

S.C. TRATTEL

December 1987

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New York
Economic Handbook
1988

AGRICULTURAL SITUATION and OUTLOOK

Prepared by
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A Statutory College of the State University
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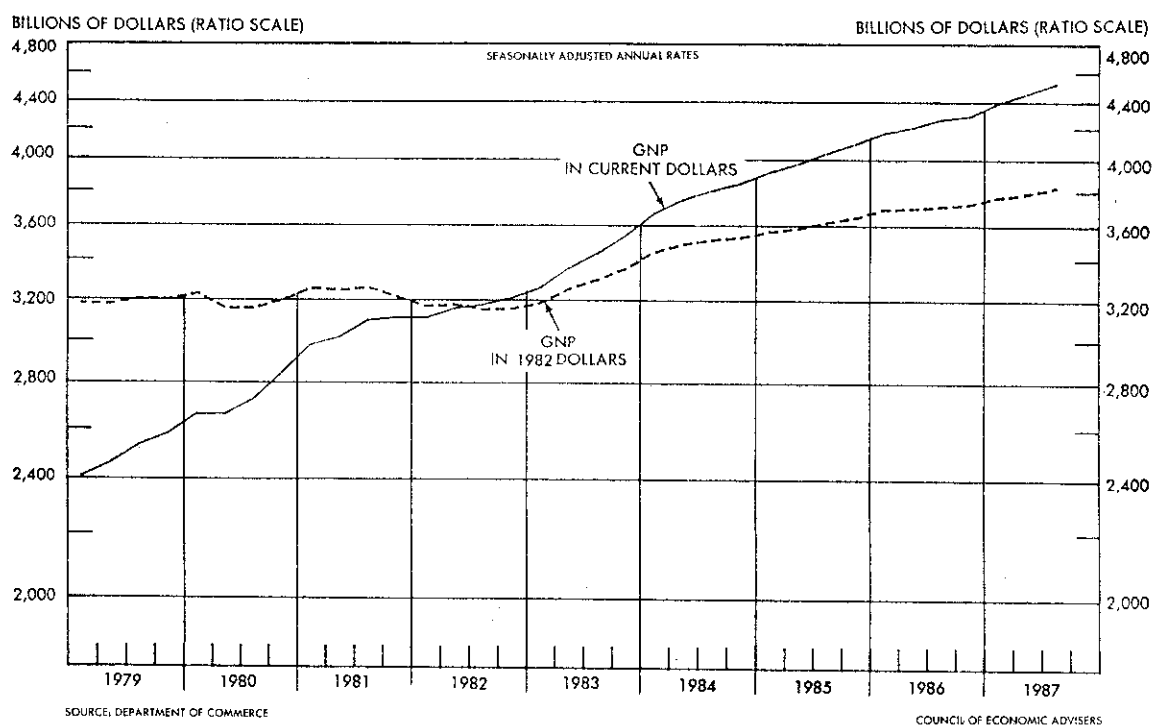
²Animal Science.

³Extension Specialist.

This publication contains information pertaining to the general economic situation and New York agriculture. It is prepared primarily for use of professional agricultural workers in New York State. USDA reports provide current reference material pertaining to the nation's agricultural situation.

"Current Economic Situation" is a two-page monthly release that carries the latest figures for selected economic indicators and highlights current developments. This release is a supplement to the Economic Handbook and is available to anyone requesting to be on the mailing list by writing to Department of Agricultural Economics, Cornell University, 40 Warren Hall, Ithaca, New York 14853-7801.

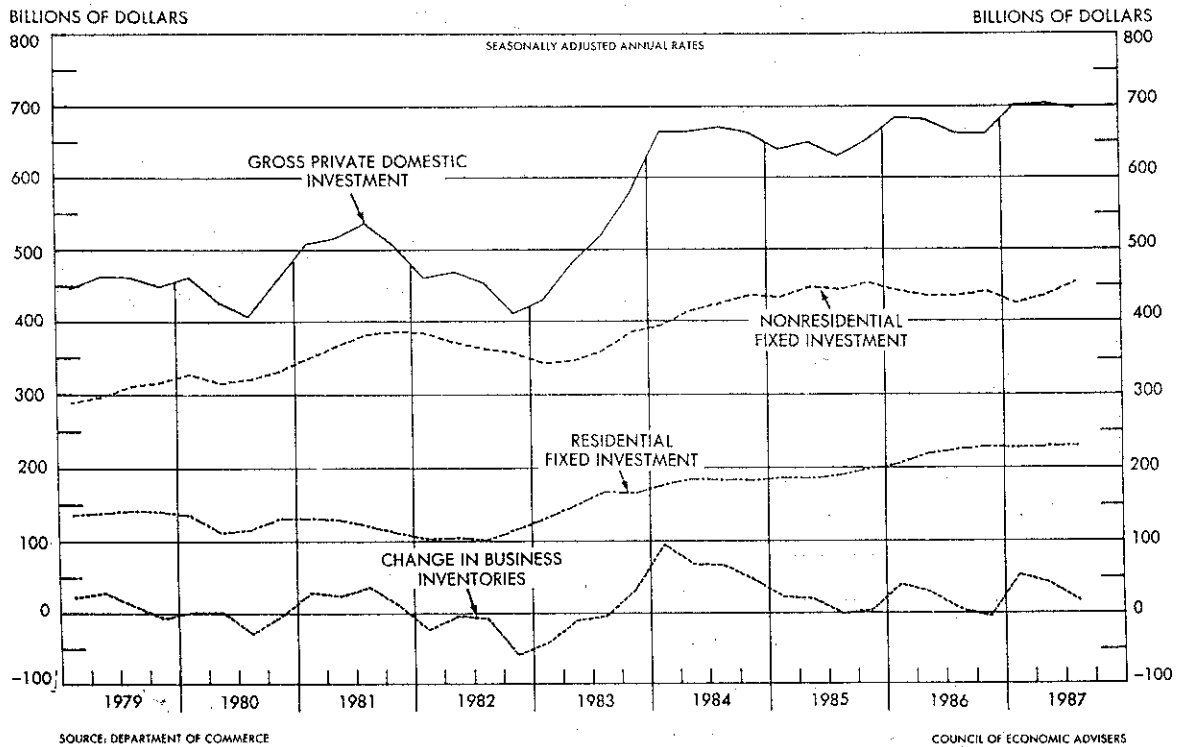
TOTAL OUTPUT, INCOME, AND SPENDING Components of Gross National Product



	Gross national product	Personal consumption expenditures	Gross private domestic investment	Government purchase goods and services	Net exports
- billions of current dollars -					
1980	2732	1733	437	530	32
1981	3053	1915	516	588	34
1982	3166	2051	447	642	26
1983	3406	2235	502	675	-6
1984	3772	2430	665	736	-59
1985	4010	2629	642	818	-79
1986	4235	2800	671	870	-106
1987	(4480)	(2975)	(700)	(925)	-120

The economy has continued to grow slowly but steadily since the final quarter of 1982. In the third quarter of 1987, real GNP increased at a rate of ~~3.4~~ 3.7 percent completing nearly five years of expansion without a quarter with a decrease in real GNP. Personal consumption expenditures have increased from 62.7 percent of GNP in 1981 to over 66 percent in both 1986 and 1987. Personal consumption has come at the expense of private domestic investment which fell from 17.6 percent of GNP in 1984 to 15.6 percent in 1987. Much of increased government expenditure and personal consumption has been paid for by the negative balance in exports since 1982. We are consuming more than we produce.

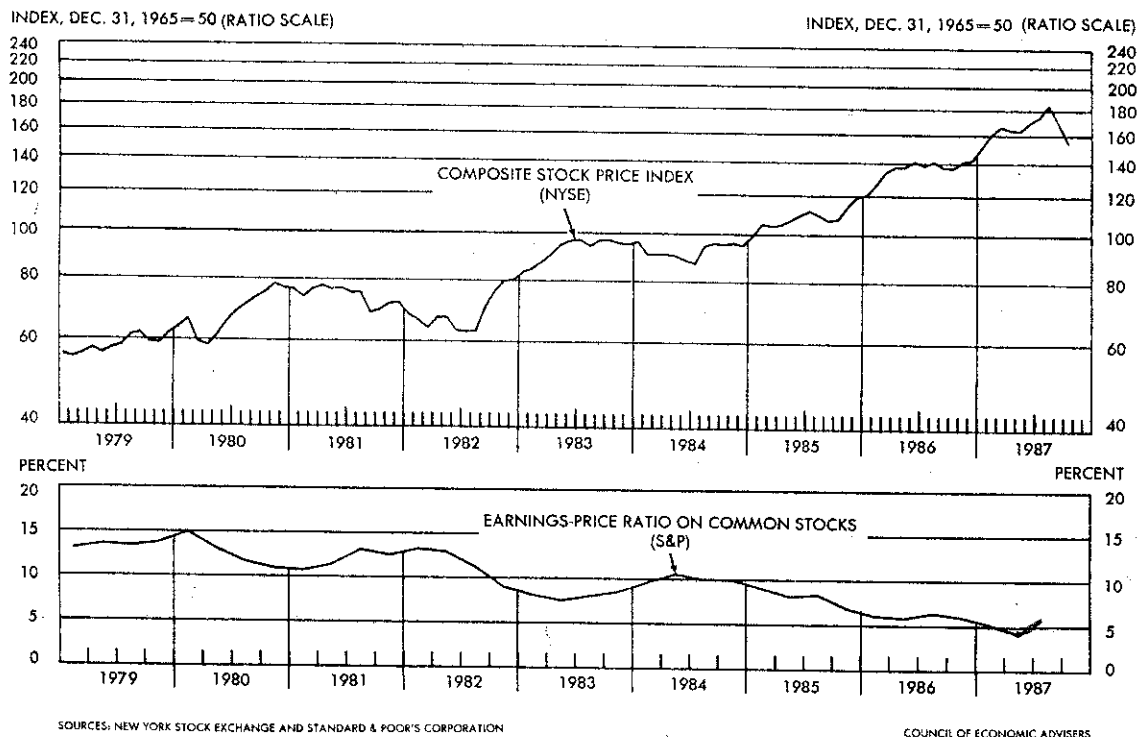
GROSS PRIVATE DOMESTIC INVESTMENT



	Gross private investment	Residential fixed	Non-residential Structures	Durables Equipment	Changes in business inventories
- billions of current dollars -					
1980	437	122	114	209	-8
1981	516	122	139	231	24
1982	447	105	143	223	-24
1983	502	152	124	233	-7
1984	665	181	141	275	68
1985	642	189	153	290	10
1986	671	218	137	300	16
1987	(700)	228	132	312	28

The components of private domestic investment are a closely watched indicator of growth or slowdowns in the economy. Investment by business in durables and equipment has increased steadily while that for plants and structures has slowed since 1985. Residential investment has steadily increased every quarter since 1983. October 1987 provided a sharp downturn of eight percent in housing starts reflecting increased mortgage rates and uncertainty in the economy. Another sign of business concern is a decrease in rates of adding to inventories in each successive quarter in 1987.

COMMON STOCK PRICES AND YIELDS New York Stock Exchange, 1979-1987



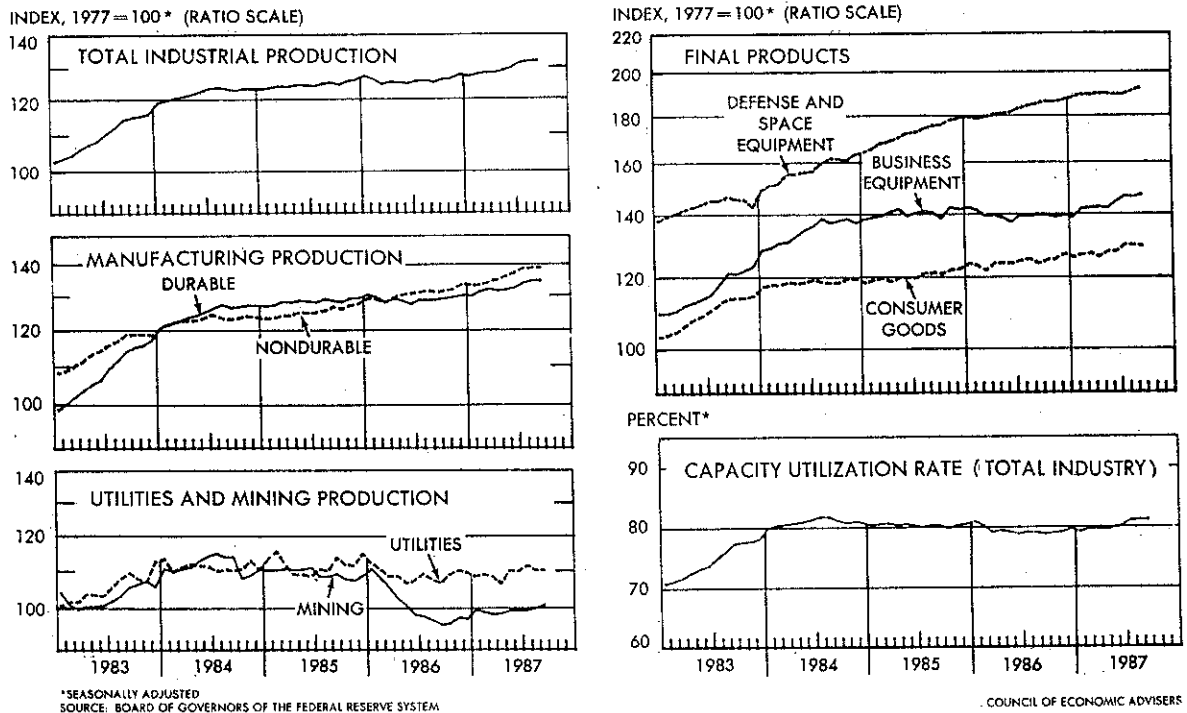
The Dow Jones average and other stock market indices are among the most closely followed economic indicators in both the United States and the rest of the industrialized world. Expectations about the economy are reflected in changes in stock prices and the ratio of earnings to prices. A major correction in stock prices occurred in October and November 1987 bringing the composite index back to year earlier levels. Uncertainty about rates of growth in the U.S. and world economies, the continuing government deficit, and questions about U.S. ability to manage debt have made investors nervous.

Corporate profits before and after taxes in 1987 have been positive and did not signal the market downturn in October.

<u>Profits before taxes</u>	<u>- billions -</u>	<u>Profits after taxes</u>
-----------------------------	---------------------	----------------------------

1982	\$170	\$107
1983	208	130
1984	240	146
1985	225	128
1986	232	127
1987 (I)	257	129
(II)	269	135

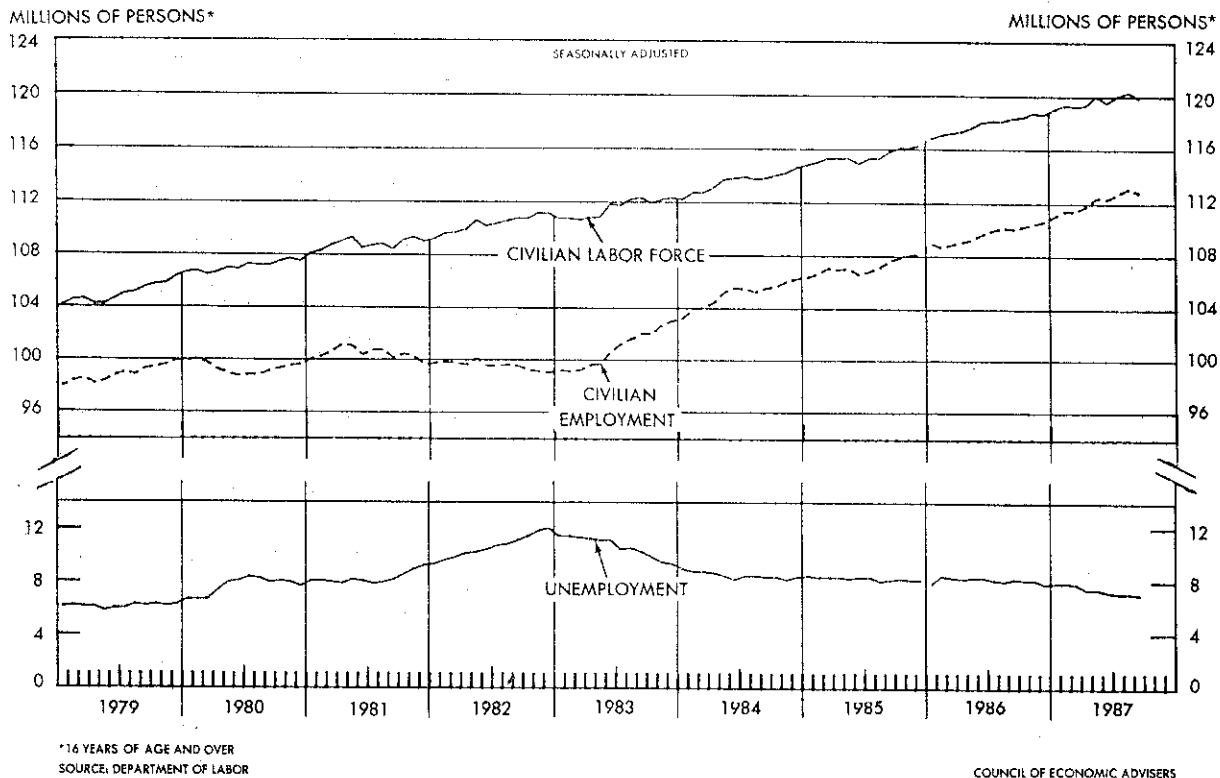
INDUSTRIAL PRODUCTION AND CAPACITY UTILIZATION



Industrial production has been a strong point for the economy in 1987. In September 1987, the index was more than five percent above the level of 12 months earlier. The rise was slow but steady throughout the year. Production of both durables and nondurables rose. Even mining moved upward slightly. Trends were generally upward in all the index numbers including capacity utilization. These small, but steady gains reflected the general climate of business optimism during much of 1987.

Industrial production in 1988 is likely to level off except in those markets where the falling dollar relative to other currencies may allow exports to increase. Areas like construction equipment, aircraft, specialty tools and business equipment will benefit. Defense spending is likely to hold steady but not increase. Consumers are spending almost all their incomes already. With both Presidential and Congressional elections in 1988, there will be substantial efforts to keep the economy moving on a steady and even keel. After five years without a substantial downturn, the possibility of recession remains very real, especially if world confidence in the U.S. economy deteriorates. In an uncertain environment, stable industrial production is a positive forecast.

STATUS OF THE LABOR FORCE



The civilian labor force has grown steadily since 1983 at about two million per year and in September 1987 numbered 120 million people. A little over 65 percent of the people 16 and over are in the labor force as compared with 63 percent a decade ago.

Unemployment rates have fallen steadily each year from the peak levels at the end of 1982. In 1987, the numbers of people unemployed dropped by one million over a span of 12 months; the number of part-time workers decreased as full-time workers increased.

Employment in the service industries continues to claim higher proportions of the total labor force. Traditional manufacturing and industrial jobs are a less important component of the total. If the economy continues to grow steadily in 1988, the job market should recover from the scare of the October-November 1987 stock market correction. A relatively small number of people lost substantial buying power in the stock market correction. Employment should continue to increase unless there is a major shock in the world economy.

CHANGES IN PRODUCER AND CONSUMER PRICES

Year	Consumer Price Index		Producer Prices		
	All items	Foods	All finished goods	All intermediate goods	All crude materials
(1967 = 100)					
1979	217.4	234.5	217.7	242.2	274.3
1980	246.8	254.6	247.0	280.3	304.6
1981	272.4	274.6	269.8	306.0	329.0
1982	289.1	285.7	280.7	310.4	319.5
1983	298.4	291.7	285.2	312.3	323.6
1984	311.1	302.9	291.1	320.0	330.8
1985	322.2	309.8	293.7	318.7	306.1
1986	328.4	319.7	289.7	307.6	280.3
1987	(340.0)	(332.0)	(297.0)	(314.0)	(302.0)

Sources: Department of Commerce; Council of Economic Advisers.

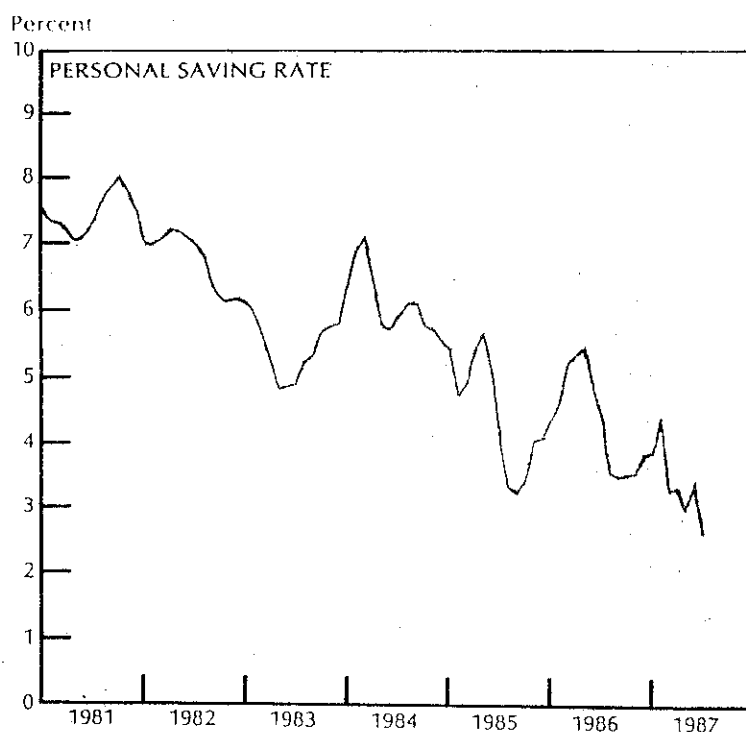
Double digit inflation so evident for all five of the consumer and producer index numbers listed above between 1979 and 1980 has been held in check from 1983 onward. Annual rates of increase have held between two and five percent for the past five years. Producer prices for finished and intermediate goods actually decreased between 1985 and 1986. Now that oil prices have risen again in 1987, other producer and consumer prices have increased accordingly and that trend is likely to continue.

Wage rates, which contribute more to changes in consumer prices than producer prices, have been held at modest levels in both 1986 and 1987 averaging between five and six percent. Thus, productivity gains (real output per worker) have averaged one to two percent annually. The major components of the Consumer Price Index and their rates of change between September 1986 and 1987 are listed below:

<u>Component</u>	<u>Weight</u>	<u>Sept. 86</u>	<u>Sept. 87</u>	<u>Percent Change</u>
	(percent)	(1967 = 100)		(percent)
Housing	42.9	361.8	373.1	3.1
Transportation	17.2	302.2	320.5	6.1
Food	16.2	323.9	335.6	3.6
Apparel	6.3	208.9	218.3	4.5
Medical care	5.4	440.6	468.6	6.4
Total	100.0	330.2	344.4	4.3

Both producer and consumer prices should not be expected to change rapidly in the years ahead unless the world economy experiences some kind of shock.

PERSONAL SAVING RATE AND CONSUMER DEBT



Sources: U.S. Department of Commerce, Bureau of Economic Analysis; and The Conference Board.

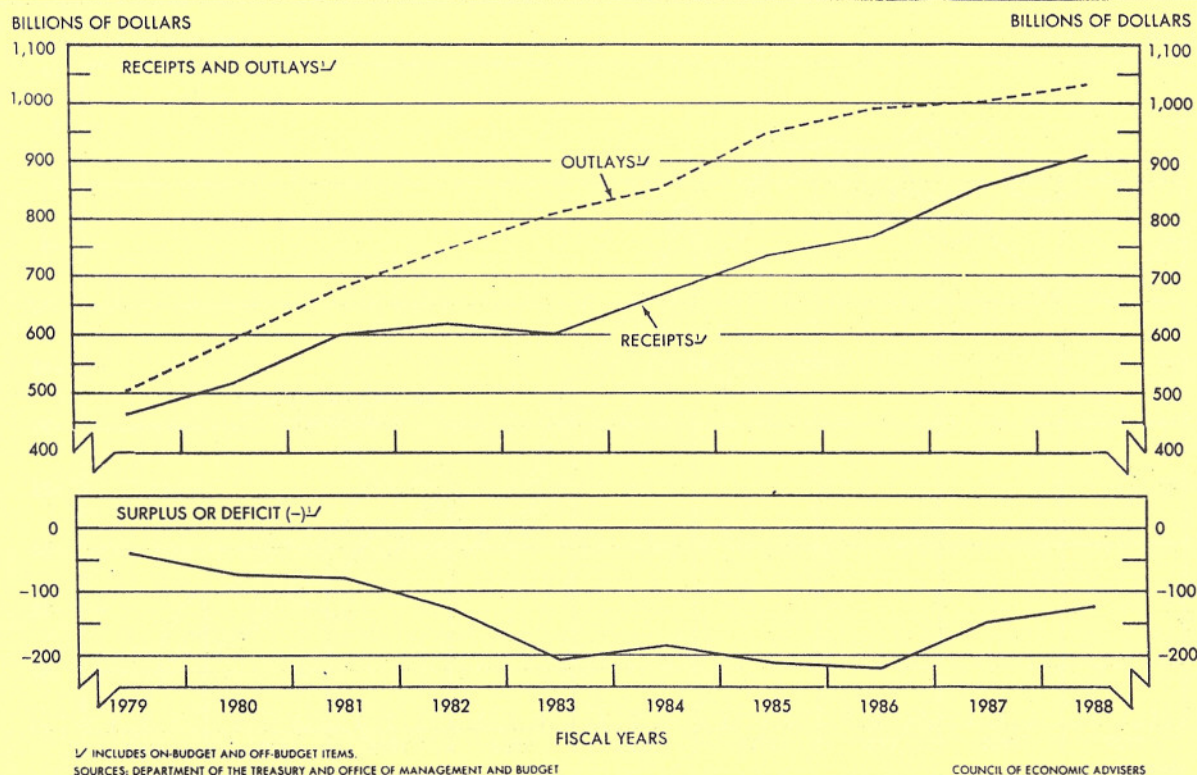
CONSUMER INSTALLMENT CREDIT

Year	Total credit outstanding	Auto loans	Auto loans as percent of total
	- billions -		- percent -
December 1978	\$262	\$ 99	38
December 1980	296	112	38
December 1982	325	125	38
December 1984	446	172	39
December 1985	523	208	40
December 1986	577	245	42
December 1987	(610)	(265)	43

Personal savings as a percentage of personal disposal income has persistently trended downward in the 1980s. At the same time, consumer installment credit has steadily increased with auto loans the largest component making up an increasing share of the total. An optimist views these trends as indicating that Americans have tremendous confidence in the economy and the future. Pessimists (some say realists) note that we are spending more than we earn. The danger point in the American economy is reliance on steady expansion based on consumption, short-term debt, and low rates of saving compared to West Europeans or the Japanese.

FEDERAL FINANCE

The Federal Deficit and Debt

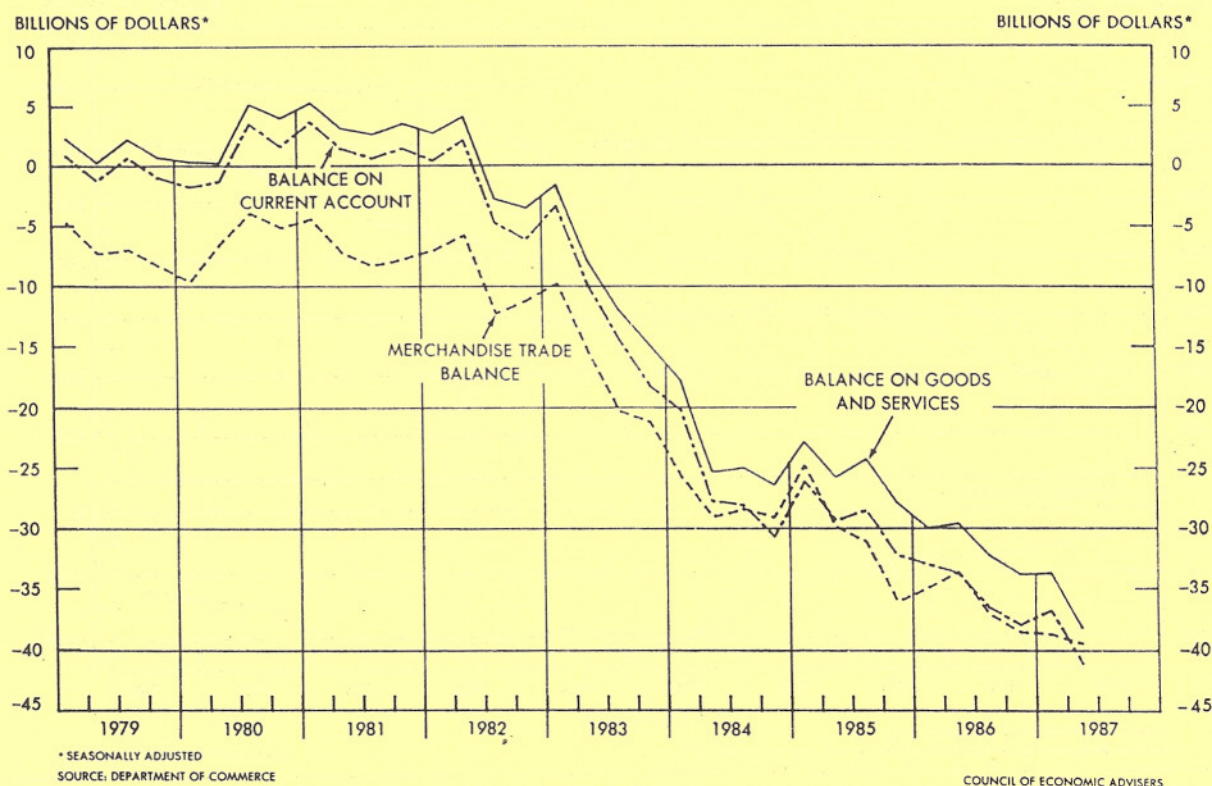


Year	Government			Accumulated debt
	Receipts	Outlays	Deficit	
<u>- billions of dollars -</u>				
1975	\$279	\$ 332	-53	\$ 544
1980	517	591	-74	914
1985	734	946	-212	1828
1986	769	990	-221	2130
1987	854	1002	-148	2354
1988 (est)	(909)	(1032)	(-123)	(2587)

The size of the federal deficit and escalation in the growth of the federal debt continues as a major issue for the national economy. The gap between receipts and outlays has begun to narrow but progress has been slow and painful. In 1975, the federal debt was equivalent to 34 percent of GNP that year. In 1987, it amounted to 53 percent as this generation has consumed now at the expense of future generations.

Control of the federal deficit remains a top priority issue both for the U.S. economy and for international economic stability. Progress on this issue is fundamental to the nation's economic health.

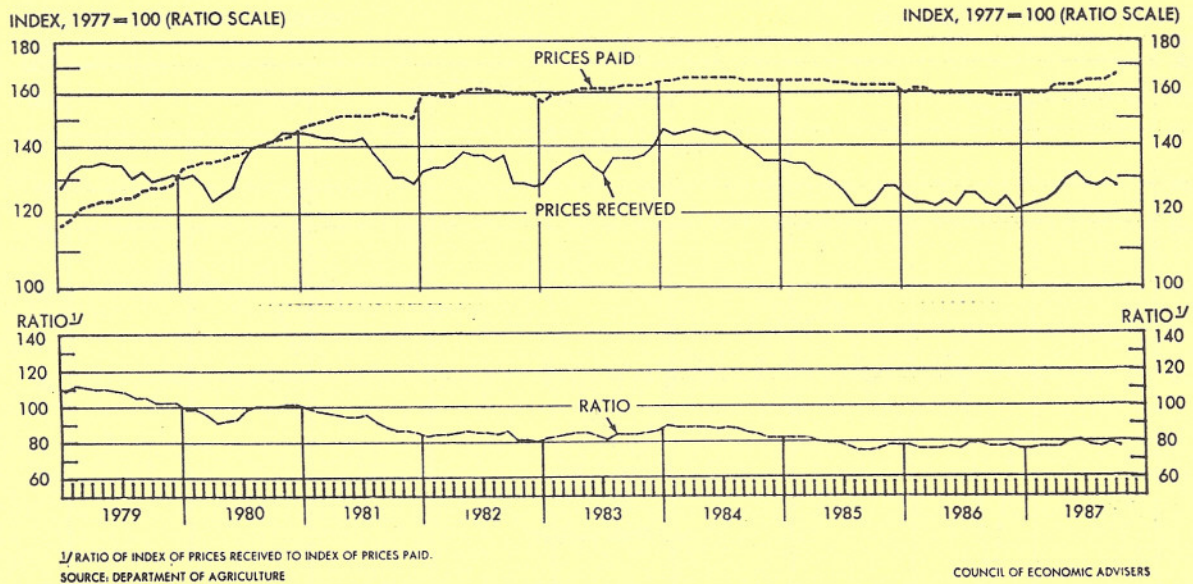
U.S. INTERNATIONAL TRANSACTIONS



The seriousness of the trade deficit and its long-term implications are dramatically illustrated in the figure above. The degree to which the rest of the industrialized world has had to finance American consumption since 1981 is strikingly evident. The negative merchandise trade balance had been roughly equalized by positive returns in investments and services until mid-1982. The negative balance, however, continued to grow each successive year despite a turnaround in the value of the dollar relative to the currencies of Japan and Western European countries in 1985. The first signs of a change in direction appeared in October 1987. This important economic indicator will be closely watched in 1988. If confidence in the U.S. economy is to be restored, these balances must turn upward in the next four quarters. Further deterioration will be extremely difficult to manage without loss of confidence in the U.S. economy.

<u>Year</u>	<u>Net balance on goods and services</u>
	<u>- billions -</u>
1980	\$ 9.5
1982	0.2
1984	-94.8
1985	-101.1
1986	-125.7
1987	(-140.0)

PRICES RECEIVED AND PAID BY FARMERS

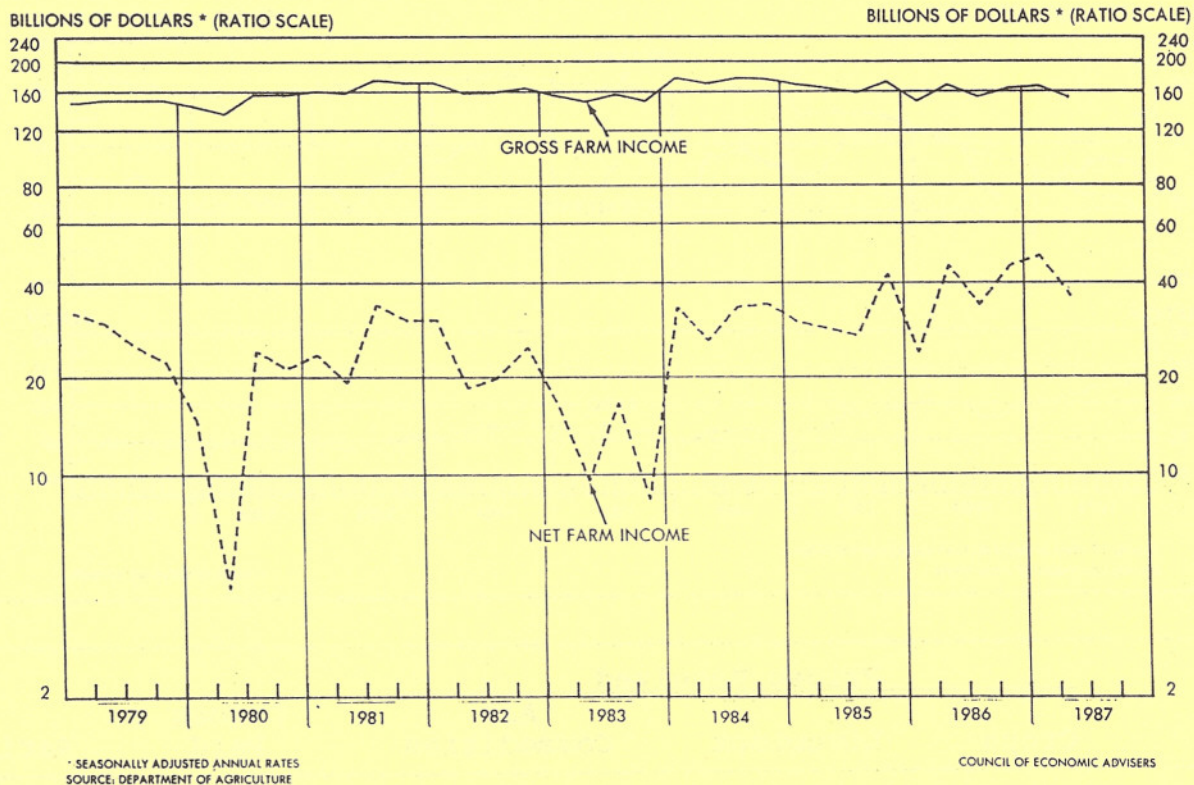


Year	Prices Received			Prices Paid	Ratio
	Crops	Livestock	All Commodities		
(1977 = 100)					
1980	125	144	134	138	97
1981	134	143	139	150	92
1982	121	145	133	159	84
1983	128	141	135	161	84
1984	139	146	142	165	86
1985	120	136	128	163	79
1986	106	138	123	159	77
1987	(105)	(146)	(126)	(163)	(78)

The gap between prices received and prices paid by farmers has grown larger in the 1980s especially for crop producers. The conscious decision to drop price supports for grains (loan rates) in the Food Security Act of 1985 further widened the gap that already existed. If one calculated separate ratios for the index of prices received and paid, for crop producers and livestock producers in 1986, the ratios would have been 67 and 87, respectively. But, even though the overall index of crop prices fell dramatically in 1986, direct government payments of more than \$10 billion made up much of the difference. Livestock producers have benefitted from lower feed grain prices in both 1986 and 1987.

Corn prices in both cash and futures markets remain close to national loan rates (\$1.82 per bushel) adjusted for storage costs and distance from market. Wheat prices in contrast have been maintained above loan rates (\$2.17 per bushel) and range from \$2.50-3.00 per bushel in cash and futures markets. Stocks of grains in the United States and other exporting countries strongly influence these major components of the prices received index.

FARM INCOME AND EXPENSES



Year	United States			New York net farm income
	Gross farm income	Production expenses	Net farm income	
	- billions -			millions
1980	\$149	\$133	\$16	\$345
1981	166	139	27	401
1982	164	140	24	389
1983	153	140	13	173
1984	175	143	32	365
1985	166	134	32	450
1986	160	122	38	(598)
1987	(160)	(117)	(43)	(550)

Gross farm income and aggregate production expenses for all farms in the United States have decreased in each of the years since 1984. At the same time, net farm income in the aggregate has held steady or increased. Direct government payments amounting to \$7.7, \$11.8, and approximately \$15 billion in 1985, 1986, and 1987, respectively, have been important factors in keeping net farm income from falling. Lower grain prices have aided livestock producers so that financial stress on farms, particularly in the Corn Belt and Great Plains, has been reduced in 1987. Livestock farmers may fare less well in 1988 in comparison to 1987 as somewhat lower prices for meat animals, milk and poultry seem likely and petroleum-related inputs increase in prices.

CROPLAND USE AND EXCESS CAPACITY

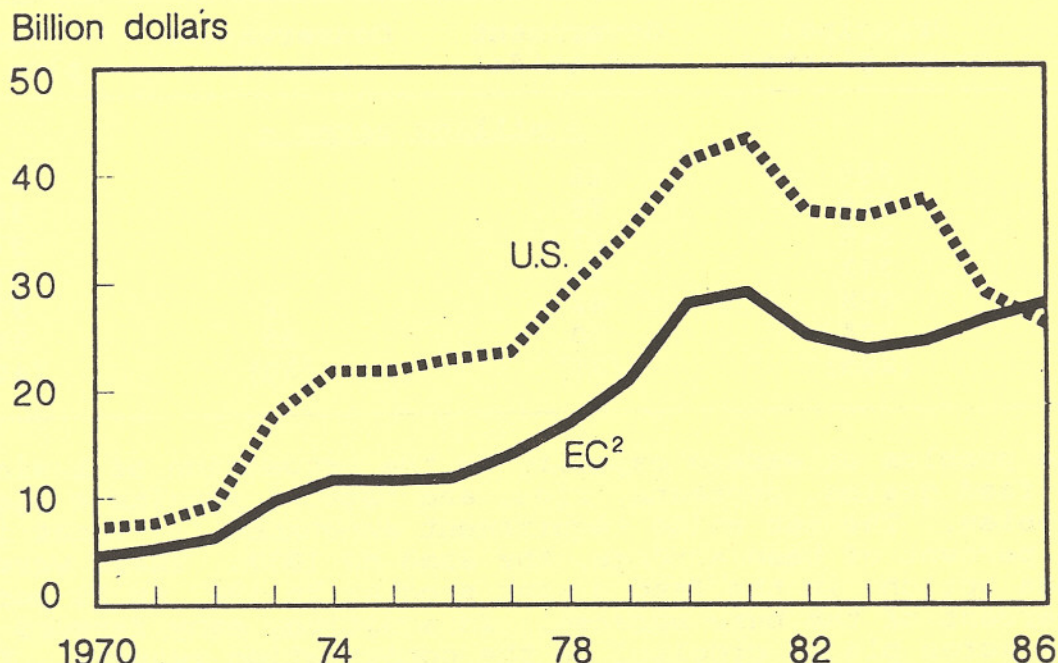
Year	Principal crops planted	Government set aside	Conservation reserve	Planted plus idled
<u>- million acres -</u>				
1982	359	11		370
1983	310	78		388
1984	345	27		372
1985	342	31		373
1986	328	42	2	372
1987	304	70	23	397
1988	(295)	(75)	(30)	(400)

The problem of excess capacity in the production of basic crops (wheat, feed grains, soybeans, rice, and cotton) remains a significant problem. The set aside requirement announced for wheat in 1988 is 27.5 percent of base acreage, the same as 1987. There were two set aside options in the feed grains program in 1987 at 20 percent or 35 percent of the base acreage. In addition, many farmers with eligible acres placed cropland in the conservation reserve. The Food Security Act of 1985 calls for a minimum of 40 and a maximum of 45 million acres to be brought into this program before 1990. These are ten-year rental agreements with land committed to conservation uses. A total of 536,300 acres are eligible for the reserve in New York State. The largest areas eligible are in the Great Plains and Corn Belt.

CARRYOVER STOCKS OF WHEAT AND CORN
AS PERCENT OF PRODUCTION IN U.S.

Year	Production	Ending stocks	Stocks as percent of production	Farm price per bushel
<u>- million bushels -</u>		<u>- percent -</u>		
<u>Wheat:</u>				
1982-83	2765	1515	55	\$3.45
1983-84	2420	1399	58	3.51
1984-85	2595	1425	55	3.39
1985-86	2425	1905	79	3.08
1986-87	2092	1821	87	2.42
1987-88	2105	(1386)	66	(2.50)
<u>Corn:</u>				
1982-83	8235	3523	43	\$2.55
1983-84	4175	1006	24	3.21
1984-85	7674	1648	21	2.63
1985-86	8877	4040	46	2.23
1986-87	8253	4882	59	1.50
1987-88	(7166)	(4325)	(60)	(1.75)

Source: USDA.

EC AND U.S. AGRICULTURAL EXPORTS¹

^{1/} Excluding intra-EC trade.

^{2/} EC-6 from 1970 through 1973; EC-9 1974-80; EC-12 from 1985.

Source: USDA, ERS, WAS-49, September 1987.

Accumulated stocks of wheat and feed grains have led to intense competition for shares in world markets between the U.S., the EC, Canada, Australia, and Argentina. Export prices have fallen rapidly. Export subsidies from the EC have been met by the U.S. in 1987. Canada and Australia are pushing hard to bring an end to the export subsidy war. A small reduction in ending stocks for grains is forecast at the end of the 1987-88 marketing year, both in the U.S. and the rest of the world. Increasingly, the potential market for U.S. wheat and feed grains will be the richer of the developing countries of the third world where cash to pay for grains can be found.

WORLD SUPPLY AND USE OF GRAINS
USDA Estimates, 1981-87

Production Year	Production	Utilization	Exports	Ending stocks	Stocks as percent of use
	- million metric tons -				percent
1981-82	1496	1462	210	229	16
1982-83	1548	1505	200	271	18
1983-84	1484	1553	208	204	13
1984-85	1644	1592	219	256	16
1985-86	1665	1574	181	346	22
1986-87	1680	1643	188	384	24
1987-88	(1614)	(1647)	(191)	(351)	21

HIGHLIGHTS OF THE MARKETING COSTS SECTION

Marketing costs include all expenses incurred in transporting food from the farm to consumers. All transformations of the raw product through packing, shipping, processing, manufacturing, and retailing activities are components of marketing costs and represent the value added by marketing.

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Many of the major marketing input costs declined in 1986, but preliminary 1987 figures indicate smaller declines or in some cases increases. The market basket indices show that the farmer's share of the retail food dollar fell to 30 percent in 1986 continuing the long term decline.

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Changes in market basket statistics in year to year changes show that although the retail value has steadily increased, the farm value has declined with major dips occurring in 1983 and 1985. The distribution of the food dollar in the table "What a Dollar Spent on Food Paid for in 1986" shows clearly that the value of marketing activities outweigh farm level activities. The labor portion (34%) of the marketing bill alone is greater than the farm value (25%).

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The 1986 distribution of consumer expenditures shows the difference between the farmers' share of the "at home" food dollar (30%) and "away from home" food dollar (16%). This difference reflects the much greater value added to away-from-home foods in terms of preparation and service. Total food expenditures as a percent of disposable income, declined from 15.0 percent in 1985 to 14.7 percent in 1986, continuing a long-term downward trend.

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A comparison of the distribution of the average household's weekly food spending in grocery stores shows that total spending increased by 3.3 percent in 1986 over the 1985 level. However, the increases in several individual categories, including fresh fish, in-store delis, and prepared drinks were considerably above this average. Conversely, the largest category, fresh meat and provisions, representing over 14 percent of the average household's total weekly grocery store purchases, declined 1.4 percent during this period. The category with the largest decline, 33.7 percent, was wine, liquor and coolers. Interestingly, in 1985, this category showed the second highest growth rate. These dramatic shifts reflect the growth and decline of the market for wine coolers.

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In the past ten years, the total marketing bill portion has increased from two-thirds to three quarters of consumer food spending. In measuring the food retailing efficiency the final table in this series shows that the after tax earnings of food chains have improved since 1980 but still hover around 1 percent of sales.

MEASURING PRICE CHANGES IN FOOD MARKETING INPUTS¹

Cost Item	1982	1983	1984	1985	1986	1987 ²
Annual Percentage Change						
Labor ³	6.7	4.1	2.4	-0.7	-0.9	1.5
Packaging materials	-2.1	2.0	9.6	1.5	1.7	3.7
Paperboard boxes and containers	-1.3	-1.5	12.0	-3.4	-1.0	7.2
Metal cans	5.1	2.9	6.1	4.9	3.2	0.8
Transportation	7.3	0.9	4.4	0.8	-0.6	-2.2
Fuels & electricity	5.4	0.0	1.1	-1.8	-15.7	0.4
Electricity	10.4	2.9	5.3	3.1	1.0	-3.0
Petroleum	-4.2	-11.5	-1.8	-6.7	-39.2	13.3
Natural gas	19.8	16.7	0.6	-0.4	-5.3	-4.9
Maintenance & repair	6.9	4.0	3.6	2.9	2.3	4.2
Supplies	1.9	-0.9	0.7	-0.3	-1.8	1.4
Interest, short term	-19.5	-25.2	14.3	-20.9	-20.4	4.7
Total marketing cost index (FMCI)	5.2	2.5	4.3	0.5	-1.0	1.8

¹Data measure changes in prices for fixed quantities of labor and other inputs used in processing, wholesaling, and retailing farm foods sold through foodstores.

²Second quarter 1987 data versus second quarter 1986 data.

³Hourly earnings and benefits.

Source: Agricultural Outlook, USDA, September 1987.

PRICE INDICES OF MARKET BASKET OF FARM FOODS

Period	Retail Price	Farm Value	Farm Retail Spread	Farmer's Share (Percent)
1980	238.8	239.8	238.3	37
1981	257.1	246.4	263.4	36
1982	266.4	247.8	277.4	34
1983	268.7	242.3	284.3	33
1984	279.3	255.4	293.3	34
1985	282.6	237.1	309.3	31
1986	288.7	234.1	320.8	30
1987 July	305.2	248.4	338.5	30

Source: Agricultural Outlook, USDA, October 1987.

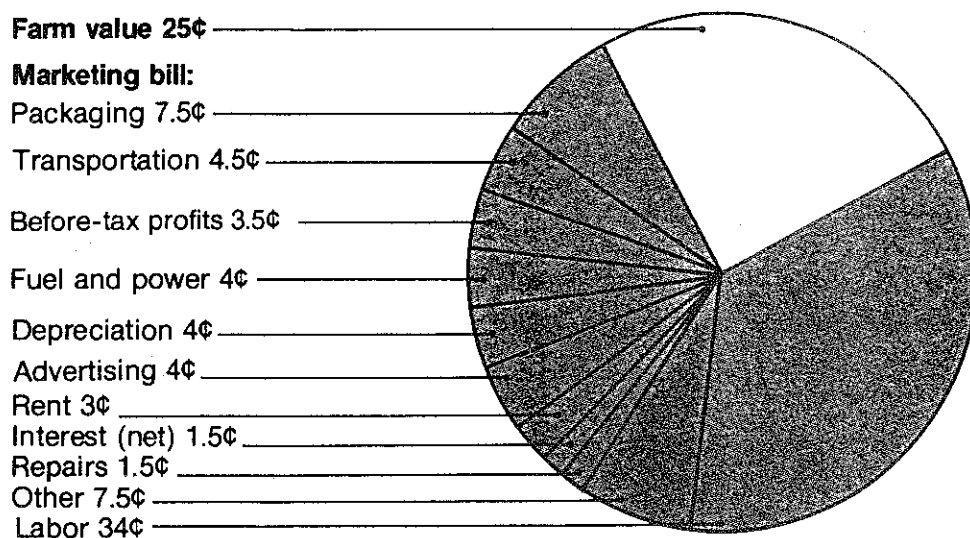
MARKET BASKET STATISTICS

Category	Changes from Previous Years						
	1981	1982	1983	1984	1985	1986	July ¹ 1987
	(Percent)						
Retail cost	7.7	3.8	0.8	3.9	1.2	2.2	5.6
Farm value	2.8	1.0	-2.6	1.4	-7.2	-1.3	3.8
Farm-to-retail spread	10.5	5.1	2.7	3.1	5.5	3.7	6.5

¹July 1987 data versus July 1986 data.

Source: Agricultural Outlook, USDA, October 1987.

WHAT A DOLLAR SPENT ON FOOD PAID FOR IN 1986



1986 preliminary. Other costs include property taxes and insurance, accounting and professional services, promotion, bad debts, and miscellaneous items.

Includes food at home and away from home.

Source: USDA 1987.

WHERE THE FOOD DOLLAR GOES AT HOME VERSUS AWAY

At home

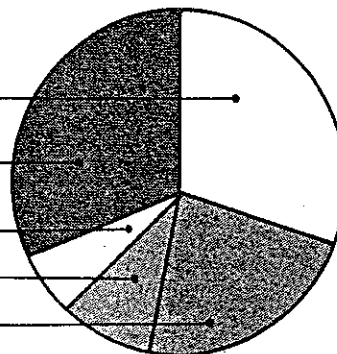
Farm value 30¢

Processing 31¢

Transportation 6¢

Wholesaling 10¢

Retailing 23¢

**Away from home**

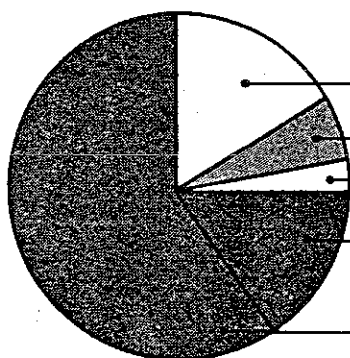
Farm value 16¢

Wholesaling 6¢

Transportation 3¢

Processing 15¢

Foodservice 60¢



1986 data.

Source: USDA 1987

FOOD EXPENDITURES AS PERCENT OF DISPOSABLE INCOME

Year	Total Food, Except Alcoholic Beverages	Food Except Alcoholic Beverages	
		At Home	Away From Home
1976	16.3	12.0	4.3
1977	16.1	11.7	4.4
1978	15.9	11.4	4.5
1979	15.9	11.3	4.6
1980	15.5	11.2	4.3
1981	15.4	10.9	4.5
1982	15.5	11.0	4.5
1983	15.2	10.6	4.6
1984	15.0	10.4	4.6
1985	15.0	10.4	4.6
1986	14.7	10.0	4.7

Source: National Food Review, 1987 Yearbook, Summer 1987.

HOW AN AVERAGE HOUSEHOLD SPENDS ITS
DOLLARS IN GROCERY STORES EACH WEEK

	1985	1986	Change
PERISHABLES			
Baked goods	\$ 2.41	2.46	+ 1.8%
Dairy	4.12	4.19	+ 1.4
Frozen foods	2.87	2.98	+ 3.8
Fresh meat and provisions	8.84	8.73	- 1.4
Fresh fish	.60	.68	+13.5
Fresh poultry	1.57	1.58	+ 0.1
Produce	5.33	5.46	+ 2.3
Instore bakery	.91	.95	+ 4.4
Instore deli	1.29	1.44	+11.7
Total	\$27.97	\$28.47	+ 1.8
DRY GROCERY (FOOD)			
Beer	\$ 2.87	2.95	+ 2.9
Wine, liquor, coolers	1.00	.66	-33.7
Baby food	.38	.38	--
Breakfast foods	1.16	1.22	+ 5.3
Candy and chewing gum	.68	.69	+ 1.0
Canned foods			
Fruits	.33	.34	+ 3.2
Juices and drinks	.72	.74	+ 3.0
Meat and poultry	.34	.32	- 5.3
Milk	.09	.09	--
Seafood and fish	.40	.41	+ 1.8
Soups	.45	.41	- 9.5
Vegetables	.67	.65	- 3.0
Prepared drinks	1.64	1.77	+ 8.2
Dried foods	.52	.54	+ 4.0
Jams, jellies and preserves	.41	.41	--
Macaroni, spaghetti, noodles	.21	.22	+ 1.0
Desserts	.13	.13	--
Soft drinks	1.49	1.53	+ 2.4
Sugar	.33	.32	- 4.2
Miscellaneous	2.50	3.75	+50.0
Total	\$17.13	\$17.50	+ 2.3
Total Foods	\$45.10	\$46.00	+ 2.0
DRY GROCERY (NON-FOOD)			
Paper goods	2.02	2.04	+ 1.1
Soaps, detergents	1.18	1.17	- 0.6
Other households supplies	1.09	1.12	+ 2.8
Pet foods	1.22	1.20	- 1.6
Tobacco products	2.38	2.44	+ 2.1
Total	\$ 7.92	\$ 7.97	+ 0.6
GENERAL MERCHANDISE/HBA			
Health and beauty aids (non-Rx)	\$ 2.28	\$ 2.36	+ 3.7
Prescriptions	.35	.39	+11.1
Housewares	.19	.23	+21.6
All other general merchandise	1.58	1.82	+15.2
Total	\$ 4.59	\$ 4.80	+ 4.6
All other sales	1.24	2.01	+62.1
GRAND TOTAL	\$58.85	\$60.78	+ 3.3

Source: Supermarket Business, September 1987.

COMPONENTS OF CONSUMER FOOD SPENDING

	1975	1985	1986
	Billion Dollars (Percent)		
Consumer expenditures	167.0 (100)	345.6 (100)	361.1 (100)
Farm value	55.6 (33)	88.3 (26)	89.0 (25)
Total marketing bill	111.4 (67)	257.1 (74)	272.1 (75)
Labor ¹	48.3 (29)	116.5 (34)	123.7 (34)
Packaging	13.3 (8)	27.6 (8)	28.8 (8)
Transportation ²	8.4 (5)	16.5 (5)	16.8 (5)
Energy	4.6 (3)	13.1 (4)	13.6 (4)
Corporate Profits (before taxes)	7.1 (4)	17.0 (5)	17.8 (5)
Other ³	29.7 (18)	66.4 (19)	71.4 (20)

Source: Agricultural Outlook, USDA, May 1987.

¹Includes supplements to wages and salaries such as pensions and health insurance premiums. Also includes imputed earnings of proprietors, partners, and family workers not receiving stated remuneration.

²Excludes local hauling charges.

³Includes business taxes, depreciation, rent, advertising, interest, and other costs.

FOOD CHAIN EARNINGS AFTER TAXES, UNITED STATES 1980-1986

Year	Earnings as a Percent of		
	Sales	Total Assets	Net Worth
1980	0.89	4.92	12.55
1981	0.88	4.75	11.53
1982	0.86	4.33	9.90
1983	0.94	4.52	9.87
1984	0.93	4.42	10.35
1985 ¹	1.17	5.50	12.03
1986 ¹	1.45	6.41	15.01

Source: Operating Results of Food Chains, Cornell University 1986-87.

¹1985 & 1986 data based on smaller sample of firms than past years.

United States Farm Balance Sheet
Current Dollars, January 1

Item	1960	1970	1980	1985	1986	1987
-----billion dollars-----						
<u>Assets</u>						
Real Estate	137.2	215.8	755.9	693.7	607.4	554.0
Livestock	15.3	23.5	61.4	49.6	45.9	47.6
Machinery	22.7	32.3	96.7	99.4	97.6	84.5
Crops	7.7	10.9	33.5	33.7	37.1	37.2
Household	9.2	9.6	17.2	26.1	26.1	30.5
Deposits & Currency	9.2	11.9	15.9	19.8	21.1	24.8
U.S. Savings Bonds	4.7	3.7	4.0	3.6	3.9	4.5
Coop. Invest.	<u>4.2</u>	<u>7.2</u>	<u>20.2</u>	<u>29.8</u>	<u>27.7</u>	<u>24.9</u>
TOTAL	210.2	314.9	1004.8	955.7	866.8	808.0
<u>Claims</u>						
RE Debt	12.0	29.2	85.4	112.4	105.9	95.8
NonRE Debt	<u>12.8</u>	<u>23.8</u>	<u>80.4</u>	<u>100.3</u>	<u>99.2</u>	<u>89.7</u>
TOTAL	24.8	53.0	165.8	212.7	205.1	185.5
Owner Equity	<u>185.4</u>	<u>261.9</u>	<u>839.0</u>	<u>743.0</u>	<u>661.7</u>	<u>623.5</u>
TOTAL	210.2	314.9	1004.8	955.7	866.8	808.0
% Equity	88	83	83	78	76	77

Source: Economic Research Service, USDA

Changes in Structure, U.S. Farm Balance Sheet
Current Dollars, 1960-87

Item	1960	1970	1980	1985	1986	1987
-----percent of total-----						
<u>Assets</u>						
Real Estate	65	68	75	73	70	69
Livestock	7	8	6	5	5	6
Machinery	11	10	10	10	11	10
All Other	<u>17</u>	<u>14</u>	<u>9</u>	<u>12</u>	<u>14</u>	<u>15</u>
TOTAL	100	100	100	100	100	100
<u>Liabilities</u>						
RE Debt	49	55	52	53	51	52
NonRE Debt	<u>51</u>	<u>45</u>	<u>48</u>	<u>47</u>	<u>49</u>	<u>48</u>
TOTAL	100	100	100	100	100	100

Distribution of United States Farm Debt by Lender
Current Dollars, January 1

Lender	1987		Percent Change From	
	%	Bil \$	1986	1982
<i><u>Real Estate</u></i>				
Federal Land Bank	20	37.7	-16	-21
Individuals & Others	13	24.0	-12	-25
Insurance Companies	6	10.9	- 8	-15
Commercial Banks	7	12.7	+12	+51
Farmers Home Admin.	5	10.4	- 1	+12
CCC - Storage	a	.1	-60	-89
TOTAL	51	95.8	-10	-14
<i><u>Nonreal Estate</u></i>				
Commercial Banks	17	31.2	-12	-14
PCA's and FICB's	6	11.0	-24	-45
Merchants & Dealers	7	12.4	-19	-36
Farmers Home Admin.	9	16.4	- 2	+12
CCC - Crop Loans	10	18.7	+ 8	+29
TOTAL	49	89.7	-10	-16
TOTAL DEBT	100	185.5	-10	-15

^a Less than .5 percent.

Source: ERS, USDA

Delinquent Farm Loans
United States, December 31

Lender Group	1980	1981	1982	1983	1984	1985	1986
<i>Billions of Dollars</i>							
Commercial Banks	n.a.	n.a.	.9	1.5	2.1	2.6	2.2
Farm Credit System	.3	.4	.7	1.3	2.1	5.3	7.1
Life Ins. Companies	.3	.5	.8	1.1	1.2	1.8	1.9
Farmers Home Adm.	3.6	5.8	9.5	11.0	12.1	11.9	12.1
<i>Percentage of Outstanding Loans</i>							
Commercial Banks	n.a.	n.a.	2.5	3.8	5.2	7.3	7.0
Farm Credit System	.5	.5	1.1	1.8	3.3	8.7	14.4
Life Ins. Companies	2.0	3.7	6.4	8.3	9.6	15.1	17.0
Farmers Home Adm.	18.2	24.1	37.9	43.9	45.9	41.5	42.9

Source: Emanuel Melichar, Board of Governors of the Federal Reserve System.

New York Farm Balance Sheet
In Current Dollars, Including Farm Households

Item	January 1, 1987	
	Million Dollars	Percent
<u>Assets</u>		
Real Estate	\$ 8,100	61
Livestock	1,066	8
Machinery & Vehicles	1,811	14
Crops Stored	378	3
Household Items & Equip.	797	6
Deposits & Currency	472	4
Coop. Investments	518	4
Savings Bonds	69	0
TOTAL ASSETS	\$13,211	100
<u>Liabilities & Equity</u>		
Real Estate Debt	\$ 1,102	41
Nonreal Estate Debt ^a	1,580	59
TOTAL LIABILITIES	\$ 2,682	100
EQUITY	10,529	
TOTAL LIABILITIES & EQUITY	\$13,211	

^a All emergency loans are included under nonreal estate. This overestimates nonreal estate loan volume and underestimates real estate loan volume.

Changes in New York Farm Balance Sheet
Current Dollars, January 1

Item	1960	1970	1980	1985	1986	1987
Total Assets	\$3,579	\$5,428	\$11,698	\$13,194	\$13,016	\$13,211
Total Debts	547	842	2,527	3,020	2,855	2,682
Owner's Equity	3,032	4,586	9,171	10,174	10,161	10,529
Percent Equity	85	84	78	77	78	80

Source: ERS, USDA

**New York Farm Credit Outstanding
January 1, 1987**

Credit Type & Source	Million Dollars	Percent
<u>Real Estate Loans</u>		
Commercial Banks	\$ 97	3
Federal Land Banks	429	16
Farmers Home Admin. ^a	205	8
Insurance Companies	19	1
Individuals & Others	349	13
CCC - Storage	<u>3</u>	<u>c</u>
TOTAL	\$ 1,102	41
<u>Nonreal Estate Loans</u>		
Commercial Banks ^b	\$ 685	25
Production Credit Assn.	286	11
Farmers Home Admin. ^a	314	12
Merchants, Dealers, Individuals and Others	230	9
CCC - Crop Loans	<u>65</u>	<u>2</u>
TOTAL	\$ 1,580	59
TOTAL DEBT	\$ 2,682	100

^a All emergency loans are included under nonreal estate. This overestimates nonreal estate loan volume and underestimates real estate loan volume.

^b Includes loans made outside of New York by New York City banks.

^c Less than .5 percent.

**Trends in New York Farm Lending
January 1**

Credit Type and Source	Percent Change in Outstanding Loans			
	1983 to 1984	1984 to 1985	1985 to 1986	1986 to 1987
<u>Real Estate Loans</u>				
Commercial Banks	+ 6	-18	+ 3	+ 1
Federal Land Banks	0	- 3	- 6	-12
Farmers Home Admin.	+ 2	+ 3	+ 2	- 2
Insurance Companies	- 7	0	+ 3	-32
Individuals and Others	+ 1	- 7	- 9	-12
CCC - Storage	-22	-25	-41	-53
<u>Nonreal Estate</u>				
Commercial Banks	+35	-29	- 9	+ 9
Production Credit Assoc.	- 5	- 2	- 8	-17
Farmers Home Admin.	- 4	- 3	+ 6	- 4
Merchants and Dealers	- 3	+ 2	- 17	-20
CCC - Crop Loans	-22	-50	+114	+44
TOTAL DEBT	+ 6	-12	- 5	- 6

Source: Economic Research Service, USDA.

Trends in the Financial Condition of New York Farmers

Category	1985	1986	1987
<u>Debt/Asset Ratio</u> ----- Percent of All Farms -----			
No Debt	42	32	40
0.1 - 19.9	24	29	28
20.0 - 39.9	15	19	15
40.0 - 69.9	13	15	13
70.0 plus	6	5	4
<u>Type of Farm</u> ----- Debt/Asset Ratio -----			
Dairy	25	27	20
Other Livestock	13	12	9
Cash Grain	26	27	16
Tree Fruits	24	18	24
Grapes	23	22	16
Vegetables	17	22	16
All	22	24	18
<u>Type of Delinquency</u>			
Real Estate Loans	5	9	9
Other Loans ^a	17	18	14

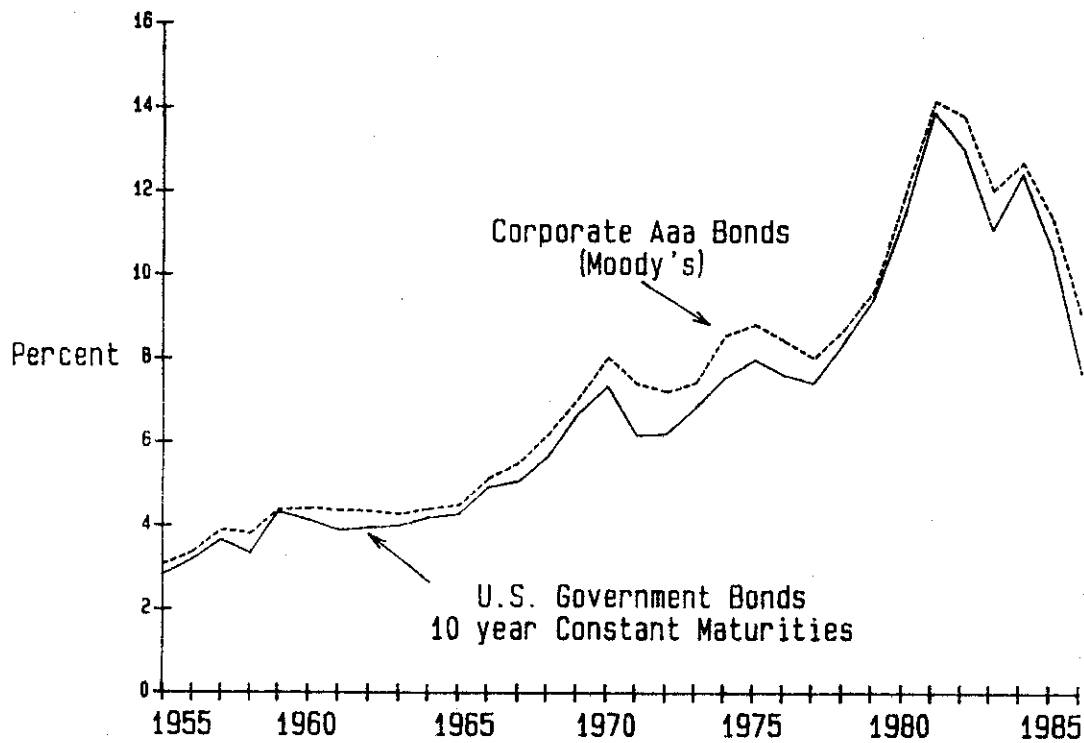
^a Includes accounts payable, 1985 estimated.

Delinquency by Debt Asset Ratio
New York Farmers

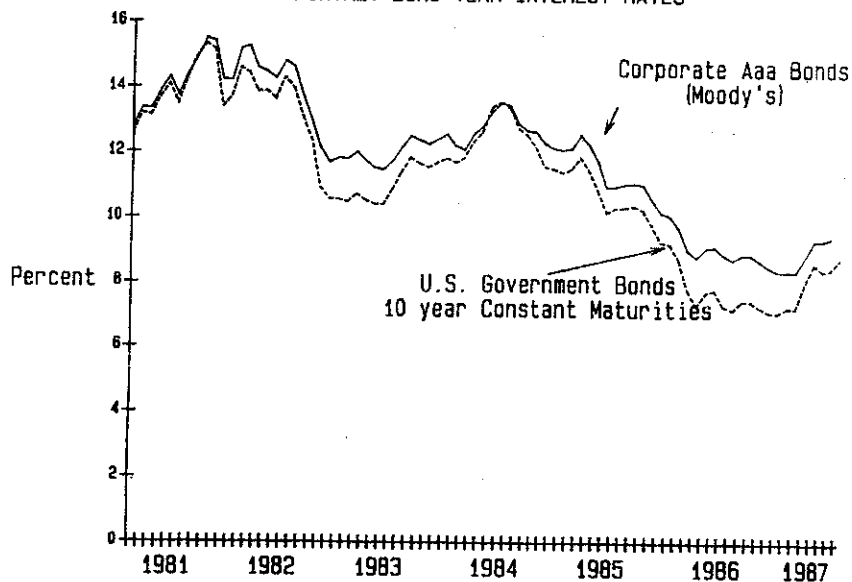
Debt Asset Ratio	Real Estate		Nonreal Estate	
	1986	1987	1986	1987
-----Percent of Farms-----				
Under 19.9	6	5	9	6
20.0 - 39.9	6	5	14	9
40.0 - 69.9	11	12	28	23
70.0 plus	27	27	47	40

Source: Farm Finance Surveys, New York Agricultural Statistics Service.

ANNUAL LONG TERM INTEREST RATES



MONTHLY LONG TERM INTEREST RATES

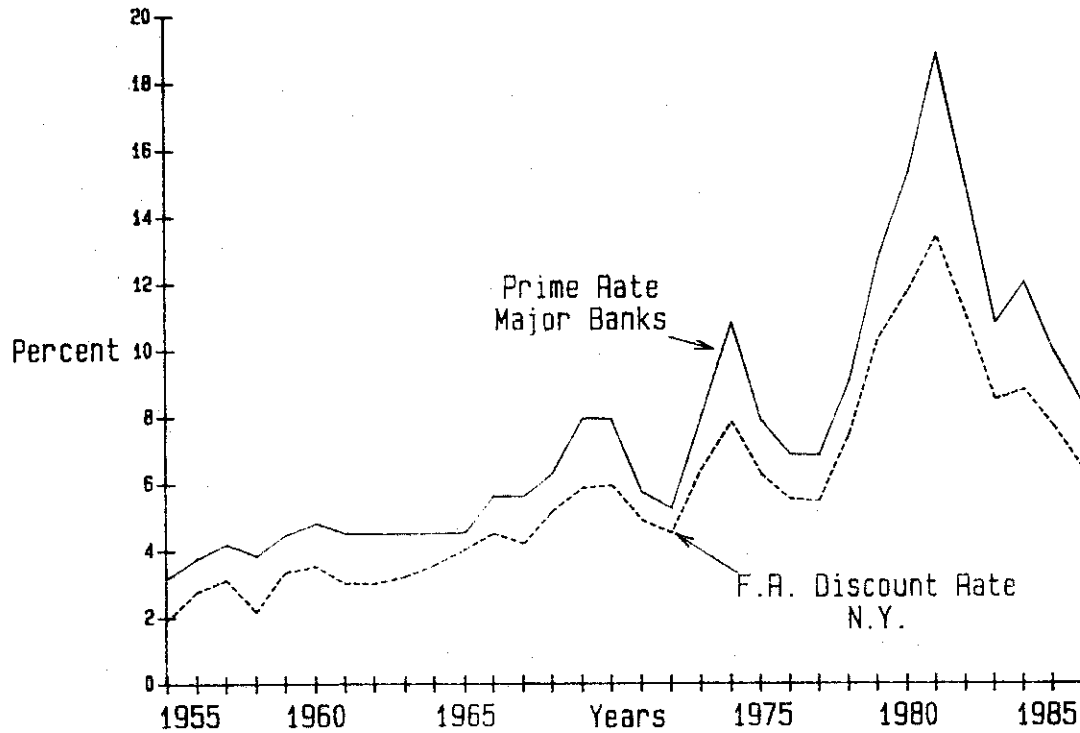


U.S. Government Bonds
10 Year Constant Maturities

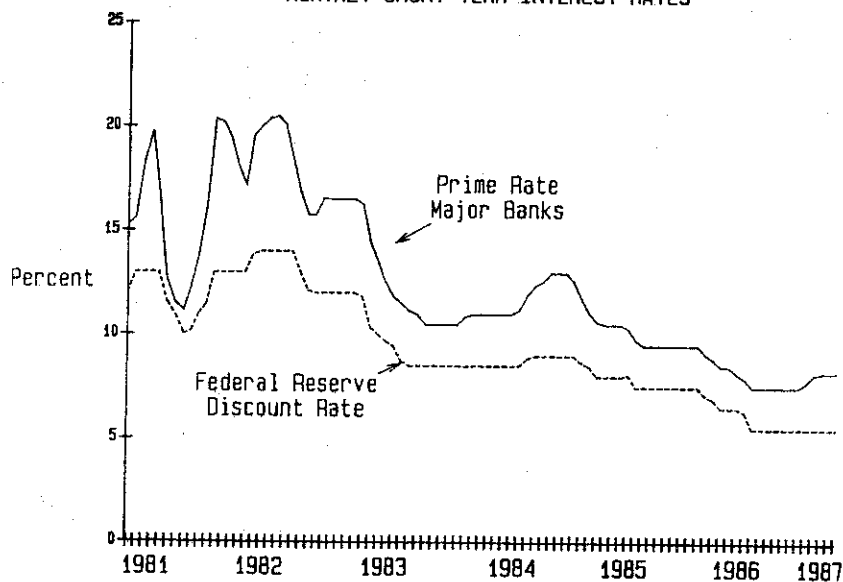
	1986	1987
Jan	9.19	7.08
Feb	8.70	7.25
Mar	7.78	7.25
Apr	7.30	8.02
May	7.71	8.61
Jun	7.80	8.40
Jul	7.30	8.45
Aug	7.17	8.76
Sep	7.45	
Oct	7.43	
Nov	7.25	
Dec	7.11	

	1986	1987
Jan	9.19	7.08
Feb	8.70	7.25
Mar	7.78	7.25
Apr	7.30	8.02
May	7.71	8.61
Jun	7.80	8.40
Jul	7.30	8.45
Aug	7.17	8.76
Sep	7.45	
Oct	7.43	
Nov	7.25	
Dec	7.11	

ANNUAL AVERAGE SHORT TERM INTEREST RATES

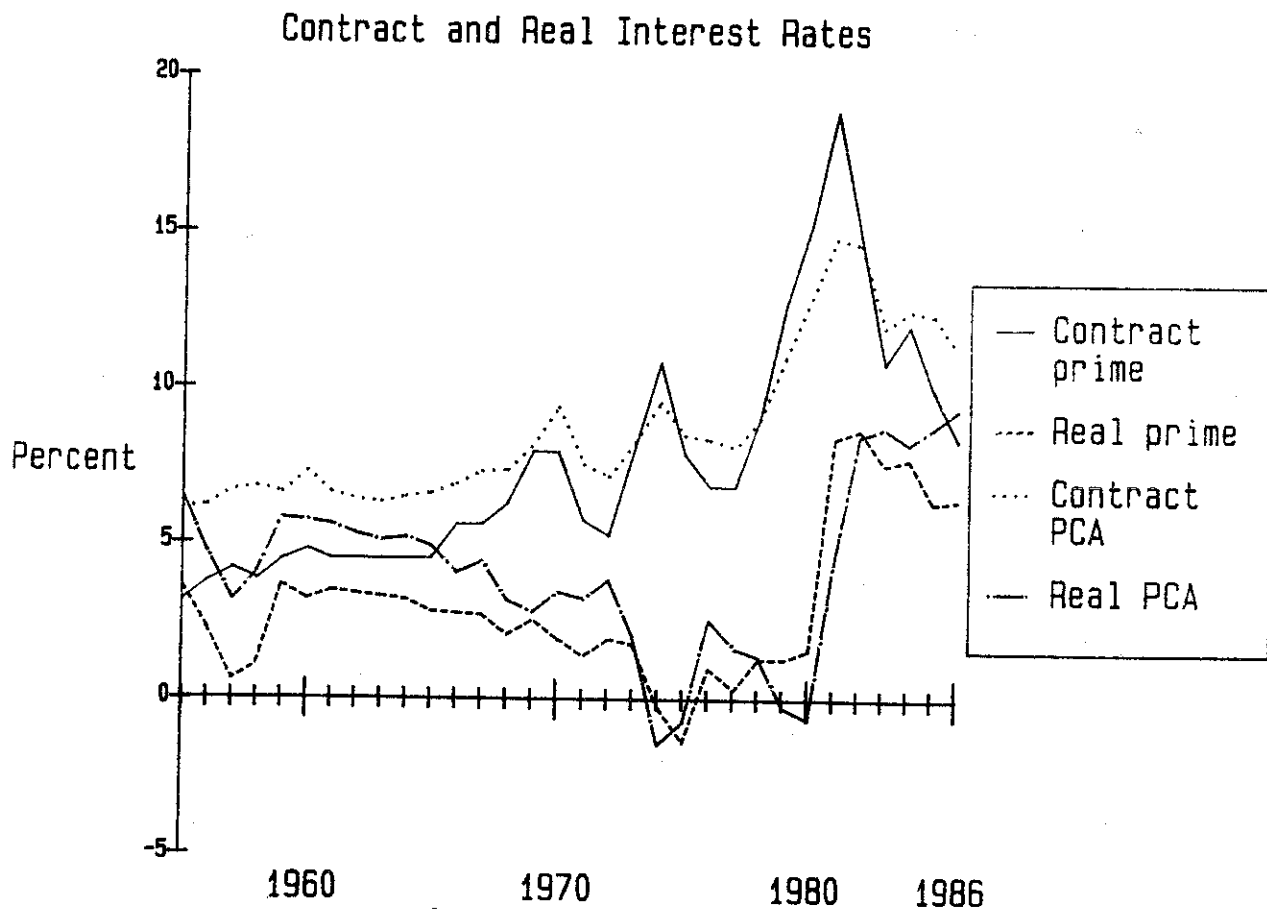


MONTHLY SHORT TERM INTEREST RATES



Prime Rate
Major Banks
1986 1987

Jan	9.50	7.50
Feb	9.50	7.50
Mar	9.10	7.50
Apr	8.83	7.75
May	8.50	8.14
Jun	8.50	8.25
Jul	8.16	8.25
Aug	7.90	8.25
Sep	7.50	_____
Oct	7.50	_____
Nov	7.50	_____
Dec	7.50	_____

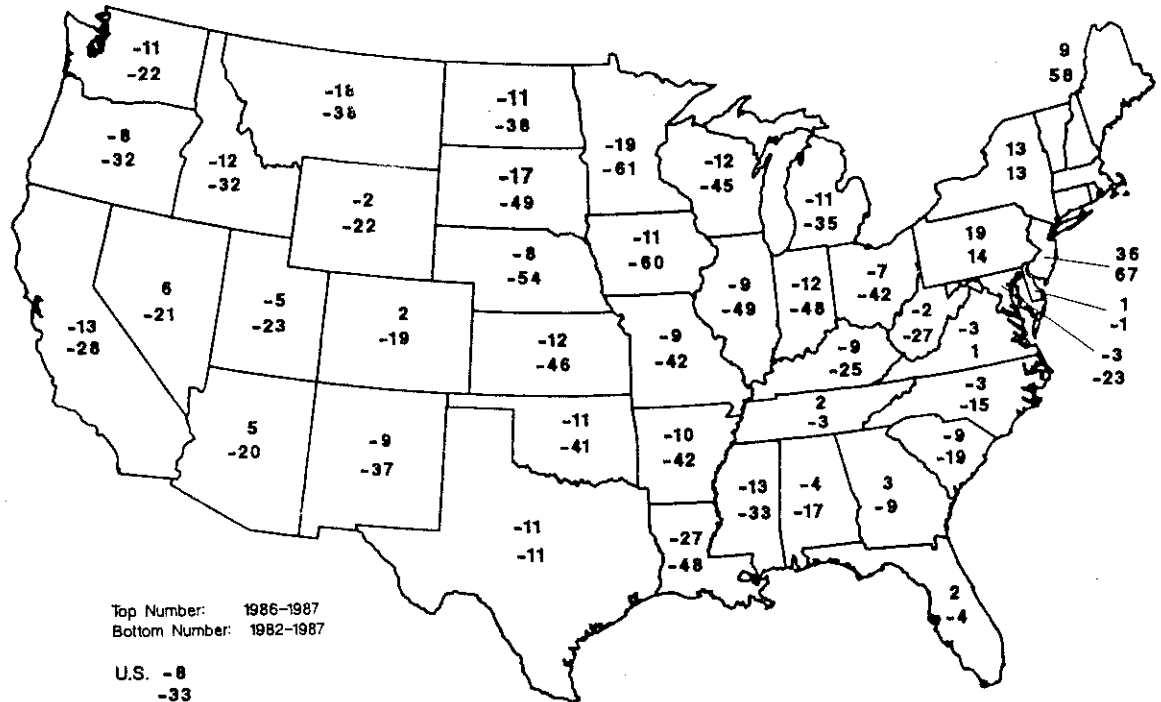


Farm level interest rates were constant to slightly lower in early 1987, and increased during the last half of the year to slightly above late 1986 levels. Compared to the experience of recent years, 1987 was a year of stability in the rates farmers pay. A number of forces could influence interest rates during 1987. The recently developed deficit reduction package will have only a modest effect on the deficit and the approaching election will likely make additional reduction in 1988 an impossibility. Thus, fiscal policy will likely be quite stimulative. The projected 2.0 to 3.5 percent rate of growth of the economy should increase loan demand and, thus, interest rates. Reaction to the perceived wealth effect of the stock market decline could dampen growth rates and its cumulative effects might become important later in the year.

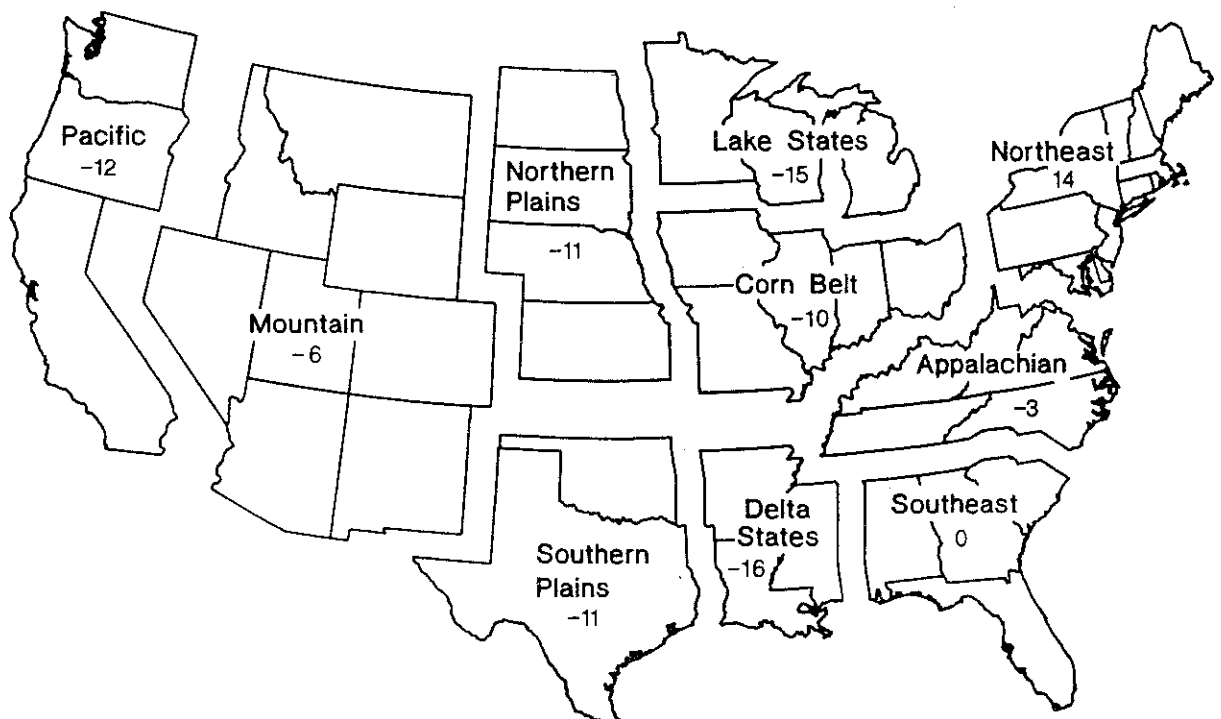
The decline in value of the dollar, which many expect to continue for a while, will likely reduce foreign investment in the U.S. and provide upward pressure on interest rates. Investment could return, however, when the dollar levels off or starts to increase. Whether the Federal Reserve will renew its efforts to keep inflation in check and encourage rates to rise, or take a more politically accommodative stance by supporting lower rates, is unknown. Unless the FED reacts strongly in one direction or the other, interest rates are likely to increase by one-half to one percent early in 1988. After mid-year rates should either remain at the higher level or decline modestly.

CHANGE IN FARM REAL ESTATE VALUES, UNITED STATES

Percent Change in Land Value Per Acre February 1986-1987 and February 1982-1987



Percent Change in Land Value Per Acre February 1986-1987, By Farm Production Regions



AVERAGE VALUE PER ACRE OF UNITED STATES FARM REAL ESTATE

Table 1—Average value per acre of land and buildings, by State, grouped by farm production region, Feb. 1, 1980-81; April 1, 1982-85; and Feb. 1, 1986-87

State	1980	1981	1982	1983	1984	1985	1986	1987	Percent change 1986-87
Dollars									
Northeast									
Maine	594	642	680	708	750	856	993	1,082	9
New Hampshire	1,004	1,078	1,136	1,174	1,244	1,419	1,646	1,794	9
Vermont	721	774	815	842	893	1,017	1,180	1,286	9
Massachusetts	1,608	1,752	1,874	1,963	2,081	2,372	2,752	2,999	9
Rhode Island	2,523	2,646	2,729	2,760	2,926	3,335	3,869	4,217	9
Connecticut	2,387	2,517	2,610	2,655	2,814	3,208	3,721	4,056	9
New York	720	773	821	817	842	808	824	931	13
New Jersey	2,947	3,040	3,181	3,140	3,234	3,525	3,913	5,321	36
Pennsylvania	1,464	1,568	1,513	1,520	1,642	1,510	1,450	1,725	19
Delaware	1,798	1,928	1,787	1,829	1,866	1,642	1,757	1,775	1
Maryland	2,238	2,530	2,376	2,121	2,185	2,097	1,887	1,831	-3
Lake States									
Michigan	1,111	1,289	1,278	1,223	1,223	1,052	936	833	-11
Wisconsin	1,004	1,152	1,144	1,113	1,046	847	711	626	-12
Minnesota	1,086	1,281	1,272	1,165	1,083	823	609	493	-19
Corn Belt									
Ohio	1,730	1,831	1,629	1,504	1,444	1,126	1,013	942	-7
Indiana	1,863	2,031	1,804	1,610	1,594	1,259	1,058	931	-12
Illinois	2,041	2,188	2,023	1,837	1,800	1,314	1,143	1,040	-9
Iowa	1,840	1,999	1,889	1,684	1,499	1,064	841	748	-11
Missouri	902	990	945	856	856	659	606	552	-9
Northern Plains									
North Dakota	405	436	455	439	439	360	317	282	-11
South Dakota	292	329	349	348	338	250	215	178	-17
Nebraska	635	729	730	701	617	444	364	335	-8
Kansas	587	619	628	601	583	466	387	340	-12
Appalachian									
Virginia	1,028	1,118	1,096	1,125	1,114	1,091	1,146	1,111	-3
West Virginia	669	681	723	688	667	554	537	527	-2
North Carolina	1,219	1,340	1,297	1,314	1,380	1,242	1,130	1,096	-3
Kentucky	976	1,033	1,058	1,049	1,007	906	870	791	-9
Tennessee	976	1,070	1,040	1,014	1,044	982	992	1,012	2
Southeast									
South Carolina	900	972	980	946	927	899	872	794	-9
Georgia	896	971	926	929	910	865	822	846	3
Florida	1,381	1,565	1,518	1,576	1,608	1,527	1,435	1,464	2
Alabama	780	910	885	826	809	769	761	731	-4
Delta States									
Mississippi	819	1,034	981	894	939	835	752	654	-13
Arkansas	918	1,056	1,096	972	933	849	705	634	-10
Louisiana	1,256	1,454	1,414	1,351	1,351	1,256	1,005	734	-27
Southern Plains									
Oklahoma	614	681	725	699	699	566	481	428	-11
Texas	436	468	539	544	593	652	541	482	-11
Mountain States									
Montana	235	251	271	259	264	222	204	167	-18
Idaho	698	774	839	814	814	749	644	567	-12
Wyoming	161	180	193	193	197	177	154	151	-2
Colorado	387	434	451	454	468	435	357	364	2
New Mexico	185	192	195	178	182	163	134	122	-9
Arizona	267	287	302	289	295	265	231	242	5
Utah	530	567	589	560	571	514	478	454	-5
Nevada	248	262	268	249	254	229	199	211	6
Pacific States									
Washington	736	877	922	933	961	923	812	723	-11
Oregon	587	668	705	705	698	579	521	479	-8
California	1,424	1,732	1,900	1,918	1,918	1,726	1,571	1,366	-13
48 States	737	819	823	788	782	679	595	548	-8
Alaska							1,902	1,437	-24

TOTAL VALUE OF LAND AND BUILDINGS

Table 2--Total value of land and buildings, by State,
grouped by farm production region, 1981-1987

State	Feb. 1 1981	Apr. 1 1982	Apr. 1 1983	Apr. 1 1984	Apr. 1 1985	Feb. 1 1986	Feb. 1 1987
Million dollars							
Northeast							
Maine	1,027	1,074	1,104	1,170	1,301	1,509	1,645
New Hampshire	588	613	634	678	766	856	933
Vermont	1,393	1,385	1,431	1,517	1,627	1,888	2,057
Massachusetts	1,226	1,293	1,315	1,415	1,613	1,871	2,039
Rhode Island	212	205	207	214	243	282	308
Connecticut	1,258	1,279	1,328	1,351	1,540	1,675	1,825
New York	7,498	7,800	7,762	7,910	7,353	7,170	8,102
New Jersey	3,131	3,245	3,140	3,137	3,314	3,600	4,896
Pennsylvania	13,955	13,314	13,224	14,282	13,137	12,322	14,663
Delaware	1,253	1,179	1,89	1,231	1,067	1,124	1,136
Maryland	7,084	6,534	5,727	5,899	5,452	4,718	4,577
Lake States							
Michigan	14,695	14,569	13,942	13,942	11,993	10,580	9,416
Wisconsin	21,427	21,164	20,257	18,832	14,992	12,522	11,019
Minnesota	38,942	38,669	35,416	32,937	25,019	18,271	14,799
Corn Belt							
Ohio	29,479	26,064	23,914	22,813	17,791	16,012	14,891
Indiana	34,121	30,307	26,726	26,140	20,648	17,132	15,077
Illinois	63,014	58,060	52,722	51,667	37,712	32,809	29,856
Iowa	67,366	63,659	56,751	50,358	35,750	28,243	25,136
Missouri	30,987	29,484	26,707	26,536	20,297	18,613	16,938
Northern Plains							
North Dakota	18,007	18,655	17,999	17,999	14,724	12,894	11,475
South Dakota	14,706	15,530	15,486	15,021	11,125	9,568	7,941
Nebraska	34,773	34,675	33,227	29,117	20,957	17,185	15,810
Kansas	29,898	30,332	29,028	27,983	22,368	18,527	16,304
Appalachian							
Virginia	10,956	10,740	11,025	10,803	10,474	10,997	10,667
West Virginia	3,064	3,108	2,752	2,536	1,994	1,935	1,896
North Carolina	15,276	14,397	14,454	15,177	13,414	12,206	11,840
Kentucky	15,082	15,341	15,211	14,602	13,137	12,612	11,476
Tennessee	14,445	15,936	13,588	13,995	13,159	12,894	13,152
Southeast							
South Carolina	6,123	5,880	5,487	5,192	4,945	4,796	4,365
Georgia	14,080	12,964	12,727	12,291	11,678	10,683	11,003
Florida	20,658	19,886	20,488	20,898	19,851	18,660	19,033
Alabama	10,829	10,443	9,582	9,309	8,844	8,374	8,039
Delta States							
Mississippi	15,096	14,224	12,784	13,330	11,774	10,521	9,153
Arkansas	17,213	17,755	15,746	15,023	13,584	11,063	9,957
Louisiana	14,685	14,423	13,645	13,645	12,686	10,048	7,335
Southern Plains							
Oklahoma	23,154	24,288	23,417	23,067	18,678	15,876	14,130
Texas	64,397	73,951	74,528	81,117	88,346	72,515	64,539
Mountain States							
Montana	15,487	16,666	15,877	16,141	13,542	12,459	10,216
Idaho	11,610	12,501	12,129	11,966	10,861	9,018	7,936
Wyoming	6,300	6,755	6,755	6,851	6,160	5,359	5,252
Colorado	15,407	15,875	15,799	16,180	14,964	12,199	12,443
New Mexico	8,986	8,970	8,188	8,315	7,335	5,961	5,425
Arizona	10,849	11,325	10,838	11,054	9,938	8,646	9,078
Utah	6,917	7,127	6,720	6,740	5,962	5,449	5,177
Nevada	2,332	2,385	2,216	2,235	2,015	1,753	1,858
Pacific States							
Washington	14,382	15,121	15,208	15,472	14,860	12,996	11,566
Oregon	12,091	12,690	12,690	12,563	10,422	9,328	8,581
California	58,195	63,460	63,678	63,294	56,785	51,518	44,820
48 States	843,657	843,304	804,765	793,946	686,194	597,235	549,781

CASH RENT PER ACRE AND RATIO OF RENT TO VALUE

Table 4--Cropland rented for cash: Gross cash rent per acre and ratio of rent to value, selected States, 1984-87

State	Rent per acre				Ratio of rent to value			
	1984	1985	1986	1987	1984	1985	1986	1987
	Dollars				Percent			
Northeast								
Vermont	31.32	28.25	26.01	31.30	3.8	4.1	3.0	3.2
New York	35.79	34.78	30.81	31.98	5.4	5.0	5.1	4.2
New Jersey	48.43	43.18	45.96	48.00	1.2	1.1	0.9	0.5
Pennsylvania	38.01	42.98	37.18	40.01	2.1	2.5	2.7	2.5
Delaware	66.90	66.77	64.48	61.42	3.8	3.8	3.7	3.0
Maryland	58.33	63.62	54.46	50.81	2.8	2.7	3.3	2.7
Lake States								
Michigan	54.14	51.09	47.73	41.87	3.7	5.5	5.8	5.9
Wisconsin	58.26	53.08	48.83	44.83	5.8	6.3	7.0	7.3
Minnesota	68.43	62.19	53.85	47.78	6.5	7.8	8.7	9.0
Corn Belt								
Ohio	79.96	72.64	70.32	63.22	5.2	5.4	6.5	5.6
Indiana	103.13	95.70	85.55	77.00	6.0	7.3	7.5	7.5
Illinois	119.30	110.07	99.92	85.69	5.8	7.2	7.7	7.6
Iowa	117.30	102.65	87.61	80.29	6.8	8.4	9.3	9.8
Missouri	67.05	56.54	54.42	48.31	7.3	8.5	9.0	9.1
Northern Plains								
North Dakota	32.42	31.74	29.69	28.24	6.7	7.6	8.1	8.4
South Dakota	30.77	29.35	26.44	25.48	7.0	8.3	9.2	10.0
Nebraska (Nonirrigated)	56.87	47.10	46.72	42.26	8.0	8.6	10.4	10.3
(Irrigated)	113.80	92.53	86.29	81.21	8.4	9.6	10.6	11.6
Kansas (Nonirrigated)	34.10	32.38	30.34	28.60	5.9	7.2	8.0	7.8
(Irrigated)	63.52	61.50	58.40	59.67	7.2	8.7	9.8	10.4
Appalachian								
Virginia	36.75	37.63	--	37.66	3.5	3.0	--	3.2
North Carolina	43.56	41.44	39.50	33.66	3.1	2.0	3.5	2.8
Kentucky	55.80	50.67	53.63	53.31	4.8	5.2	6.0	6.8
Tennessee	50.66	45.76	47.35	39.90	5.1	4.8	5.8	4.8
Southeast								
South Carolina	27.93	27.00	25.46	22.40	3.0	3.5	2.9	3.2
Georgia	32.68	30.32	27.84	26.17	3.9	4.3	3.2	3.9
Alabama	30.45	29.49	29.66	28.52	4.4	4.7	4.3	4.4
Delta States								
Mississippi	43.75	40.96	34.95	31.19	4.9	5.2	5.1	5.0
Arkansas	49.50	50.97	48.21	44.43	5.5	6.4	6.5	6.5
Southern Plains								
Oklahoma (Nonirrigated)	27.76	28.52	26.52	22.96	3.5	4.2	4.7	4.8
(Irrigated)	51.42	39.60	--	37.17	4.7	5.0	--	8.3
Texas (Nonirrigated)	22.62	21.32	20.22	19.90	2.5	1.9	2.2	2.3
(Irrigated)	50.73	43.61	39.64	40.63	5.0	4.6	5.1	5.4

CROP PRODUCTION
United States and New York
1985-87 a/

Crop	<u>Acres Harvested</u>			<u>Yield Per Acre</u>			<u>Production</u>		
	1985	1986	1987	1985	1986	1987	1985	1986	1987
<u>United States</u>	(million)			(bu.)			(million bu.)		
Corn grain	75.2	69.2	59.6	118.0	119.3	120.3	8,877	8,253	7,166
Sorghum	16.7	13.9	10.5	66.7	66.7	70.5	1,120	942	741
Oats	8.2	6.9	6.9	63.7	56.3	53.4	521	386	370
Barley	11.6	12.0	10.0	51.0	50.8	51.7	591	611	518
Wheat	64.7	60.7	55.9	37.5	34.4	27.6	2,425	2,092	2,105
Soybeans	61.6	58.3	57.6	34.1	33.3	34.1	2,099	1,940	1,960
<u>New York</u>	(thousand)			(bu.)			(thousand bu.)		
Corn grain	720	650	500	95	99	105	68,400	64,350	52,500
Oats	230	190	200	77	68	60	17,710	12,920	12,000
Wheat	145	155	80	58	49	47	8,410	7,595	3,760
				(tons)			(thousand tons)		
Corn silage	640	540	NA	14.0	14.0	NA	8,960	7,830	NA
All hay	2,230	2,200	2,230	2.36	2.40	2.39	5,269	5,280	5,334
Alfalfa <u>b/</u>	930	880	930	2.80	2.85	2.80	2,604	2,508	2,604

Source: USDA Crop Production and New York Crop Reporting Service.

a/ All 1987 data are preliminary and subject to revision. Estimates for the United States are as of November 1, 1987. New York estimates are as of October 1987 except for corn which is November 1987.

b/ Includes alfalfa mixtures.

Grain production in the United States in 1987 is below year earlier levels largely due to government acreage reduction programs. Corn for grain production of 7.2 billion bushels is 13 percent below the 1986 crop and 19 percent below the record 1985 level but still the fifth largest crop ever produced. Sorghum production is 21 percent below the 1986 crop.

Oat production is down 4 percent from 1986 levels. Barley production is down 15 percent from last year. Total feed grain production is down 14 percent from 1986.

The soybean crop is up 1 percent from 1986. Wheat production of 2.1 billion bushels is up 1 percent from 1986 but below the crops of the early 1980's.

The New York corn for grain crop is forecast at 52 million bushels, down 18 percent from 1986. New York corn yield per acre is expected to exceed 100 bushels per acre for the first time. Wheat production is down 50 percent. Oat production is estimated to be down 7 percent from 1986. Hay production is up slightly from the 1986 level.

CORN AND FEED GRAIN BALANCE SHEETS

Item	1984/85	1985/86	1986/87 (Prelim.)	1987/88 (Proj.)
<u>Supply</u> ----- CORN (million bushels) -----				
Beginning Stocks (Sept. 1)	1,006	1,648	4,040	4,882
Production	7,674	8,877	8,253	7,166
Imports	4	11	2	2
Total	8,684	10,536	12,294	12,050
<u>Disappearance</u>				
Feed and residual	4,116	4,095	4,717	4,800
Food, Ind. and Seed	1,055	1,160	1,191	1,225
Total domestic	5,170	5,255	5,908	6,025
Exports	1,865	1,241	1,504	1,700
Total	7,036	6,496	7,412	7,725
<u>Ending Stocks</u> (Aug. 30)	1,648	4,040	4,882	4,325
Season average farm price	\$2.62	\$2.23	\$1.50	\$1.60-1.90
<u>Supply</u> ----- FEED GRAINS ^{a/} , (million metric tons) -----				
Beginning Stocks	39.6	57.5	126.3	152.3
Production	236.9	274.4	252.4	217.5
Imports	.8	0.9	0.7	0.7
Total	277.3	332.7	379.5	370.4
<u>Disappearance</u>				
Feed and residual	131.1	134.8	145.5	147.0
Food, Ind. and Seed	32.0	35.0	35.5	36.4
Total domestic	163.2	169.8	181.0	183.4
Exports	56.6	36.6	46.3	51.6
Total	219.8	205.4	227.2	235.0
<u>Ending Stocks</u>	57.5	126.3	152.3	135.4

Source: Agricultural Supply and Demand Estimates, USDA.

^{a/} Marketing year beginning September 1 for corn and sorghum, June 1 for barley and oats.

The fall 1987 corn supply of 12 billion bushels is down 2 percent from 1986 and is the second largest on record. Feed use is projected to rise 2 percent. Exports are projected to increase 13 percent from 1986 levels. Total utilization is expected to be 4 percent above the 1986/87 level. Projected carryover in the fall of 1988 of 4.3 billion bushels is 11 percent below the 1987 level but, if achieved, would be the second largest carryover ever. Feed use and exports in the 1986/87 marketing year each were above projections made in the fall of 1986, leading to a carryover in the fall of 1987 of 4.9 billion bushels compared to the fall 1986 projection of 5.6 billion bushels.

Feedgrain supplies are dominated by corn, so changes in supply and demand are similar. The total supply of feedgrains is 2 percent below last year. Domestic feed use in the 1987-88 marketing year is projected to increase slightly. Exports are projected to increase 11 percent. Carryover stocks at the end of the 1987-88 marketing year are projected to be 135 million metric tons, 11 percent below the 1986 level, but the second largest on record.

WHEAT AND SOYBEAN BALANCE SHEETS

Item	1984/85	1985/86	1986/87 (Prelim.)	1987/88 (Proj.)
<u>Supply</u> ----- WHEAT (million bushels) -----				
Beginning Stocks (June 1)	1,399	1,425	1,905	1,821
Production	2,595	2,425	2,092	2,105
Imports	9	16	21	15
Total	4,003	3,866	4,018	3,941
<u>Disappearance</u>				
Food	651	683	724	750
Seed	98	93	84	80
Feed	405	270	385	375
Total domestic	1,154	1,046	1,193	1,205
Exports	1,424	915	1,004	1,350
Total	2,578	1,961	2,197	2,555
<u>Ending Stocks</u> (May 31)	1,425	1,905	1,821	1,386
Season average farm price	\$3.38	\$3.08	\$2.42	\$2.40-2.60
<u>Supply</u> ----- SOYBEANS (million bushels) -----				
Beginning Stocks (Sept. 1)	176	316	536	436
Production	1,861	2,099	1,940	1,960
Total	2,037	2,415	2,476	2,396
<u>Disappearance</u>				
Crushings	1,030	1,053	1,179	1,200
Exports	598	741	757	725
Seed, Feed	61	60	57	57
Residual	32	25	47	39
Total	1,721	1,879	2,040	2,021
<u>Ending Stocks</u> (Aug. 30)	316	536	436	375
Season average farm price	\$5.78	\$5.05	\$4.80	\$4.85-5.35

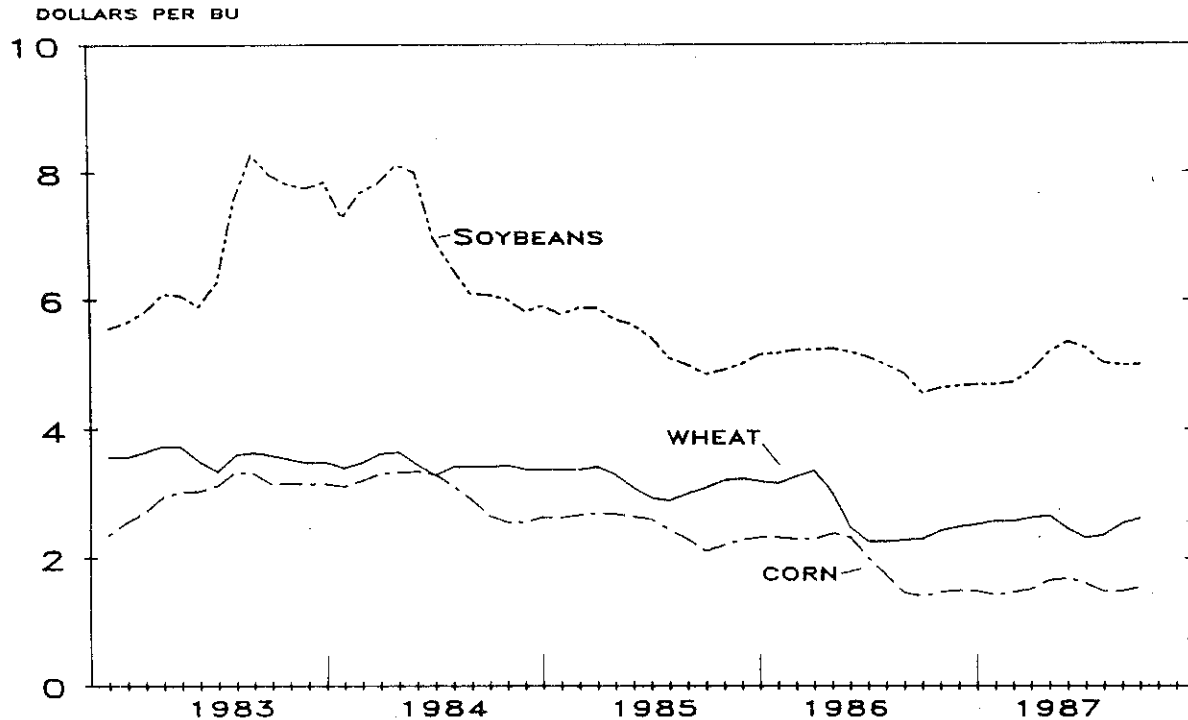
Source: Agricultural Supply and Demand Estimates, USDA.

The 1987 United States wheat supply of nearly four billion bushels is two percent below the 1986 level but not greatly different from the levels of the early and mid 1980's. Domestic food use is projected to increase slightly and feed use to decrease slightly. Exports are projected to increase 34 percent. Carryover on May 31, 1988 is projected to be 1.4 billion bushels, down 24 percent from the 1987 level.

Total soybean supply is 2.4 billion bushels, down 3 percent from 1986 but the 4th largest supply on record. Crushings are projected to be up 2 percent and exports to decrease 4 percent from year earlier levels. Carryover in the fall of 1988 is projected to be about 375 million bushels, 14 percent below 1987 carryover and 30 percent below the record level set in 1986.

PRICES RECEIVED FOR CORN, WHEAT AND SOYBEANS

PRICES RECEIVED BY FARMERS, US



Source: USDA Agricultural Prices

Soybean prices increased from late 1986 until mid-1987 and then declined. The October 1987 average price received by U.S. farmers was \$5.00, \$.45 per bushel above the level of October 1986.

Wheat prices declined sharply in the second quarter of 1987, but strengthened in the third quarter. The October 1987 price received by U.S. farmers was \$2.62 or \$.32 above the year earlier price. The N.Y. price of \$2.71 was \$.45 above the October 1986 level.

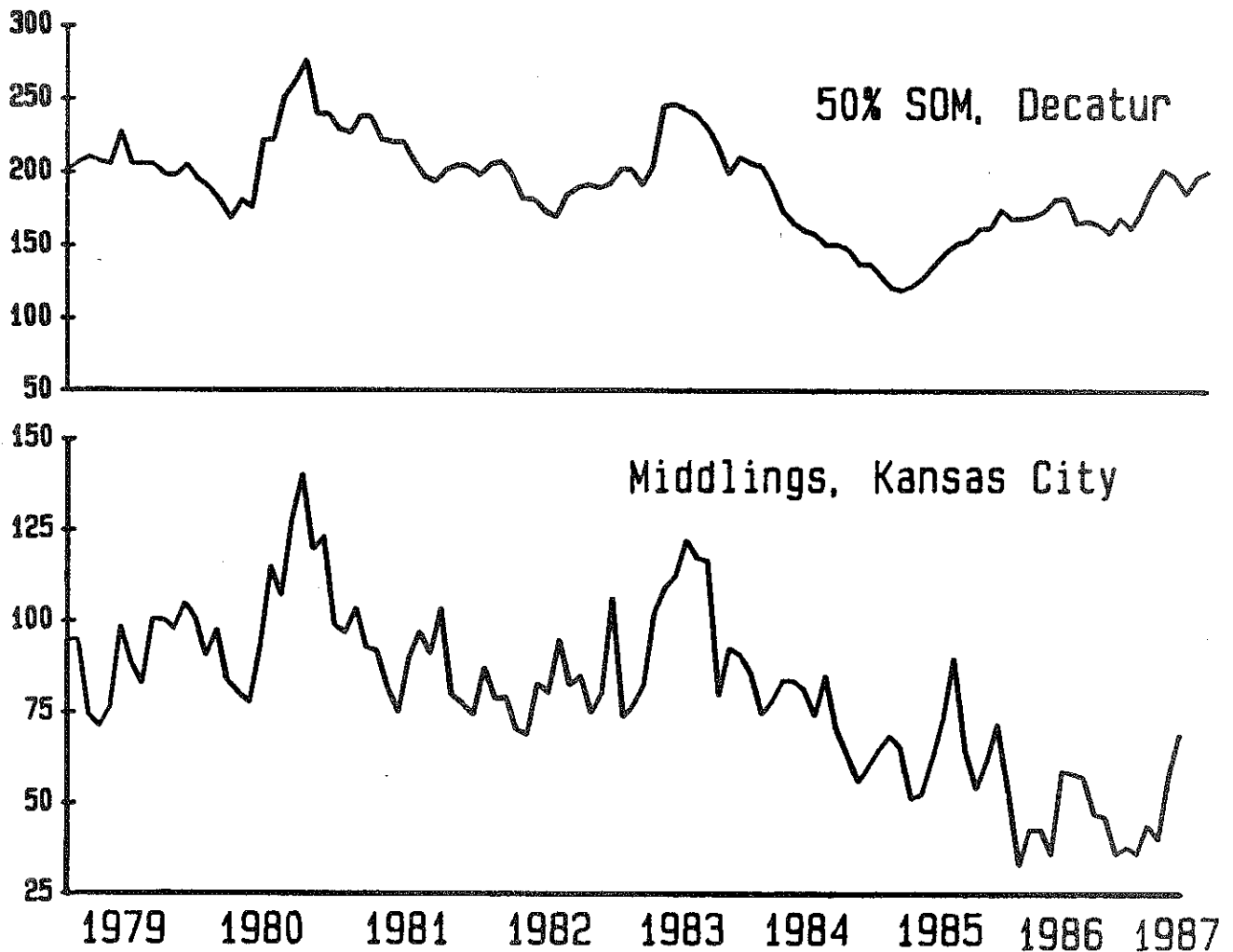
Corn prices increased during the early months of 1987 but then declined. The U.S. average price received by farmers in October 1987 was \$1.55, \$.15 above the year earlier level. The N.Y. price in October was \$1.90 per bushel, \$.15 above the level of a year earlier.

The mid-November USDA projection of the season average price received by U.S. farmers for the 1987 corn crop was \$1.60 to \$1.90 per bushel. The mid-point is \$.25 above the season average price for the 1986 crop.

USDA's projection for the season average price of 1987 crop soybeans is \$4.85 to \$5.35, with a mid-point \$.30 above the average price for the 1986 crop.

The projected season average 1987 crop price for U.S. wheat is \$2.40 to \$2.60. The mid-point is \$.08 above the average price received by farmers for the 1986 crop.

MONTHLY PRICES OF SOYBEAN MEAL AND MIDLINGS 1979 TO DATE

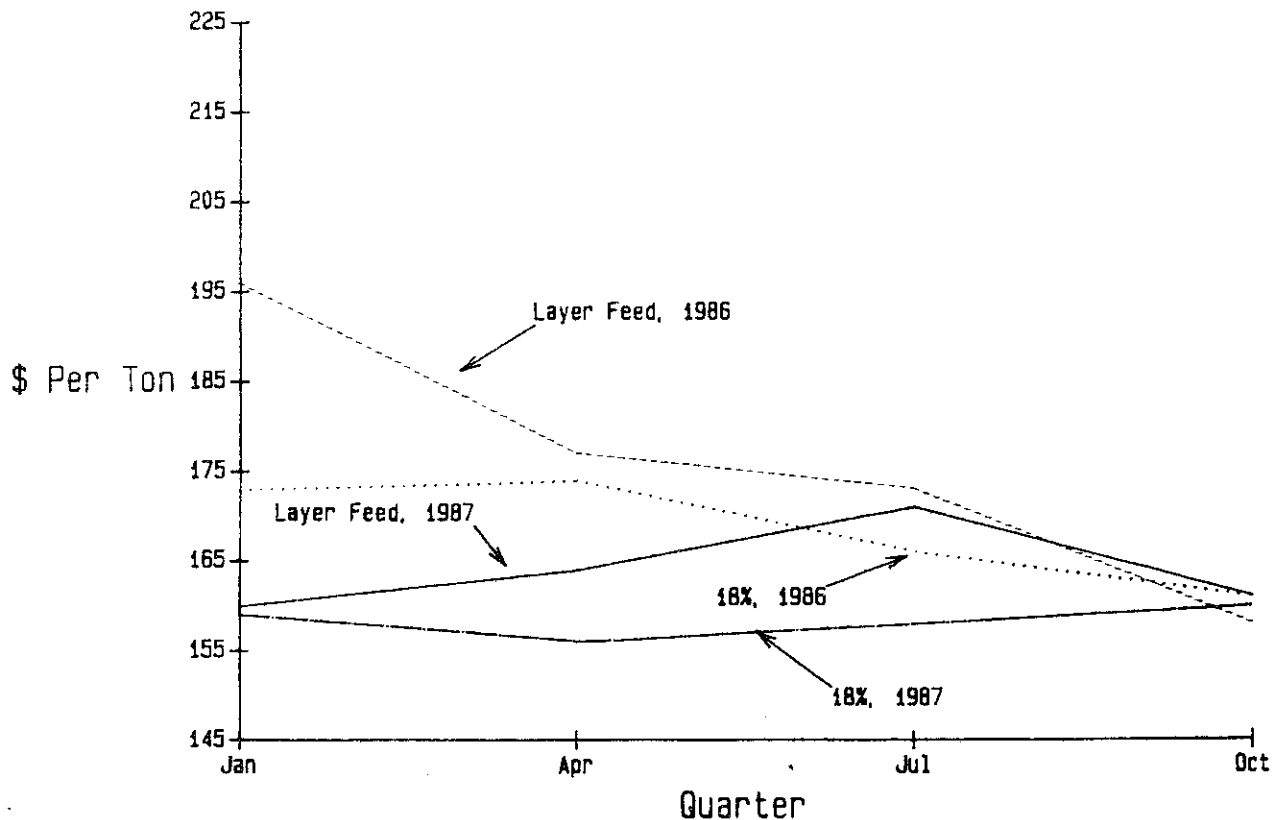


Source: USDA Feed Situation and Feedstuffs

Prices of soybean oil meal (50%, Decatur), increased rather steadily from \$158 in January 1987 to \$202 in June 1987 and then declined to \$185 in August. Fall 1987 prices were \$35 above year earlier levels. Large supplies of soybeans in the fall of 1987 make large seasonal increases in soybean oil meal prices unlikely. However, average prices paid by farmers in the first half of 1988 are likely to be higher than in the first half of 1987.

Prices of byproducts such as middlings generally declined from late 1986 to mid 1987, but increased substantially in the fall of 1987. Byproduct prices continue to fluctuate widely and are not closely related to the prices of the grains from which they are derived.

Prices of Layer Feed and 18% Dairy,
1986 & 1987, New York



Source: USDA Agricultural Prices and New York Crop Reporting Service

Prices for 18% dairy feed increased from \$156 in April to \$160 in October 1987. Layer feed prices increased from January to July and then declined to \$161 in October. In October 1987, 18% dairy was nearly the same price as a year earlier. Layer feed was \$3 per ton above the level of a year earlier.

With large supplies of grains and soybeans, large seasonal increases in feed prices are not likely. Prices in the first half of 1988 are likely to average slightly above the levels of the first half of 1987.

Month	1987			1988		
	18% Dairy	44% SOM	Layer feed	18% Dairy	44% SOM	Layer feed
Jan	159	234	160	—	—	—
Apr	156	230	164	—	—	—
July	158	250	171	—	—	—
Oct	160	246	161	—	—	—

Only quarterly data are available after February 1986, and those data are for New York and New England combined.

1988 OUTLOOK FOR BEEF CATTLE AND HOGS

Total Meat Production

This past year (1987) has been a very profitable year for most segments of the meat production industry. This has occurred in spite of record large meat supplies, primarily to large reductions in feed costs; roughage and feed grain costs reached historic lows. Average per capita supplies of red meat and poultry will exceed 216 lb. retail weight, and is expected to increase to 220 lb. in 1988. In 1987, poultry supplies averaged 8% higher than in 1986, and are expected to increase 5% in 1988 even though profits have dropped. The 1987 increase in poultry production of 1.8 billion pounds more than offset a drop in red meat production. Cold storage supplies for turkey have become burdensome, which could influence red meat and poultry prices during December and January.

Beef and pork traditionally compete for the dollars spent for red meat. Fueled by record hog/corn ratios pork production is expected to be up 9 to 10% for the first half of the coming year, which will offset the projected 3% decrease in beef output. The net will be a 2% increase in total red meat production for 1988.

It appears that prices for any of the sectors of the red meat and poultry industries are becoming interrelated. A wider range of products targeted at different consumers (low to high priced products designed for different income groups, including convenience, pre-cooked and portion controlled) are becoming available in all sectors (poultry, pork, beef). If prices get out of line in any of the categories, shoppers simply move down the meat case in search of better buys in other meats for the type of product they are looking for. Each can no longer look just at consumption patterns; that only reflects the supply because we consume all that is produced. Each must look at the price at which a particular volume will be purchased, and at the combination of price and volume that will be profitable. As a result, it appears that competition between beef, pork and poultry industries will become increasingly intense.

The implications for New York red meat producers are that they must be cost competitive while developing marketing systems that will result in obtaining national prices. It would appear that we should have some locational marketing advantages. However, meat can easily be transported from one region to another, especially with the trend toward further processing to case ready products at the packing plant. Thus transportation differences are only 5 to 10 cents per pound of retail product, or about 5% of the retail value. Further, regional packers have more difficulty competing because of smaller, more widely scattered and less predictable numbers of livestock being available making buying and plant operation costs higher. Thus our best opportunities are to utilize available resources to be low cost producers.

Beef Cattle

Total cattle numbers on January 1, 1988 are expected to be approximately 100 million head - the smallest in 25 years and 32 million less than their peak in 1975. In 12 years, we have reduced our feeder cattle supply 30%, which leaves the industry in the largest liquidation phase in our history. Feeder cattle supplies will be down about 3 million head on January 1, 1988 from one year ago. The result will be excess feedlot capacity, excess slaughter capacity and excess grass capacity; when combined with low corn prices, the effect has been intense competition for feeder cattle. Feeder cattle prices have increased much more rapidly than fed cattle prices, moving to a position of negative margins between feeder and finished prices because of lower cost of gain and efforts to maintain numbers on feed to cover fixed costs. An additional factor has been more profits to reinvest in feeder cattle. Cattle feeders have been bidding steer calves into the 80's and yearling steers into the 70's which gives a breakeven to cover feed costs in the low 60's and to cover all costs in the high 60's. As a result, profits are narrowing for all margin operators (cattle feeders and packers) and are improving for residual operations (cow-calf producers).

All of this has not, however reduced beef supplies and increased beef prices as much as anticipated. Over the past 10 years, dramatic changes in production efficiencies and genetic advances have impacted beef production. Over the past 10 years, average feedlot placement weight has increased 75 pounds per head and carcass weight has increased 70 pounds with 25 fewer days on feed. This has resulted in 1.7 billion more pounds for the same number of head, or 3 million head of the 15 million head decline in feeder cattle numbers. As a result of these effects plus increased cow slaughter, beef supplies have remained large. However, as supplies tighten, more calves are going on feed, resulting in more days on feed and two million fewer marketed in 1988.

Lower costs, larger feed supplies, declining beef supplies, stabilizing demand and higher prices are expected to result eventually in modest expansion. Calf prices this year went above average production costs for the first time since 1980. Positive cash flow will help stabilize the cow-calf industry and will provide an incentive for growth, but is not likely to start until after 1988.

Implications for New York Producers

1. Cow-calf producers will have the opportunity to sell feeder calves in the 80's and 90's if properly marketed. Our 1987 New York tel-e-market sale of 956 graded, health managed, feeder cattle equaled or exceeded nearly every major U.S. feeder cattle market price. However, those sold in regular auctions averaged 10 to 20 cents per pound under other major feeder cattle sales. We must assemble enough quality cattle to attract commercial cattle feeders and order buyers, and must have an organized approach to marketing to insure a "floor" price at national levels.

2. Finished cattle prices will rise from the mid-\$60's/cwt. to \$68-72 during the second and third quarters and remain in that range the fourth quarter. Commercial cattle feeders typically will require over \$65/cwt. to cover all costs, including yardage and feed markup. Expected cost of gain is in the low 40's, including \$20/ton feed markup for the first quarter of 1988. With prices in the \$68-72 range, profits of \$3-6/cwt. are expected. Cattle feeders must concentrate on being below average in cost of gain, and must be able to determine breakeven production sale prices for various cattle types to identify the best buys. Our budgeting work at Cornell indicates that in the long run our best opportunity to compete is the development of a Holstein steer feeding industry. Regional packers have indicated that they intend to develop that niche, and will make available price risk management programs (forward contracting, guaranteed basis pricing, custom feeding) to cattle feeders to encourage the development of a larger supply of Holstein steers, which they need to offset expected declines in dairy cow numbers.

Hogs

Record high hog/corn ratios enticed producers to expand throughout 1987. However, very low frozen pork stocks and lower beef production helped stabilize pork prices. In 1988, pork production will be at 15.5 billion pounds, up 10% from 1987. However, reduced beef supplies will keep this higher supply from being a negative price factor. Hogs are expected to range between \$42-46 for the first and second quarters, decline to the upper \$30's/cwt. in the third quarter, then recover to around \$40/cwt. in the last quarter of 1988.

1988 DAIRY OUTLOOK

Overview

POSITIVE FACTORS

- Increase in U.S. commercial demand for milk and dairy products
- CCC purchases near 1987 levels
- Government stocks very low
- Continued strong demand for milk in northeast
- Potential for RCMA and other over-order premiums

NEGATIVE FACTORS

- Lower milk prices
- Higher input prices
- Much less favorable milk-feed price ratio
- Tight cash flows during spring 1988

UNCERTAINTIES

- Strength of the economy in 1988
- Changes in federal budget legislation
- Dairy policy debate

NEW YORK DAIRY SITUATION AND OUTLOOK
1985, 1986, Preliminary 1987, and Projected 1988

Item	Year				Percent Change	
	1985	1986	1987	1988	86-87	87-88
Number of milk cows (thousand head)	948	947	892	895	-5.8	+0.3
Milk per cow (lbs.)	12,390	12,401	12,767	12,950	+3.0	+1.4
Total milk production (million lbs.)	11,746	11,744	11,388	11,590	-3.0	+1.8
Blended milk price (\$/cwt.) ^a	12.32	12.09	12.18	11.35	+0.7	-6.8
Index of prices paid by dairy farmers	150	149	149	153	-0-	+2.7

^aNew York-New Jersey blend price, 201-210 mile zone, 3.5 percent fat. Effective farm price after milk price assessments for 1985 is \$12.19, \$11.73 for 1986, \$11.99 for 1987, and projected 1988 is \$11.33.

Table 1

U.S. Milk Supply and Utilization
1980-1988

	1980	1981	1982	1983	1984	1985a	1986b	1987c	1988d
(billion pounds)									
<u>Supply</u>									
Production	128.5	133.0	135.5	139.7	135.4	143.1	144.1	143.2	147.0
Farm Use	2.3	2.3	2.4	2.4	2.9	2.4	2.6	2.5	2.4
Marketings	126.2	130.7	133.1	137.3	132.5	140.7	141.5	140.7	144.6
Beginning Commercial Stocks	5.4	5.8	5.4	4.6	5.2	4.9	4.6	4.2	4.1
Imports	2.1	2.3	2.5	2.6	2.7	2.8	2.7	2.8	2.8
TOTAL SUPPLY	133.7	138.8	141.0	144.5	140.5	148.4	148.8	147.7	151.5
<u>Utilization</u>									
Commercial Disappearance	119.2	120.5	122.1	122.5	126.9	130.6	134.0	137.8	141.2
Ending Commercial Stocks	5.8	5.4	4.6	5.2	4.9	4.6	4.2	4.1	4.0
Net Government Removals	8.8	12.9	14.3	16.8	8.6	13.2	10.6	5.8	6.3
TOTAL USE	133.7	138.8	141.0	144.5	140.5	148.4	148.8	147.7	151.5

Source: Dairy Situation and Outlook, Milk Production, and Dairy Market News, U.S. Department of Agriculture.

a Revised.

b Preliminary.

c Based on preliminary USDA data and Cornell estimates.

d Estimated assuming support price is \$10.60 and there is a 2¢/cwt assessment.

The U.S. Dairy Situation and Outlook

Milk Supplies

In part due to the Dairy Termination Program (DTP) and in part due to other economic factors, U.S. milk production declined less than 1% or about 1 billion pounds in 1987 (Table 1). As the DTP continued to phase in during the early part of year, milk production was below 1986 levels. During the last half of the year, the non-DTP period of 1987 showed gains over the DTP period of 1986. Nationally, milk production per cow in 1987 is about 3% or 400 pounds/cow higher than 1986. Cow numbers are down about 3.5% or 400,000 cows. On a state by state basis, many states show lower production in 1987 over 1986 even during the fall. Virtually all states show increases in production per cow, but only four states have significantly more cows; these are California, Texas, Washington, and Wisconsin. On a percentage basis, these states showed increases in October as follows: 1.3%, 2.5%, 6%, and .5%, respectively. The actual increase in cow numbers in each of these states is about the same, around 10,000 in October, for example.

Milk Utilization

Commercial disappearance (or sales) of dairy products are estimated to be almost 3% above year earlier levels (Table 1). This is the fourth year of record increases in commercial sales. In 1983 commercial disappearance of all milk products stood at 122.5 billion pounds. Since then it has increased about 15 billion pounds, an annual rate of 3.8 billion pounds or about 2.8%. Per capita consumption of almost all dairy products is up, but the major growth category is cheese, particularly Italian cheeses. A generally strong economy, favorable prices, strong markets for cheese in away from home and pre-prepared food markets, and dairy product promotion programs have all contributed to this unprecedented growth record.

Price Support Program

With production down and consumption up, net removals under the price support program decreased almost by one-half, ending the year at under 6 billion pounds (m.e.), (Table 1). This represents about 4% of the milk produced in the U.S. Because of the timing of the DTP, sales to the CCC were heavier in the fall, compared to last year. Earlier in the year, many analysts projected 1987 net removals would be closer to 5 billion pounds. Although a bit higher than had been hoped for, the final figure is still good. Nevertheless, concern is now focused on what net removals will be next year. Under the Food Security Act of 1985 (the farm bill), the support price for milk must be reduced 50 ¢/cwt if the Secretary of Agriculture estimates that holding the support price at \$11.10 will result in net removals (the same variable as shown in Table 1) in excess of 5 billion pounds. Most forecasters are now projecting that net removals will exceed 5 billion pounds even with a 50¢ cut.

Milk Prices

As shown in Table 2, farm milk prices in 1987 are estimated to be only slightly below last year. If assessments are included, the effective prices in

1987 are actually about 10 ¢/cwt higher. Wholesale prices for cheddar cheese, butter, and nonfat dry milk followed CCC purchase prices, dropping 2 to 4 ¢/lb in 1987. Whereas tight milk supplies held wholesale prices above purchase levels during the last four months of 1986, the nearly reverse situation in 1987 actually has pushed some manufactured product prices below purchase prices this fall. After holding steady last year, retail prices of dairy products are estimated to have increased over 2% in 1987; however all food prices increased 4%, which is more than the increase in the general CPI of 3.6%.

The 1988 Outlook - Policy

As has been so often true in the 1980s, the outlook for next year is muddled by prospects for changing federal policy. Although there are some discussions about changing dairy policy now contained in the Food Security Act, the immediate factor is change caused by new budget legislation aimed at meeting the goals of the so-called Gramm-Rudman-Hollings or budget deficit reduction act (GRH).

Across-the-board GRH expenditure cuts took effect November 21. It is generally expected that these GRH cuts will soon be replaced by a new budget plan. The target date for new budget legislation is December 16, the expiration date of the current "continuing resolution" under which the government has been paying its bills since the fiscal year began on October 1. At the time this is being written, Congress still needs to hammer out some specifics and then pass legislation for the President to sign. Until then, an across-the-board cut of 8.5% is in effect for many federal expenditures. If Congress doesn't pass new budget legislation, this GRH cut would stay in effect until October 1, 1988.

GRH cuts are taken through the unusual procedure of sequestration, which means that federal payments are in part held back. Buyout payments are not affected by GRH, but sales of a dairy product to the CCC are. USDA did not officially change the prices at which it purchases cheese, butter, and nonfat dry milk, but anyone who sells one of these products to the CCC will receive the announced purchase price less 8.5%. For example, the official purchase price for block cheddar is \$1.20 per pound. As of November 21, anyone selling block cheddar to the CCC will receive \$1.10 per lb. (\$1.20 less 8.5%). This means that sales to the CCC will give manufacturers less money to pay dairy farmers. Even though the official support price is still \$11.10, the effective level of support is more like \$10.10.

It is reported that dairy supports are slated for a 2% cut under the proposed budget plan. This could imply something like a 20-25¢ cut in the support price or a 2¢ assessment; the latter being the most likely. A new assessment would take effect as soon as the President signs the bill. The GRH cut does not change the requirements of the Food Security Act. A new budget bill probably will not either. Thus, it is highly probable that dairy farmers will face 1988 with a 50¢ farm bill price support cut and a 2¢ budget bill assessment.

Other price support policy discussions can be expected in 1988. Senator Leahy, chair of the Senate agriculture committee has introduced legislation called the Dairy Farm Protection Act. The central feature of this plan is to keep the basic price support and purchase operation of the traditional price support program but put it on a regional basis. Six to ten regions would get a share of CCC sales. If a region exceeded its sales quota, farmers in that region

would be required to pay an assessment to cover the cost of the over-quota sales. Another impetus to further policy discussion is likely to be the report to Congress that will be released by the National Dairy Commission in April. Set up under the Food Security Act, the 18 dairy farmers from across the U.S. who comprise the Commission have been holding hearings and examining options throughout 1987. It is not known what the Commission will propose; whatever it is, it will provide further fuel for discussion.

The 1988 Outlook - The Market

The outlook for milk supplies and utilization is made assuming a support price of \$10.60 and an assessment of 2 ¢/cwt. The support price would hold for all of 1988. The assessment, it is assumed, would be replaced with a similar assessment when the new fiscal year begins on October 1, 1988.

If production continues to run strong, consumption tapers off, and/or expectations for market improvements are poor, market prices will fall as much as the support price. If production increases are moderate, consumption increases at least one to two percent, and the market outlook is fairly optimistic, then market prices could firm up somewhat above support levels. Our projection is that the price of all milk nationally will average about 80¢ below the 1987 average of about \$12.45, putting the 1988 price at around \$11.65. Taking into account the assessment in 1987 and the projected 2¢ assessment in 1988, the net effect would be an average net price in 1988 about 60¢ lower than the net price in 1987.

As shown in Table 1, milk production is projected to be about 147 billion pounds (next year being a leap year adds .3% to the projection). This assumes an increase in production per cow of 2.5% to 3% and milk cow numbers holding steady to declining .5%. Higher feed prices, especially protein concentrates, may hold down production per cow increases somewhat, but a milk/feed price ratio of around 1.45 and general good management would still point to improvements in production per cow comparable to the recent trend. Changes in total cow numbers will hinge on the number of dairy farmers going out of business relative to new entrants. With prices expected to decline substantially next year, 1988 may be the year when more farmers decide to quit dairy farming.

The factors that have contributed to exceptional sales growth during the 1980s should continue to push commercial disappearance up in 1988. We are projecting an increase of over 2% (again, next year being a leap year adds .3% to the projection). If there is a dark cloud on the horizon it would be concern about the strength of the general economy, i.e. fears that a recession is possible for 1988 and that it could be fairly severe.

With these projected changes in production and commercial disappearance, net removals of dairy products under the price support program would be over 6 billion pounds, up somewhat from 1987. Depending on factors such as dairy farmer attrition and general economic growth, one could reasonably construct a forecast ranging from 5 to 8 billion pounds.

Table 2

Farm Prices for Milk; CCC Purchase, Wholesale, and Retail Prices
for Cheese, Butter, and Nonfat Dry Milk; and Selected Retail Price Indices
1980-1987

	1980	1981	1982	1983	1984	1985	1986a	1987b
Farm Milk (\$/cwt., ave. fat):								
All Milk	13.05	13.77	13.61	13.58c	13.46d	12.75e	12.51f	12.45g
Grade A	13.23	13.95	13.80	13.75c	13.61d	12.90e	12.62f	12.55g
Grade B	12.01	12.72	12.60	12.61c	12.49d	11.72e	11.46f	11.39g
Milk/16% Feed Ratio	1.47	1.43	1.54	1.45c	1.41d	1.52e	1.57f	1.58g
Cheese (\$/lb.):								
CCC Purchase, Natural Cheddar, Grade A or higher, blocksh	1.320	1.400	1.400	1.391	1.348	1.279	1.250	1.213
Wholesale, Cheddar (40 pound blocks), National Cheese Exchange	1.293	1.358	1.358	1.352	1.341	1.248	1.260	1.213
Retail, Cheddar Cheese	N.A.	N.A.	N.A.	N.A.	3.065	3.093	3.049	3.059
Butter (\$/lb.):								
CCC Purchase, Grade A or higher, Chicago	1.402	1.490	1.490	1.485	1.433	1.415	1.398	1.366
Wholesale, Grade A, Chicago (1 lb.)	1.393	1.480	1.477	1.473	1.488	1.411	1.445	1.422
Retail, Grade AA, sticks (1 lb.)	1.878	1.993	2.046	2.066	2.107	2.121	2.151	2.190
Nonfat Dry Milk (\$/lb.):								
CCC Purchase, Spray Process, Extra Grade, Unfortifiedh	.891	.940	.940	.937	.910	.843	.808	.779
Wholesale (1 lb.)	.887	.940	.940	.932	.909	.841	.806	.794
Retail Price Indices (1967=100.0):								
Fluid Whole Milk	208.4	220.2	221.4	222.9	224.6	228.1	226.8	231.0
All Dairy Products	227.4	243.6	247.0	249.9	253.2	258.0	258.4	264.7
All Food	254.6	274.6	285.7	291.7	302.9	309.8	319.7	332.9
All Consumer Prices	246.8	272.4	289.1	298.4	311.1	322.2	328.4	340.1

Source: Dairy Situation and Outlook, Dairy Market News, and Federal Milk Order Market Summaries, U.S.
Department of Agriculture.

a Revised.

b Estimated.

c Excludes assessments averaging 48¢/cwt. for the year.

d Excludes 50¢/cwt. assessment.

e Excludes assessment averaging 12.5¢/cwt. for the year.

f Excludes assessment averaging 36.5¢/cwt. for the year.

g Excludes assessment averaging 18.8¢/cwt. for the year.

h Simple annual average of announced support price.

Number of Producers Delivering Milk, Simple Average of Months per Year
Northeast Federal and State Marketing Orders
1981-1987

Markets	1981	1982	1983	1984	1985	1986 ^a	1987 ^b
New York-New Jersey	17656	17485	17434	17120	16521	15876	14715
New England	7042	6923	6812	6669	6350	5891	5403
Middle Atlantic	7327	7168	7033	6891	6712	6586	6380
E. Ohio-W. Pennsylvania	6199	6219	6322	6235	6103	5885	5600
Western N.Y. Order (Buffalo & Rochester)	<u>1337</u>	<u>1311</u>	<u>1286</u>	<u>1258</u>	<u>1211</u>	<u>1161</u>	<u>1087</u>
Regional Total	39561	39106	38887	37922	36902	35353	33185

Source: Annual Federal Milk Order Market Statistics and Annual Statistical Reports for State Orders.

^aRevised.

^bEstimated.

The number of producers in Northeast Federal and State Order markets declined by 2168, or 6 percent in 1987 following a 4.2 percent decline in 1986.

The Dairy Termination Program was again a major factor in the relatively high attrition rate. However, nonparticipating producers made up an equally large segment of those choosing to discontinue dairying in 1987.

During the two-year period encompassing the Dairy Termination Program, Northeast order producer numbers declined by 3717 or 10 percent. By comparison, during the five-year period from 1980-85 producer numbers declined by only 8 percent or 3036.

The New England and New York-New Jersey orders had the highest dropout rate with 8 and 7 percent respectively, while E. Ohio-W. Pennsylvania and the Middle Atlantic Order had declines of 5 and 3 percent.

There was considerable shifting of producers from the New York-New Jersey to the New England Order as a result of over-order premiums offered by New England handlers.

Northeast producer numbers are expected to decline by an additional 4 to 5 percent in 1988.

Receipts of Milk from Producers by Regulated Handlers, Million Pounds
Northeast Federal and State Marketing Orders
1981-1987

Markets	1981	1982	1983	1984	1985	1986 ^a	1987 ^b
	(million pounds)						
New York-New Jersey	10925	11094	11643	11358	11689	11729	11350
New England	5093	5253	5483	5252	5399	5341	5165
Middle Atlantic	5940	6043	6140	5850	6239	6412	6285
E. Ohio-W. Pennsylvania	3356	3486	3750	3669	3866	3884	3832
Western N.Y. Order (Buffalo & Rochester)	1081	1090	1172	1158	1212	1237	1200
Regional Total	26395	26966	28188	27287	28406	28603	27832

Source: Annual Federal Milk Order Market Statistics and Annual Statistical Reports for State Orders.

^aRevised.

^bEstimated.

Producer receipts of milk in Northeast Order markets declined by 2.7% or 771 million pounds.

The New York-New Jersey, New England and Western New York orders all had declines exceeding 3 percent. The Middle Atlantic Order was down 2 percent and E. Ohio-W. Pennsylvania had slightly more than a 1 percent drop.

Producer receipts were sharply lower during the first half of the year, but moderated during the second half as DTP cattle sales ended.

In 1988, producer receipts are expected to increase by 2 percent in all Northeast markets.

Producer Milk Used in Class I by Regulated Handlers, Million Pounds
Northeast Federal and State Marketing Orders
1981-1987

Markets	1981	1982	1983	1984	1985	1986 ^a	1987 ^b
	(million pounds)						
New York-New Jersey	4561	4523	4457	4534	4662	4665	4608
New England	2821	2762	2788	2786	2793	2814	2813
Middle Atlantic	2866	2792	2884	2895	2869	2986	3149
E. Ohio-W. Pennsylvania	1933	1942	1954	2019	2033	1985	2037
Western N.Y. Order (Buffalo & Rochester)	459	447	441	437	443	437	441
Regional Total	12640	12466	12524	12672	12800	12887	13048

Source: Annual Federal Milk Order Market Statistics and Annual Statistical Reports for State Orders.

^aRevised.

^bEstimated.

Class I fluid milk sales in the Northeast Order markets increased 1.2 percent in 1987. This is the fifth consecutive year that fluid sales have increased following a seven-year decline. Fluid sales in the Middle Atlantic Order were sharply higher, with an increase of 5.5 percent, resulting partially from increased diversions of Class I milk to southern markets. The E. Ohio-W. Pennsylvania and Western New York Orders had more moderate increases of 2.6 and 1 percent, respectively. Fluid sales in New England were unchanged, while the New York-New Jersey Order had the only decline of 1.2 percent.

In 1988 fluid sales for the Northeast markets are expected to increase between 0.5 and 1 percent.

Producer Milk Used in Class I as Percentage of All Producer Milk Received
 by Regulated Handlers
 Northeast Federal and State Marketing Orders
 1981-1987

Markets	1981	1982	1983	1984	1985	1986 ^a	1987 ^b
	(percent)						
New York-New Jersey	42	41	38	40	40	40	41
New England	55	53	51	53	52	53	55
Middle Atlantic	48	46	47	50	46	47	50
E. Ohio-W. Pennsylvania	58	56	52	55	53	51	53
Western N.Y. Order (Buffalo & Rochester)	42	41	38	38	37	35	37

Source: Annual Federal Milk Order Market Statistics and Annual Statistical Reports for State Orders.

^aRevised.

^bEstimated.

The Class I fluid utilization is affected by the volume of fluid sales and total receipts of milk in a market.

Lower producer receipts caused the percent fluid utilization to increase in all five Northeast Order markets. Fluid utilization was further enhanced by Class I sales increases in all but the New York-New Jersey order.

Higher milk receipts in 1988 are expected to result in a 1 percent decline in the Class I utilization.

Minimum Class I Prices for 3.5% Milk
Northeast Federal and State Marketing Orders
1981-1987

Markets	1981	1982	1983	1984	1985	1986	1987 ^a
	(\$/cwt)						
New York-New Jersey ¹	14.83	14.73	14.78	14.49	13.97	13.63	13.89
New England ²	15.00	14.76	14.82	14.52	14.00	13.62	13.86
Middle Atlantic ³	15.36	15.26	15.32	15.02	14.50	14.13	14.37
E. Ohio-W. Pennsylvania ³	14.53	14.43	14.49	14.19	13.67	13.20	13.34
Western N.Y. Order ³ (Buffalo & Rochester)	15.29	15.19	15.25	14.95	14.43	14.09	14.35

Source: Annual Federal Milk Order Market Statistics and Annual Statistical Reports for State Orders.

^aEstimated.

¹201-210 mile zone.

²21st zone.

³Priced at major city in the marketing area.

Fluid milk prices in the Northeast Orders were up between 1 and 2 percent in 1987 following a 4 percent decline in 1986.

The 1987 Class I prices increased between 24 and 26 cents in four of the five Northeast markets after declining by 36 cents the previous year. The E. Ohio-W. Pennsylvania Order had an increase of 14 cents over the previous year.

Class I prices are expected to decrease from 4 to 6 percent in 1988.

Minimum Class II Prices for 3.5% Milk
Northeast Federal and State Marketing Orders
1981-1987

Markets	1981	1982	1983	1984	1985	1986	1987 ^a
	(\$/cwt)						
New York-New Jersey ¹	12.58	12.49	12.50	12.29	11.48	11.30	11.23
New England ²	12.58	12.49	12.50	12.29	11.48	11.30	11.23
Middle Atlantic ³	12.60	12.51	12.52	12.31	11.50	11.32	11.26
E. Ohio-W. Pennsylvania ⁴	12.58	12.49	12.49	12.29	11.48	11.30	11.24
Western N.Y. Order ³ (Buffalo & Rochester)	12.53	12.44	12.45	12.24	11.43	11.25	11.18

Source: Annual Federal Milk Order Market Statistics and Annual Statistical Reports for State Orders.

^aEstimated.

¹201-210 mile zone.

²21st zone.

³Priced at major city in the marketing area.

⁴Class III.

Northeast Order Class II manufacturing milk prices declined by less than 1 percent in 1987 following a 2 percent decline the previous year.

Class II prices were from 6 to 7 cents below last year in all markets.

In 1988 Class II prices are expected to decline from 5 to 7 percent in the Northeast Order.

Minimum Blend Prices for 3.5% Milk
Northeast Federal and State Marketing Orders
1981-1987

Markets	1981	1982	1983	1984	1985	1986	1987 ^a
	(\$/cwt)						
New York-New Jersey ¹	13.39	13.26	13.23	13.03	12.32	12.09	12.18
New England ²	13.90	13.61	13.59	13.38	12.67	12.43	12.51
Middle Atlantic ³	13.95	13.80	13.85	13.67	12.90	12.66	12.82
E. Ohio-W. Pennsylvania ³	13.67	13.53	13.46	13.35	12.69	12.32	12.38
N.Y. State Orders ³ (Buffalo & Rochester)	13.57	13.43	13.36	13.18	12.47	12.25	12.33

Source: Annual Federal Milk Order Market Statistics and Annual Statistical Reports for State Orders.

^aEstimated.

¹201-210 mile zone.

²21st zone.

³Priced at major city in the marketing area.

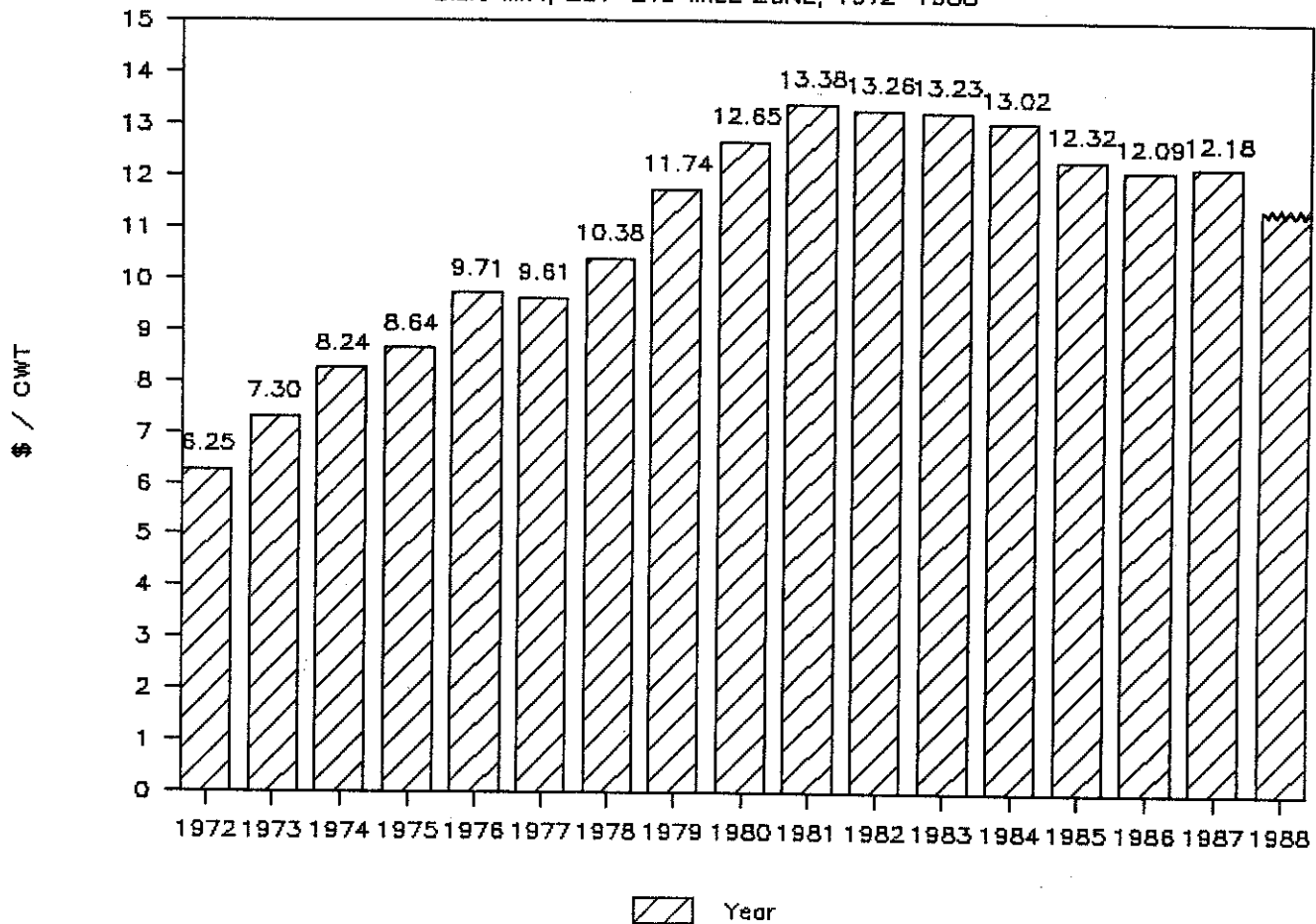
The blend price of milk in Northeast orders increased from 0.5 to 1.3 percent in 1987. In four of the five orders blend prices increased by an average of 7 cents or 0.6 percent over 1986.

The Middle Atlantic Order blend price increased 16 cents or 1.3 percent due to their exceptionally strong Class I sales increase for the year.

Assuming a 50-cent cut in the support price on January 1, 1988, blend prices in the Northeast order are expected to decline by 5 to 7 percent or 60 to 80 cents from 1987 levels. During the first half of 1988 blend prices are expected to average 90 cents below year earlier levels in the New York-New Jersey and Western New York orders. A 2-cent assessment is possible in 1988 as a result of proposed budget reduction legislation; this would result in an effective farm price approximately 66 cents below last year's level in the New York-New Jersey Order. RCMA and other over-order premiums could be helpful in partially offsetting the lower blend prices, particularly in the New England and Middle Atlantic markets, during the first and third quarters of 1988.

NEW YORK-NEW JERSEY BLEND PRICE

3.5% M.F., 201-210 MILE ZONE, 1972-1988



N.Y.-N.J. Blend Price, 3.5% M.F., 201-210 Mile Zone, 1981-1987

Month	1981	1982	1983	1984	1985	1986	1987
January	\$13.46	\$13.35	\$13.35	\$12.99	\$13.34	\$11.92	\$12.76
February	13.46	13.30	13.35	12.79	13.13	11.84	12.42
March	13.20	13.02	13.01	12.55	12.64	11.50	11.92
April	13.00	12.82	12.85	12.36	12.19	11.31	11.55
May	12.83	12.61	12.64	12.26	11.78	11.25	11.30
June	12.83	12.63	12.61	12.29	11.47	11.27	11.35
July	13.33	13.16	13.12	12.84	11.93	11.86	11.96
August	13.68	13.59	13.59	13.39	12.27	12.46	12.44
September	13.83	13.74	13.75	13.74	12.37	12.79	12.75
October	13.87	13.81	13.74	13.83	12.40	13.05	12.80
November	13.74	13.71	13.63	13.91	12.30	13.05	12.69*
December	13.41	13.41	13.07	13.38	12.01	12.78	12.22*
Average	13.38	13.26	13.23	13.03	12.32	12.09	12.18*

*Estimates

Source: Price Announcements, Office of the Administrator, New York-New Jersey Milk Marketing Area.

MILK PRICE PROJECTIONS
New York-New Jersey Blend Price, 3.5 Percent, 201-210 Mile Zone
Last Quarter 1987 - First Half 1988

Month	1986	1987	Difference
	(dollars per hundredweight)		
October	13.05	12.80a	-0.25
November	13.05	12.69p	-0.36
December	12.78	12.22p	-0.56
Annual Average	12.09	12.18p	-0.09
	1987	1988e	
January	12.76	11.75	-1.01
February	12.42	11.52	-0.90
March	11.92	10.99	-0.93
April	11.55	10.66	-0.89
May	11.30	10.45	-0.85
June	11.35	10.45	-0.90
Six Month Average	11.88	10.97	-0.91
Annual Average Blend Price	12.18	11.35	-0.79
Annual Effective Price	11.99	11.33	-0.66

a=actual; p=projected; e=estimated.

Assumptions Associated With These Projections

Support price drops to \$10.60 on January 1, 1988.

National milk production up 2 to 2.5 percent.

Commercial sales up 1 to 2 percent.

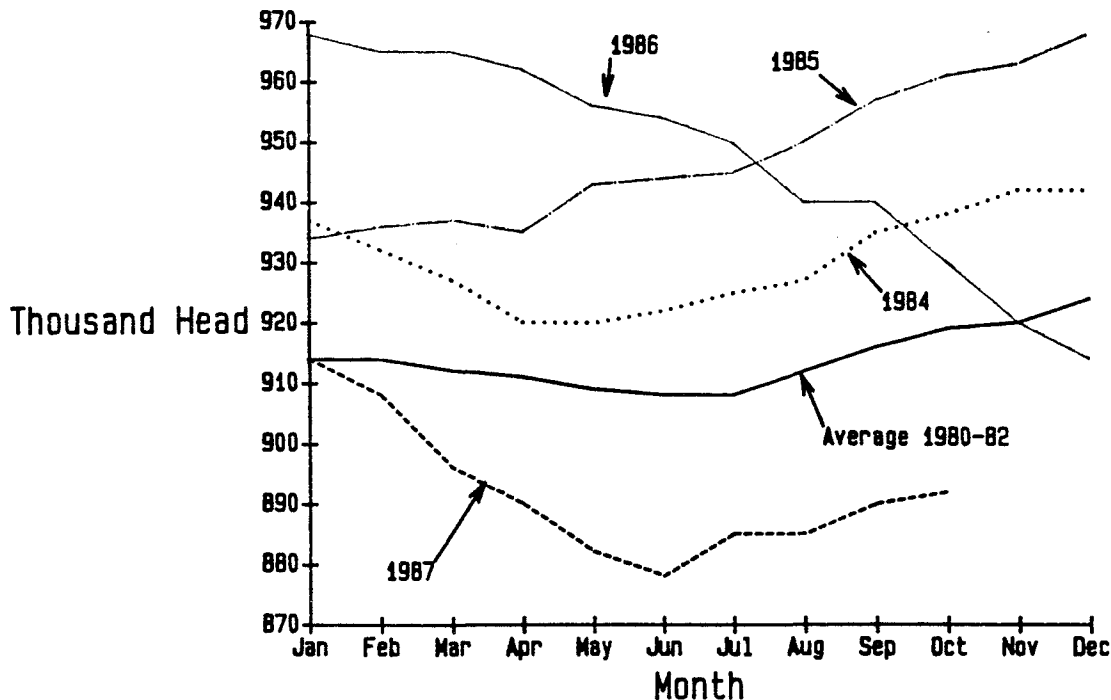
CCC purchases near 6 billion pounds M.E.

Government stocks will remain at relatively low levels.

An additional 20-25¢ reduction in the support price or a 2-cent assessment is likely in 1988 as a result of the proposed budget bill now being considered.

12/7/87 WCW

MILK COWS ON FARMS, NEW YORK, MONTHLY, 1980-82 AVERAGE AND 1984-1987



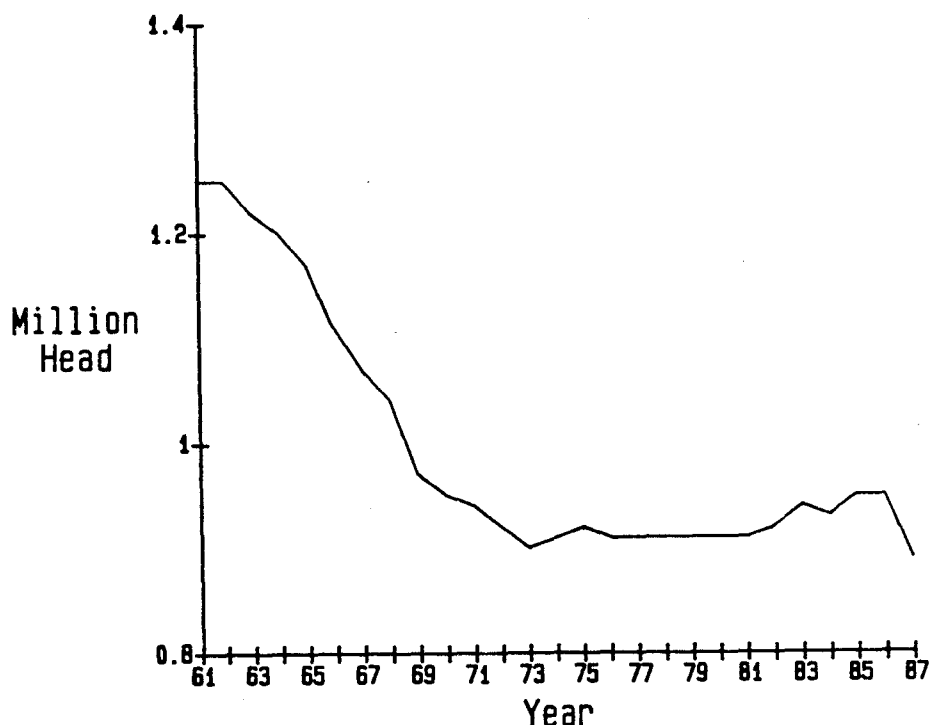
SOURCE: New York Agricultural Statistics.

As seen in the above chart, 1987 monthly cow numbers have been well below 1985 and 1986 levels. The steady decline in monthly cow numbers in New York, which took place beginning in January 1986, continued through June 1987. In June, the number of cows totaled 878,000, which was the lowest number for any month in New York since the state began keeping records. However, beginning in July 1987, cow numbers started to increase. Between July and October, the number of cows in New York increased consistently from 885,000 to 892,000, up 1.6 percent from June. The number of cows in the state are projected to close the year at 899,000.

Most of the decline in cow numbers in 1986 was due to the Dairy Termination Program (DTP). Participants in this program were required to slaughter or export their dairy cattle in one of three assigned six month disposal periods beginning on April 1, 1986 and extending to August 31, 1987. This program was responsible for the liquidation of approximately 34,697 cows, 12,563 heifers, and 10,544 calves in New York. Since the program expired in August, monthly cow numbers have steadily increased from 885,000 in August to 899,000 projected for December. Monthly cow numbers in New York are projected to continue to increase slightly in 1988 compared with 1987 because the DTP has expired.

Heifers as a percent of cow numbers on January 1, 1987 decreased 1.7 percentage points from 1986 to 42.7 percent. This is 2.3 percentage points higher than the average number of heifers as a percent of cow numbers for 1974-1985.

NUMBER OF MILK COWS, NEW YORK, 1961-87



SOURCE: New York Agricultural Statistics.

The average number of milk cows on New York farms for 1987 is estimated at 892,000 head, which is 5.8 percent lower than in 1986. The reduction in the state's herd of 54,000 cows is not solely due to the Dairy Termination Program. The DTP accounted for about 12 percent of the total reduction. The remainder of the decrease is due to herd reductions or liquidation of the herd by dairy farmers not participating in this program. The projected average number of cows for 1988 is 895,000, or up 0.3 percent over 1987. This marginal increase is based on the recent modest expansion in cow numbers beginning in July of 1987.

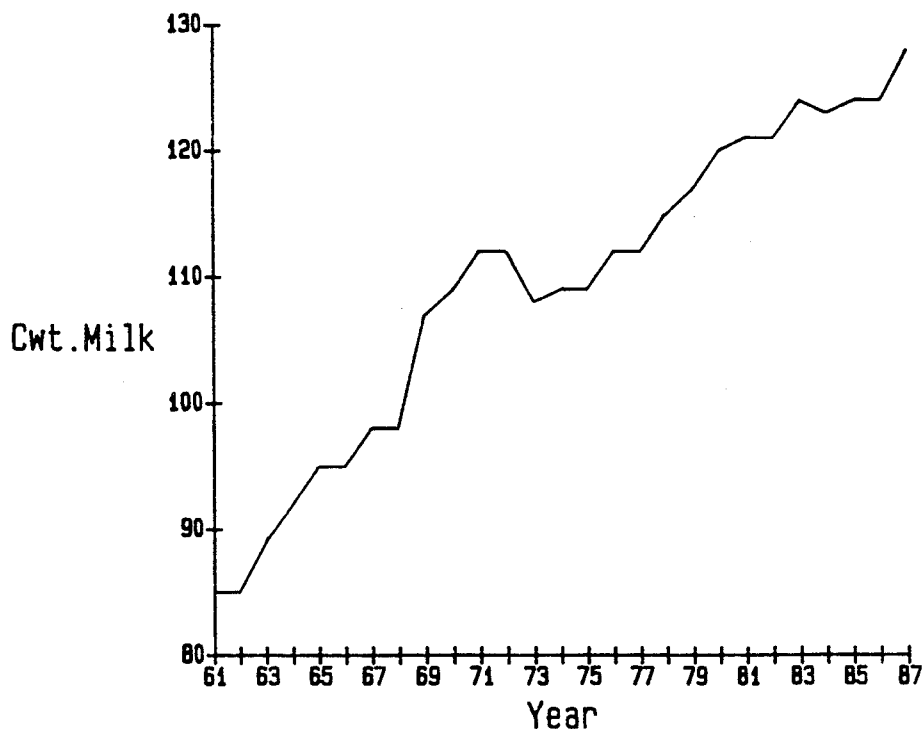
Year	Milk Cows 1,000 head	Year	Milk Cows 1,000 head
1961	1,253	1975	919
1962	1,253	1976	912
1963	1,217	1977	914
1964	1,196	1978	906
1965	1,165	1979	905
1966	1,109	1980	911
1967	1,069	1981	912
1968	1,039	1982	919
1969	969	1983	940
1970	950	1984	931
1971	935	1985	948
1972	920	1986	947*
1973	903	1987	892**
1974	905	1988	895***

*Revised

**Preliminary

***Projected

ANNUAL MILK PRODUCTION PER COW, NEW YORK, 1961-87



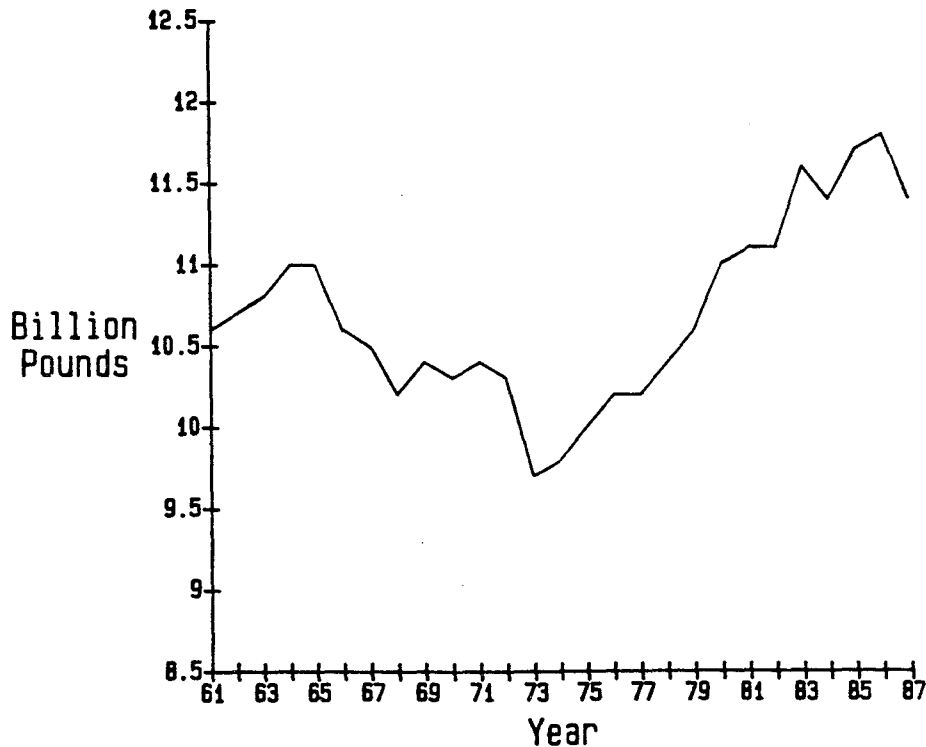
SOURCE: New York Agricultural Statistics.

Pounds of milk produced per cow in 1986 was up by 0.2 percent from 1985. Production per cow in New York will show a larger increase in 1987, primarily due to the favorable milk-feed price ratio. Milk per cow is expected to average 12,767 pounds in 1987, an increase of 3 percent over 1986. Milk production per cow has increased steadily since 1960 with the exception of 1973 and 1974 and small declines in 1982 and 1984.

Milk production per cow is projected to increase in 1988 by 1.4 percent. Based on continued genetic improvements, milk per cow is projected to reach 12,950 pounds in 1988.

<u>Year</u>	<u>Lbs. of Milk Prod. per Cow</u>	<u>Year</u>	<u>Lbs. of Milk Prod. per Cow</u>	<u>Year</u>	<u>Lbs. of Milk Prod. per Cow</u>
1962	8,530	1971	11,156	1980	12,046
1963	8,880	1972	11,202	1981	12,137
1964	9,160	1973	10,773	1982	12,075
1965	9,470	1974	10,853	1983	12,393
1966	9,540	1975	10,866	1984	12,290
1967	9,780	1976	11,182	1985	12,374*
1968	9,835	1977	11,186	1986	12,401*
1969	10,682	1978	11,488	1987	12,767**
1970	10,885	1979	11,746	1988	12,950***
*Revised **Preliminary ***Projected					

TOTAL MILK PRODUCTION, NEW YORK, 1961-87



SOURCE: New York Agricultural Statistics.

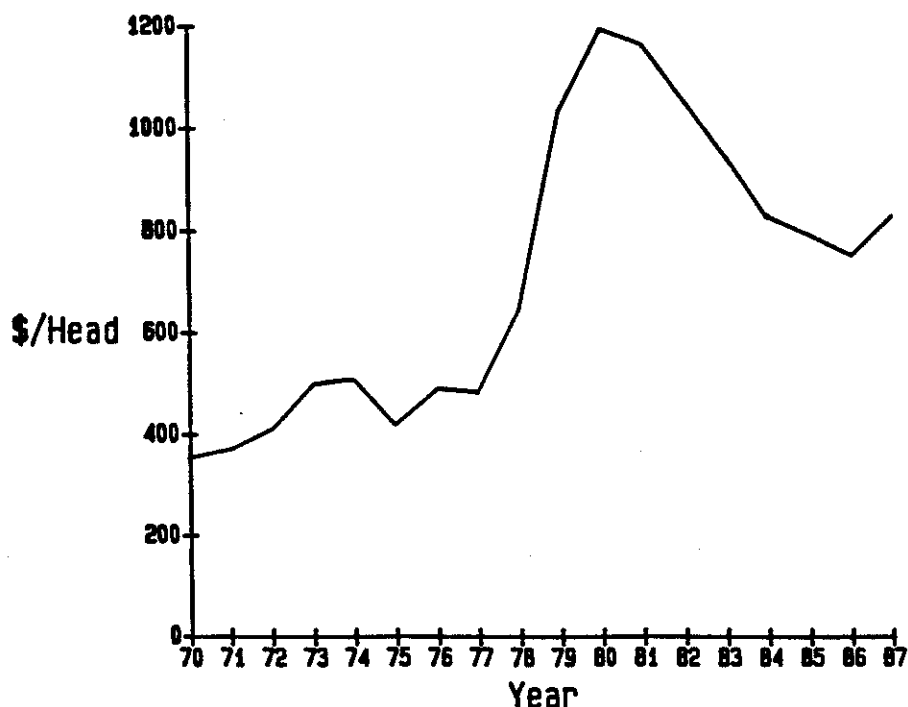
Total milk production in 1987 is estimated at 11,388 million pounds, down 3 percent over 1986. This decrease is entirely due to the 5.8 percent decrease in cow numbers, since production per cow is up by 3 percent.

Total milk production is projected to increase 1.8 percent in 1988 to 11,590 million pounds. This is a result of the factors discussed on the previous two pages in regard to cow numbers and production per cow.

Year	Tot. Milk Prod. mil. lbs.	Year	Tot. Milk Prod. mil. lbs.	Year	Tot. Milk Prod. mil. lbs.
1962	10,688	1971	10,431	1980	10,974
1963	10,807	1972	10,306	1981	11,069
1964	10,955	1973	9,728	1982	11,097
1965	11,033	1974	9,822	1983	11,649
1966	10,580	1975	9,964	1984	11,442
1967	10,455	1976	10,198	1985	11,731
1968	10,219	1977	10,224	1986	11,744*
1969	10,351	1978	10,408	1987	11,388**
1970	10,341	1979	10,630	1988	11,590***

*Revised **Preliminary ***Projected

MILK COW PRICES, NEW YORK, SEASON AVERAGE, 1970-87



SOURCE: New York Agricultural Statistics.

Milk cow prices increased in 1987, the first time since 1980. Monthly prices for milk cows have averaged \$80 a head higher than a year earlier. Slaughter cow prices are stronger than a year earlier and calf prices were up more than \$20 per hundredweight in summer and early fall.

Milk cow prices are likely to be steady to lower in 1988 in response to weakening milk prices. Slaughter cow prices will be stable to lower as larger supplies of competing meats, particularly pork, put pressure on beef prices.

Month	Milk Cows, \$/Head		Slaughter Cows, \$/Cwt		Calves, \$/Cwt	
	1986	1987	1986	1987	1986	1987
January	\$740	\$790	\$33.30	\$35.40	\$54.80	\$59.10
February	750	790	34.20	37.80	60.10	64.80
March	740	810	33.60	39.60	53.70	63.10
April	740	830	31.90	41.10	50.50	71.30
May	750	840	34.70	43.60	67.80	86.00
June	770	850	35.50	42.40	66.90	86.50
July	770	860	33.70	41.60	52.80	78.40
August	760	860	33.10	40.90	50.50	80.50
September	750	860	34.10	41.00	58.70	85.90
October	760	870	33.40	41.40	63.60	88.00
November	770		32.70		59.00	
December	770		33.50		57.70	

INDEX OF PRICES PAID BY NEW YORK DAIRY FARMERS
(1977=100)

Item	Weight	1982	1983	1984	1985	1986	1987*	1988**
Feed	.31	129	141	141	119	118	112	116
Purchased animals	.03	217	195	170	163	156	173	170
Fuel & energy	.05	209	205	206	204	178	176	185
Fertilizer	.05	149	139	142	134	127	128	138
Seed	.02	157	160	169	169	167	166	171
Machinery	.18	161	172	181	185	185	189	193
Building & fencing supplies	.08	135	138	138	136	136	137	138
Farm services & rent	.08	143	147	149	152	150	148	151
Agricultural chemicals	.01	119	125	128	128	127	124	124
Interest rates	.07	161	145	151	146	141	134	136
Farm wage rates	.09	141	151	158	169	185	195	203
Property taxes	.03	142	152	161	176	181	190	195
Prices Paid, Not Including Assessment		148	153	156	150	149	149	153
Prices Paid, Including Assessment		--	159	162	152	154	152	--

Source: New York Agricultural Statistics Service

*Preliminary

**Projected

The 1987 index of prices paid by New York dairy farmers not including the assessment remained at the 1986 level of 149. Including the milk price assessment and promotion deduction, the index decreased one percent in 1987. Purchased animals showed the largest increase at 11 percent. Interest rates showed the largest decrease at five percent.

For 1988, the index of prices paid is projected to increase about three percent. Fertilizer, fuel and energy, and farm wage rates are likely to show the largest increase. None of the cost categories are expected to decrease, but agricultural chemicals are likely to be stable in 1988. With no assessment or a very small assessment projected for 1988, the index including the assessment was discontinued.

COST AND RETURN ESTIMATES PER HUNDREDWEIGHT OF MILK
Specialized Dairy Farms by Region, United States, 1986

Region	Returns/Cwt.		Costs/Cwt.		Return to Oper-	Return to
	Milk	Total	Variable	Total*	ator's Mgmt.	Labor, Mgmt. & Ownersh.**
1. Southern Plains (TEXAS)	\$13.65	\$14.46	\$8.32	\$11.25	\$3.21	\$4.42
2. Upper Midwest (MN,WI,MI,SD)	12.15	13.28	6.32	11.74	1.54	4.23
3. Northeast (NY,PA,OH,NEW ENGLAND)	12.72	13.61	7.38	12.14	1.47	3.85
4. Pacific (CA,WA)	11.83	12.53	7.61	9.43	3.10	3.81
5. Appalachia (KY,TN,VA,NC,GA)	13.21	14.01	8.57	12.74	1.27	3.51
6. Corn Belt (IN,IL,IA,MO)	12.27	13.18	7.21	12.69	0.49	3.38
National Average	12.42	13.36	7.14	11.70	1.66	3.96

SOURCE: USDA, ERS, Economic Indicators of the Farm Sector, Costs of Production, 1986.

*Total costs include allocated charges for unpaid labor and equity capital.

**Return to labor, management, and ownership excludes charges for unpaid labor and equity capital from total costs.

The Agriculture and Consumer Protection Act of 1973 directed the Secretary of Agriculture to make annual estimates of the costs of producing a number of major agricultural commodities. One of these is milk. The most recent set of estimates is for 1986 and was issued in 1987 as part of the Economic Indicators of the Farm Sector series by the ERS. Cost estimates were developed by the USDA for six major producing regions in the United States.

Over the past 10 years the differences in prices received for milk at the farm between regions have narrowed substantially. In 1986, the highest prices received nationally were in the South and the lowest in the Pacific region. The spread between regions is now about \$1.80 per hundredweight. There are important differences in average production costs between regions. The USDA estimates are based on a consistent methodology and appear reasonable in relation to other data and information from the six designated regions. In 1986, the Southern Plains region showed the highest return to labor, management, and ownership. The Northeast is in third place and ahead of the Pacific region on this measure.

In the Dairy Farm Business Summary Project at Cornell University, the "whole farm data" method is used to compute the cost of producing milk. This method is based on the costs and returns reported by 414 dairy farmers which is quite different from the USDA's use of budget estimates. One could compare cost of production data from these two sources keeping in mind the different methodologies.

AVERAGE COST PER HUNDREDWEIGHT OF PRODUCING MILK*
New York Dairy Farms, 1979 to 1986

Item	1979	1981	1983	1984	1985**	1986**
<u>Cash Operating Expenses</u>						
Hired labor	\$.99	\$ 1.20	\$ 1.25	\$ 1.39	\$ 1.38	\$ 1.38
Purchased feed	3.37	3.62	3.59	3.46	3.10	3.21
Replacement livestock	.50	.23	.16	.10	.10	.13
Vet & medicine	.22	.28	.28	.29	.27	.28
Breeding fees	.15	.18	.19	.20	.20	.19
Other dairy expenses	.74	.89	1.47	1.58	1.33	1.37
Machinery repairs & rent	.69	.81	.77	.80	.79	.75
Auto expenses (farm share)	.04	.04	.04	.03	.03	.04
Fuel, oil & grease	.43	.62	.49	.50	.48	.34
Lime & fertilizer	.62	.72	.63	.66	.62	.48
Seeds & plants	.20	.23	.21	.22	.24	.22
Spray & other crop expense	.16	.21	.19	.20	.23	.19
Land, building, fence repair	.21	.22	.18	.18	.17	.16
Taxes	.28	.35	.34	.33	.34	.33
Insurance	.20	.23	.21	.20	.22	.22
Electricity (farm share)	.21	.27	.31	.32	.32	.34
Telephone (farm share)	.04	.05	.05	.04	.05	.05
Interest paid	1.00	1.43	1.40	1.40	1.25	1.18
Miscellaneous	.31	.41	.44	.44	.40	.41
Total	\$10.36	\$11.99	\$12.20	\$12.34	\$11.52	\$11.27
<u>Operating Expenses</u>						
Depreciation: mach. & bldgs.	\$ 1.06	\$ 1.56	\$ 1.56	\$ 1.65	\$ 1.64	\$ 1.54
Unpaid labor	.13	.14	.12	.12	.12	.13
Operator(s) labor	.91	.99	.89	.87	.97	.86
Operator(s) management	.68	.76	.76	.76	.72	.71
Interest on farm equity cap.	1.22	1.32	1.20	1.22	1.16	1.10
Total	\$ 4.00	\$ 4.77	\$ 4.53	\$ 4.62	\$ 4.61	\$ 4.34
Gross Farm Operating Cost	\$14.36	\$16.76	\$16.73	\$16.96	\$16.13	\$15.61
Less: Non-milk cash receipts	1.78	1.58	1.49	1.74	1.58	1.52
Inc. in feed & supplies	.40	.11	.26	.18	.06	.07
Inc. in livestock	.38	.25	.24	.16	.18	.12
TOTAL COST OF MILK PRODUCTION	\$11.80	\$14.82	\$14.74	\$14.88	\$14.31	\$13.90
OPERATING COST OF MILK PROD.	\$7.80	\$10.05	\$10.21	\$10.26	\$9.70	\$9.56
AVERAGE FARM PRICE OF MILK	\$11.90	\$13.66	\$13.64	\$13.49	\$12.90	\$12.65
Return per cwt. to oper. labor, capital, & management	\$2.91	\$1.91	\$1.75	\$1.46	\$1.44	\$1.42
Rate of return on farm eq. cap.	5.4%	0.6%	0.4%	-0.7%	-1.1%	-0.7%

*Using farm unit (whole farm) method. **Calculated on an accrual basis.

Includes cash expenses plus changes in accounts payable and cash receipts plus changes in accounts receivable.

Source: New York Dairy Farm Business Summary data.

These data indicate that total production costs decreased \$0.41 per hundredweight in 1986 compared with 1985 while milk receipts decreased \$0.25 per hundredweight. The result was a decrease of \$0.02 per hundredweight in the return to operator's labor, management, and equity capital. The reduction in milk production costs is due to decreases in crop expenses of \$0.20 per hundredweight; fuel, oil, and grease of \$0.14 per hundredweight; and an interest paid decrease of \$0.07 per hundredweight.

In addition to the cash operating expenses, values are placed on unpaid family labor, the operator's labor, a charge is made for management, and interest on equity capital is computed at a rate of five percent to calculate the total cost of milk production. Together with depreciation these charges amounted to \$4.34 per hundredweight in 1986. Adjustments to costs were made to reflect income and expenses for crop and livestock sales and inventory adjustments so that the resulting cost of milk production reflects only fluid milk production costs.

COMPARISON OF FARM BUSINESS SUMMARIES FOR 1984, 1985, AND 1986
Same 229 New York Dairy Farms

Item	1984	1985	1986
<u>Size of Business</u>			
Number of cows	96	102	106
Number of heifers	83	84	86
Number of crop acres	288	299	305
Number of workers	3.20	3.29	3.32
Number of operators	1.33	1.32	1.31
Milk sold (pounds)	1,526,978	1,637,695	1,740,826
<u>Rates of Production</u>			
Milk sold per cow (pounds)	15,860	16,011	16,392
Hay DM per acre (tons)	2.9	2.9	2.8
Corn silage per acre (tons)	14.3	15.0	14.8
<u>Labor Efficiency</u>			
Cows per worker	30	31	32
Milk sold per worker (pounds)	477,181	497,779	524,345
<u>Income Analysis & Cost Control</u>			
Milk sales per cow	\$2,140	\$2,075	\$2,082
Dairy cattle sales per cow	\$200	\$189	\$159
Government receipts per cow	\$28	\$23	\$38
Average gross price per cwt. milk sold	\$13.49	\$12.96	\$12.70
Average effective price*	\$12.99	\$12.84	\$12.34
Purchased grain & conc. % of milk receipts	24%	22%	24%
Feed & crop expenses per cwt. milk	\$4.51	\$4.11	\$4.05
Labor & machinery costs per cow	\$833	\$801	\$776
<u>Profitability</u>			
Net farm income (without appreciation)	\$23,989	\$29,866	\$27,199
Labor & management income per farm	\$-262	\$9,884	\$6,213
Labor & management income per operator	\$-197	\$7,488	\$4,743
Rate of return on equity (with appreciation)	3.1%	1.1%	5.0%
<u>Financial Situation (end year)</u>			
Farm assets	\$578,485	\$587,957	\$616,743
Farm liabilities	\$214,677	\$221,970	\$226,205
Farm net worth	\$363,808	\$365,987	\$390,538
Percent equity	63%	62%	63%
Debt per cow	\$2,168	\$2,094	\$2,056
Debt/asset ratio	0.37	0.38	0.37

*Average gross price per hundredweight of milk sold minus assessments of \$0.50 in 1984, \$0.125 in 1985, and \$0.36 in 1986.

Source: New York Dairy Farm Business Summary data.

Farms that participated in the Dairy Farm Business Summary Project in each of the last three years have experienced a steady increase in herd size. In 1986, the average number of cows was 106, 10 greater than 1984. Milk per cow has also steadily increased to 16,392 pounds sold per year, an increase of 532 pounds since 1984. In spite of these increases, profits were less in 1986 than 1985, but greater than 1984 for these farms.

Lower milk prices and non-milk receipts more than offset the reduced cost of milk production. Farm liabilities have steadily increased during this period, but not as rapidly as farm assets. Farm net worth for 1986 is up almost \$27,000 over 1984, debt per cow is down \$100, and the debt/asset ratio is stable.

COMMERCIAL NON-CITRUS FRUIT PRODUCTION, NEW YORK AND UNITED STATES

Fruit	New York				United States			
	1984	1985	1986	1987	1984	1985	1986	1987
----- thousand tons -----								
Apples	510	545	450	495	4,167	3,961	3,946	4,807
Grapes	198	144	164	174	5,194	5,607	5,226	5,096
Tart Cherries	13	11	7	18	136	143	112	177
Pears	20	16	19	16	710	747	766	842
Peaches	6	7	7	7	1,330	1,074	1,163	1,305
Sweet Cherries	2	2	2	1	182	133	138	183
Total New York's								
Major Fruit Crops	749	725	649	711	11,719	11,665	11,351	12,410

AVERAGE FARM PRICES OF NON-CITRUS FRUITS, NEW YORK AND UNITED STATES

Fruit	New York				United States			
	1984	1985	1986	1987	1984	1985	1986	1987
----- dollars per ton -----								
Apples								
Fresh	402	230	330	n.a.	310	346	384	n.a.
Processed	107	89	118	n.a.	111	103	117	n.a.
All sales	224	140	202	n.a.	224	234	272	n.a.
Grapes	180	147	198	n.a.	190	171	215	n.a.
Tart Cherries	444	512	460	n.a.	500	448	458	n.a.
Pears	228	242	210	n.a.	229	269	280	n.a.
Peaches	548	464	472	n.a.	260	300	292	n.a.
Sweet Cherries	567	670	849	n.a.	609	799	825	n.a.

VALUE OF UTILIZED PRODUCTION NON-CITRUS FRUITS, NEW YORK AND UNITED STATES

Fruit	New York				United States			
	1984	1985	1986	1987	1984	1985	1986	1987
----- million dollars -----								
Apples								
Fresh	80.6	43.6	59.4	n.a.	723	731	876	n.a.
Processed	33.4	31.1	31.9	n.a.	203	186	193	n.a.
All Sales*	114.0	75.1	91.3	n.a.	928	916	1,028	n.a.
Grapes	33.8	21.2	32.4	n.a.	981	969	1,108	n.a.
Tart Cherries	5.6	5.8	2.8	n.a.	64	63	50	n.a.
Pears	4.6	3.9	3.8	n.a.	160	201	211	n.a.
Peaches	3.0	3.3	3.3	n.a.	321	307	327	n.a.
Sweet Cherries	1.2	1.0	1.2	n.a.	100	101	113	n.a.
Total New York's Major								
Fruit Crops	162.2	110.3	134.8	n.a.	2,554	2,557	2,837	n.a.

*May not add from total of fresh and processed due to rounding errors.

APPLE PRODUCTION, UNITED STATES, 1982-1986, FIVE-YEAR AVERAGE PRODUCTION,
AND 1987 FORECAST, 1,000 42-POUND BUSHEL

States/Regions	5-Year Average 1982-86*	1986*	USDA Estimate**	1987 Compared to (Percent Change) 5-Year Average
Maine	2,000	2,095	1,976	-1.2
New Hampshire	1,243	1,190	1,214	-2.3
Vermont	1,138	1,167	1,143	+0.4
Massachusetts	2,277	2,262	2,238	-1.7
Rhode Island	122	131	131	+7.4
Connecticut	1,076	1,119	1,047	-2.7
New York	24,953	21,429	25,000	+0.2
New Jersey	2,643	2,381	2,381	-9.9
Pennsylvania	13,357	14,762	13,691	+2.5
Delaware	467	643	714	+52.9
Maryland	1,882	2,072	1,952	+3.8
Virginia	10,834	10,952	11,667	+7.7
West Virginia	5,452	5,476	5,476	+0.4
North Carolina	6,381	2,857	9,524	+49.3
South Carolina	553	714	1,072	+93.9
Georgia	643	714	1,190	+85.2
Total East	75,021	69,964	80,416	+7.2
Ohio	2,952	2,143	3,691	+25.0
Indiana	1,472	881	1,952	+32.6
Illinois	2,210	2,143	2,500	+13.1
Michigan	20,476	16,667	27,381	+33.7
Wisconsin	1,367	1,333	1,357	-0.7
Minnesota	495	452	619	+25.1
Iowa	229	131	238	+4.0
Missouri	1,090	881	1,262	+15.8
Kansas	233	71	286	+22.8
Kentucky	310	95	476	+53.6
Tennessee	219	214	310	+41.8
Arkansas	271	238	286	+5.5
Total Central	31,324	25,249	40,358	+28.9
Total East & Central	106,345	95,213	120,774	+13.6
Colorado	1,515	429	2,619	+72.9
New Mexico	200	143	238	+19.4
Utah	1,181	810	1,476	+25.0
Idaho	2,924	2,238	3,143	+7.5
Washington	65,574	73,810	80,952	+23.5
Oregon	3,334	2,500	3,810	+14.3
California	12,453	12,738	15,476	-24.3
Total West	87,181	92,668	107,714	+23.6
TOTAL U.S.	193,526	187,881	228,488	+18.1

*1986 and 5-year average are USDA data revised as of July 8, 1987.

**USDA based on July 1, 1987 crop conditions.

FRESH APPLES: EXPORTS AND IMPORTS, U.S., 1980/81- 1986/87 SEASONS
42 POUND UNITS

Area of Distribution	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87
----- 1,000 42-pound units -----							
Canada	2,072	3,463	2,240	2,040	1,620	1,323	2,208
Europe	2,036	1,888	1,291	1,377	950	1,110	1,316
Mexico & Central America	827	545	235	252	360	331	386
Caribbean	404	337	370	289	238	175	184
South America	1,552	1,687	1,727	401	228	238	246
Middle East	2,491	1,926	2,127	2,520	2,506	716	759
Africa	89	48	30	7	3	13	2
Far East	6,386	4,040	6,105	4,530	4,947	3,983	3,632
Pacific Area	174	421	197	255	163	127	100
Other	<u>2</u>	<u>12</u>	<u>24</u>	<u>389</u>	<u>0</u>	<u>4</u>	<u>0</u>
Total Exports	16,032	14,368	14,346	11,672	11,014	8,020	8,833

Total Imports	4,142	3,508	4,627	5,480	5,484	7,684	7,310

SOURCE: Foreign Agricultural Service, Horticultural and Tropical Products Division.

Fresh apple exports from the U.S. experienced a dramatic decline during the period 1981-1985. Exports increased from 6.3 million bushels in 1976/77 to 16.0 million bushels in 1980/81. Since then, exports have decreased each year and amounted to only eight million bushels in 1985/86. As the value of the dollar declined, exports increased to 8.8 million bushels last season.

A substantial increase is expected in exports of the 1987 crop. With a very large national crop and a record Washington state crop, supplies will be plentiful and prices lower than in other recent years. Prospects are improved for importing to the Middle East as petroleum exports from that area increase (barring some major political disruption). Prospects are also favorable for increasing exports to the Far East.

Fresh apple imports continue to increase in the U.S. market, and for the 1985 season were almost equal to exports. For the 1986 season, imports were reduced due to a reduction of about one-half million bushels from South Africa (which was prohibited to ship into the U.S. for part of last year); a change in the status of importing French apples which no longer benefitted from a preclearance program (down 450 thousand bushels); and the lower-valued dollar. Fresh apple imports from Southern Hemisphere countries (Chile, Argentina, South Africa, Australia, and New Zealand) account for well over half of U.S. imports. Canada usually accounts for more than one-quarter of imported fresh apples.

APPLE JUICE: IMPORTS INTO THE UNITED STATES, 1977/78 - 1986/87 SEASONS¹

Season	Million Gallons ²	Million 42-Pound Bushel Equivalents ³	Percent of U.S. Domestic Production of Apple Juice
1977/78	41.6	11.6	27.8
1978/79	62.8	17.5	33.0
1979/80	45.9	12.8	21.6
1980/81	70.3	19.7	27.9
1981/82	76.4	21.3	33.2
1982/83	139.8	38.9	47.5
1983/84	145.2	40.4	46.1
1984/85	209.2	58.3	57.4
1985/86	221.8	61.8	58.4
1986/87	233.3	65.0	64.0

SOURCE: Foreign Agricultural Service, Horticultural and Tropical Products Division and Non-Citrus Fruits and Nuts Annual Summaries, various issues.

¹Includes pear juice, but volume is believed to be negligible.

²Expressed in single-strength (natural juice) equivalents.

³Computed on the basis of one gallon single-strength juice = 0.2785 bushels.

Imports of concentrated apple juice have increased each year since 1977/78, and set a new high of 233 million gallons (single-strength) in 1986/87. This amounts to 65 million bushels in fresh apple equivalent, and accounts for nearly two-thirds of U.S. apple juice.

West Germany continues to be a leading supplier with Austria in the second position and Argentina ranking third. West Germany and Austria are also major importers of apple juice from Poland, Yugoslavia, and other Eastern bloc countries. The U.S. is the largest importer of apples and apple products in the world, even though we are among the top three apple producers in the world.

APPLES IN COLD STORAGE BY VARIETY FOR EASTERN AND WESTERN NEW YORK
AS OF OCTOBER 31, 1983, 1984, 1985, 1986, AND 1987

Variety and Area	Apples in Cold Storage*				
	10/31/83	10/31/84	10/31/85	10/31/86	10/31/87
----- thousand bushels -----					
<u>McIntosh:</u>					
Eastern New York	2,251	2,028	2,005	1,610	1,416
Western New York	575	659	717	443	587
Total	2,826	2,687	2,722	2,053	2,003
<u>Rome:</u>					
Eastern New York	497	491	616	497	480
Western New York	176	271	498	679	517
Total	673	762	1,114	1,176	997
<u>Red Delicious:</u>					
Eastern New York	1,318	1,123	1,195	827	779
Western New York	637	484	618	400	431
Total	1,955	1,607	1,813	1,227	1,210
<u>Golden Delicious:</u>					
Eastern New York	474	224	260	339	316
Western New York	184	180	253	239	247
Total	658	404	513	578	563
<u>R.I. Greening:</u>					
Eastern New York	**	20	15	11	3
Western New York	**	653	681	670	415
Total	718	673	696	681	418
<u>Cortland:</u>					
Eastern New York	313	273	225	200	160
Western New York	246	250	270	166	303
Total	559	523	495	366	463
<u>Northern Spy:</u>	270	299	303	219	241
<u>Idared:</u>	537	640	647	916	667
<u>All Other Varieties:</u>	874	927	1,058	1,025	1,136
<u>Total All Varieties:</u>					
Eastern New York	5,299	4,653	4,699	4,019	3,774
Western New York	3,771	3,859	4,662	4,222	3,924
Total New York State	9,070	8,522	9,361	8,241	7,698

SOURCE: State of New York Department of Agriculture and Markets, Apples in Cold Storage, October reports.

*Includes apples in controlled atmosphere storage.

**Not listed to avoid disclosure of individual operations.

APPLES IN CONTROLLED ATMOSPHERE STORAGE
NEW YORK STATE AS OF OCTOBER 31, 1983, 1984, 1985, 1986, AND 1987

Variety and Area	10/31/83	10/31/84	10/31/85	10/31/86	10/31/87
	----- thousand bushels -----				
<u>McIntosh:</u>					
Eastern New York	1,710	1,489	1,393	1,181	1,079
Western New York	184	251	261	194	238
Total	1,894	1,740	1,654	1,375	1,317
<u>Rome:</u>					
Eastern New York	416	380	449	336	335
Western New York	43	97	84	169	222
Total	459	477	533	505	557
<u>Red Delicious:</u>					
Eastern New York	950	810	864	619	605
Western New York	299	230	342	228	271
Total	1,249	1,040	1,206	847	876
<u>Golden Delicious:</u>	161	171	162	107	215
<u>Cortland:</u>	209	146	137	137	182
<u>Other Varieties:</u>	752	900	828	969	1,186
<u>Total All Varieties:</u>					
Eastern New York	3,661	3,261	3,168	2,632	2,573
Western New York	1,063	1,213	1,352	1,308	1,760
Total New York State	4,724	4,474	4,520	3,940	4,333

(These apples are included in the stocks of apples in cold storage; thus, by deducting the figures in this table from their counterpart in the previous table, the volume of apples in regular storage can be ascertained.)

SOURCE: State of New York Department of Agriculture and Markets, Apples in Cold Storage, October reports.

Apples in cold storage in New York as of the end of October amounted to 7.7 million bushels, seven percent less than a year ago and 15 percent below the five-year average holdings. Controlled atmosphere holdings were 4.3 million, an increase of about 10 percent.

There are smaller than normal supplies of most major varieties in total holdings. The category "other varieties" continues to increase, however, probably due to increased supplies of Empires. This variety accounted for 648,000 bushels in total holdings at the end of October, of which 468,000 bushels were in CA storage. Total CA holdings were three percent below the average of the past five years.

PRICES RECEIVED BY NEW YORK GROWERS FOR FRESH APPLES,
MONTHLY AVERAGE PRICE PER 42-POUND BUSHEL, 1971-1987 CROP YEARS

Crop Year	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June	Season Average
1971/72	2.94	2.31	2.10	2.56	2.69	2.77	2.60	2.73	2.94	2.94	
1972/73	3.65	3.15	3.82	4.12	4.20	4.41	4.62	5.04	5.67	5.46	
1973/74	4.91	4.75	5.80	5.88	6.09	6.30	6.30	6.51	6.51	6.30	5.88
1974/75	4.70	4.20	4.07	3.99	4.79	5.12	5.75	6.09	6.30	6.30	5.04
1975/76	5.04	3.82	3.91	4.82	4.87	4.41	6.09	6.01	5.54	5.54	4.96
1976/77	4.66	4.41	5.04	5.21	5.29	5.38	6.13	6.09	6.26	6.51	5.38
1977/78	5.04	5.25	5.46	5.46	5.46	5.67	6.09	6.51	6.72	6.93	5.75
1978/79	6.30	5.46	5.46	5.04	5.25	5.25	5.67	6.09	6.09	6.30	5.67
1979/80	5.04	5.25	5.67	7.14	7.35	7.56	8.61	9.24	9.45	9.87	7.35
1980/81	7.18	7.48	6.51	7.39	7.22	7.43	7.73	7.77	8.06	8.40	7.56
1981/82	8.61	8.19	8.82	8.40	8.82	9.03	8.82	9.66	10.08	10.08	8.82
1982/83	6.09	5.67	5.67	6.13	6.05	6.13	6.30	6.09	6.30	6.30	6.09
1983/84	7.56	6.64	6.43	7.14	7.14	7.56	7.35	7.56	7.56	7.56	7.10
1984/85	8.06	8.86	7.98	8.40	8.61	8.19	8.19	8.40	8.82	8.82	8.44
1985/86	5.25*	4.70*	4.70*	4.91*	5.21*	5.04*	4.62*	4.58*	4.96*	4.96*	4.83*
1986/87	7.64*	6.72*	6.76*	6.59*	6.80*	7.22*	6.67*	n.a.	n.a.	n.a.	7.14*

*Beginning in July of 1985, price is equivalent packing house door rather than price at point of first sale.

SOURCE: New York Crop Reporting Service, New York Agricultural Statistics, 1986.

The season average price for last year's crop of apples sold for fresh market utilization was \$7.14 per 42-pound bushel. This price was about 48 percent above the 1985/86 price, as the 1986/87 crop was somewhat short both nationally and in New York.

This year, prices in September and October opened one to two dollars lower.

UTILIZATION OF APPLES, UNITED STATES, 1970-86

Year	Fresh	Canned	Juice	Frozen	Other*	Total Utilized
----- million 42-pound units -----						
1970	84.1	27.6	24.6	4.8	7.9	149.0
1971	83.0	26.0	25.9	4.5	5.4	144.8
1972	79.6	23.3	24.5	5.6	6.8	139.7
1973	84.3	29.9	19.6	6.2	8.9	148.8
1974	87.9	29.2	24.5	4.3	9.6	155.5
1975	103.7	24.4	28.4	4.9	7.6	169.1
1976	93.2	21.9	26.4	5.2	7.2	153.9
1977	91.9	25.6	30.2	3.8	8.2	159.8
1978	100.2	29.1	35.6	4.9	9.7	179.6
1979	102.5	31.8	46.5	3.3	9.2	193.3
1980	117.7	28.6	50.9	4.0	8.6	209.8
1981	106.0	23.9	42.9	4.1	6.6	183.5
1982	108.0	29.7	43.0	4.5	7.8	193.1
1983	110.0	28.7	47.3	4.0	9.0	199.0
1984	111.0	28.0	44.9	4.7	9.3	198.1
1985	100.6	30.4	43.8	4.2	7.8	186.5
1986	108.6	28.4	36.5	6.1	7.6	187.3

*Includes dried apples, vinegar, wine, jam, slices for pies, etc.

SOURCE: Noncitrus Fruits and Nuts Annual Summary, various years.

AVERAGE ANNUAL PRICES RECEIVED BY NEW YORK GROWERS FOR APPLES, 1970-86

Year	Fresh	Canned	Juice	All Uses
----- \$ per bushel -----				
1970	2.86	.98	.49	1.60
1971	2.65	.97	.52	1.52
1972	4.37	1.27	1.12	2.42
1973	5.88	3.13	2.02	4.07
1974	5.04	2.52	1.39	3.07
1975	4.96	1.11	.76	2.86
1976	5.38	2.52	1.62	3.32
1977	5.75	2.48	1.64	3.61
1978	5.67	2.33	1.82	3.57
1979	7.35	2.48	1.72	4.20
1980	7.56	1.97	1.60	3.95
1981	8.82	2.90	2.31	5.38
1982	6.09	2.60	2.00	3.74
1983	7.10	2.44	1.76	4.12
1984	8.44	2.77	1.76	4.70
1985	4.83*	2.31	1.39	2.94*
1986	6.93	2.73	2.14	4.24

*Beginning in 1985, fresh apple price is equivalent to packing house door price rather than price at point of first sale.

SOURCE: New York Agricultural Statistics, various years.

RECEIPTS AND UTILIZATION OF APPLES AT PROCESSING PLANTS, NEW YORK, CROPS OF 1970-1986

Crop Year	Net Receipts ¹	Receipts from Other States & Canada (included in Preceding Column)	Used for Cider & Apple Juice ²	Used for Canning or Applesauce	Used for Freezing	Used for Other Products ³
			thousand pounds			
1970	559,286	11,369	186,892	293,074	62,270	17,050
1971	520,403	13,550	170,213	278,841	57,835	13,514
1972	476,826	27,973	152,279	241,404	70,995	12,148
1973	410,794	28,777	140,325	194,666	56,912	18,891
1974	555,945	13,063	161,106	292,647	40,870	61,322
1975	419,453	8,619	148,866	208,630	42,013	19,944
1976	463,489	23,303	184,904	195,480	59,484	23,621
1977	492,020	26,168	190,791	218,919	34,306	48,004
1978	600,595	27,579	239,447	260,497	40,689	59,962
1979	632,201	35,122	308,069	226,642	41,473	56,017
1980	667,313	44,193	349,518	229,704	39,883	48,208
1981	455,408	42,929	238,100	164,700	22,557	27,819
1982	730,418	51,932	336,475	288,301	42,618	63,024
1983	618,616	38,347	342,809	212,154	26,179	37,474
1984	568,736	16,529	305,187	192,616	32,634	38,224
1985	678,894	17,073	350,967	268,263	25,899	33,765
1986	535,818 ⁴	42,984	240,290	263,404	23,981	6,713

¹ Apples received at a plant and then transferred to another plant for processing are included only in plant where processed.

² Includes juice used to make concentrate.

³ Among other products for which these apples were used are jelly, apple butter, drying, mincemeat, and fresh sliced apples for pies in upstate areas. Beginning in 1974 apples used in making vinegar are excluded from cider and juice category and included under "other products".

⁴ Includes 1,429,810 pounds of cullage, waste, etc.

SOURCE: State of New York Department of Agriculture and Markets, Fruit Reports (most recently, No. 975-4-87).

Processing plants in New York utilized 536 million pounds of apples from the 1986 crop, a 21 percent decrease from 1985 utilization. Apples utilized for juice accounted for 240 million pounds or 45 percent of the total apples processed in 1986. The percentage utilized for juice was down because of the short crop in New York as supplies were diverted to higher-priced uses. Sixty percent of the New York crop in 1986 was utilized for processing.

GRAPES: NEW YORK GROWN, RECEIVED BY WINERIES AND PROCESSING PLANTS, 1981-86

Variety	1982	1983	1984	1985	1986
			tons		
Concord	105,840	128,390	128,746	105,088	107,326
Catawba	13,786	14,286	10,901	7,745	12,262
Niagara	9,372	9,874	9,990	5,614	9,663
Delaware	4,031	7,412	7,170	2,655	5,562
Aurore	5,718	8,901	10,652	5,978	7,794
de Chaunac	3,198	3,611	2,478	2,839	2,911
Baco Noir	1,601	1,775	1,692	1,084	1,419
Seyval Blanc	746	1,086	1,031	1,226	1,514
Rougeon	424	795	810	559	692
Marechal Foch	395	445	315	216	279
Vitis Vinifera (all)	463	729	1,412	1,364	1,960
Total of all varieties	154,000	186,500	184,000	140,000	159,600

SOURCE: Fruit, New York Crop Reporting Service, 1-83, 2-84, 1-85, 1-86, and 975-1-87 and New York Agricultural Statistics, 1986.

GRAPES: PRICES PAID FOR NEW YORK GROWN GRAPES PROCESSED, 1981-85

Variety	1982	1983	1984	1985	1986
<u>American Varieties</u>					
Catawba	332	271	244	161*	205*
Concord	175	143	125	120*	170*
Delaware	429	316	311	152	225
Dutchess	493	409	445	138	259
Elvira	232	211	207	203	210
Ives	420	299	301	132	410
Niagara	313	216	182	173*	187*
<u>French Hybrids</u>					
Aurore	425	357	347	195	236
Baco Noir	410	362	377	217	289
de Chaunac	255	205	199	162	167
Marechal Foch	389	291	257	157	266
Rougeon	316	226	218	156	245
Seyval Blanc	547	423	381	251	283
<u>Vitis Vinifera</u>					
All varieties	1,1,235	821	871	856	925
Average all varieties	217	187	174	139*	194

*Preliminary estimates of future payments by cooperatives have been included based upon historical data.

SOURCE: Fruit, New York Crop Reporting Service, No. 1-85, 1-86, and 975-1-87.

Concords are by far the predominant variety grown and processed in New York. There were 107,326 tons of Concords from New York processed in 1986. Over the past five years, Concords have comprised 70 percent of total tonnage utilized. The second leading variety is Catawba (11.3 thousand tons) and Niagara (8.6 thousand tons).

In general, the prices for red varieties (e.g., Concord, de Chaunac) trended downward during the late 1970's and early 1980's while white varieties (e.g., Niagara, Aurore, Seyval Blanc) trended upward. For 1983 and 1984, however, with large crops and large inventories held by wineries and processors, prices were down for most white as well as red varieties. Average prices in 1985 were lower for every variety. In 1986, prices improved for every variety except for some vinifera varieties, and the average price was \$194 per ton, a 40 percent increase over the depressed 1985 prices.

In 1987, prices again were generally improved led by the Concord variety with cash prices of \$200 per ton. Prices in the juice sector were particularly strong, making a remarkable recovery from 1984 and 1985 levels.

UNITED STATES GRAPE PRODUCTION, BY STATES, 1982-86 AND 1987 (ESTIMATED)

State	1982	1983	1984	1985	1986	Average 1982-86	1987 (estimated)
----- thousand tons -----							
Arizona	15.1	14.6	14.0	18.5	23.0	17.0	21.0
Arkansas	10.5	10.0	9.0	8.0	6.0	8.7	5.0
California	6076	4919	4670	5252	5140	5211.4	4530
Georgia	2.8	2.5	2.7	2.1	2.0	2.4	N.A.
Michigan	58.5	60.0	49.0	51.0	32.0	50.1	55.0
Missouri	3.4	3.6	3.1	0.9	2.9	2.8	N.A.
New York	157	191	198	144	164	170.8	169.0
N. Carolina	4.5	3.0	5.9	1.5	1.5	3.3	N.A.
Ohio	9.0	11.0	11.2	7.0	8.0	9.2	9.5
Pennsylvania	47.0	62.5	60.0	50.0	60.0	55.9	60.0
S. Carolina	2.4	1.5	2.5	0.6	0.5	1.5	N.A.
Washington	168.9	227	168.5	116.1	156.0	167.3	225.0
U.S. Total	6555.1	5505.7	5193.9	5651.7	5595.9	5700.5	5083.0

SOURCES: Noncitrus Fruits and Nuts Annual Summaries, 1984-86 and Fruit, New York Crop Reporting Service, 975-7-87.

IMPORTS OF GRAPE JUICE, GRAPE JUICE FROZEN CONCENTRATE, AND GRAPE JUICE CONCENTRATE, GALLONS OF SINGLE STRENGTH EQUIVALENT, 1982-1986

Year	Grape Juice	Frozen Concentrate	Concentrate	Total
1982	262,012	431,416	1,106,298	1,799,726
1983	181,666	233,550	2,297,352	2,712,568
1984	195,038	116,611	6,752,791	7,064,440
1985	281,067	55,697	7,477,670	7,814,434
1986	396,173	123,558	7,665,569	8,185,300

FIGURE 1. VALUE OF UTILIZED PRODUCTION, U.S.
GRAPE CROP, 1970-1986

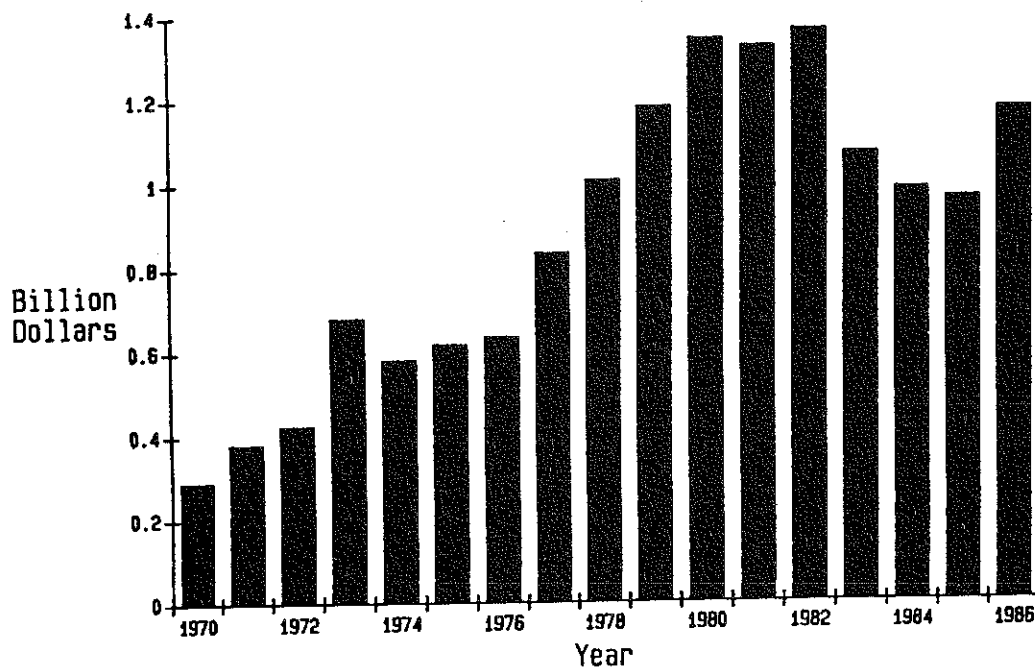


FIGURE 2. CONCORD GRAPE PRODUCTION, U.S.,
1977-1986

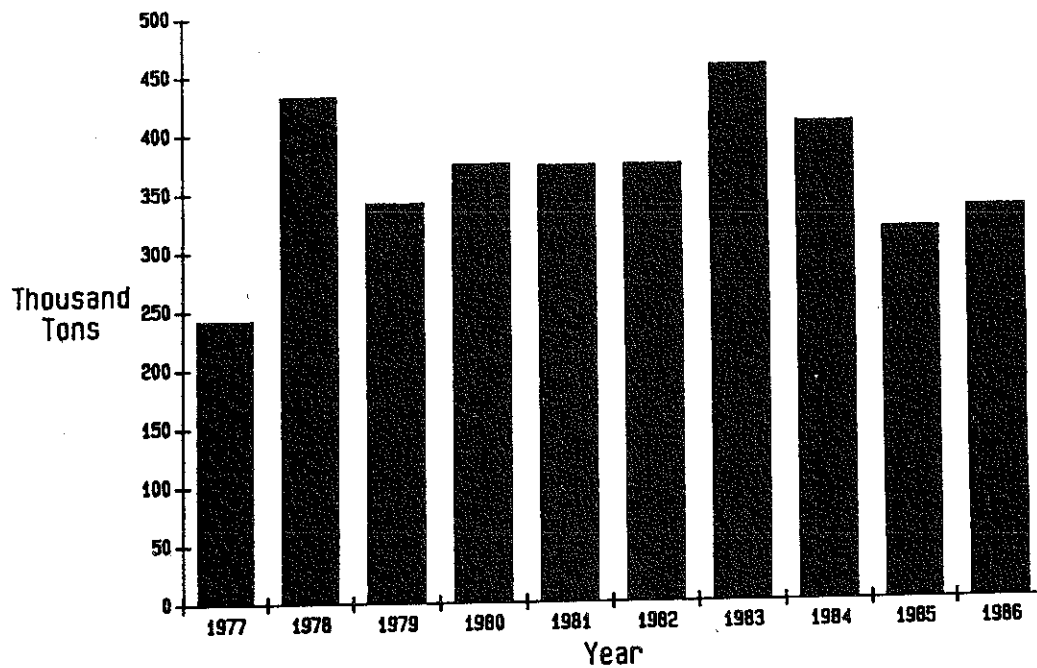


FIGURE 3. PRODUCTION, STANDARD WINE REMOVED FROM FERMENTERS, CROP YEARS 1982-1986

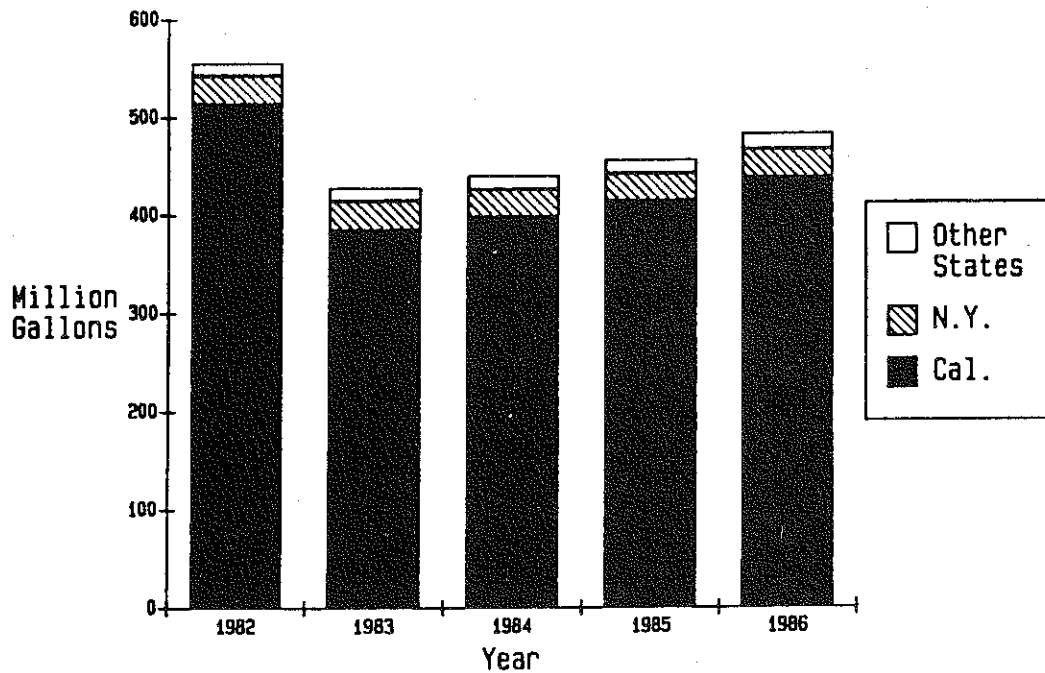


FIGURE 4. U.S. ADULT PER CAPITA CONSUMPTION OF WINE AND DISTILLED SPIRITS, 1979-1986

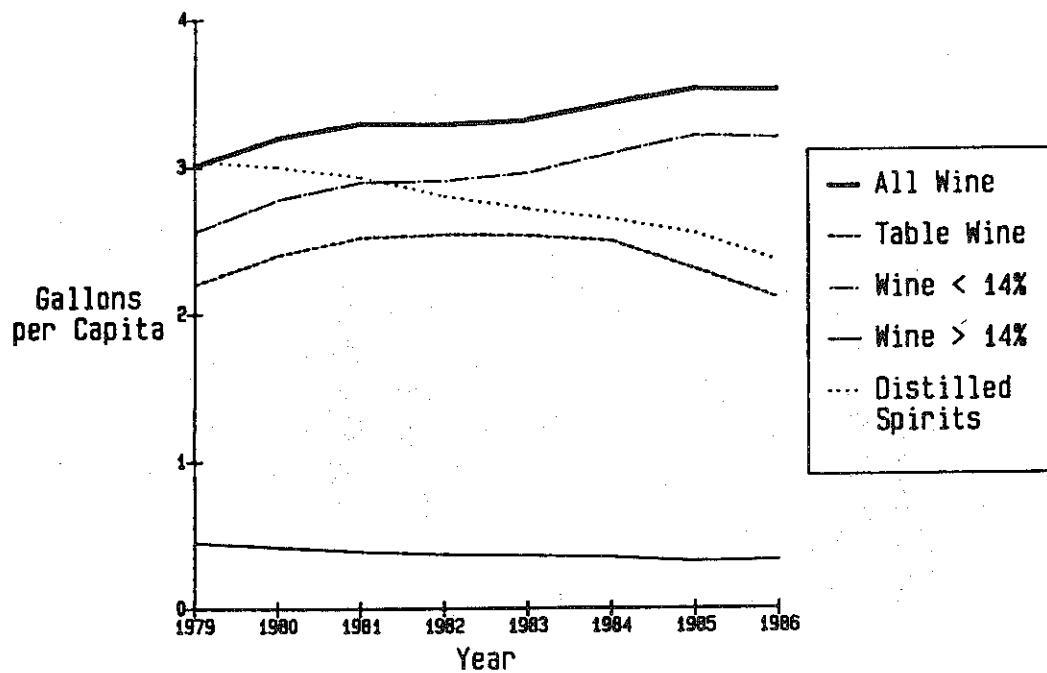


FIGURE 5. CONSUMER PRICE INDEX FOR WINE AND OTHER ITEMS, 1977-1986

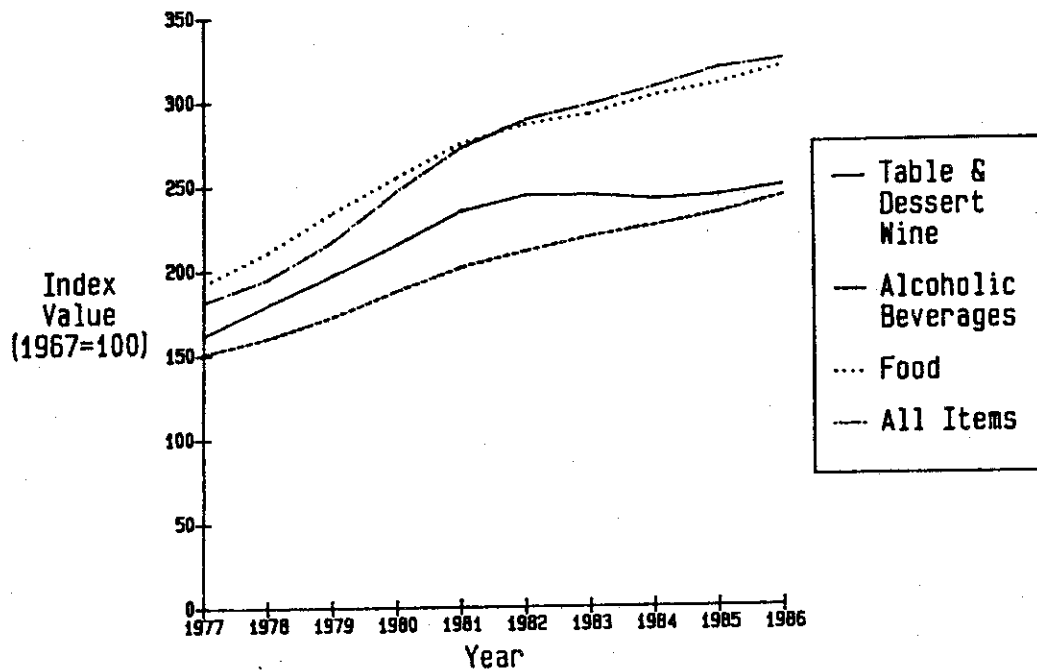


FIGURE 6. WINE ENTERING DISTRIBUTION CHANNELS IN THE U.S., 1977-1986

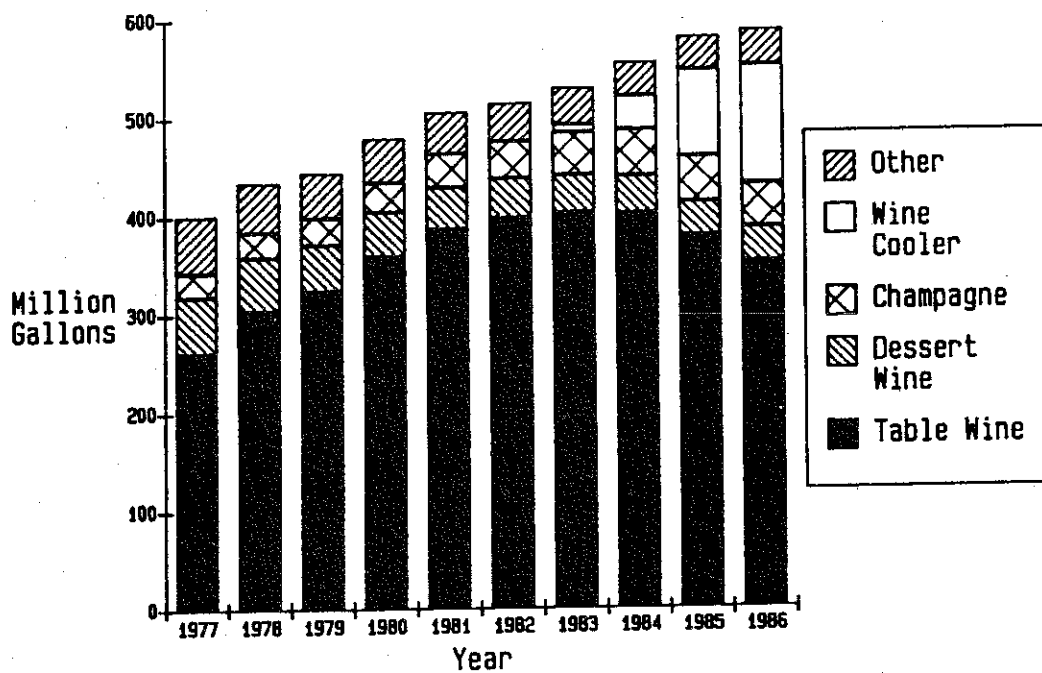


TABLE I. . . . POTATOES AND VEGETABLES: NEW YORK STATE FARM VALUE OF PRODUCTION, 1982-1987

	1982	1983	1984	1985	1986 ¹	1987 ²	Five-Year Average (1982-86)
----- millions of dollars -----							
Potatoes:							
Long Island	21.5	32.6	19.3	11.4	18.0	16.9	20.56
Upstate	35.4	43.7	41.8	28.2	41.3	43.4	38.08
Subtotal	56.9	76.3	61.1	39.6	59.3	60.3	58.64
Vegetables:							
Fresh Market	131.5	173.6	139.7	135.7	162.3		148.56
Processing	36.1	31.7	33.8	37.6	26.5		33.14
Subtotal	167.6	205.3	173.5	173.3	188.8		181.7
TOTAL	224.5	281.6	234.6	212.9	248.1		240.34

¹Preliminary.²Estimated.

Sources: Potatoes - New York Agricultural Statistics 1986, New York State Agriculture and Markets, Division of Statistics, June 1987.

USDA, National Agricultural Statistics Service, Agricultural Statistics Board, September 25, 1987.

The value of New York's 1986 potato crop increased significantly over the 1985 crop - 50 percent - but compared to a five-year average, the crop value is very near the mean (see Table I). All of the increase in the value of production is attributable to a price increase - \$3.85 per hundredweight in 1985 as compared to \$7.65 per hundredweight in 1986.

Total U.S. potato production decreased by 11 percent in 1986 over 1985. The decrease was due to both an acreage decline and a reduction in yields. The lower supply accounted for the increase in price - a \$1.11 increase per hundredweight over 1985 average price.

New York State's vegetable industry expanded over historical averages. However, the growth is in the fresh market. The value of processed vegetables continued to decline. The figures for the value of vegetable production for New York State during the 1987 season are very difficult to estimate, nonetheless, indications are that onion, sweet corn, and potato prices will be higher for the 1987 crop.

Snap bean production in New York State increased in 1987. Excellent yields were recorded in the state with some acreage left unharvested due to lack of processing capacity.

Generally, weather conditions in the state were favorable for both growing and harvesting. There were spots in the state that were "wet" for harvesting, but most harvesting was accomplished in better than normal conditions.

Table II....U.S. FALL POTATOES: PRODUCTION AND CROP VALUE

	Production				Crop Value			
	1984	1985	1986	1987 ¹	1984	1985	1986	1987 ²
----- 1,000 cwt. ----- ----- million dollars -----								
New York:								
L.I.	3,577	3,870	2,537	2,225	19.3	11.2	18.0	16.9
Upstate	6,630	6,375	5,288	6,110	41.8	28.4	41.2	43.4
California	7,280	8,385	6,887	7,600	56.1	51.1	44.1	
Colorado	17,225	17,920	18,810	19,500	80.1	40.3	79.0	
Idaho	86,600	102,515	90,220	99,710	420.0	338.3	38.9	
Maine	21,360	28,215	21,930	23,940	91.8	79.0	131.6	
Michigan	12,540	12,100	9,625	8,640	69.0	53.8	58.2	
Minnesota	13,775	14,145	13,650	17,040	64.7	41.7	58.0	
North Dakota	20,615	23,630	21,600	23,125	95.9	75.6	90.7	
Oregon	24,725	26,888	23,172	25,924	112.1	95.6	97.0	
Pennsylvania	5,160	5,720	5,160	4,730	32.8	26.0	35.1	
Washington	56,925	63,630	61,950	66,960	293.2	219.5	266.4	
Wisconsin	21,350	24,130	20,125	21,273	102.5	76.0	92.6	
Other	15,326	16,115	16,817	15,965	95.3	71.6	88.0	
Total Fall	313,088	353,638	317,771	342,742	1,574.5	1,208.3	1,487.8	

¹November 1, 1987 estimates²Based on Fall pricesSource: Potatoes, USDA, National Agricultural Statistics Service,
Agricultural Statistics Board, September 25, 1987

Average national fall potato production over the previous four years (1983-1986) is 319,794 (1,000 hundredweight). The 1987 national production figure is 7.18 percent above the estimated previous four year average. Estimated 1987 Long Island production is 36.7 percent below the four-year production average of 3,515 while Upstate New York production is 2.14 percent above the four-year average of the 5,982 figure. In short, Long Island 1987 production is counter to national production and Upstate production did not increase at the same rate national production increased.

Table III...U.S. STORAGE ONIONS: PRODUCTION AND CROP VALUE

	Production				Crop Value			
	1984	1985	1986 ¹	1987 ¹	1984	1985	1986 ²	1987 ³
	----- 1,000 cwt. -----				----- million dollars -----			
New York	3,384	3,960	3,456	2,565	30.7	35.6	36.3	26.3
Colorado	4,636	5,355	4,590	4,500	47.5	31.1	25.2	
Idaho & Molhaus	7,828	9,020	8,215	9,352	70.4	40.3	39.0	
Michigan	2,933	2,535	1,653	1,975	16.9	14.2	9.3	
Oregon & other	1,280	1,505	1,440	1,395	9.3	6.9	6.5	
Washington	1,935	1,763	1,848	2,021	14.5	6.8	7.4	
Other	1,598	1,571	1,224	1,347	9.7	10.9	8.4	
Subtotal	23,594	25,709	22,426	23,155	19.9	145.8	132.1	
California	9,819	9,250	9,953	9,975	74.0	65.9	69.7	
TOTAL	33,413	34,959	32,379	33,130	273.0	211.7	201.8	

¹October 1, 1987 estimate.²Preliminary.³Based on fall prices.

Source: USDA, Agricultural Marketing Service.

Storage onion production in New York State in 1987 declined from 1986 levels, but, for the 1987 crop, prices for yellow globe onions have been better than sweet Spanish onions. This can be attributed to both New York and Michigan production declines and increases in production in the western states. Total U.S. production increased 2.3 percent (estimated) over 1986 production levels, but declined 2.33 percent over the four-year (1983-1986) average or 32,377 figure. New York production declined 25.8 percent over 1986 levels and 24.3 percent compared to a four-year average or 3,388. The 1987 crop production drop is due to a 10.9 percent reduction in planted acreage and a 16.7 percent drop in yields over 1986 levels. These figures indicate that 1986 was a low year nationally and 1987 production is slightly below the four-year average. In New York State, the 1987 crop is significantly below previous years' levels, but growers are certainly getting better prices compared to 1986.

TABLE IV....NEW YORK ONION PRODUCTION BY AREA, 1983-1987

County	1983	1984	1985	1986	1987 ¹	Five-Year Average 1983-1987
----- 1,000 hundredweight -----						
Orange	1,486	1,650	2,331	1,988	1,080	1,707
Orleans-Genesee	613	696	644	650	660	653
Oswego	221	408	494	392	458	395
Madison	195	200	173	160	144	174
Steuben-Yates-						
Ontario	179	285	210	182	135	198
Wayne and other	<u>99</u>	<u>145</u>	<u>108</u>	<u>84</u>	<u>88</u>	<u>105</u>
TOTAL	2,793	3,384	3,960	3,456	2,565	3,232

¹October 1, 1987 estimate.

Source: New York Agricultural Statistics Service.

Onion production within New York State is presented in Table IV. As can be seen, the drop in production in 1987 occurred primarily in Orange County - a 36.7 percent decline. The other production regions in the state produced at levels similar to the previous five-year average. On average (1983-1987), Orange County produces 52.8 percent of all New York production and has been rather stable over the five years. Oswego County is the only production region that has changed significantly over the five-year period. The 1987 crop is 15.95 percent above the five-year average but 107 percent above the 1983 crop.

The graph in this section describes the onion market (terminal) in New York City and Newark. The graph indicates the amount (10,000 pound units) of onions sold in the New York-Newark terminal market between February 1987 and November 1987 and the amount of New York State grown onions sold in the market. Three observations are apparent about the graph: 1) New York State supplies almost the entire market between February and the end of April; 2) Why do New Yorkers consume about 2,500,000 pounds in winter and spring but consume about twice as many during the summer?; 3) Why can't New York State producers supply more of the fall market? Answers to the latter two questions may prove profitable to New York State onion producers, particularly if they can extend their marketing season. It should be noted that the graph is for the 1987 season and may not be characteristic of historical patterns.

1987 Onion Flows-NY State Exports & NY City Imports

in 10,000 lb. units

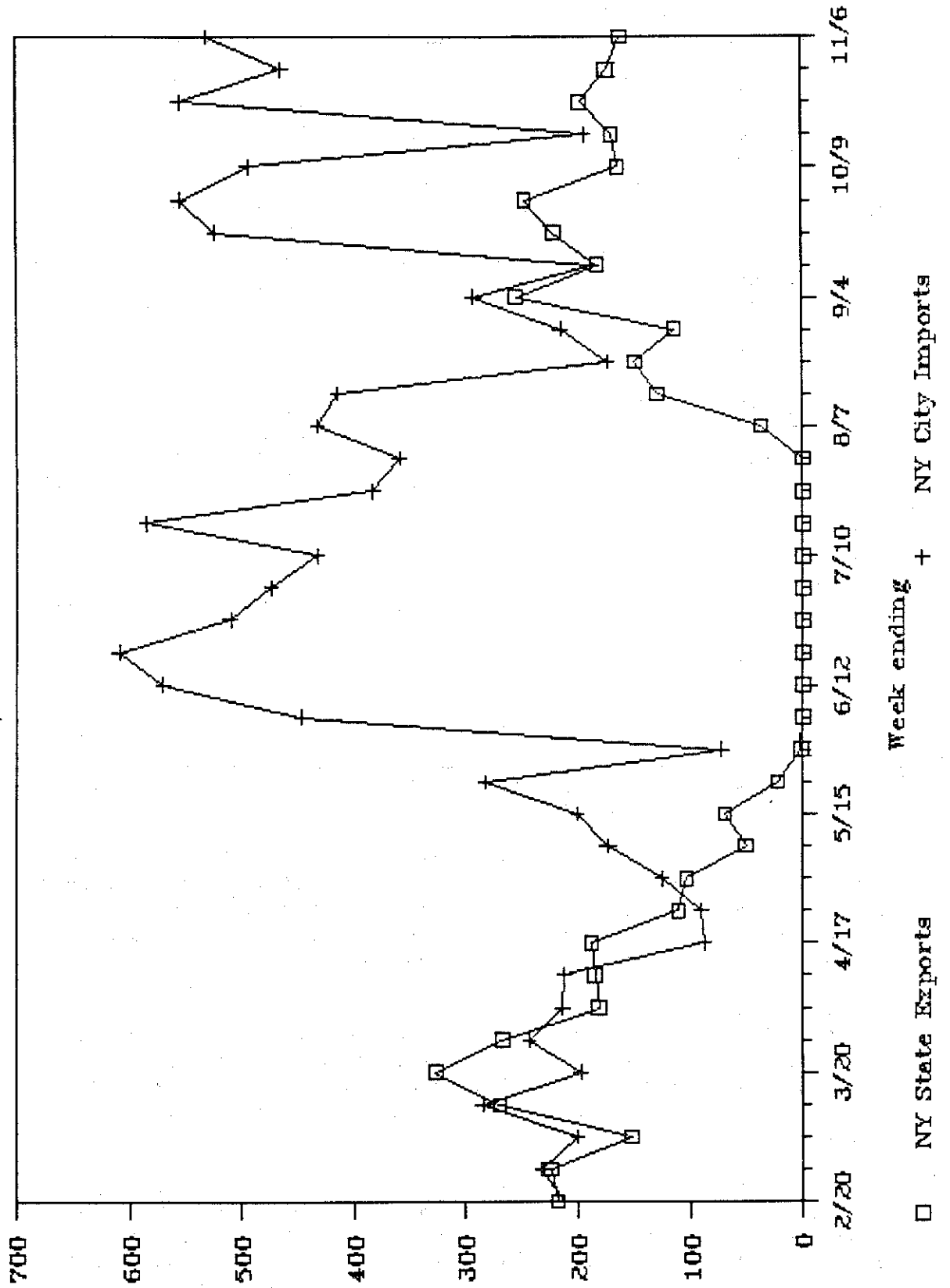


TABLE V.....PER CAPITA UTILIZATION, IN POUNDS - 1970-1986

Year	Onions	Potatoes (Fresh)	Snap Beans		Sweet Corn			Total
	(Fresh & Processed)		Canned	Frozen	Canned	Frozen	Fresh	
1970	14.63	62.5	4.7	1.2	14.3	5.8	7.77	27.87
1971	14.43	59.8	4.6	1.3	14.8	5.5	7.45	27.75
1972	13.30	56.6	4.6	1.36	15.0	5.4	7.77	28.17
1973	13.98	51.7	4.9	1.7	14.5	6.0	7.91	28.41
1974	15.39	50.8	4.9	1.7	13.5	5.9	7.73	27.13
1975	14.41	56.5	4.4	1.4	12.0	6.3	7.77	26.07
1976	15.25	47.0	4.9	1.3	13.1	5.9	8.15	27.15
1977	15.70	52.1	4.8	1.2	14.1	7.4	7.76	29.26
1978	15.83	51.3	4.8	1.4	13.2	7.1	7.41	27.71
1979	17.23	48.2	4.7	1.5	12.5	7.9	7.32	27.72
1980	14.29	48.5	4.5	1.6	12.9	7.6	7.32	27.82
1981	14.07	43.7	4.6	1.5	12.1	7.5	7.24	26.84
1982	18.19	49.2	4.2	1.53	11.4	6.9	7.24	25.54
1983	16.71	49.5	4.0	1.70	11.5	7.9	7.39	26.79
1984	18.42	44.9	3.6	1.7	10.1	9.1	7.70	26.90
1985	19.42	47.7	3.7	1.7	11.7	9.0	7.70	28.40
1986	17.88	51.9	3.8	1.5	11.9	9.0	7.11	28.01

Average Annual

Percentage

De/Increase

+0.76%	-1.54%	-0.64%	+1.94%	-1.43%	+1.08%	-0.62%	-0.04%
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Average Annual

Pound(s)

De/Increase

+0.2	-0.66	-0.04	+0.02	0.0	+0.2	-0.04	+0.01
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Source: Vegetable: Situation and Outlook Yearbook, USDA, Economic Research Service, TUS-243, November 1987.

Lastly, Table V presents national per capita utilization figures for onions, potatoes, snap beans, and sweet corn. Utilization is defined as output leaving the farm plus net imports and exports. It is not per capita consumption because shrinkage at wholesale and retail is not known. However, the trend of utilization mirrors consumption.

It is evident that fresh potato utilization is declining every year, but total potato utilization (including processing) has been constant. Onion utilization has been increasing at less than one percent per year - about 0.2 pounds per person per year. Both canned snap beans and sweet corn have been declining, but the frozen market for both has been increasing at better than one percent per year.

These trends are significant because a one percent change per year is indicative of industry growth or decline. The discrepancy between percentage de/increases and pound de/increases has to do with the computation of the two figures. In the canned sweet corn case, the year-to-year pound changes sum to zero but, on a percentage basis, the year-to-year changes average -1.43 percent.

TABLE I.....COUNTY MAKE-UP OF NEW YORK STATE AGRICULTURE AND MARKETS NURSERY SURVEY

Region						
1	2	3	4	5	6	7
Nassau	Dutchess	Albany	Broome	Allegany	Cattaraugus	Orange
NY City	Putnam	Clinton	Chenango	Cayuga	Chautauqua	Rockland
Suffolk	Westchester	Columbia	Cortland	Chemung	Erie	Ulster
		Essex	Delaware	Livingston	Genesee	
		Franklin	Herkimer	Monroe	Niagara	
		Fulton	Jefferson	Ontario	Orleans	
		Greene	Lewis	Schuyler	Wyoming	
		Hamilton	Madison	Seneca		
		Montgomery	Oneida	Steuben		
		Rensselaer	Onondaga	Tompkins		
		Saratoga	Oswego	Wayne		
		Schenectady	Otsego	Yates		
		Schoharie	St. Lawrence			
		Warren	Sullivan			
		Washington	Tioga			

In 1986, New York State Agriculture and Markets conducted a special study of the state's nursery and sod producers. The purpose of the study was to " . . . more accurately measure the value of this industry and its relative importance among the various segments of the state's agricultural economy." The survey does not include floriculture products, Christmas tree production, nor landscape (solely) operations.

Table I presents the counties that make up the seven (7) regions the survey used in compiling the data. Table II presents the value of sales in New York State during 1985. It should be noted that the survey acknowledges that the figures most likely under count rather than over count. As such, the industry in 1985 represents 132.3 million dollars. The wholesale value is 55 percent of total sales with landscape value representing 21.1 percent and retail value representing 23.3 of total sales.

Region 1 is the most significant region in the state in regards to total nursery and sod sales - representing 48.3 percent of total state sales. Regions 2, 5, and 6 represent distant secondary producers.

Keep in mind that these figures only represent producer sales. A very large contribution of the whole ornamentals industry is at the retail level. However, gauging the retail sales poses two problems: 1) are these sales 'tracked' by the Department of Agriculture and Markets or by the Department of Commerce; and 2) how does one survey this industry - particularly the landscape contractor segment.

TABLE II....NURSERY AND SOD SALES BY TYPE OF SALE, BY REGION IN 1985 IN NEW YORK STATE¹

Region	Wholesale	Retail	Landscape	Other	Total
----- thousand dollars -----					
1	46,253.1 (63.1%) ²	7,842.9 (28.2%)	9,668.6 (31.4%)	54.5 (18.6%)	63,819.2 (48.3%)
2	1,408.4 (1.9)	4,184.8 (15.0)	8,779.5 (28.5)	1.4 (0.5)	14,374.1 (10.9)
3	2,028.2 (2.8)	3,271.0 (11.7)	4,504.3 (14.6)	4.6 (1.6)	9,808.1 (7.4)
4	1,846.6 (2.5)	1,437.1 (5.2)	1,290.6 (4.2)	91.8 (31.4)	4,666.1 (3.5)
5	7,313.8 (10.0)	8,507.8 (30.6)	3,809.1 (12.4)	27.1 (9.3)	19,657.8 (14.9)
6	10,579.2 (14.4)	1,763.0 (6.3)	1,692.8 (5.5)	103.3 (35.3)	14,138.3 (10.7)
7	3,887.4 (5.3)	840.5 (3.0)	1,051.2 (3.4)	10.1 (3.5)	5,789.2 (4.4)
TOTAL	73,316.6 (55.4%) ³	27,847.1 (21.1%)	30,796.2 (23.3%)	292.7 (0.2%)	132,252.8

¹Figures only represent producer sales.²Numbers in parentheses represent percent of total column sales.³Percent of total state sales.Source: New York Nursery Producer Survey, New York State Department of Agriculture and Markets, Division of Statistics, July 1987.

TABLE III...SUMMARY OF U.S. FLORICULTURE CROPS WHOLESALE VALUE OF SALES, 1985 AND 1986 - 1,000 DOLLARS

Item	1985		1986		De/Increase Over 1985 - Percentage
	Value	Percent of Total	Value	Percent of Total	
Cut flowers	371,509	22.0%	359,146	19.2%	-3.3%
Potted flowering ¹	291,334	17.3	386,342	20.6	+32.6
Foliage plants ¹	468,495	27.8	515,451	27.4	+10.0
Bedding plants ¹	487,289	28.9	547,085	29.1	+12.3
Cut greens	66,733	4.0	70,316	3.7	+5.4
Total Value ¹	1,685,360	100.0%	1,878,340	100.0%	+11.4%

¹1985 and 1986 are not comparable due to changing the minimum time held by growers before resale - from 6 or 12 weeks to 4 weeks.

Source: Floriculture Crops - 1986 Summary, USDA, National Agricultural Statistics Service, Agricultural Statistics Board, April 1987.

Tables III and IV address the national and state floriculture industry. As noted on Table II, some figures for 1986 sales are not directly comparable to 1985 figures, but nonetheless it is safe to conclude that segments of the floriculture industry in the U.S. had a healthy increase in 1986. Nationally, in 1986, the floriculture industry had 1,878 billion dollars in sales at the producer level. The largest segment is the bedding plant industry followed by foliage plants. Table IV updates last year's figures for New York State. Total commercial sales increased 30.5 percent over 1985 sales figures. The largest increase was with potted flowering plants (89.4 percent) while foliage for indoor/patio use declined by 38.4 percent.

TABLE IV....COMMERCIAL PRODUCERS, QUANTITIES SOLD, AND WHOLESALE VALUE OF
SELECTED FLORICULTURE CROPS, NEW YORK, 1986

Crop	Commercial Producers ¹	Quantity Sold	Wholesale Value
	number		\$1,000
<u>Cut Flowers</u>			
Carnations			
Standard	7	1,896,000 blooms	400
Chrysanthemums			
Standard	40	774,000 blooms	448
Pompon	51	180,000 bunches	409
Roses			
Hybrid tea	18	13,281,000 blooms	8,447
Sweetheart	7	4,202,000 blooms	1,819
Other cut flowers	49	--	822
Total			12,270
			(-18.6%) ²
<u>Potted Flowering Plants</u>			
African violets	28	1,347,000 pots	1,455
Chrysanthemums	111	1,648,000 pots	4,998
Finished florist azaleas	57	1,758,000 pots	7,120
Easter lilies	115	480,000 pots	1,824
Other lilies	29	53,000 pots	215
Poinsettias	206	2,235,000 pots	7,778
Other flowering plants	82	4,290,000 pots	6,778
Total			30,168
			(+89.4%)
<u>Foliage for indoor/patio use</u>			
Potted foliage	79	--	3,597
Foliage hanging baskets	81	464,000 baskets	2,014
Total			5,611
			(-38.4%)
<u>Bedding garden plants (flats)</u>			
Geraniums	86	377,000 flats	2,330
Flowering foliage plants	304	2,142,000 flats	13,130
Vegetable type plants	261	494,000 flats	2,875
Total			18,335
			(+10.3%)
<u>Other potted plants</u>			
Hardy garden mums	132	855,000 pots	1,488
Geraniums (cuttings)	282	5,340,000 pots	6,728
Geraniums (seed)	77	1,769,000 pots	1,380
Other foliar plants	123	2,247,000 pots	2,382
Vegetable plants	46	162,000 pots	139
Total			12,117
			(+20.0%)
Total of Reported Floriculture Crops			82,320
			(+30.5%)

¹More than \$10,000 in gross sales of all floriculture crops.²Percentage change from 1985 sales.Source: Floriculture Crops 1986 Summary, U.S. Department of Agriculture,
National Agricultural Statistics Service, Agricultural Statistics
Board, April 1987.