



AGRICULTURAL ECONOMIC RECOVERY AND DEVELOPMENT INITIATIVE

**NEW JERSEY STATE BOARD OF AGRICULTURE
NEW JERSEY DEPARTMENT OF AGRICULTURE**

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The Case for Immediate Action

The effects of the current recession, the unintended consequences of policies at the state and local levels and the high costs of farming in an urban setting have imposed great stress on farmers and brought many of them to the point of financial crisis. Unless the crisis is effectively dealt with, agricultural sector jobs will be jeopardized, erosion of the farmland base may accelerate and the long-term viability and competitiveness of New Jersey agriculture will be at stake.

In spite of its significant contributions to New Jersey's economy and quality of life, agriculture is often ignored in state economic development programs and initiatives. The severity of the current economic crisis in agriculture calls for immediate implementation of interim programs and strategies, to help the farm community through the current recession and help assure long-term viability. Many farmers fear that if these emergency programs are not implemented now, it may be too late by the time long-term strategies are implemented.

The New Jersey State Board of Agriculture urges implementation of emergency measures and crisis management initiatives intended to provide immediate relief and assistance to the agricultural sector and to assist farmers in staying economically viable. A strong case can be made for special treatment of agriculture because of its uniqueness as a land-based economic sector and its contributions not only to income, employment, and economic diversity, but also to the existence of farmland, open space and quality of life. However, even more important is the fact that unlike other pressing matters in the state, the loss of farmland and open space is an irreversible process, which the state may not be able to afford. Addressing the immediate crisis will pay dividends in both the short and long-term.

State policy makers are urged to include agriculture as part of their economic recovery and development programs and to move quickly to improve the condition of New Jersey farmers.

Agricultural Contributions to New Jersey: Economy, Open Space, Quality of Life

New Jersey agriculture represents more than a way of life for those who carry on the state's time-honored tradition. It is first and foremost a business for the numerous farm operators and their families. As a business, agriculture's employment and income contributions to New Jersey's economy are substantial. New Jersey agriculture is an integral part of a food and agriculture complex which generates more than \$36 billion in sales, employing more than 300,000 and paying more than \$3.4 billion in wages. The food and agriculture complex accounts for about 12% of total employment, 8% of total wages and 13% of total sales in New Jersey.

The direct income contributions of agriculture are reflected in farmers' incomes from farming. In 1991, gross farm income was \$749.2 million and farmers netted \$225.8 million. Adding the indirect economic effects of agriculture through multipliers, the total contribution of agriculture to New Jersey's economy was \$1.216 billion in 1991.

The 20,000 or so workers directly employed in New Jersey agriculture earn \$105.2 million in direct wages. Considering the secondary employment generated in industries such as food processing and pharmaceutical by the state's agriculture, the total employment impact of agriculture is about 35,000 jobs. Due to the close proximity of many farms in the state to urban areas, agriculture is a key source of employment for the disadvantaged, low-skilled inner-city workers.

Compounding its economic status is agriculture's significant contribution to the quality of life of the state. Farmers provide critical public benefits such as tax-paying open space, scenic beauty, groundwater recharge, wildlife habitat and opportunities to enjoy a rural lifestyle. However, farmers are not compensated for many of these public goods and services that their activities facilitate for other state residents.

Structural Vulnerability of New Jersey Agriculture

Profitability of New Jersey farms is becoming increasingly problematic. Production costs are growing faster than cash receipts. When inflation and the value of family labor are accounted for, returns to investments and entrepreneurship has been negative for some time. New Jersey farmers appear to be increasingly at a competitive disadvantage vis-a-vis other states. The reasons for this can be attributed to the small size of farms and resulting diseconomies of scale, high production costs as well as living costs for farm families, a highly restrictive regulatory environment and an impermanence syndrome.

New Jersey farmers are generally more vulnerable than their counterparts in other states to changes in general economic conditions because they rely less on profits from their farms to remain economically viable and more on the income and associated benefits of off-farm employment and on the proceeds from selling farmland. These additional income sources also provide needed funds for investments to ensure the future viability of the farm operation.

Recession and Policy Impacts

Superimposed on this economically vulnerable agricultural sector is the 1990-1992 economic recession. Its impact has been prolonged and profound and it is likely to extend into the foreseeable future. Further, recent public policy interventions such as wetlands restrictions, growth management and a higher than federal minimum wage have potentially severe implications for New Jersey agriculture. Many farmers indicate they face severe financial stress and their long-term survivability is questionable. These concerns are echoed throughout industries that serve agriculture.

The recession has negatively impacted all major sources of income for farm households. The decline in the welfare of farm households has occurred in three waves. The first wave came in 1989 with a downturn in income from the sale of farmland due to the virtual halt in real estate development. While few farmers depend on this income, the few that do depend on it, most of whom are small

part-time farms, are very dependent on this income source because of the limited income many of them realize from farming. These farms were quite adversely impacted by the lack of construction opportunities brought about by the real estate recession.

The second wave of the current recession came in 1990 when farm related income of farm households started to decline. Full-time farmers, many of whom run the large commercial farms in the state with no off-farm employment and other income were particularly hard hit due to the lack of alternatives. The last wave of the recession came in 1991 when the income from off-farm employment started to decline with the onset of the general recession. Part-time farmers were particularly hit since many of these depend on off-farm income to sustain the farm as well as the household. By 1991, incomes from all major sources were down with the situation further worsening in 1992. By 1992, virtually all farms in the state had been touched in one form or another by the recession.

With all income sources being eroded by the recession and the additional impact of the minimum wage increase, many farmers face an uncertain future. Industries serving farmers' financial needs concur, citing the record number of delinquencies on payments, postponement of major capital purchases, loan restructuring and non-performing loans. For example, New Jersey Farm Credit, the leading lending institution to New Jersey farmers indicates that distress loan volume (includes loans to farm operations that lack the financial capacity to meet established loan terms) increased from 2.5 percent of total loan volume in September 1987 to 11 percent in September 1992. This significant increase indicates that the last few years have been particularly hard for farmers. An implication of the current recession may therefore be the inability of many farms to survive long-term.

The current state economic climate has significant implications for the future of New Jersey agriculture. With farmers' financial base dwindling, many farmers are beginning to question the agricultural lifestyle as a means of family sustenance. This lack of enthusiasm could result in increased sale of farmland when the economy recovers as farmers pursue other farm or non-farm options and get out of farming in this state as a business. The implications for the economy and for open space in the state are obvious.

Emergency Measures and Crisis Management Initiatives

The following represents the State Board of Agriculture's recommended strategies and policies for agricultural economic recovery and development. The strategies and policies recommended are those likely to be effective within a very short period of time in providing a needed boost to agriculture while at the same time having positive long-term effects. They are intended to provide immediate relief by enhancing production efficiency and competitiveness. They include incentives and measures to relieve farmers from costs attributable to public policies, to encourage agricultural related investments, to enhance marketing efficiencies, to promote market development, to exploit alternative on-farm income opportunities, to help alleviate the negative impacts of the loss of off-farm income, and to maintain farmland while preserving farmers' financial base.

The following are the categories of crisis management strategies and policies to achieve Agricultural Economic Recovery and Development:

Crisis Financial Assistance Programs.

Regulatory, Taxation and other forms of Relief.

Marketing Initiatives.

Farm Management and Training Initiatives.

Protection of Farmland Base, Property Rights and Equity.

Each of the above noted categories contains many components critical to the short-term viability of agriculture. Among these, four measures of utmost urgency stand out. As follows, these have been particularly highlighted by presenting them individually first due to their ability to quickly address pressing problems and issues related to this serious crisis.

EMERGENCY MEASURES

Crisis Financial Assistance Programs:

An appropriation of new funds should be made for a dedicated agricultural economic recovery and development fund and program. In addition, a portion of state economic development funding available in existing programs should be dedicated to establish an immediate agricultural pool of funds to be used in conjunction with new funding guidelines which are responsive to the financial needs and circumstances of agriculture. These funds should be administered in a manner that provides for the direct participation of the New Jersey Department of Agriculture (NJDA). These funds should be used to carry out recommendations contained in this report that have monetary implications; and these funds should be made available as a priority to farm operations in critical need of short-term financial assistance programs that would enable them to survive and aid their economic recovery and their ability to turn a profit (see details on this and other funding and assistance programs beginning on page 7).

Regulatory, Taxation and other Forms of Relief:

A refundable tax credit should be enacted to mitigate the impact of the state \$5.05 minimum wage by providing immediate relief to New Jersey farmers whose aggregate net income has been substantially reduced beginning in early 1992. This credit would be eliminated when the federal minimum wage is equal to that of the state (see details on this and other Regulatory, Taxation and other Forms of Relief on page 10).

Marketing Initiatives:

Launch an aggressive, expanded market development and promotion initiative. While coordinating with others, the NJDA should take the lead in developing domestic and international markets for New Jersey farm products, identifying new applications of New Jersey agricultural products, and connecting producers with appropriate marketing channels (see details on this and other Marketing Initiatives on page 13).

Farm Management and Training Initiatives:

Develop a Farm Management Information Center including a Hot Line to provide information on existing and emergency farm assistance programs and specific training programs on farm management (see details on this and other Farm Management and Training Initiatives on page 15).

These four emergency measures would establish a foundation and should not be considered in isolation. They should be considered in conjunction with the crisis management measures that are further delineated below.

EMERGENCY AND CRISIS MANAGEMENT INITIATIVES

Crisis Financial Assistance Programs

1. An appropriation of new funds should be made for a dedicated agricultural economic recovery and development fund and program. In addition, a portion of state economic development funding available in existing programs should be dedicated to establish an immediate agricultural pool of funds to be used in conjunction with new funding guidelines which are responsive to the financial needs and circumstances of agriculture. These funds should be used to carry out recommendations contained in this report that have monetary implications; and these funds should be made available as a priority to farm operations in critical need of short-term financial assistance programs that would enable them to survive and aid their economic recovery and their ability to turn a profit. This is clearly justified based on the contributions to the Gross State Product and jobs created by a \$1.2 billion farm sector and a \$36 billion food and agricultural complex.

- **Amend the New Jersey Economic Recovery Act** to specifically earmark up to \$20 million to food, agriculture and related industries.

- **Develop an agricultural loan initiative** within the Economic Development Authority (EDA) with an initial \$5 million allocation for direct loans to agricultural enterprises.

- **State agencies should be directed to identify existing programs** with funds that can be used for agricultural purposes, and in consultation with NJDA, allocate and administer those funds for such.

2. Make available, as a first priority, to farm operations in critical need short-term funds and assistance programs that would enable them to survive and aid their economic recovery and ability to turn a profit.

– **An operating loan insurance program.** State pays premiums to insurance companies that underwrite insured operating loans up to a predetermined amount. This program can target specific commodities and would be administered by the NJDA.

– **A debt stabilization program.** State provides, to farmers who demonstrate inability to obtain finances at reasonable rates and are potentially economically viable, a one-time opportunity to refinance operating loans at below market interest rates.

– **Linked investments programs.** State offers below market interest rates to qualifying farmers for operating short-term credit through private financial institutions by depositing funds at below market rates at commercial banks which in turn pass on interest rate reductions to qualified farm borrowers.

– **A guaranteed loan program.** A 1-year program offered by the state through existing agricultural lending institutions guaranteeing operating loans with provision for 2-year extensions if certain criteria of financial improvement are met. This program can be linked to investments in production efficiency and participation in farm management training and education programs.

– **Farm credit mediation program.** Assistance by NJDA in avoiding foreclosures by bringing debtors and creditors together in developing debt-restructuring agreements.

3. Enact measures to improve production efficiency and competitiveness by creating incentive programs to encourage investments in cost reducing technologies, increases in farmer ownership of land and scale economies.

– **Venture capital fund and tax credits** provided by the state to farmers who adopt innovations and cost reducing technologies.

– **Emerging agricultural products loan program.** Direct state loan funds to be used for land, buildings, equipment and improvements but not for refinancing existing debt. Emphasis will be placed on new products, and alternative income opportunities for farms.

– **Improved credit facilities** and low interest rate loan guarantees provided by the state for investments in machinery and equipment.

– **Capital improvement funds.** Below market loans provided by the state to help farmers invest in capital improvements. Loan amounts can be limited to a maximum for one year; the remainder of the project must be financed by other financial institutions or covered by borrower equity.

– **Fixed asset finance program.** The state will directly loan up to a given percentage of the project to farmers wishing to purchase fixed assets, including real estate, construction and machinery.

– **Beginning farmer program.** State loans to assist farmers who have never owned farmland and who have a low net worth. Loans are made for farmland, buildings and occasionally for equipment. The state uses tax exempt bond financing to encourage private lenders to make loans for qualified farmers.

– **Increase state funding of Integrated Pest Management (IPM) Programs.** IPM development and technical assistance helps farmers reduce costs and facilitates environmentally sensitive agriculture.

4. Urge the Governor's Washington liaison office to explore opportunities for federal funding as well as to explore relief in federal taxation and regulatory areas such as intergenerational transfer taxes.

Regulatory, Taxation and Other Forms of Relief

1. Mitigate the impact of the state \$5.05 minimum wage by providing immediate relief to New Jersey farmers whose aggregate net income has been substantially reduced beginning in 1992.

– **Enact a refundable tax credit.** This recommended legislation would provide a retroactive rebate to farmers (individuals, partnerships and corporations). Total number of hours worked by field workers would be multiplied by an estimated cost factor per hour of the new minimum wage, yielding a total cost impact multiplied by .65. This amount would be entered on state tax returns as a tax credit. The amount if greater than taxes otherwise owed would be compensated by a check by the State of New Jersey, retroactive to labor costs incurred after April 1, 1992. This credit would be eliminated when the federal minimum wage is equal to that of the state.

2. Reduce production costs attributable to public policies by strengthening the capacity of the NJDA to undertake and sustain a regulations coordination, mitigation and mediation initiative. Allocate \$200,000 to facilitate immediate action on this important initiative.

– **The Governor is urged to direct state agencies, authorities, and commissions to evaluate statutes, policies and regulations under their respective jurisdictions.** The objective would be to identify those which may negatively impact the agricultural industry and recommend changes that would enhance the industry and foster new and expanded agricultural development. This should include removing barriers and obstacles, streamlining programs and creating incentives.

– **Explore with the relevant state agencies ways to coordinate state regulations affecting agriculture; streamline and expedite permitting process; develop problem solving approaches and promote sensitivity of regulations to the needs of agriculture without jeopardizing health and safety.**

- Explore with county, municipal and regional agencies (county and municipal planners and code officials, county board of taxation, county boards of agriculture and county agricultural development boards, soil conservation districts) ways of sensitizing regulators to the needs of agriculture and coordinating county and local regulation, and local property tax assessment.

- Enhance the capacity of NJDA to accomplish 2.2.a and 2.2.b by establishing a dedicated agricultural component in fees charged by regulatory programs of state agencies whose programs impact on or are influenced by agriculture and by using such dedicated fees to fund NJDA regulatory assistance programs.

- Strengthen Right-to-Farm and Agricultural Retention and Development Act as they pertain to state regulatory programs and improve the scope and implementation of best management practices (BMPs) in cooperation with Rutgers New Jersey Agricultural Experiment Station (NJAES)/Cooperative Extension. This would include increased funding to the NJDA and State Agriculture Development Committee (SADC) to implement BMPs.

3. Adopt specific measures for tax and regulatory relief to reduce production costs attributable to public policies.

- Property tax relief. Taxes paid by New Jersey farmers are higher than in competing states even with farmland assessment. There is an immediate need to:

- a) Exempt from property taxation certain farm buildings and single purpose structures.
- b) Develop farmland assessment guidelines to better assure that farm buildings are assessed at their use value and not at market value.
- c) Apply roll-back provisions so that direct marketing structures are not discouraged.
- d) Ensure that farmland assessment is coordinated and uniform regionally and statewide.

- Sales tax relief. There is an immediate need to provide sales tax relief for certain agricultural related products and services as is done in other states.

– **Relief from the costs of inter-generational transfers of farmland.** The state should exempt farmland from transfer inheritance tax and should fund programs of technical assistance to farmers on estate planning.

– **Utility cost relief.** The NJDA should negotiate with the Board of Public Utilities (BPU) to reduce electric and gas rates for intensive agriculture, greenhouse, processing, storage facilities, and other agricultural enterprises.

– **Relief from motor vehicle fees on farm vehicles.**

– **Relief from the municipal site plan approval process.** A farm conservation plan prepared by the local soil conservation district should be all that is necessary for the construction of greenhouses and other farm structures so that construction costs and delays are kept to a minimum.

– **Limit farmers liability for pick-your-own and recreational uses of farmland** that offer alternative income opportunities for farmers.

– **Relief from regulations limiting farmer control of animal pests** especially deer, that result in substantial damage to crops, or the state should compensate for losses.

– **Unemployment Rate Tax Relief** based on the recognition that the seasonally unemployed in agriculture are employed elsewhere during the non-harvest season.

– **Accelerated depreciation on farm equipment and machinery.**

– **Relief from unfair policies and excessive requirements concerning farm labor housing.**

4. **Alleviate the negative impact of off-farm unemployment by directing the Departments of Labor, Health and Human Services to review their procedures and eligibility requirements to ensure that farm operators and spouses, particularly the unemployed, receive adequate and equitable services.**

Marketing Initiatives

1. Restore the capacity of the NJDA to immediately launch a market development and promotion initiative. It is important that the NJDA take the lead in coordinating with the Department of Commerce (DOC), Rutgers NJAES/Cooperative Extension and others, to identify domestic and international markets for and new application of New Jersey agricultural products and to connect producers with appropriate marketing channels. This initiative would also include technical assistance on new and novel products for New Jersey farmers as well as monitoring emerging consumer trends for use by farmers in production planning and marketing strategies.

- Strengthen the market development and promotion capacity within the NJDA.** Allocate \$300,000 to facilitate quick action and provide some continuity for this important initiative.

- Restore Funding for the "Jersey Fresh" Program to \$1.3 million.** Funding at this level will be used to accomplish two major goals.

- a) Restoration of promotion activities to convey product differentiation and instill brand loyalty for all New Jersey farm products.
- b) Improving the grading and quality enhancement component of this program to increase the competitiveness of New Jersey farm products.

- Urge state agencies to buy New Jersey Products.** The Governor should direct state agencies to give high priority to the purchase of New Jersey agricultural commodities.

2. Adopt incentives to implement the NJDA market development and promotion initiative. These include state incentives for vertical integration of farm operations, the construction of processing facilities, encouragement of value added activities, and promotion of direct marketing. These programs are to be funded by the aforementioned Agricultural Economic Recovery and Development Fund.

- Investment tax credits** for food processing and marketing firms and wholesale and retail firms that particularly utilize New Jersey agricultural products.

– **An agribusiness interest free loan program** for enterprises engaged in processing, manufacturing and other value-added activities. The amount financed would not exceed 20%, for example, of the project's total cost and is designed to make financing of such agribusiness more attractive to other lenders.

– **State loan guarantee program for agribusiness.** State loan guarantees to a variety of agribusinesses emphasizing vertical integration. Projects must add value to commodities raised within the state or must produce commodities not usually produced in the state. The state guarantees 85% of principal and interest for loans made by private investors.

– **Short-term property tax abatement programs** for new processing, marketing, wholesale and retail firms that particularly utilize New Jersey agricultural products. This incentive would be phased out and not abruptly ended for eligible projects.

3. Develop, in coordination with Rutgers NJAES/Cooperative Extension, information, training and education programs.

– **An on-line market information data base** accessible to farmers should be developed.

– **Marketing training and education programs** for farmers should be funded by the state, and offered without charge to participants.

4. Structure state incentive programs to promote marketing cooperatives.

– **Offer a sliding scale of incentives** to those who engage in joint marketing enterprises.

– **Require farmers to enroll in certified marketing training and education programs** in order to be eligible for state loan and cost sharing programs.

– **Remove public policy obstacles** to the formation of joint processing, packaging, storage and marketing enterprises by farmers.

– **Establish a small state grant program** to provide short-term marketing technical assistance to farmers who wish to form marketing cooperatives or other joint agricultural enterprises.

Farm Management and Training Initiatives

1. Enhance the capability of the NJDA to develop a Farm Management Information Center in cooperation with Rutgers NJAES/Cooperative Extension. An initial allocation of \$100,000 will assist in setting up this program which would include:

– **A Hot Line Information System** whereby information can be provided on existing and emergency farm assistance programs and stress management assistance.

– **Training and Education Programs** through an expansion of Rutgers NJAES/Cooperative Extension programs providing information on farm management and accounting, debt management including relationships with lenders, other creditors and suppliers, etc. These programs can be linked to emergency loan programs by requiring loan recipients to participate. These programs should be offered at little or no cost to farmers.

2. Provide state funding for technical assistance programs for farmers to improve farm profitability (for example, training and education on farm management techniques to increase farm efficiency) and link them to the Agricultural Economic Recovery and Development Fund.

Protection of Farmland Base, Property Rights and Equity

1. Accelerate the Purchase of Development Rights (PDR) Program and modify its implementation.

- Urge the Governor to advance additional PDR bond issues over the next five years, to take advantage of a window of opportunity to preserve farmland while the value of state land continues to be relatively low.

2. The NJDA should in coordination with Rutgers/NJAES explore statewide application of the agricultural enterprise zone system of incentives to achieve a number of interlinked objectives.

- The commitment of existing farmer-owners to 8 and 20-year agricultural programs.

- The commitment of farmland owners and renters to enter into long-term leasing arrangements.

- The new farmer commitments to farming.

- The establishment of marketing cooperatives, vertical integration of farm operations, and the creation of new agribusiness enterprises, linked to the job creation and maintenance objectives of the N.J. Economic Recovery and Urban Enterprise Zone Acts, and the EDA.

3. Enact state incentives for new and beginning farmers.

- A contract bond program. Tax exempt bond financing is used to encourage contract sellers to make reduced rate real estate loans to farmers making their first purchase of farmland.

- A tax exempt revenue bond financing program. To qualify, farmers must own land less than 15% of the median farm size in their county and have a net worth less than \$300,000. Loan proceeds can be used to finance real estate, improvements and depreciable property.

4. State commitment to develop programs to compensate farmers for the loss of farmland equity resulting from growth management regulations.

- Implementation of a state requirement of equity impact statements for growth management regulations.
- Creation of an equity insurance program tied to farmland preservation.
- Creation of a pension program for farm households tied to farmland preservation.

This initiative is largely based on a report prepared by members of the NJAES/APRG entitled "New Jersey Agriculture: Strategies to Deal with Current Critical Problems," by Adesoji Adelaja, Stephen Decter and Edmund Tavernier, January 1993.

**SUMMARY BASIS AND BACKGROUND
FOR THE AGRICULTURAL ECONOMIC RECOVERY
AND DEVELOPMENT INITIATIVE**

SUMMARY BASIS AND BACKGROUND FOR THE AGRICULTURAL ECONOMIC RECOVERY AND DEVELOPMENT INITIATIVE

The New Jersey Agricultural Experiment Station (NJAES) Agricultural Policy Research Group (APRG) Study

The New Jersey Department of Agriculture (NJDA) contracted with the NJAES/APRG in late November of 1992 to measure the impacts of recent policy developments and the recession on farm households and to develop an inventory of alternative strategies that would have an immediate impact in dealing with critical problems facing New Jersey agriculture. As a result a report was produced (New Jersey Agriculture: Strategies to Deal with Current Critical Problems, by Adesoji Adelaja, Stephen Decter, and Edmond Tavernier, January, 1993). The APRG report generated estimates of components of disposable income for farm households for the years 1991 and 1992 and compared these to the base year of 1987. The impact of the recent increase in the minimum wage was also isolated. The analysis relied on the New Jersey State Econometric Model of Agriculture (NJSEMA) developed by the APRG. In addition, the analysis relied on first hand information from farmers, agricultural leaders, experts on agriculture, and representatives from the NJDA. The full report is available at the offices of the NJDA and the NJAES/APRG. Analysis of this information has yielded the following specific findings.

Contributions of Agriculture to New Jersey.

People with limited ties to New Jersey agriculture often erroneously view agriculture in the state only as a way of life; but they fail to recognize that it is first and foremost a business for the numerous operators and their families who live on farms. As a business, agriculture's employment and income contributions to New Jersey's economy are substantial. Agriculture also makes a substantial contribution to the diversity of the state's economy. This diversity is important in

cushioning the overall economy from the economic slowdown. New Jersey agriculture is an integral part of a food and agriculture complex which generates over \$36 billion in sales, employs over 300,000 and pays out over \$3.4 billion in wages. The food and agriculture complex accounts for about 12% of total employment, 8% of total wages and 13% of total sales in New Jersey.

The income contributions of agriculture are reflected in farmers' incomes from farming. In 1991, gross farm income was \$749.2 million and farmers netted \$225.8 million. Adding the indirect economic effects of agriculture through multipliers, the total contribution of agriculture to New Jersey's economy was \$1.216 billion in 1991. This excludes the direct and indirect impacts of the spending of off-farm employment and other income sources of farm household members.

The 20,000 or so workers directly employed in New Jersey agriculture earn \$105.2 million in direct wages. Considering the secondary employment generated in industries such as food processing and pharmaceutical by state agriculture, the total employment impact of agriculture is about 35,293 jobs. Due to the close proximity of many farms in the state to urban areas, agriculture is a key source of employment for the disadvantaged low-skilled inner-city workers.

Perhaps, New Jersey agriculture's most important contribution is to the quality of life of the state. Farmers are critical providers of public benefits such as open space, scenic beauty, ground water and air quality, wildlife habitat, and opportunities to enjoy a rural lifestyle. The diversity of lifestyles in the state which agriculture contributes substantially to is a key reason why companies chose to locate in New Jersey and why New Jersey's economy has been historically buoyant. However, farmers are not compensated for many of these public goods and services that their activities facilitate for other state residents.

New Jersey leads the nation in the production of many commodities. Proximity to major markets in the Northeast is a major advantage, particularly for those farmers producing vegetables, greenhouse and floricultural products, nursery products and equine. Given the diverse, multi-commodity, multi-market and multi-technological nature of New Jersey agriculture, to be successful, New Jersey farmers must be highly opportunistic, well educated and very entrepreneurial. However, a large number of farmers in the state lose money on the farm due to a

variety of factors. Without taking measures now to better assure economically profitable and viable farms and farm households, it will be difficult to sustain the agricultural land base. This land base facilitates agriculture's contributions to the state's economy and a high quality of life for current and future generations.

Structural Vulnerability of New Jersey Agriculture

Profitability of New Jersey farms is becoming increasingly problematic. Production costs are growing faster than cash receipts. The approximately 9,000 farm households netted only \$225.8 million in 1991 as return not only to family labor, but also to their entrepreneurship and ownership of farmland (that is \$25,100 per farm household). When inflation and the value of family labor are both accounted for, returns to investments and entrepreneurship has been negative for some time.

New Jersey farmers appear to be increasingly at a competitive disadvantage vis-a-vis other states. The reasons for this can be attributed to the small size of farms and resulting diseconomies of scale, high production costs as well as living costs for farm families, a highly restrictive regulatory environment, and an impermanence syndrome giving rise to a lack of motivation by farmers to look to the future and invest in new cost reducing technologies. Many farmers continue farming partly because of the long-range capital gains opportunity offered by farmland sale and its implication for future net worth and retirement income.

New Jersey farmers are generally more vulnerable than their counterparts in other states to changes in general economic conditions because they rely less on profits from their farms to remain economically viable and more on the income and associated benefits of off-farm employment and on the proceeds from selling farmland to speculators and developers. These additional income sources also provide needed funds for investments to ensure the future viability of the farm operation. In New Jersey agriculture, all income sources of farmers are highly interrelated and must be considered jointly in evaluating the economic viability of New Jersey farm households.

Moreover, because of high and historically rapid increases in the value of farmland, many New Jersey farmers have been willing to accept lower and often negative returns from their farm operations with the expectation that they can recoup their farm related losses in the long-run through appreciation in the value of farmland. This further perpetuates inefficiencies and the impermanence syndrome and makes many New Jersey farm households highly vulnerable to developments in the land market.

Current Economic and Policy Conditions

Superimposed on this economically vulnerable agricultural sector is the 1990-92 economic recession. Its impact has been prolonged and profound and it is likely to extend into the foreseeable future. Key economic indicators from 1987 to 1992 reported in Tables 1 to 4 indicate the severity of the recession. For example, while the civilian labor force increased between 1987 and 1992, total employment decreased (particularly manufacturing and construction employment) and the state's unemployment rate rose from an average of 4.1% to 7.9%. Drastic declines were also experienced in residential and commercial construction contracts awarded and in building permits. Other indicators such as the number of new car registrations and business failures also indicate a deep recession.

Recent public policy interventions such as wetlands restrictions and growth management embodied in the Pinelands and the State Development and Redevelopment Plan also have potentially severe implications for New Jersey agriculture. In addition, the recent increase in the minimum wage has worsened the problem. Many farmers indicate that they face severe financial stress and that their long-term survivability is questionable. These concerns are echoed throughout industries that serve agriculture.

Impacts of Current Conditions on the Income of Farm Households

The recession has negatively impacted all major sources of income for farm households. The decline in the welfare of farm households has occurred in three waves. The first wave came in 1989 with a downturn in the proceeds from transactions involving the sale of farmland (see Table 7). This resulted from the virtual halt in real estate development. Very few farmers depend on income from the sale of land. However, the few that depend on such income, most of which are small part-time farms, are very dependent on this income source because of the limited income many of them realize from farming. These farms were quite adversely impacted by the lack of construction opportunities brought about by the real estate recession.

The second wave of the current recession came in 1990 when farm related income of farm households started to decline. Full-time farmers, many of whom run the large commercial farms in the state with no off-farm employment and other income were particularly hard hit due to the lack of alternatives (see Table 9). The last wave of the recession came in 1991 when the income from off-farm employment started to decline with the onset of the general recession. Part-time farmers were particularly hit since many of these depend on off-farm income to sustain the farm as well as the household. By 1991, incomes from all major sources were down with the situation further worsening in 1992. By 1992, virtually all farms in the state had been touched in one form or another by the recession (see Table 7 and Figure 9).

Net Farm Income

The impact of the recession on farm income was not felt uniformly across commodity groups. For example, cash receipts for the equine as well as the greenhouse, nursery and sod subsectors started to decline in 1990 (see Figures 1 and 3). These sectors account for almost half of the cash receipts as well as the net income from agriculture in New Jersey (see Table 10). The decline in the greenhouse, nursery and sod subsector coincides with the early downturn in the

real estate and construction industries. On the other hand, cash receipts increased for many other commodity groups (see Figures 1 through 6).

Changes in cash receipts for individual commodities (see Table 5) show that overall, the growth New Jersey farms experienced in net farm income through 1989 came to a halt in 1990 due primarily to the declines in the greenhouse, nursery, sod and equine industries. Net farm income has continually declined since then. Net farm income declined by 17.8% from 1987 to 1992 largely because cash receipts stayed relatively flat while production costs continued to rise (see Figure 7). The recently enacted minimum wage has substantially affected 1992 net farm income and further worsened the condition of farmers during the recession. Without the increase in minimum wage, net farm income would have declined only by \$8.5 million in 1992. With the higher minimum wage it declined by \$20.8 million (see Figure 8).

Income from Off-farm Employment

Historically, off-farm income has increased to compensate for declines in net farm income because many of the part-time farmers in the state have relied on off-farm income to be able to continue farming. Although off-farm income in 1990 was up significantly from the levels for 1987 through 1989, starting in 1991 there was a departure from the historical relationship when off-farm income began to fall as the recession hit the non-farm sector (see Figures 10 and 11). By 1992, off-farm income of farm households in New Jersey had fallen by 11.3% to \$280.7 million from a 1987 figure of \$316.6 million (see Tables 6, 7 and 8). Many of the part-time farming operations with sales less than \$40,000 were particularly adversely affected.

Implications of Income Declines

With all income sources being eroded by the recession and the additional impact of the minimum wage increase, many farmers face an uncertain future.

Industries serving farmers' financial needs concur, citing the record number of delinquencies on payments, postponement of major capital purchases, loan restructuring and non-performing loans. For example, New Jersey Farm Credit, the leading lending institution to New Jersey farmers indicates that distress loan volume (includes loans to farm operations that lack the financial capacity to meet established loan terms) increased from 2.5 percent of total loan volume in September 1987 to 11 percent in September 1992. This significant increase indicates that the last few years have been particularly hard for farmers. An implication of the current recession may therefore be the inability of many farms to survive long-term.

The long-term competitiveness and efficiency of a farm depends on considerations of short-term viability due to the need to invest retained earnings in capital projects. With declining disposable incomes, investments in the farm may become secondary to meeting basic family financial needs. Hence, earnings that would have gone towards enhancing future viability of farms will more likely be spent on household expenses thereby jeopardizing the long-term viability of the farm.

The economic viability of the farm household also is undermined when off-farm unemployment results in the loss of the only pension and health benefits the farm family is likely to have. Many farmers do not have private pension, health, life and disability plans associated with the farm operation and they tend to depend on plans offered by off-farm employers. Moreover, unlike others who lose their jobs, members of farm households do not always qualify to receive unemployment compensation when off-farm employment ceases because they are not totally without income.

The current state economic climate has significant implications for the future of New Jersey agriculture. With farmers' financial base dwindling, many farmers are beginning to question the agricultural lifestyle as a means of family sustenance. This lack of enthusiasm could result in increased sale of farmland when the economy recovers as farmers pursue other farm or non-farm options and get out of farming in this state as a business. The implications for the economy and for open space in the state are obvious.

TABLES

**Table 1. Employment and Labor Force Statistics for New Jersey by Sector:
Comparing January-June of 1987 to 1992.**

Employment Indicator	Average for Jan-June of 1987	Average for Jan-June of 1992	% Change From 1987-92
Civilian Labor-Force (000)	3947.0	4026.0	+ 2.0
Total Resident Employment (000)	3789.0	3708.0	- 2.1
Non-Farm Payroll Employment (000)	3563.8	3420.6	- 4.0
Manu-facturing Employment (000)	679.5	538.8	- 20.7
Farm Payroll Employment (000)	225.2	287.4	+ 27.6
Cons-truction Employment (000)	162.8	108.9	- 33.1

Source: New Jersey Department of Commerce and Economic Development, New Jersey Economic Indicators, Trenton NJ, various issues.

Table 2. Unemployment Statistics for New Jersey: Comparing January-June of 1987 to 1992.

Economic Indicator	Average for Jan-June of 1987	Average for Jan-June of 1992	% Change From 1987-92
Total State Unemployment (000)	162.0	318.0	+ 96.3
Unemployment Rate (%)	4.1%	7.9%	+ 3.8%

Source: New Jersey Department of Commerce and Economic Development, New Jersey Economic Indicators, Trenton NJ. various issues.

Table 3. Construction Sector Statistics for New Jersey: Comparing January-June of 1987 to 1992.

Indicator	Average for Jan- June of 1987	Average for Jan- June of 1992	% Change From 1987-92
Total Cons- truction Employment (000)	162.8	108.9	- 33.1
Total Cons- truction Contracts (Smil)	727.8	472.9	- 35.0
Residen- tial Con- struction Contracts Awarded (Smil)	331.0	140.2	- 57.6
New Resi- dential Building Permits	3622.0	1463.0	- 59.6

Source: New Jersey Department of Commerce and Economic Development, New Jersey Economic Indicators, Trenton NJ, various issues.

Table 4. Miscellaneous Economic Indicators for New Jersey: January-June of 1987 vs 1992.

Economic Indicator	Average for Jan-June of 1987	Average for Jan-June of 1992	% Change From 1987-92
Weekly Earnings in Manufacturing (\$)	424.5	524.2	+ 23.5
CPI for US (1982-1984=100)	111.2	137.1	+ 23.3
CPI for PA (1982-1984=100)	114.9	145.5	+ 26.6
CPI for NJ (1982-1984=100)	114.9	145.2	+ 26.4
New Business Corporations	1988.0	2610.0	+ 31.3
Business Failures	64.0	241.5	+277.3
New Passenger Car Registration	40996.0	26049.0	- 36.5
Retail Store Sales (\$mil)	4107.0	4325.0	+ 5.3

Source: New Jersey Department of Commerce and Economic Development. New Jersey Economic Indicators, Trenton NJ, various issues.

Table 5. Projected and Actual Cash Receipts by Commodity, 1987, 1991 and 1992 (\$000).

Commodity	1987	1991	Proj 1991*	Proj 1992*	% Change 1987-1992
Livestock & Products					
Eggs	24937	33961	33047	36074	+ 44.7%
Turkeys	2576	1393	1535	905	- 64.9%
Other poult	2646	2201	2413	2420	- 8.5%
All poult & eggs	30159	37555	36995	39399	+ 30.6%
Dairy	58086	52407	52429	53075	- 8.6%
Cattle & calves	16752	15026	15435	16047	- 4.2%
Hogs	2076	1288	1309	958	- 53.9%
Horses	86300	87949	86845	84117	- 2.5%
Other livestock	1315	2308	2420	2620	+ 99.2%
All lives except poultry	164529	158978	158438	156817	- 4.7%
ALL LIVES & PRODUCTS	194688	196533	195433	196216	+ 0.8%
Field					
	Crops:				
Corn	10639	14663	14928	15768	+ 48.2%
Wheat	2825	3061	2976	3672	+ 30.0%
Hay	11474	8988	9017	9426	- 17.8%
Soybeans	16676	23845	23729	24047	+ 44.2%
Potatoes	7254	5472	5135	4140	- 42.9%
Sweet Potatoes	4454	3847	3914	4077	- 8.5%
Other fld crops	2177	5089	5113	6220	+185.7%
ALL FIELD CROPS	55499	64965	64812	67350	+ 21.4%

Table 5 (Contd). Projected and Actual Cash Receipts by Commodity, 1987, 1991 and 1992 (\$000).

Commodity	1987	1991	Proj 1991*	Proj 1992*	% Change 1987-1992
Vegetables for Fresh Market:					
Tomatoes	12465	12480	13148	14076	+ 12.9%
Sweet corn	12204	11718	12016	12075	- 1.1%
Lettuce	4841	7578	7493	6875	+ 42.0%
Asparagus	2090	1822	1816	2102	+ 0.6%
Peppers	10834	11160	12076	10438	- 3.7%
Cabbage	7776	9290	9320	9508	+ 22.3%
Snap beans	5766	2749	2675	2320	- 59.8%
Cucumbers	6618	3891	3795	3576	- 46.0%
Spinach	4181	4650	4706	5055	+ 20.9%
Escarole	3355	2508	2492	2320	- 30.8%
Eggplant	3305	3269	3276	3920	+ 18.6%
Vegetables for Processing:					
Cucumbers for pickles	951	860	1075	705	- 25.9%
Snap beans	3050	2437	2320	2334	- 23.5%
Tomatoes	4051	4316	4387	3840	- 5.2%
Misce- llaneous Vegetables	22929	37714	36908	33075	+ 44.2%
ALL VEGETABLES	104416	116442	117503	112219	+ 7.4%

Table 5 (Contd). Projected and Actual Cash Receipts by Commodity, 1987, 1991 and 1992 (\$000).

Commodity	1987	1991	Proj 1991*	Proj 1992*	% Change 1987-1992
Fruits:					
Peaches	17284	29095	28752	26175	+ 51.4%
Apples	14138	10275	10314	8580	- 39.3%
Blueberries	19053	24235	24239	21176	+ 11.1%
Strawberries	2856	1273	1324	2118	- 25.8%
Cranberries	12628	14760	15011	15015	+ 18.9%
Other fruits and berries	662	1102	908	859	+ 29.8%
ALL FRUITS & BERRIES	66621	80740	80548	73923	+ 11.0%
Greenhouse, nursery & sod	206593	194464	197291	176117	- 14.8%
Mushrooms	297	286	281	294	- 1.0%
ALL CROPS	433426	456897	460435	429903	- 0.8%
ALL COMMODITIES	628114	653430	655868	626119	- 0.3%

*The projections for 1991 and 1992 came from the NJSEMA. Agricultural Policy Research Group, New Jersey Agricultural Experiment Station, Rutgers University.

Table 6. Farm, Off-Farm and Land Sales Incomes of Farmers, 1987, 1991 and 1992.

Item	1987	1991	Estimate for 1992
Net Farm Income of Farm Households	\$249.2 m	\$225.7 m	\$204.9 m
Off-farm Income of Farm Households	\$316.6 m	\$327.5 m	\$280.7 m
Income From Proceeds of Land Sales	\$ 94.6 m	\$ 42.2 m	\$ 26.0 m
Total Income of Farm Households	\$660.4 m	\$595.4 m	\$511.6 m

Table 7. Adjustment for Change in Minimum Wage for Farm, Off-Farm and Land Sales Incomes of Farmers, 1987, 1991 and 1992.

Item	Change 1987-1992	Change 1991-1992	Change After Correction for Rise in Minimum Wage (1987-1992)	Change After Correction for Rise in Minimum Wage (1991-1992)
Net Farm Income of Farm Households	-\$ 44.3 m -17.8%	-\$ 20.8 m -9.2%	-\$ 31.8 m -12.8%	-\$ 8.3 m -3.7%
Off-farm Income of Farm Households	-\$ 35.9 m -11.3%	-\$ 46.8 m -14.3%	-\$ 35.9 m -11.3%	-\$ 46.8 m -14.3%
Income From Proceeds of Land Sales	-\$ 68.6 m -72.5%	-\$ 16.2 m -38.4%	-\$ 68.6 m -72.5%	-\$ 16.2 m -38.4%
Total Income of Farm Households	-\$148.8 m -22.5%	-\$ 83.8 m -14.1%	-\$136.3 m -20.6%	-\$ 71.3 m -12.0%

Table 8. Projected Off-Farm Unemployment Rate Among Farmers, 1987, 1991 and 1992.

Item	Estimate for 1987	Estimate for 1991	Estimate for 1992	% Change 1987-92
Unemployment Rate	4.1%	6.5%	7.9%	
Total No. of Farm Operators with Off-Farm Employmt ^a	5800	5650	5650	- 2.6%
Estimated Number of Unemployed Farm Operators ^b	238 (88) [150]	367 (136) [231]	446 (166) [280]	-87.4%
Estimated Number of Unemployed Spouses ^c	221	343	417	+88.7%

^a Based on the assumption that 64.8 percent of farmers in New Jersey have part-time or full-time employment off-farm.

^b Estimates number of farm operators whose primary occupation is farming but who have lost their off-farm income due to unemployment in ()-type parenthesis. Estimates number of farm operators whose primary occupation is off the farm and who have lost that off-farm income due to unemployment in []-type parenthesis.

^c Based on an assumption of a 60% Labor Force Participation Rate among farm spouses and the assumption of one farm spouse per farm.

Table 9. Characteristics of Large and Small New Jersey Farms, 1987.

Item	Large Farms (\$100,000+ in Receipts)		Small Farms (<\$100,000 in Receipts)	
	Number	Percent	Number	Percent
Number of Farms	1088	12%	7944	88%
Total Sales (\$ mil)	\$392.4	80%	\$103.6	20%
Total Acres (000)	378	43%	516	57%
Acres Owned (000)	187	49%	352	68%
Acres Rented (000)	191	51%	164	32%
# of Farms with Gains	917	89%	3349	42%
# of Farms with Losses	116	11%	4652	58%
Total Gains (\$ mil)	107.3	79% of Gain	29.0	21% of Gain
Total Losses (\$ mil)	5.8	17% of Loss	28.2	83% of Loss
Prin Occoup Farming	1010	86%	3170	40%
Prin Occoup not Farming	171	14%	4774	60%
Farming Full Time	849	83%	2350	31%
Farming Part Time	172	17%	5203	69%
# of Horticulture Farms	244	21%	935	79%
# of Fruit Farms	106	18%	490	82%
# of Vegetable Farms	289	20%	1143	80%
# of Poultry Farms	18	7%	215	93%
# of Animal Spec Farms	34	3%	1047	97%
# of Dairy Farms	243	59%	170	41%
# of Field Crop Farms	34	3%	1107	97%
# of Livestock Farms	19	1%	1544	99%
# of Cash Grain Farms	71	7%	955	93%
# of Gen. Crop Farms	18	6%	266	94%
# of Gen. Livest Farms	13	15%	71	85%

Source: U.S. Department of Labor, Bureau of Census. New Jersey census of Agriculture, 1987. Washington DC, 1989.

Table 10. Characteristics of New Jersey Farms by SIC Category, 1987.

SIC Categ.	% of Total Number	% of Total Sales	% of Total Acres	% of Land Owned	% of Land Rented	% with Prim Occoup Being Farmng	Avg. Sales (000)	Avg. Size (ac)
Live-stock	17	3	10	80	20	29	8.5	55
Vege-tables	16	21	14	58	42	63	72.6	88
Horti-cult	13	31	6	78	22	47	128.8	44
Field Crops	13	4	14	70	30	35	15.7	106
Animal Specia lties	12	4	5	85	15	36	19.4	37
Cash Grain	11	5	23	37	63	50	25.3	199
Fruits	7	5	8	84	16	53	100.2	116
Dairy	5	13	15	50	50	95	153.4	325
Gen. Farms Crops	3	2	4	66	34	41	26.5	115
Poult-try	3	6	1	70	30	43	121.8	57
Gen Farms Lives	1	1	2	77	23	42	37.2	179
TOTAL	100	100	100	---	---	---	---	---

Source: U.S. Department of Labor, Bureau of Census. New Jersey census of Agriculture, 1987. Washington DC, 1989.

FIGURES

Figure 1: Cash Receipts by Sector

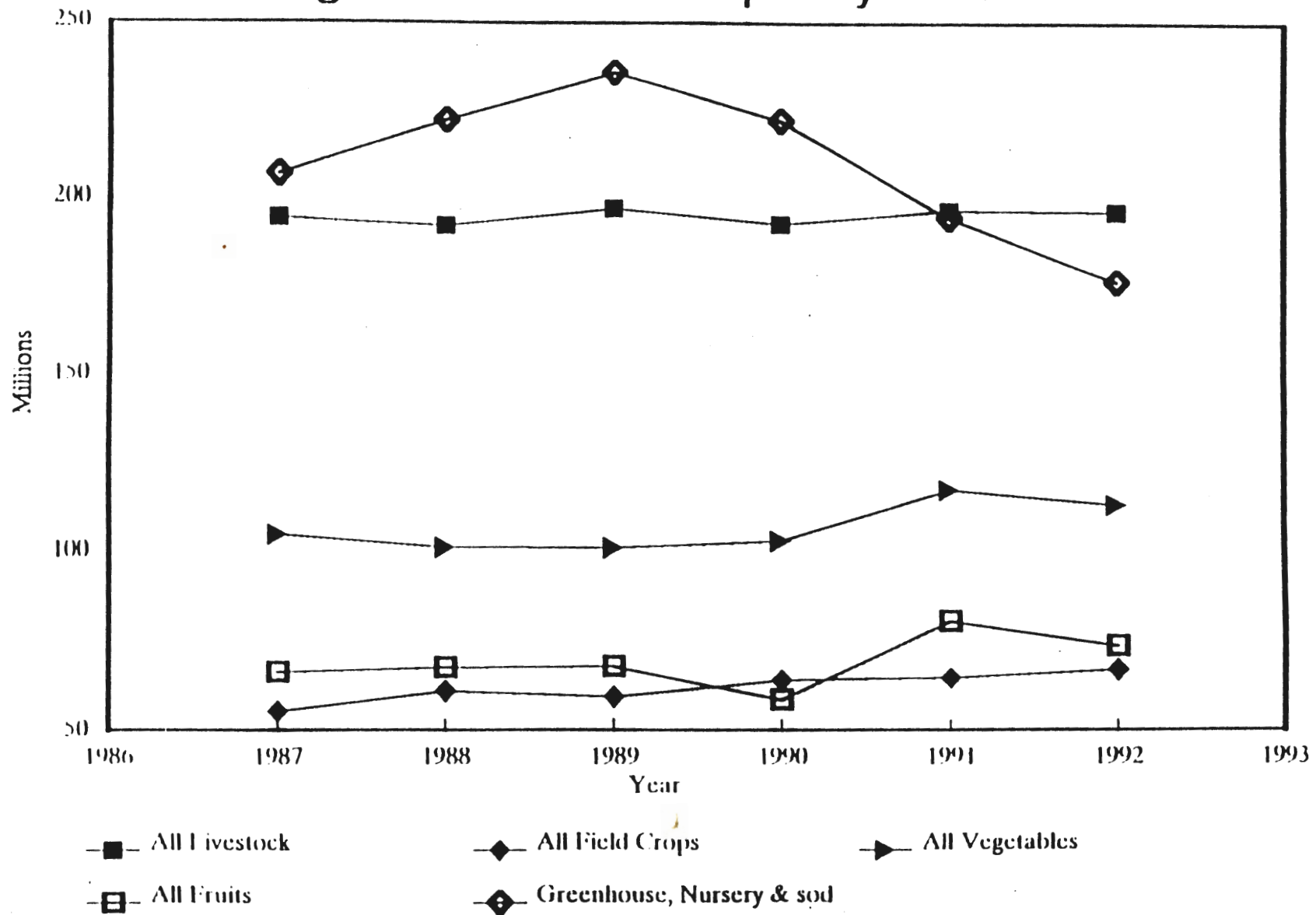


Figure 2: Cash Receipts for Selected Fruit Commodities

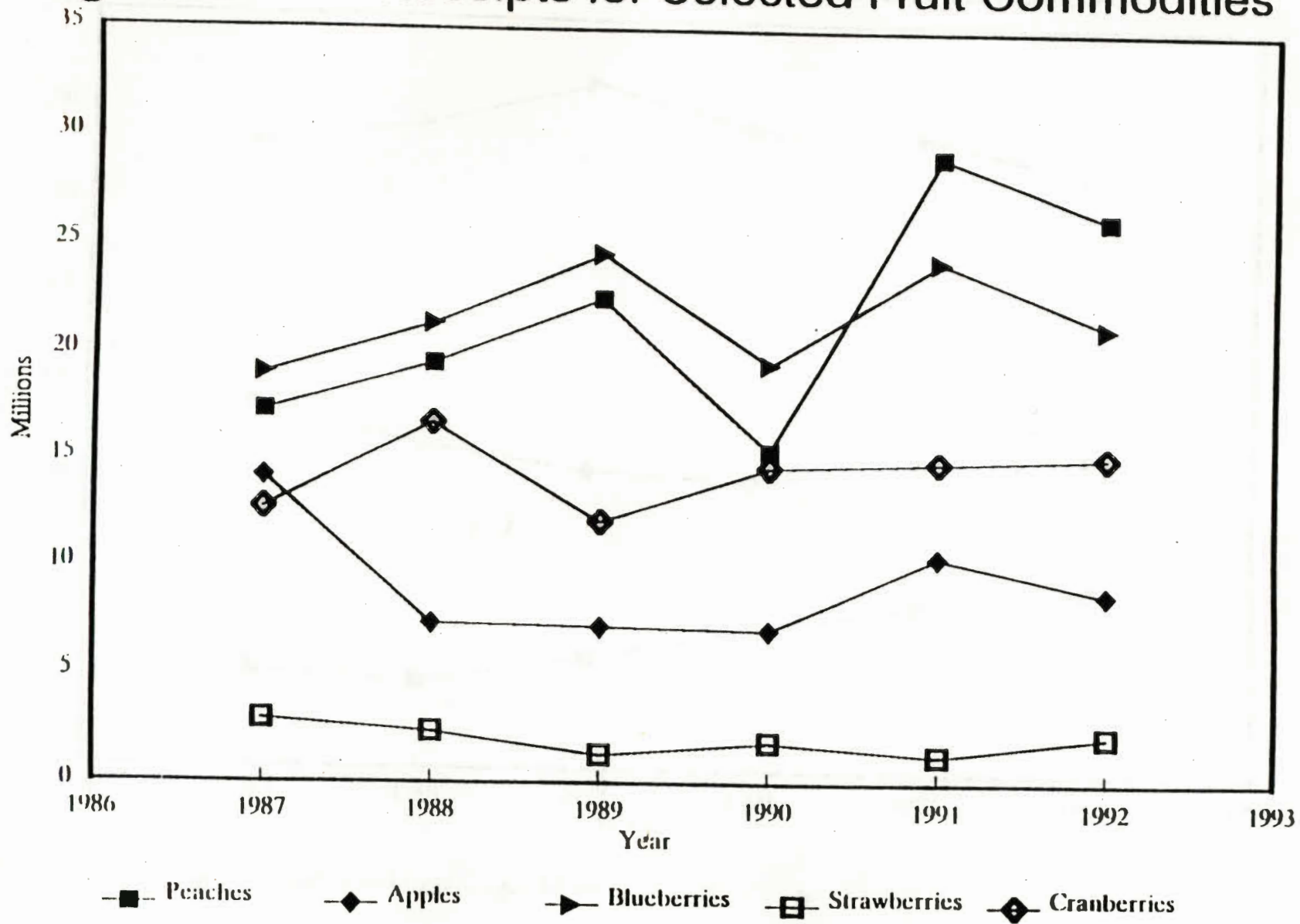


Figure 3: Cash Receipts for Selected Livestock

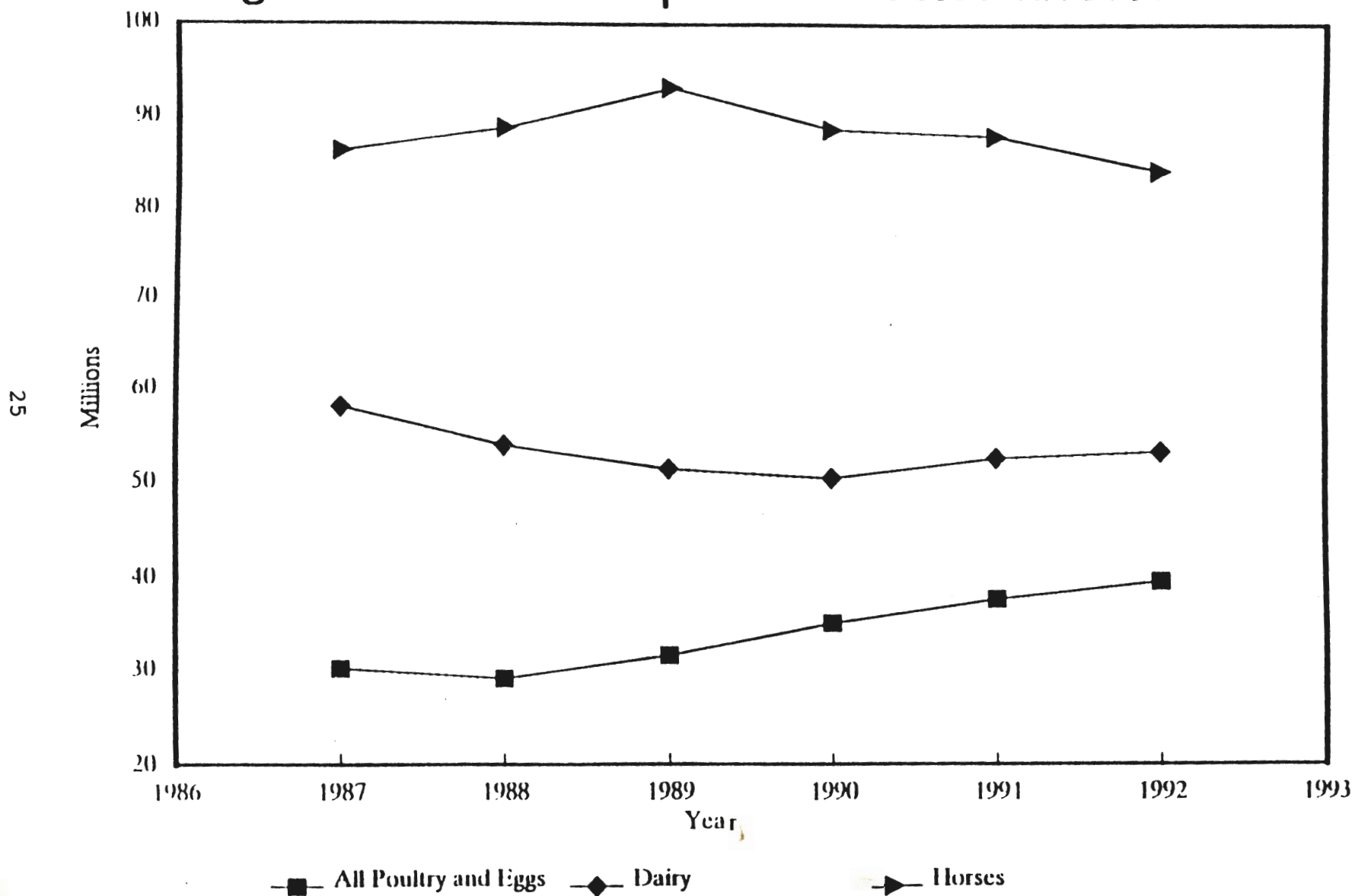


Figure 4: Cash Receipts for Selected Vegetables

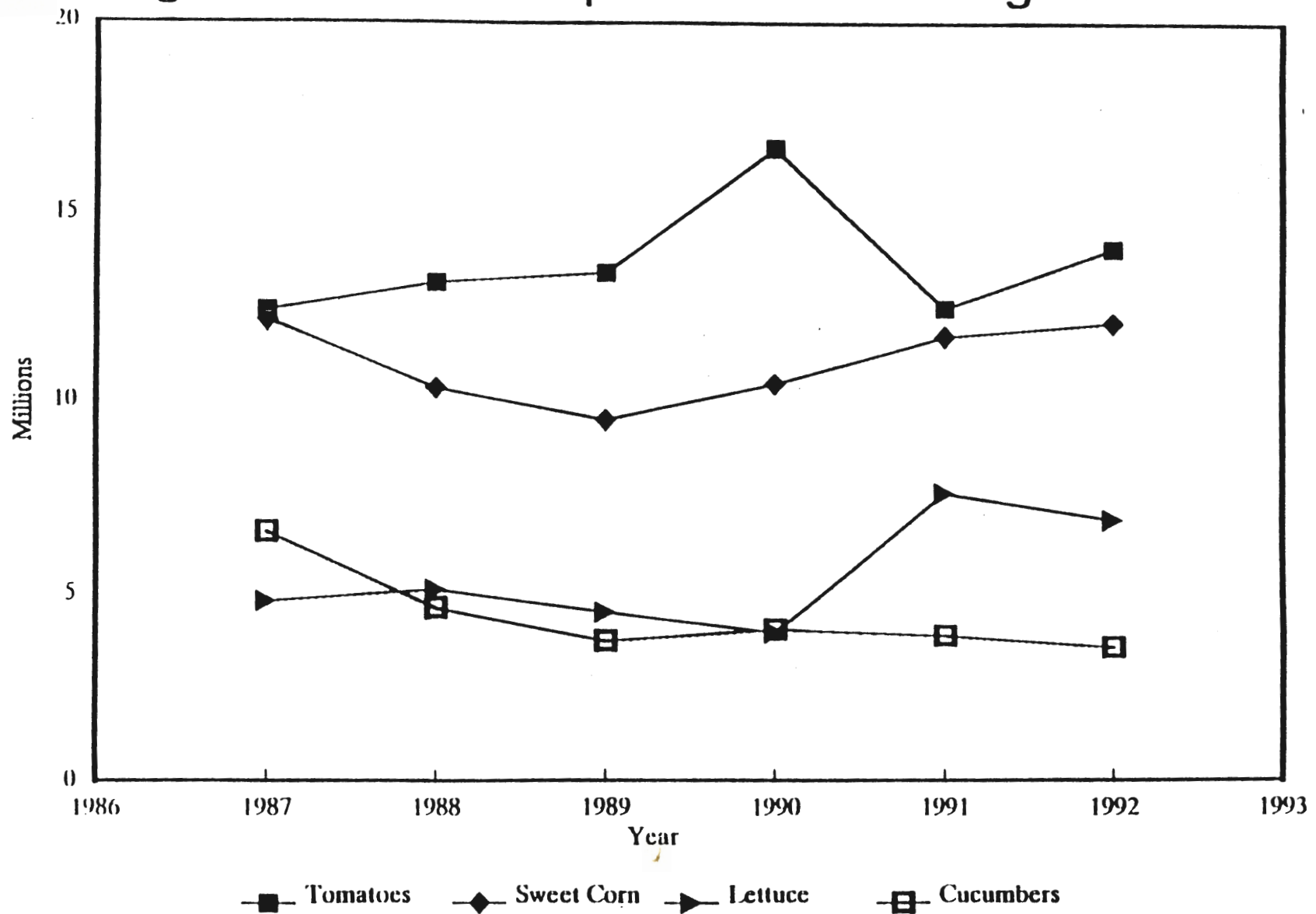


Figure 5: Cash Receipts for Selected Field Crops

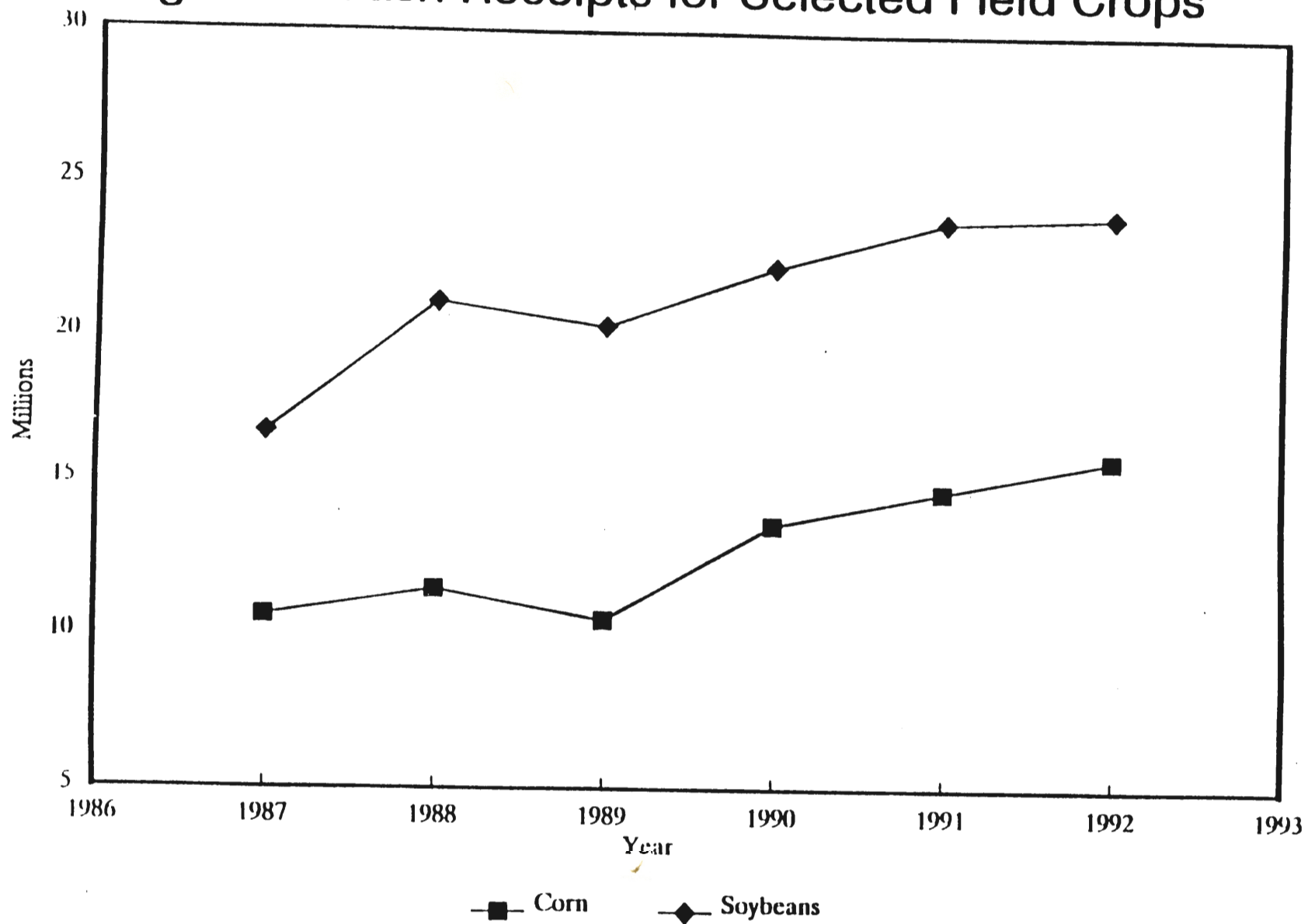


Figure 6: Cash Receipts for All Field Crops

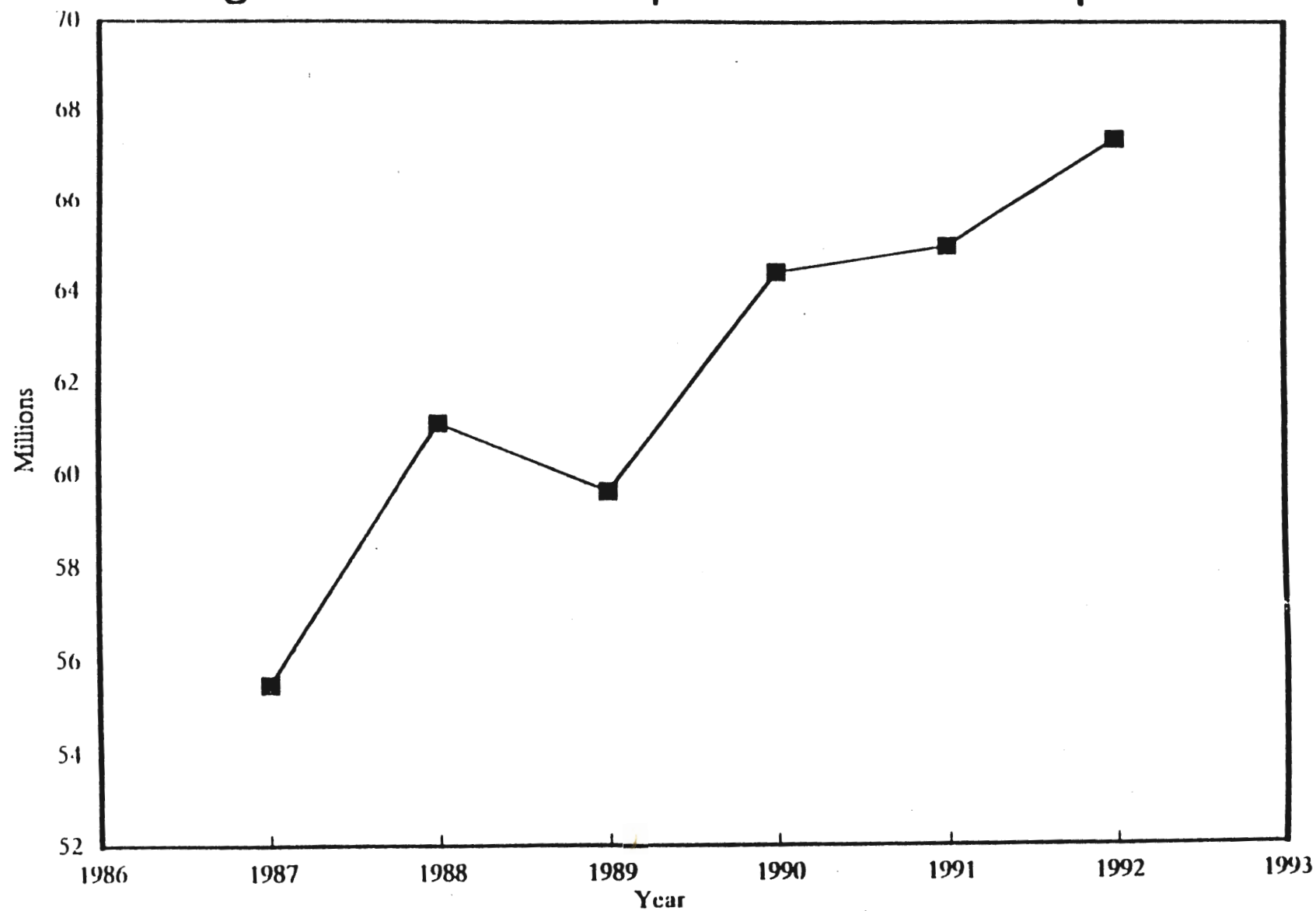


Figure 7: Farm Related Income of Farm Households

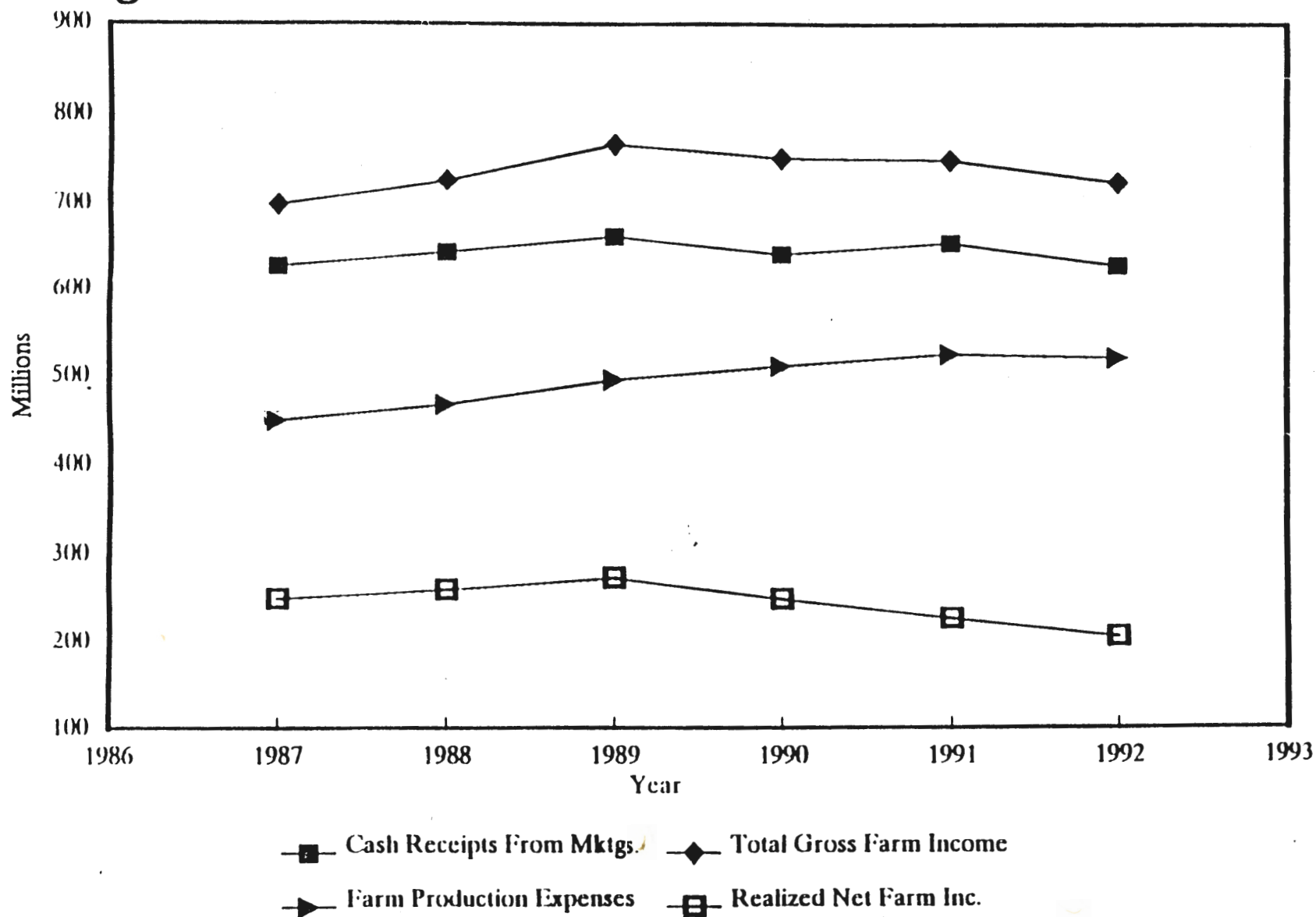


Figure 8: Realized Net Farm Income

With and Without the Minimum wage

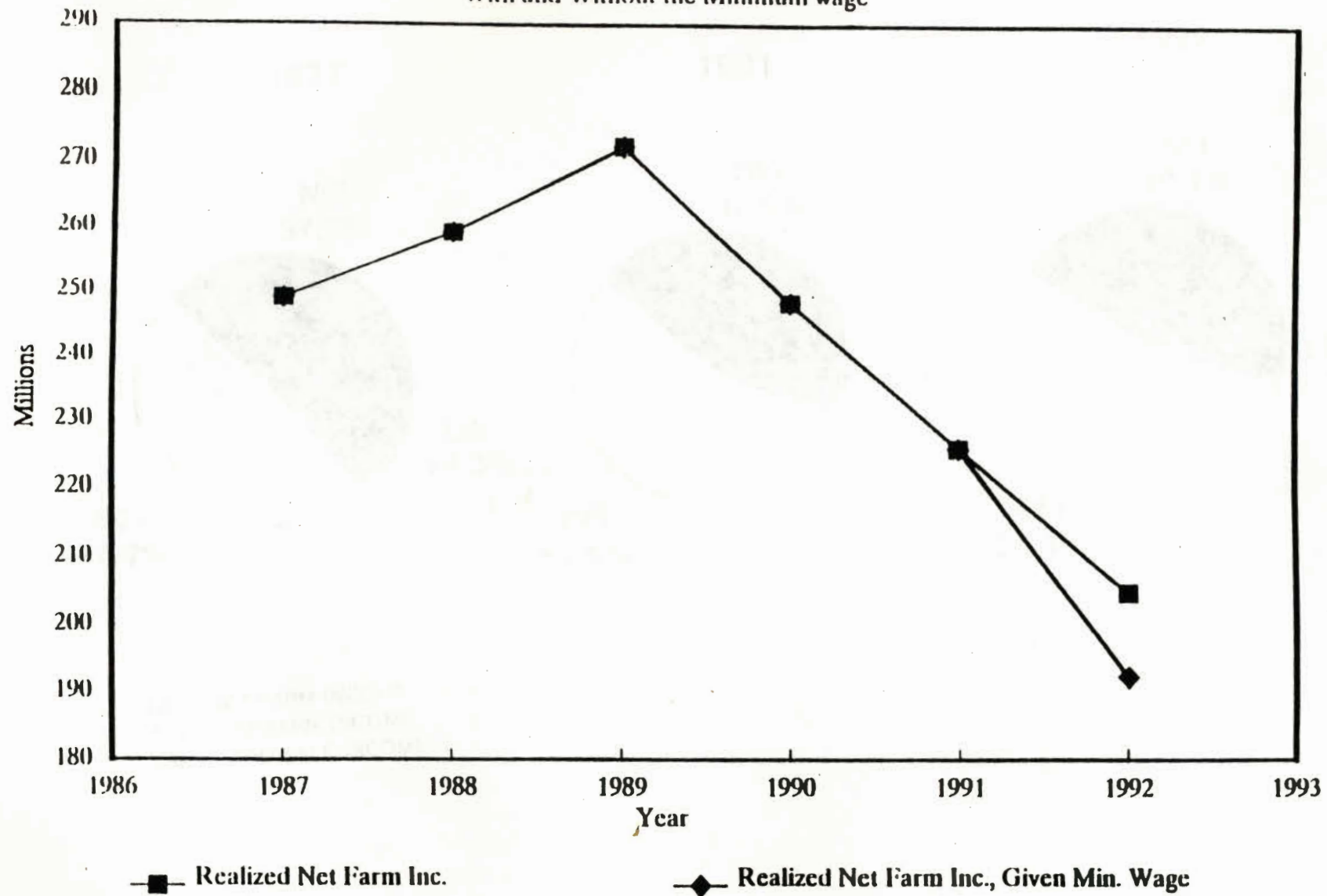


Figure 9: Farm, Off-Farm and Land Sale Income of Farmers
Selected Years

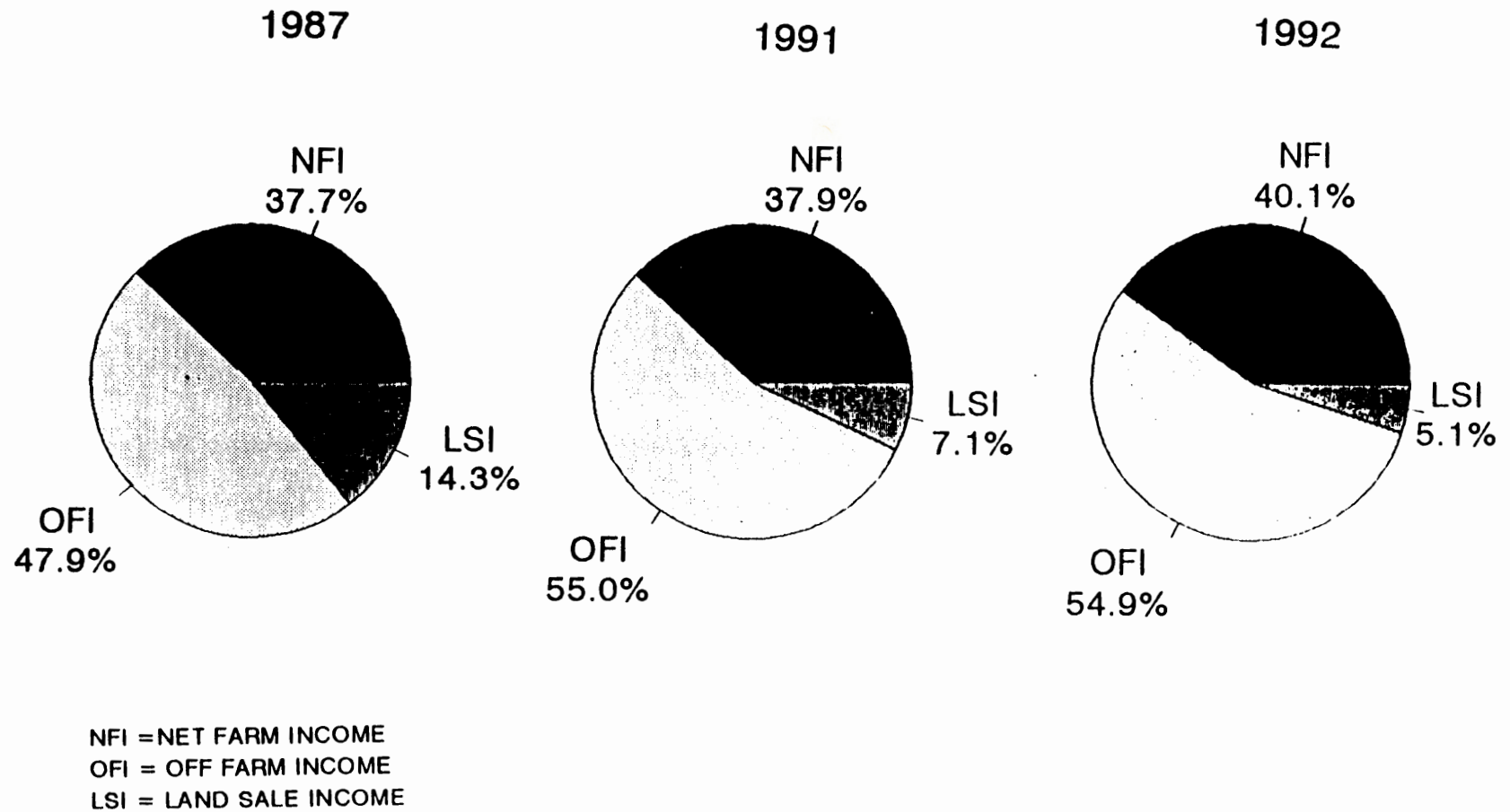
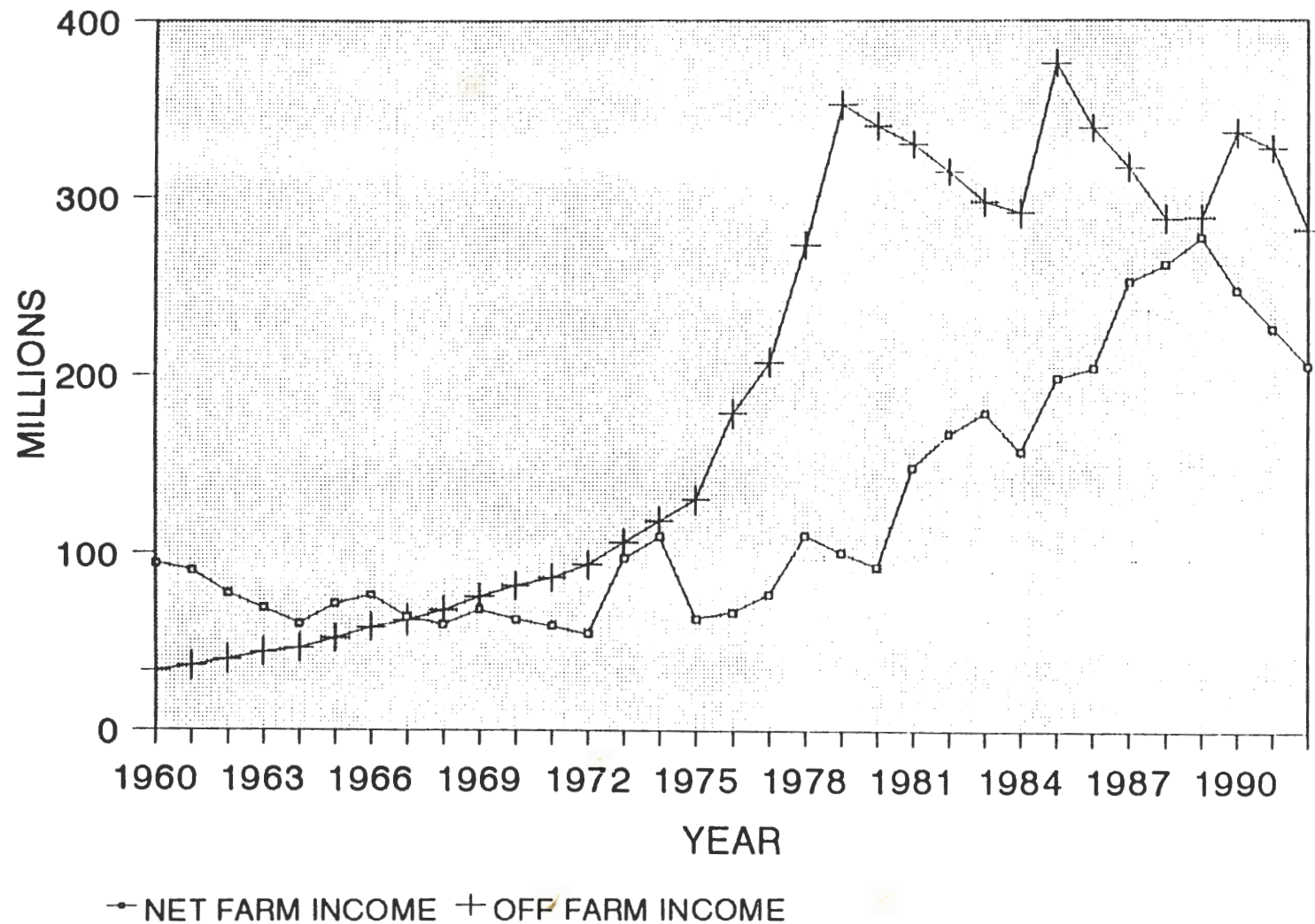
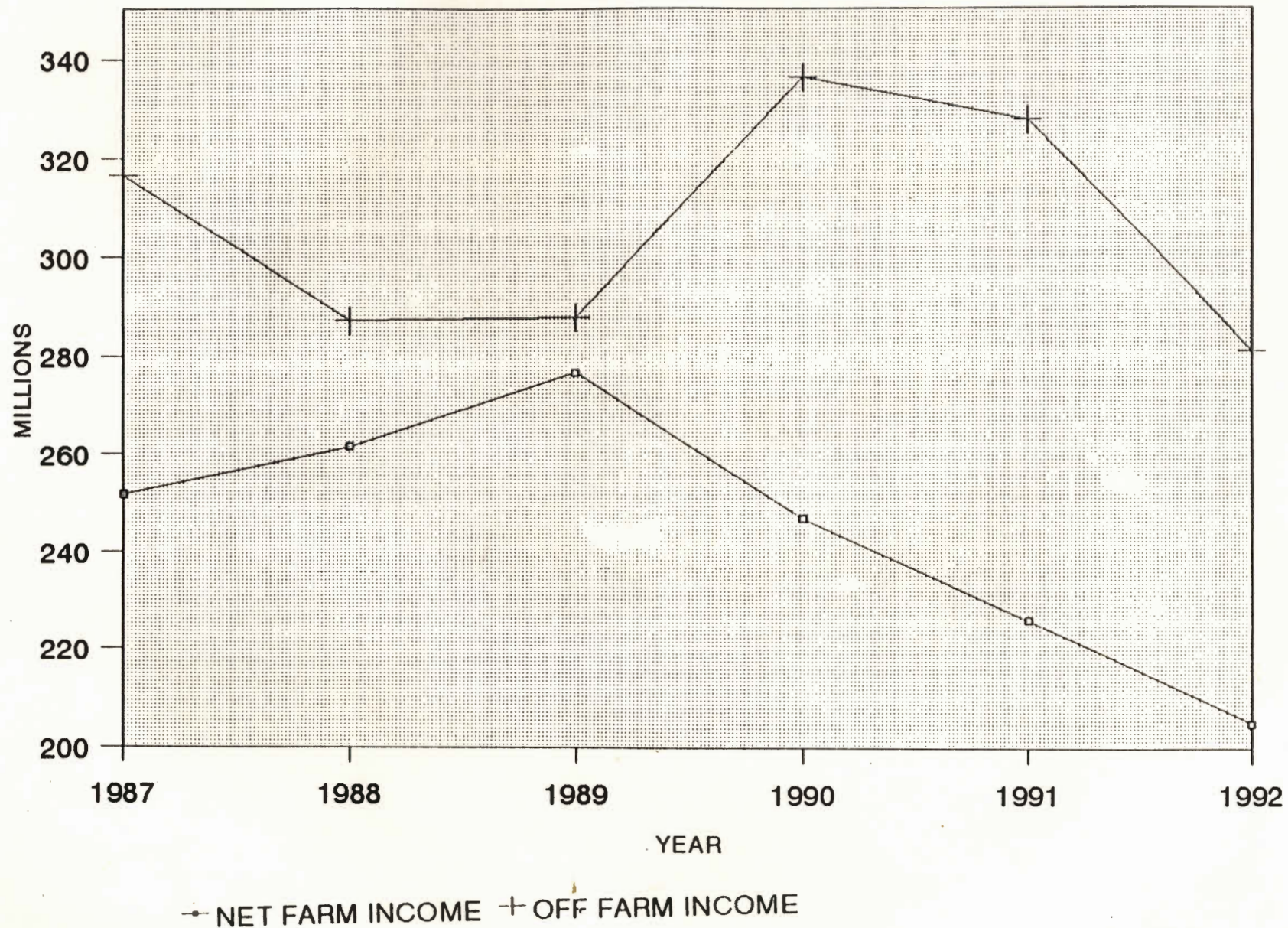


FIGURE 10: NET AND OFF FARM INCOME
YEAR-TO-YEAR VARIATION, SELECTED YEARS



1991 1992 PROJECTED FOR OFF FARM INCOME
1992 PROJECTED FOR NET FARM INCOME

FIGURE 11: NET AND OFF FARM INCOME, 1987-1992



1991 1992 PROJECTED FOR OFF FARM INCOME
1992 PROJECTED FOR NET FARM INCOME