSTLY VERY STONY, SHALLOW, OR DROUGHTY SOILS; SOME AREAS HILLY AND STEEP, CLOSELY ASSOCIATED WITH PARK USE), AND LESS THAN 25% LAND OF STATEWIDE IMPORTANCE
- URBAN AREA

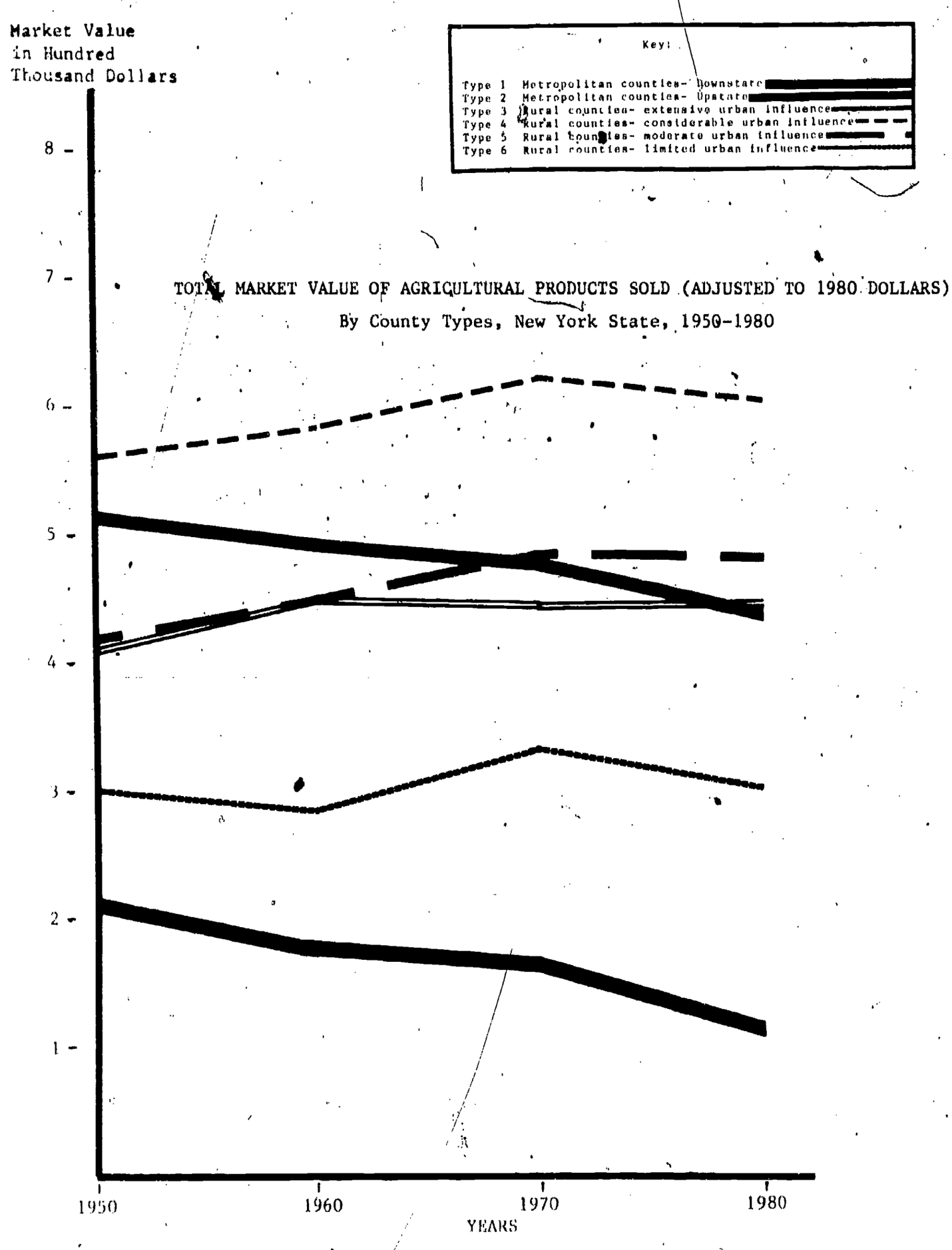
ADAPTED FROM IMPORTANT FARMLAND OF NEW YORK MAP, 1979,
U.S.D.A., SOIL CONSERVATION SERVICE


Key:
Type 1 Metropolitan counties- Downstate
Type 2 Metropolitan counties- Upstate
Type 3 Rural counties- extensive urban influence
Type 4 Rural counties- considerable urban influence
Type 5 Rural counties- moderate urban influence
Type 6 Rural counties- limited urban influence
FRANKLIN
CLINTON
ST. LAWRENCE
ESSEX
JEFFERSON
LEWIS
HAMILTON
WARREN
WASHINGTON
OSWEGO
ONEIDA
SARATOGA
FULTON
NIAGARA
ORLEANS
MONROE
WAYNE
ONONDAGA
HERKIMER
MONTGOMERY
SCHENECTADY
RENSSELAER
ONTARIO
SENECA
MADISON
ALBANY
WYOMING
YATES
CAYUGA
LIVINGSTON
CORTLAND
CHENANGO
OTSEGO
SCHOHARIE
CHAUTAUQUA
CATTARAUGUS
ALLEGANY
STEUBEN
SCHUYLER
TOMPKINS
CHEMUNG
TIOGA
BROOME
DELAWARE
GREENE
COLUMBIA
ULSTER
DUTCHESS
SULLIVAN
ORANGE
PUTNAM
NEW YORK STATE
COUNTIES



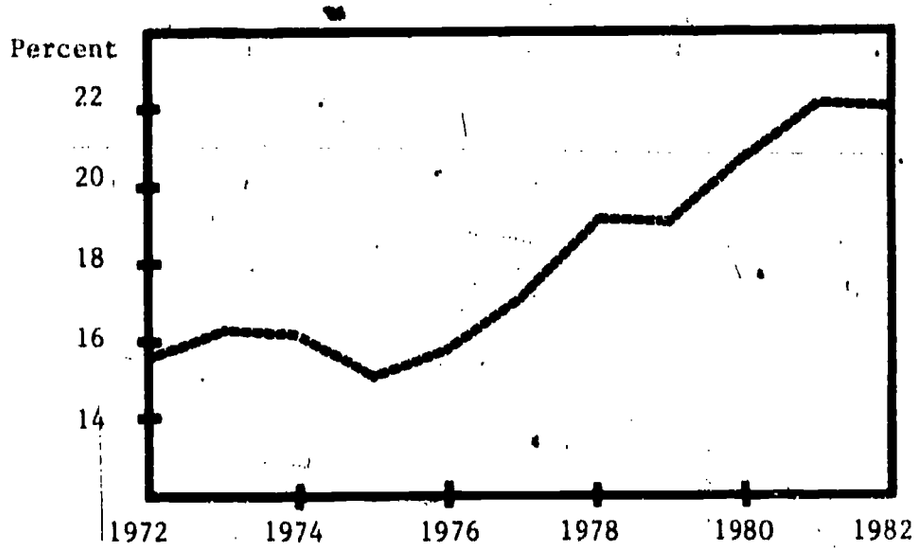
AVERAGE PERCENTAGE OF LAND IN AGRICULTURE
IN NEW YORK STATE 1950-1980
BY COUNTY TYPES

Source: Eberts, Paul. Trends in Basic Social Indicators for Rural and Metropolitan Counties in New York State 1950-1980, New York State Legislative Commission on Rural Resources. 1983.

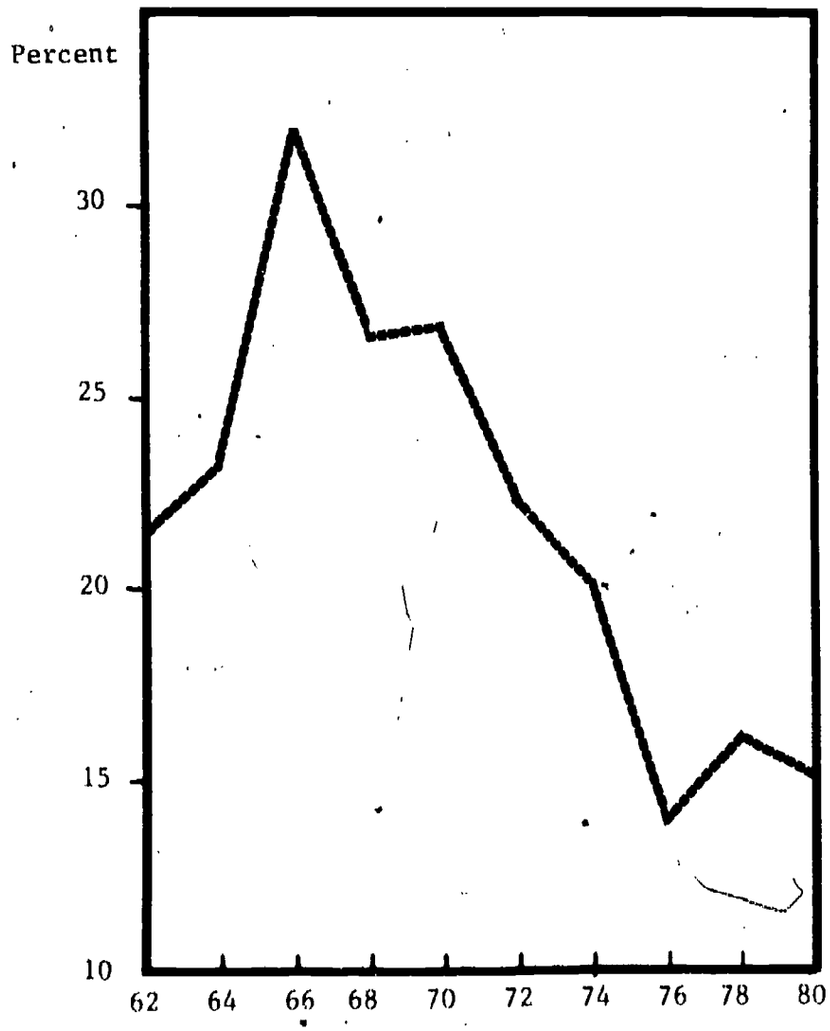


Source: Eberts, Paul. Trends in Basic Social Indicators for Rural and Metropolitan Counties in New York State 1950-1980, New York State Legislative Commission on Rural Resources, 1983.

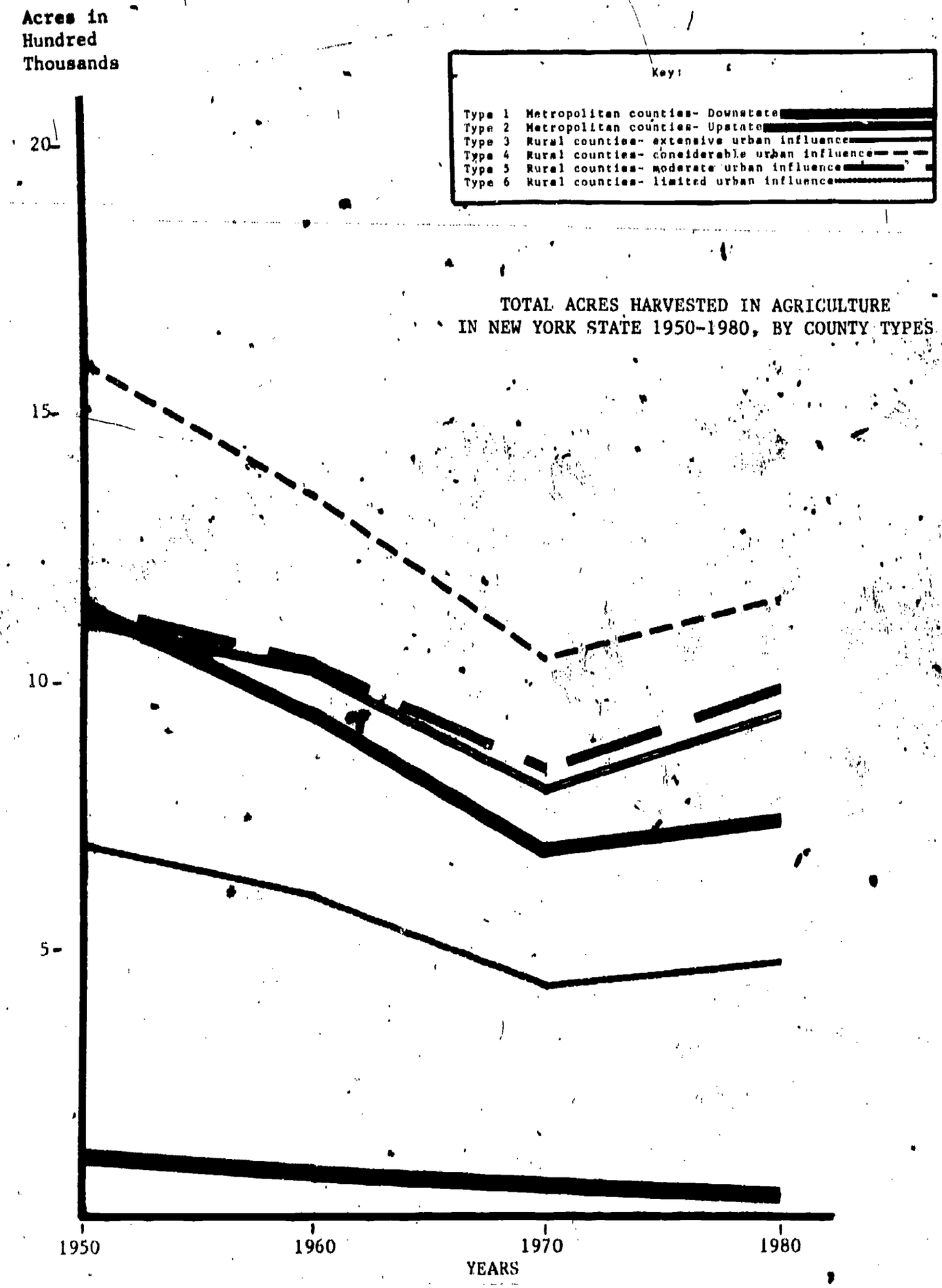
CHANGE IN DEBT-TO-ASSET RATIO IN THE FARMING SECTOR
NEW YORK STATE, 1972-1982



NET FARM INCOME AS A PERCENT OF GROSS FARM INCOME IN NEW YORK STATE
1962 - 1980



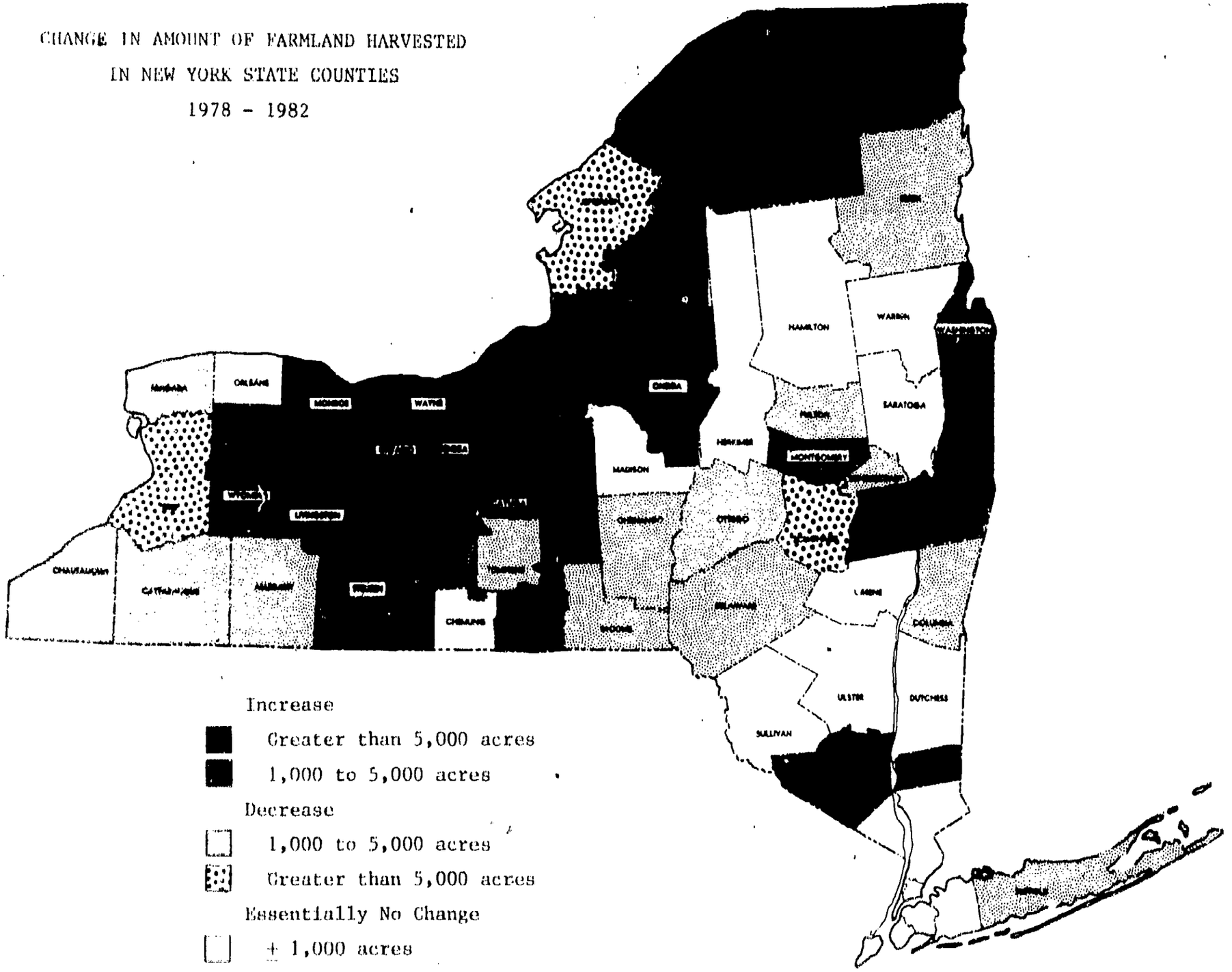
Source: New York Agricultural Statistics 1982, New York Crop Reporting Service and U.S. Department of Agriculture Statistical Reporting Service, June, 1983.



TOTAL ACRES HARVESTED IN AGRICULTURE IN NEW YORK STATE 1950-1980, BY COUNTY TYPES

Source: Eberts, Paul. Trends in Basic Social Indicators for Rural and Metropolitan Counties in New York State 1950-1980, New York State Legislative Commission on Rural Resources, 1983.

CHANGE IN AMOUNT OF FARMLAND HARVESTED
IN NEW YORK STATE COUNTIES
1978 - 1982



Source: U.S. Dept. of Commerce, Bureau of the Census, 1982 Census of Agriculture, Preliminary Report. 1983.

CHANGE IN HARVESTED CROPLAND IN NEW YORK STATE COUNTIES, 1978 TO 1982

	1982 (Acres)	1978-Adjusted (Acres) (a)	Change (Acres)	Percent Change
Rural Counties				
Allegany	81,668	83,063	-1395	-1.7%
Cattaraugus	94,138	98,533	-4395	-4.5%
Cayuga	184,857	175,823	9034	5.1%
Chautauqua	128,053	132,320	-4267	-3.2%
Chemung	28,175	28,101	74	0.3%
Chenango	88,502	92,781	-4279	-4.6%
Clinton	75,364	73,090	2274	3.1%
Columbia	77,012	78,487	-1475	-1.9%
Cortland	72,844	70,470	2374	3.4%
Delaware	90,021	93,398	-3377	-3.6%
Essex	23,238	26,102	-2864	-11.0%
Franklin	70,319	66,756	3563	5.3%
Fulton	18,661	21,065	-2404	-11.4%
Genesee	127,311	125,438	1873	1.5%
Greene	22,514	21,777	737	3.4%
Hamilton	NA	NA	NA	NA
Herkimer	88,522	87,710	812	0.9%
Jefferson	168,312	183,018	-14706	-8.0%
Lewis	91,237	87,091	4146	4.8%
Livingston	150,296	140,042	10254	7.3%
Madison	117,381	116,440	941	0.8%
Montgomery	96,002	90,971	5031	5.5%
Ontario	151,138	143,049	8089	5.7%
Orleans	98,702	98,031	671	0.7%
Oswego	57,947	53,829	4118	7.7%
Otsego	107,480	108,509	-1029	-0.9%
Putnam	3,705	2,347	1358	57.9%
Rensselaer	49,956	46,881	3075	6.6%
St. Lawrence	184,928	182,519	2409	1.3%
Saratoga	41,118	40,788	330	0.8%
Schenectady	10,056	11,632	-1576	-13.5%
Schoharie	68,628	75,284	-6656	-8.8%
Schuyler	35,144	32,552	2592	8.0%
Seneca	92,407	82,919	9488	11.4%
Steuben	183,235	177,192	6043	3.4%
Sullivan	26,158	26,509	-351	-1.3%
Tioga	56,601	54,911	1690	3.1%
Tompkins	60,940	62,593	-1653	-2.6%
Ulster	41,436	41,044	392	1.0%
Warren	1,804	1,942	-138	-7.1%
Washington	121,102	112,071	9031	8.1%
Wayne	132,364	119,591	12773	10.7%
Wyoming	136,899	129,084	7815	6.1%
Yates	65,967	63,906	2061	3.2%
Metropolitan Counties				
Albany	36,780	35,375	1405	4.0%
Bronx	NA	NA	NA	NA
Broome	48,068	49,122	-1054	-2.1%
Dutchess	58,086	57,753	333	0.6%
Erie	111,563	117,529	-5966	-5.1%
Kings	NA	NA	NA	NA
Monroe	101,142	87,914	13228	15.0%
Nassau	(D)	566	NA	NA
New York	NA	NA	NA	NA
Niagara	97,973	99,400	-1427	-1.4%
Oneida	138,966	130,365	8601	6.6%
Onondaga	108,163	106,287	1876	1.8%
Orange	65,633	61,641	3992	6.5%
Queens	NA	NA	NA	NA
Richmond	23	(D)	NA	NA
Rockland	(D)	628	NA	NA
Suffolk	36,731	39,116	-2385	-6.1%
Westchester	3,062	3,161	-99	-3.1%
SUMMARY:				
Rural Counties	3,622,142	3,559,659	62483	1.8%
Metropolitan Counties	806,190	788,857	18504	2.3%
New York State	4,428,332	4,348,516	80987	1.9%

(a) 1978 data were retabulated for 1982 comparability.
(D) Withheld to avoid disclosing data for individual farms.

SOURCE: 1982 Census of Agriculture Preliminary Report, New York. U.S. Department of Commerce, Bureau of the Census. December, 1983.

NEW YORK'S RANKING IN SELECTED AGRICULTURAL PRODUCTS, 1982

	NEW YORK RANK	LEADING STATE	LEADING COUNTY
Field Crops:			
Corn for silage	3	Wisconsin	St. Lawrence
Corn for grain	19	Iowa	Cayuga
Oats	10	South Dakota	Cayuga
Winter wheat	32	Kansas	Ontario
Potatoes	10	Idaho	Suffolk
Dry Beans	9	Michigan	NA
Alfalfa hay	13	Wisconsin	NA
Other hay	4	Texas	NA
All hay	11	Wisconsin	NA
Fruits and Vegetables:			
Apples	2	Washington	Wayne
Cherries, sweet	5	Washington	Niagara
Cherries, tart	2	Michigan	Wayne
Peaches	15	California	Niagara
Pears	4	California	Niagara
Grapes	3	California	Chautauqua
Strawberries	6	California	NA
Carrots	9	California	NA
Cauliflower	3	California	NA
Celery	4	California	NA
Lettuce	6	California	NA
Onions	4	California	Orange
Sweet corn	2	Florida	NA
Tomatoes	7	Florida	NA
Green peas, processing	5	Wisconsin	NA
Snap beans, processing	3	Wisconsin	NA
Sweet corn, processing	7	Michigan	NA
Livestock and Livestock Products:			
Milk production	3	Wisconsin	Jefferson
Veal calves	1	New York	NA
Cattle and calves	33	Texas	St. Lawrence
Hogs and pigs	31	Iowa	NA
Sheep and lambs	29	Texas	NA
Poultry	17	Arkansas	NA
Ducks	3	North Carolina	NA
Egg production	13	California	NA
Other:			
Maple syrup	2	Vermont	NA

Sources: New York Agricultural Statistics 1982, New York Crop Reporting Service and U.S. Department of Agriculture Statistical Reporting Service, June, 1983; several statisticians at both New York State Department of Agriculture and Markets and U.S.D.A. Statistical Reporting Service.

Food Group	Percent of Annual Per Capita Consumption				
	1962	1967	1972	1977	1982
Meat	10.7%	11.5%	11.9%	11.9%	10.9%
Poultry	2.7%	3.3%	3.7%	3.9%	4.7%
Fish	1.0%	1.0%	1.2%	1.2%	1.2%
Eggs	3.0%	3.0%	2.8%	2.4%	2.4%
Dairy products, including butter	26.0%	24.9%	24.0%	22.8%	21.9%
Fats and oils, excluding butter	3.0%	3.4%	3.7%	3.7%	4.0%
Fruits, fresh and processed	9.5%	9.6%	9.3%	9.7%	9.6%
Melons	1.8%	1.8%	1.7%	1.7%	1.8%
Vegetables	14.3%	14.4%	14.5%	14.9%	15.0%
Potatoes and sweet potatoes	6.8%	6.0%	5.9%	5.9%	5.8%
Beans, peas, nuts, and soya products	1.2%	1.2%	1.1%	1.2%	1.3%
Flour and cereal products	10.6%	10.5%	10.1%	10.6%	10.9%
Sugars and other sweeteners	8.1%	8.3%	9.0%	9.4%	9.7%
Coffee, tea, and cocoa	1.1%	1.1%	1.1%	0.7%	0.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Food Consumption, Prices, and Expenditures, 1962-82. USDA Economic Research Service, 1983.

FOOD EXPENDITURES AS PERCENT OF DISPOSABLE INCOME, 1975-1982

Year	Total Food, Beverages and Other Groceries	Total Food, Except Alcoholic Beverages	Food Except Alcoholic Beverages	
			At Home	Away From Home
1975	22.8	16.9	12.7	4.2
1976	22.6	16.8	12.5	4.3
1977	22.2	16.5	12.2	4.3
1978	21.8	16.3	12.0	4.3
1979	21.9	16.5	12.1	4.4
1980	21.8	16.4	12.1	4.3
1981	21.5	16.2	12.0	4.2
1982	21.2	16.1	11.7	4.4

Source: National Food Review, Spring 1983.

CHANGES IN PROPORTION OF FARM TYPES IN NEW YORK, 1974 TO 1978

Classification of Farms By Principal Product (a)	Number of Farms (Percent of Total) 1974	1978	Acres in Farms (Percent of Total) 1974	1978
Cash Grains	9.1%	6.1%	8.6%	7.1%
Field Crops	7.2%	16.5%	6.7%	12.9%
Vegetables and Melons	3.8%	4.1%	2.7%	2.8%
Fruits and Tree Nuts	7.2%	6.6%	3.5%	3.4%
Horticultural Specialties	4.4%	3.5%	0.6%	0.6%
General Farms, Primarily Crops	1.8%	4.3%	2.0%	3.2%
Livestock Except Poultry, Dairy, and Animal Specialties	9.0%	21.4%	6.8%	13.5%
Dairy	53.6%	31.4%	66.6%	53.4%
Poultry and Eggs	1.8%	1.8%	0.7%	0.7%
Animal Specialties	1.2%	2.9%	0.6%	1.0%
General Farms, Primarily Livestock	0.3%	1.4%	0.3%	1.3%
Farms Not Classified	0.6%	0.0%	0.9%	0.0%
Totals:	100.0%	100.0%	100.0%	100.0%

(a) Standard Industrial Classification

Source: U.S. Department of Commerce, Bureau of the Census, Census of Agriculture, New York, 1974 and 1978.

CHANGES IN PROPORTION OF FARM SALES IN NEW YORK, 1978 TO 1982 (a)

Agricultural Product:	1978 ($1000)	1978 Percent	1982 ($1000)	1982 Percent
Grains	94,577	5.1%	157,864	6.5%
Hay, silage, and field seeds	65,170	3.5%	52,545	2.2%
Vegetables, sweet corn, and melons	104,246	5.6%	142,633	5.9%
Fruits, nuts, and berries	136,202	7.3%	146,957	6.1%
Nursery and greenhouse products	92,582	5.0%	108,016	4.5%
Other crops	42,553	2.3%	49,186	2.0%
Poultry and poultry products	102,974	5.5%	116,657	4.8%
Dairy products	1,001,514	53.8%	1,387,441	57.2%
Cattle and calves	178,047	9.6%	196,201	8.1%
Sheep, lambs, and wool	2,033	0.1%	2,732	0.1%
Hogs and pigs	13,846	0.7%	16,965	0.7%
Other livestock and livestock products	27,521	1.5%	49,004	2.0%
TOTALS:	1,861,265	100.0%	2,426,201	100.0%

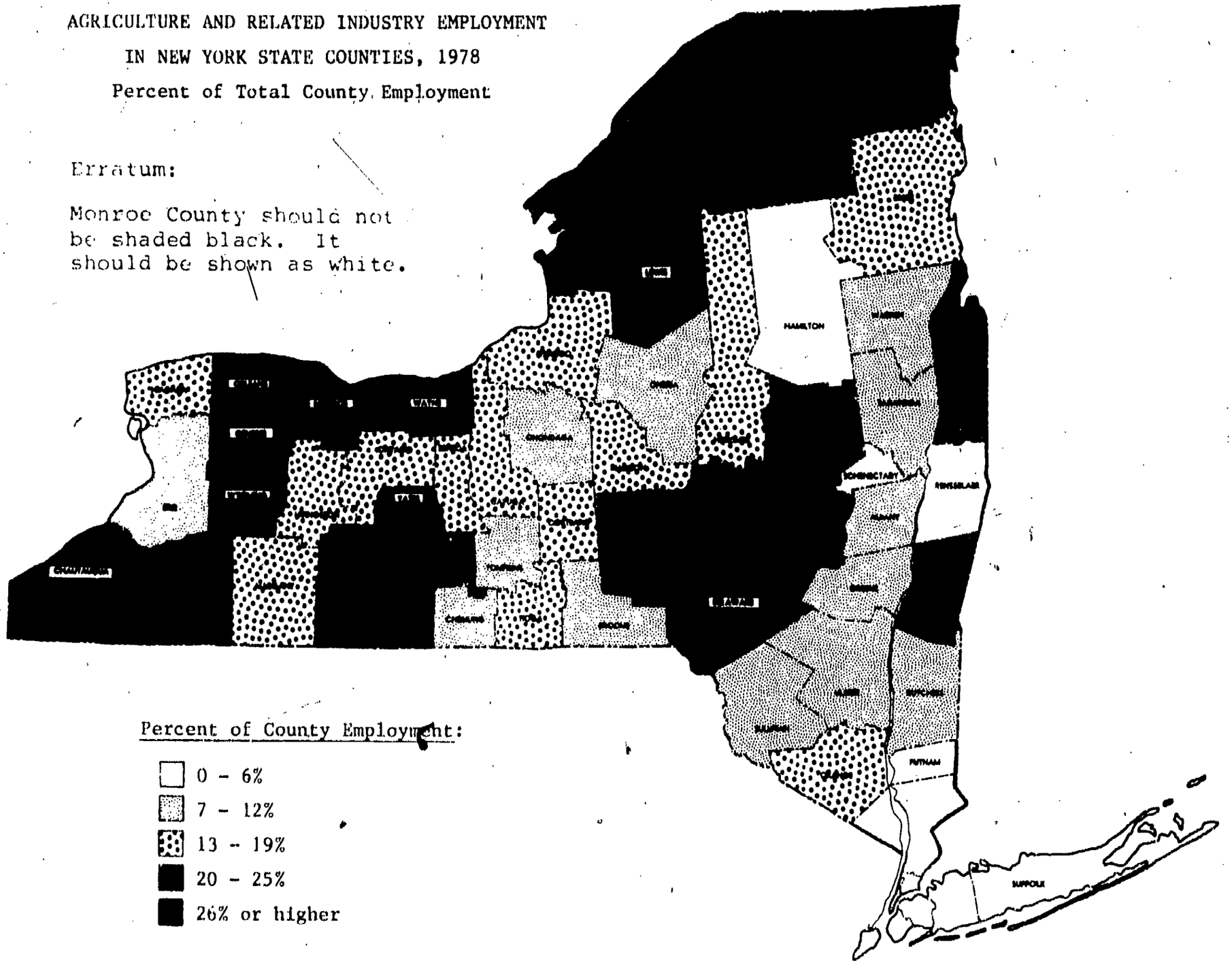
(a) The 1978 Census of Agriculture data have been retabulated to conform with 1982 Census data, which are slightly less complete. No estimates were made of numbers and characteristics of farms missing from the 1982 Census mail list, although these estimates were made in 1978. Only the 1978 mail list enumeration is included here to make the 1978 and 1982 data comparable.

Source: U.S. Department of Commerce, Bureau of the Census, 1982 Census of Agriculture, Preliminary Report, New York. December, 1983.

AGRICULTURE AND RELATED INDUSTRY EMPLOYMENT
IN NEW YORK STATE COUNTIES, 1978
Percent of Total County Employment

Erratum:

Monroe County should not be shaded black. It should be shown as white.



AGRICULTURE AND RELATED INDUSTRY EMPLOYMENT IN NEW YORK STATE, 1978

EMPLOYMENT SECTOR (a)	RURAL COUNTIES	METROPOLITAN COUNTIES	NEW YORK STATE
Production and Agriculture Services:			
Farm Employment	121,802	40,579	162,381
Agricultural Services, Forestry, & Fisheries	1,569	8,609	0,178
Manufacturing:			
Food & Kindred Products	19,716	55,305	75,021
Lumber & Wood Products	6,312	8,409	14,721
Paper & Allied Products	15,100	30,566	45,666
Agricultural Chemicals	105	286	391
Leather & Leather Products	6,347	20,921	27,268
Wholesale Trade:			
Farm & Garden Machinery and Equipment	1,586	2,133	3,719
Grocery & Related Products	4,778	44,446	49,224
Farm-product Raw Materials	153	2,548	2,701
Farm Supplies	2,365	2,649	5,014
Retail:			
Food Stores	26,676	140,158	166,834
Florists	216	4,214	4,430
TOTALS: (b)	206,725	360,823	567,548
PERCENT OF TOTAL:	36.4%	63.6%	100.0%

a) Farm employment was taken from U.S. Department of Commerce **1978 Census of Agriculture, Volume 1, New York**, and includes farm operators and all full- and part-time hired farm workers. All other employment categories are based on Standard Industrial Classifications reported in U.S. Department of Commerce **County Business Patterns 1978, New York**. In many instances, data were withheld to avoid disclosure of operations of individual employers, but were available by distribution of employment-size class. In these cases the lowest value in the size class range was used. Consequently, all nonfarm employment numbers represent minimum estimates.

b) The totals for agriculture industry and related employment in New York State do **not** include agriculture-related transportation, finance, insurance, real estate, education, extension, and public administration employment.

EMPLOYMENT IN AGRICULTURE AND RELATED INDUSTRIES IN NEW YORK STATE COUNTIES, 1978

Rural Counties	Agricultural Production & Services	Agriculture-Related Manufacturing	Agriculture-Related Wholesaling	Agriculture-Related Retailing	Total Agriculture-Related Employment
Allegany	2,030	388	113	425	2,956
Cattaraugus	3,931	1,549	341	820	6,641
Cayuga	3,656	688	346	720	5,410
Chautauqua	9,814	3,217	835	1,412	15,278
Chemung	998	1,418	345	1,019	3,780
Chenango	2,517	920	269	318	4,024
Clinton	3,686	1,567	168	564	5,985
Columbia	3,067	267	263	532	4,129
Cortland	1,819	457	172	486	2,934
Delaware	3,331	824	175	334	4,664
Essex	913	879	0	284	2,076
Franklin	2,185	863	53	305	3,406
Fulton	503	3,661	0	422	4,586
Genesee	5,076	778	580	531	6,965
Greene	748	52	0	412	1,212
Hamilton	2	100	0	0	102
Herkimer	2,328	1,364	88	471	4,251
Jefferson	3,376	1,974	456	856	6,662
Lewis	2,099	1,470	93	142	3,804
Livingston	3,071	343	193	475	4,082
Madison	3,164	495	254	567	4,480
Montgomery	1,718	2,929	338	413	5,398
Ontario	4,157	857	243	786	6,043
Orleans	6,497	500	106	356	7,459
Oswego	2,609	4,418	135	1,060	8,222
Otsego	3,265	646	350	466	4,727
Putnam	244	0	84	581	909
Rensselaer	1,288	783	284	1,406	3,761
St. Lawrence	4,970	1,932	178	940	8,020
Saratoga	1,835	2,537	168	1,247	5,787
Schenectady	568	673	333	1,667	3,241
Schoharie	1,809	329	0	171	2,309
Schuyler	1,214	100	0	76	1,390
Seneca	1,374	109	0	250	1,733
Steuben	5,314	1,459	279	945	7,997
Sullivan	1,594	281	220	473	2,568
Tioga	1,967	390	68	390	2,815
Tompkins	2,096	54	46	812	3,008
Ulster	3,225	375	578	1,528	5,706
Warren	174	1,393	95	654	2,316
Washington	2,849	1,426	63	346	4,684
Wayne	8,549	2,583	311	715	12,158
Wyoming	3,375	282	167	365	4,189
Yates	4,366	250	92	150	4,858
Metropolitan Counties					
Albany	1,705	3,625	1,610	3,478	10,418
Bronx	131	4,868	5,252	8,970	19,221
Broome	2,017	2,839	610	2,246	7,712
Dutchess	2,556	1,071	383	2,270	6,280
Erie	6,074	10,624	3,890	13,966	34,554
Kings	204	21,704	5,721	15,425	43,054
Monroe	4,940	5,539	1,400	7,501	19,380
Nassau	2,670	5,514	4,771	16,805	29,760
New York	506	16,246	12,645	16,415	45,812
Niagara	5,908	3,138	299	2,497	11,842
Oneida	4,200	2,502	947	2,640	10,289
Onondaga	2,739	4,426	2,763	5,980	15,908
Orange	5,591	2,631	835	2,887	11,944
Queens	342	18,262	4,353	15,464	38,421
Richmond	107	606	111	2,772	3,596
Rockland	441	934	251	2,948	4,574
Suffolk	7,159	6,685	2,938	12,515	29,297
Westchester	1,898	4,273	2,997	9,593	18,761
SUMMARY:					
Rural Counties	123,371	47,580	8,882	26,892	206,725
Metropolitan Counties	49,188	115,487	51,776	144,372	360,823
New York State	172,559	163,067	60,658	171,264	567,548

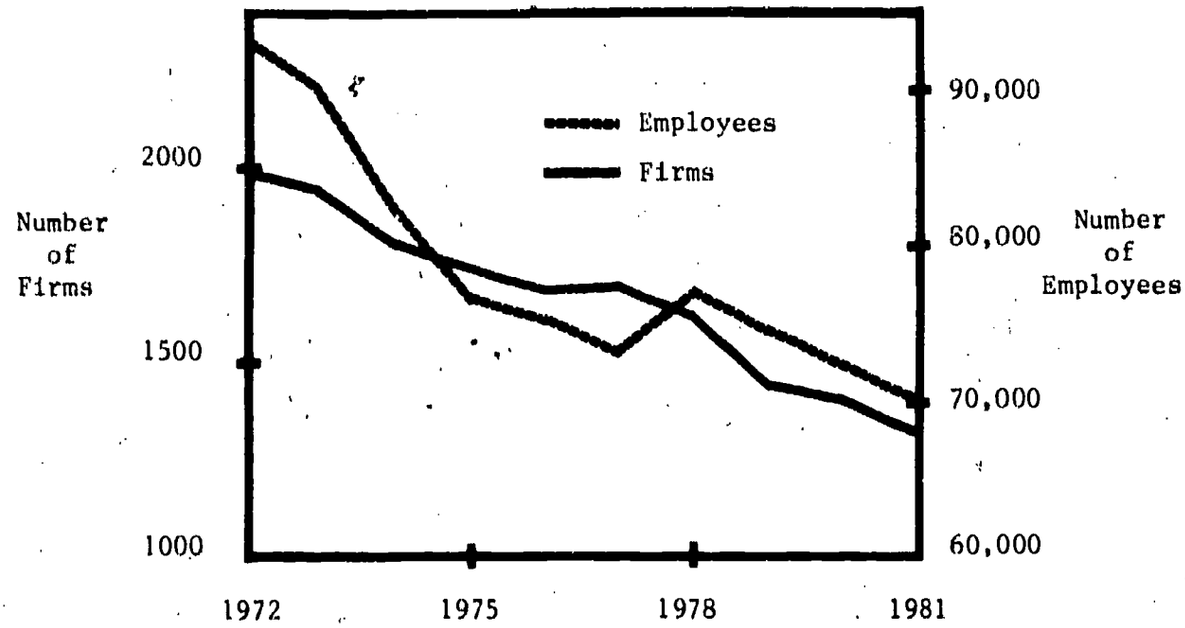
SOURCES: U.S. Department of Commerce, Bureau of the Census, 1978 Census of Agriculture; County Business Patterns 1978, New York.

AGRICULTURE-RELATED EMPLOYMENT COMPARED TO TOTAL EMPLOYMENT IN NEW YORK COUNTIES, 1978

	Total Agriculture-Related Employment	Total County Employment	Agriculture-Related Employment: % of County
Rural Counties			
Allegany	2,956	18,148	16%
Cattaraugus	6,641	32,320	21%
Cayuga	5,410	29,093	19%
Chautauqua	15,278	59,723	26%
Chemung	3,780	35,540	11%
Chenango	4,024	20,091	20%
Clinton	5,985	26,770	22%
Columbia	4,129	20,875	20%
Cortland	2,934	19,381	15%
Delaware	4,664	17,938	26%
Essex	2,076	13,277	16%
Franklin	3,406	15,459	22%
Fulton	4,586	23,315	20%
Genesee	6,965	22,741	31%
Greene	1,212	15,046	8%
Hamilton	102	2,127	5%
Herkimer	4,251	24,159	18%
Jefferson	6,662	33,452	20%
Lewis	3,804	9,401	40%
Livingston	4,082	23,895	17%
Madison	4,480	27,049	17%
Montgomery	5,398	23,139	23%
Ontario	6,043	37,167	16%
Orleans	7,459	16,472	45%
Oswego	8,222	45,124	18%
Otsego	4,727	23,023	21%
Putnam	909	27,935	3%
Rensselaer	3,761	63,855	6%
St. Lawrence	8,020	37,790	21%
Saratoga	5,787	62,793	9%
Schenectady	3,241	65,426	5%
Schoharie	2,309	10,082	23%
Schuyler	1,390	6,633	21%
Seneca	1,733	13,618	13%
Steuben	7,997	38,634	21%
Sullivan	2,568	22,289	12%
Tioga	2,815	21,109	13%
Tompkins	3,008	31,445	10%
Ulster	5,706	53,923	11%
Warren	2,316	19,177	12%
Washington	4,684	20,356	23%
Wayne	12,158	34,948	35%
Wyoming	4,189	16,102	26%
Yates	4,858	7,727	63%
Metropolitan Counties			
Albany	10,418	121,171	9%
Bronx	19,221	480,730	4%
Broome	7,712	92,563	8%
Dutchess	6,280	93,628	7%
Erie	34,554	412,316	8%
Kings	43,054	885,813	5%
Monroe	19,380	301,389	6%
Nassau	29,760	578,247	5%
New York	45,812	528,320	9%
Niagara	11,842	91,488	13%
Oneida	10,289	96,450	11%
Onondaga	15,908	194,061	8%
Orange	11,944	92,407	13%
Queens	38,421	755,533	5%
Richmond	3,596	131,604	3%
Rockland	4,574	103,717	4%
Suffolk	29,297	538,636	5%
Westchester	18,761	398,157	5%
SUMMARY:			
Rural Counties	206,725	1,188,567	17%
Metropolitan Counties	360,823	5,896,230	6%
New York State	567,548	7,084,797	8%

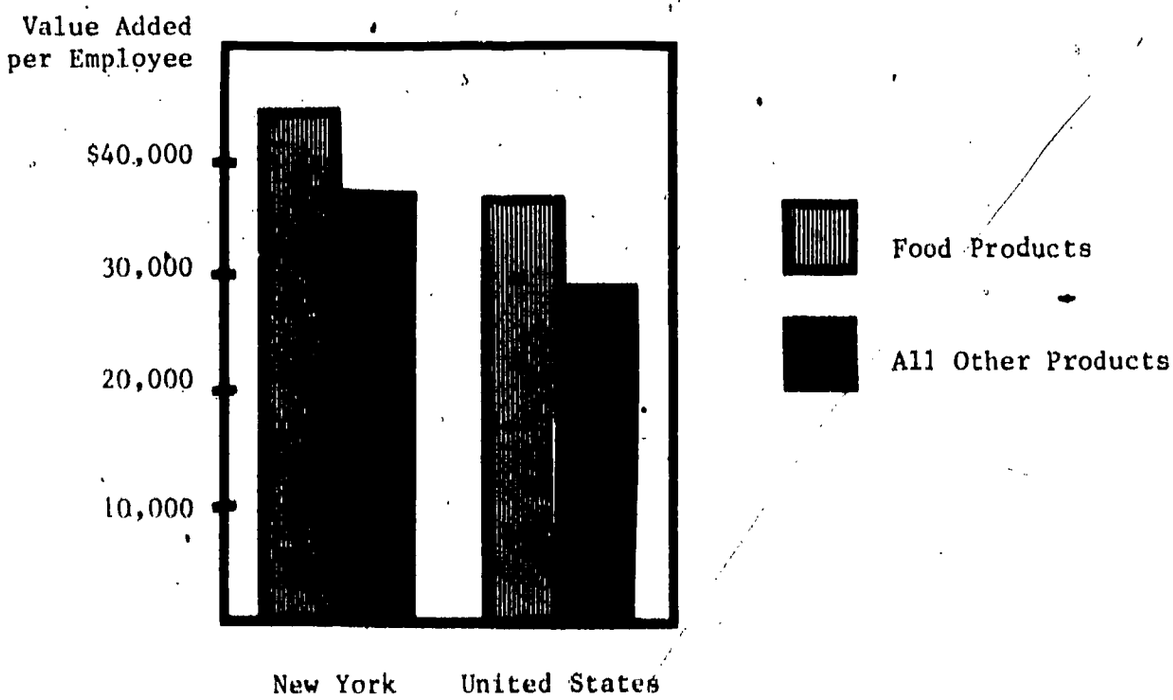
SOURCES: New York State Department of Labor, Division of Research and Statistics; 1978 Census of Agriculture, New York; County Business Patterns 1978, New York.

TRENDS IN NEW YORK STATE FOOD MANUFACTURING SECTOR
1972 TO 1981



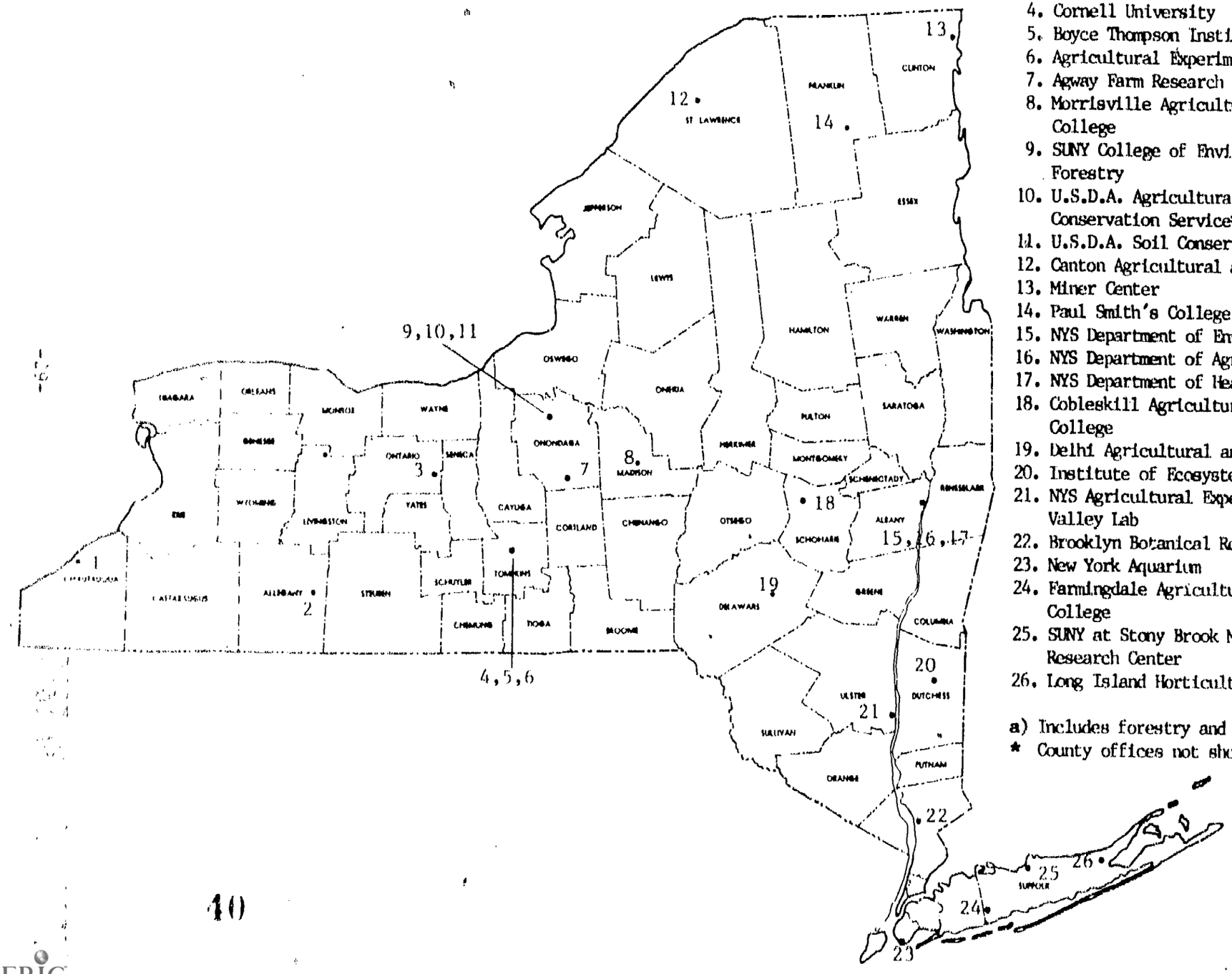
Source: County Business Patterns, New York. U.S. Department of Commerce, Bureau of the Census. 1972 to 1981.

VALUE ADDED IN THE MANUFACTURE OF FOOD PRODUCTS
COMPARED TO OTHER MANUFACTURING INDUSTRIES:
NEW YORK AND THE UNITED STATES, 1977



Source: M.S. Law. New York State Food Industry, Cornell University Agricultural Economics Research Bulletin 81-3, 1981.

ADVANCEMENT OF A POTENT AGRICULTURE INDUSTRY RESEARCH AND DEVELOPMENT NETWORK (ILLUSTRATIVE FACILITIES IN NEW YORK STATE) 1984



Agriculture Industry Related Research and Development Facilities a)

1. NYS Agricultural Experiment Station, Vineyard Laboratory
2. Alfred Agricultural and Technical College
3. NYS Agricultural Experiment Station
4. Cornell University
5. Boyce Thompson Institute for Plant Research
6. Agricultural Experiment Station
7. Agway Farm Research Center
8. Morrisville Agricultural and Technical College
9. SUNY College of Environmental Science and Forestry
10. U.S.D.A. Agricultural Stabilization and Conservation Service*
11. U.S.D.A. Soil Conservation Service*
12. Canton Agricultural and Technical College
13. Miner Center
14. Paul Smith's College
15. NYS Department of Environmental Conservation
16. NYS Department of Agriculture and Markets
17. NYS Department of Health
18. Cobleskill Agricultural and Technical College
19. Delhi Agricultural and Technical College
20. Institute of Ecosystem Studies
21. NYS Agricultural Experiment Station Hudson Valley Lab
22. Brooklyn Botanical Research Center
23. New York Aquarium
24. Farmingdale Agricultural and Technical College
25. SUNY at Stony Brook Marine Sciences Research Center
26. Long Island Horticultural Research Lab

a) Includes forestry and aquaculture
* County offices not shown