



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

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

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

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search  
<http://ageconsearch.umn.edu>  
[aesearch@umn.edu](mailto:aesearch@umn.edu)

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

## ECONOMICS OF PART-TIME FARMING

John W. Wysong

## ABSTRACT

Part-time farming in Maryland and the Northeast with full-time off-farm employment of one or more of the farm operators is competitive income-wise with many types and sizes of commercial farms. Individuals, families, and society in general will benefit in the future from the encouragement of fuller utilization of underutilized or unemployed rural resources to produce marketable agricultural output and subsistence types of food for household and local charitable purposes. Labor extensive types of crop and animal production activities have increased relatively and absolutely during the past decade on Maryland and Northeastern part-time farms. Average characteristics of a sample of 80 part-time farmers showed 1) age of male operator - 44 years, 2) education of operator - 12 years, 3) number of children on the farm - 3 children, 4) years of experience in farming - 15 years, 5) days of off-farm employment - 225 days, 6) proximity of off-farm job to a major metropolitan center - 20 miles and 7) distance to off-farm job - 29 miles.

## INTRODUCTION

Part-time farming with regular off-farm human resource employment by the male and female farm operators has increased in recent years after a long-term decline from 1935 through 1970. How can such farms survive and grow in the competitive environment of the 1980's in Maryland, the Northeast and U.S.? This report will attempt to describe and analyze the types and magnitudes of production and marketing activities of family resources and farm production activities on a sample of 80 Maryland part-time farms with the male operator employed full-time off of the farm.

The overall objective of this study was to generate new data and analyses to facilitate obtaining a better understanding of Maryland, Northeast and U.S. farm operators with off-farm employment and the factors related to their off-farm earnings. This entailed use of U.S. and Maryland Agricultural Census data as well as 1974 farm level analysis of the sources and levels of income to the Maryland farm operator families and the socioeconomic characteristics of those farm operators with off-farm employment.

Detailed information for 1974 discussed below was secured by questionnaire and personal interview with 80 farm operators equally distributed among four counties: Baltimore, Carroll, Charles and St. Mary's Counties, Maryland. All four counties were within the Baltimore, Md.-Washington, D.C. development corridor. The male

farm operators worked off their farms 100 days or more during the 1974 survey year. The information obtained from the 1974 survey included: 1) source and amount of farm family income; 2) characteristics of the farm operations; 3) personal characteristics of the farm operator; and 4) off-farm employment characteristics. The general relationships and insights gleaned from the 1974 survey and U.S. Census of Agriculture data for 1978 related to Maryland tend to support the 1974 results and implications. They should be valuable to potential and existing part-time farmers as well as local, state and federal policy makers and program planners during the 1980's.

Families with off-farm employment of the male operator, and in some cases the female operator, became increasingly competitive income-wise with moderate sized farm operations during the 1970's. These comparable incomes were generated with considerably fewer agricultural capital and land resources than full-time commercial farms. Both the 1974 and 1978 U.S. Census of Agriculture data show some of the relationships for part-time farmers as a whole on a county basis and for the state. Primary data to show intra-farm and household relationships were collected representing the 1974 agricultural production year. The 1978 census data show an increase in the numbers of farms with fewer than 50 harvested crop acres and more than 200 harvested crop acres in Maryland. Cash grain and beef cattle enterprises are common on many Maryland and Northeastern part-time farms. Commercial dairy farms in Maryland and the Northeast have increased in size and resource productivity in recent years.

This research, as well as Maryland research conducted in the 1930's by W. P. Walker and S. H. DeVault, has shown that during the 1920's and 1930's and continuing through the 1970's, small-scale full-time farming without off-farm employment and substantial subsistence type agricultural enterprises was not very profitable to individual farmers, or for that matter, was not very beneficial to society as a whole in terms of optimum use in farm production of human and capital resources which are limited and have alternative employment opportunities. However, small farmers do perform a type of welfare support function at the local level. The basic principles of efficient and profitable family farming need to be emphasized today in both private and public farm policies and programs.

## ANALYSIS OF MARYLAND FARM OPERATORS WITH OFF-FARM EMPLOYMENT

Sources and Amounts of Farm Family Income

Farm families in the sample received a significant part of their income from off-farm sources as well as from farm sources. Gross farm income for these families consisted of cash receipts from farm marketings, the value of home consumed products, and other farm income (from recreation, machine hire and custom work). However, rental value of dwelling was not included

John W. Wysong is Professor of Agricultural and Resource Economics and Economist, Maryland Cooperative Extension Service, University of Maryland, College Park, MD

as income.

Farm production expenses included all cash farm expenses for such items as feed, livestock, fertilizer, taxes and repairs. Depreciation costs of buildings and equipment which varied widely in type, size, capacity, initial costs and used up during the year of production were not included in the production costs. Therefore, the net farm income for these farm families represented what remained from gross farm income after all cash farm expenses were deducted. This type of variable cash flow accounting and analysis is widely used in mathematical programming and partial forward budgeting analyses. However, consideration of fixed costs must be considered for some types of economic analyses.

Off-farm income reported by the farm families consisted of the operator's off-farm wage and salary earnings, the wife's off-farm wage and salary earnings and other off-farm income. The farm operator's and the wife's off-farm wage and salary earnings were simply those incomes received from off-farm employment. The other off-farm income included business income, interest, dividends, rental income and others.

Average income from both farm and off-farm

sources was computed for the 80 farm families in the sample and compared with the income averages of all farm families in Maryland and the United States for 1974. Because the rental value of the farm dwelling and depreciation expense were not computed for the sample group, the Maryland and U.S. farm income figures were adjusted for these items so that valid comparisons could be made. In addition, the aggregated off-farm income figure for Maryland farm families was not available from the Farm Income Statistics series. However, the 1974 Census of Agriculture contained a figure of off-farm income earned by Maryland farm families which was used in this study and in some Maryland research reports by Wysong and Gardiner concerned with farm labor employment and productivity.

#### Farm Income

Farm families in the sample received an average gross farm income of \$12,931 in 1974 (Table 1). This represented about \$23,000 less than the average gross farm income of all Maryland farm families (\$36,035) and about \$21,000 less than average gross farm income of all U.S. farm families (\$33,694) for 1974.

Table 1. Income per farm family from farm sources, sample, Maryland and United States, 1974

Source of income	Sample <sup>a</sup>		Maryland <sup>b</sup>		United States <sup>c</sup>	
	Average amount	Percent of gross farm income	Average amount	Percent of gross farm income	Average amount	Percent of gross farm income
	(dollars)		(dollars)		(dollars)	
Cash receipts from farm marketings	12,174	94.1	35,298	97.9	32,723	97.1
Government payments	0	0.0	56	0.2	187	0.6
Value of home consumer products	475	3.7	316	0.9	459	1.4
Other farm income	282	2.2	365	1.0	316	0.9
Gross farm income <sup>d</sup>	12,931	100.0	36,035	100.0	33,694	100.0
Farm production expenses <sup>e</sup>	8,677	67.1	26,634	73.9	21,821	64.8
Net farm income <sup>e</sup>	4,254	32.9	9,401	26.1	11,873	35.2

<sup>a</sup>Data based on sample of 80 farm operators reporting 100 days or more off-farm employment from Baltimore, Carroll, Charles and St. Mary's Counties, Maryland, 1974

<sup>b</sup>Data from U.S. Department of Agriculture, Economic Research Service, State Farm Income Statistics, No. 557 (Washington, D.C., August 1976), pp. 18 and 38.

<sup>c</sup>Data from U.S. Department of Agriculture, Economic Research Service, Farm Income Statistics, No. 557 (Washington, D.C., July 1977), pp. 38, 45 and 62.

<sup>d</sup>Does not include gross rental value of farm dwelling: \$3,250 Maryland; \$1,707 United States.

<sup>e</sup>Does not include depreciation expense: \$4,404 Maryland; \$3,754 United States.



## ECONOMICS OF PART-TIME FARMING

None of the farm families in the sample survey received government payments for farm programs in 1974. This source of income to Maryland farm families had declined substantially since 1972 from a high of \$527 per farm to only \$56 per farm in 1974 as the government reduced federal spending for farm programs. U.S. farm families, as a whole, averaged more than three times the amount of government payments received by Maryland farm families but also experienced considerable reductions in this income source from a high of \$1,380 per farm in 1972 to \$187 per farm in 1974.

Home consumed products consisted of such items as beef, pork, eggs, dairy products, fruits and vegetables produced on the farm and were an important source of noncash earned income to the individual farm families in the sample. This sample group used an average of \$475 worth of farm products in 1974 which contributed nearly 4 percent to the gross farm income. In contrast, Maryland farm families averaged only \$316 of home consumed farm products and U.S. farm families averaged \$459. This source of income represented nearly one percent of the gross farm income received by both Maryland and U.S. farm families in 1974.

Other farm income from recreation, machine hire and custom work was another source of income reported by farm families in the study area. This group received an average of \$282 from this source or about 2 percent of their gross farm income. However, other farm income was not a widespread source of income among these farm families. In fact, only 19 percent of this group reported other farm income, but those reporting it averaged \$1,503 per farm.

Other farm income comprised only about one percent of the gross farm income of both Maryland and U.S. farm families for 1974. Maryland farm families, however, averaged slightly higher other farm income (\$365) than U.S. farm families (\$316).

Farm production expenses, as mentioned earlier, included only cash costs involved in the operation of the farm business during 1974. Farm families in the sample averaged \$8,677 of farm production expenses per farm which amounted to 67 percent of the gross farm income per farm. That is, 67 cents out of each dollar of gross farm income went to pay the operation costs of the average farm business. This translated into an average net farm income of \$4,254 per farm family which represented about a one-third share of the gross farm income. This ratio of net farm income to gross farm income indicated the operating margin for the farm business and was an overall measure of its income-producing ability.

Maryland and U.S. farm families incurred substantially higher farm production expenses than the farm families in the sample which was consistent with their significantly higher gross farm income derived from greater emphases on full-time commercial farming. In spite of over \$2,300 or more average gross farm income per farm, Maryland farm families realized about \$2,400 less net farm income than U.S. farm families in 1974, due to proportionately higher production expenses for operating Maryland farms.

Maryland farm families spent an average of \$26,634 to operate their farms during 1974 compared to \$21,821 by U.S. farm families. These expenses represented 74 cents out of every dollar of gross farm income received by the Maryland farm families in contrast to 65 cents per dollar of U.S. farm family gross farm income. As a result, Maryland farm families realized only 26 percent of their gross farm income after expenses (\$9,401 per family) compared to 35 percent earned by U.S. farm families (\$11,873 per family). Thus, the farm families in the sample had about a 7 percent wider operating margin than Maryland farm families as a whole and only a 2 percent narrower operating margin than the average U.S. farm family.

### Off-farm Income Dominates Household Income Flows

The farm families in the sample averaged significantly higher amounts of income from off-farm sources than Maryland farm families and U.S. farm families. The average off-farm income for the sample group was \$15,379 while Maryland farm families received \$11,890 per farm. In addition, the sample farm group averaged about \$6,000 more from off-farm sources than U.S. families who received \$9,329 per farm. The farm operators in this group earned an average of \$12,225 from off-farm employment which represented nearly 80 percent of their total off-farm income. The average wife's wage and salary earnings amounted to \$2,196 per farm family. However, only 39 percent of the farm wives in the sample worked off the farm during 1974. This group averaged \$5,668 of wage and salary income.

The remaining 6 percent of total off-farm income amounted to \$958 per farm family with the major sources from business, rent, interest and dividends. However, only 54 percent of the farm families reported other off-farm income as a source of income to the family. These families received an average of \$1,783 of other off-farm income.

### Total Farm Family Income

Total farm family income is the combined total income from both farm and off-farm sources. This measure of flow returns from use of economic resources depicts the overall economic well being of the farm family for the year. The sample farm group averaged \$19,633 per family in 1974 from all sources, 78 percent of which came from off-farm sources. The farm operator's off-farm wage and salary earnings made up 62 percent of the total family income followed by net farm income with 22 percent. The remainder came from the wife's off-farm wage and salary earnings (11 percent) and other off-farm income (5 percent).

The Maryland farm families and the U.S. farm families received almost identical family income in 1974 with an average of \$21,291 and \$21,202, respectively. However, the Maryland group earned a somewhat higher proportion (56 percent) from off-farm sources than the U.S. group (44 percent). Thus, an increase in the net farm income to the farm family corresponded to a decrease in the off-farm income. The overall effect of combining farm and off-farm income was a balancing

out of the income differences between the three family groups. Total farm family income varied by only \$1,600 in contrast to about a \$7,600 difference in net farm income and a \$6,000 difference in off-farm income.

#### CHARACTERISTICS OF THE FARM OPERATION

Averages and frequency distributions of selected farm characteristics were computed and analyzed for the 80 sample farms. In addition, 1974 Census of Agriculture data were employed to obtain farm characteristics of all farms in the study area--Baltimore, Carroll, Charles and St. Mary's Counties--and used as a basis for comparison with the sample farms. According to the Census of Agriculture, there were a total of 3,217 farms in the study area during 1974, which were referred to in this study as the "census farms." The 80 farms surveyed were a sub-group of the census farms and represented a 2.5 percent sample of this group of farms of widely varying size in terms of both total inputs and total outputs per farm.

#### Size of Farm Acreage

The sample farms in the study area averaged 119 acres in contrast to 137 acres for the census farms. The average crop land (52 acres) and other land (4 acres) found on the sample farms was substantially less than the crop land (74 acres) and other land (18 acres) averages for the census farms. However, the sample farms averaged 23 acres of pasture land compared to 14 acres for the census farms, and 40 acres of wood land compared to 31 acres for the census farm. This indicated that those farm operators in the sample were more likely to engage in smaller scale crop production than the census farm operators, but in turn, were likely to operate somewhat larger

livestock-pasturing activities than their counterparts.

The size of the sample farms in the study area ranged from a low of 3 acres to a high of 450 acres. Distribution of farms by size indicated that most of the sample farms (60 percent) were in the 50 to 179 acre range, while no farms were reported with 500 acres or more. In contrast, 43 percent of the census farms ranged from 50 to 179 acres, while nearly 4 percent had acreages of 500 or more. At the other extreme, less than 4 percent of the farms in the sample were under 10 acres in size compared to over 9 percent of the census farms. Thus, the sample farms were more concentrated in the medium size range (50 to 179 acres) than the census farms but were less frequently in the small farm range (less than 50 acres) and the large farm range (180 acres or more) than the census farms.

#### Crop Enterprises

Means and frequencies were computed for various crop enterprises found on the sample farms and the census farms in the Maryland study area to determine the similarities and differences that existed between the two farm groups. An examination of the crop enterprises indicates some variation in the crop activities reported and the size of the crop activity (Table 2).

Corn, hay, tobacco, wheat and soybeans were the five most common crop activities found on both the sample farms and the census farms for 1974. However, the size of the corn and hay crop activities per farm differed appreciably between the two farm groups.

#### Livestock Enterprises

Beef cattle production was by far the most common livestock enterprise found on the sample farms with nearly 64 percent reporting (Table 3).

Table 2. Crop enterprises on farms, Maryland study area, 1974.

Crop enterprise	Sample Farms <sup>a</sup>		Census Farms <sup>b</sup>	
	Percent reporting	Acres per farm	Percent reporting	Acres per farm
Corn	61.2	26.1	58.3	52.7
Wheat	26.2	24.7	29.9	23.4
Soybeans	25.0	40.5	13.7	40.3
Hay	53.8	20.5	51.2	28.8
Tobacco	30.0	7.9	30.3	9.2

<sup>a</sup>Based on 80 farm operators reporting 100 days or more off-farm employment, Baltimore, Carroll, Charles and St. Mary's Counties, Maryland, 1974.

<sup>b</sup>U.S. Department of Commerce, U.S. Bureau of Census, Census of Agriculture: 1974 (Preliminary Report), Maryland (Washington, D.C., December 1975).



Table 3. Livestock enterprises on farms, Maryland study area, 1974.

Livestock enterprise	Sample Farms <sup>a</sup>		Census Farms <sup>b</sup>	
	Percent reporting	Livestock per farm	Percent reporting	Livestock per farm
Beef cattle	63.8	28.9	26.7	15.1
Dairy cattle	13.8	4.0	18.2	37.2
Hogs and pigs	26.2	53.2	20.2	55.8
Sheep and lambs	11.2	44.3	3.3	68.1
Horses and ponies	32.5	5.9	17.7	7.1
Hens and pullets	35.0	201.7	17.3	604.7
Broilers	11.2	50.1	1.0	9,636.4

<sup>a</sup>Based on a sample of 80 farm operators from Baltimore, Carroll, Charles and St. Mary's Counties, Maryland with 100 or more days of off-farm employment during 1974.

<sup>b</sup>U.S. Department of Commerce, U.S. Bureau of Census, Census of Agriculture: 1974 (Preliminary Report), Baltimore, Carroll, Charles and St. Mary's Counties, Maryland (Washington, D.C., December 1975).

This activity was also the most frequently reported livestock enterprise on the census farms (27 percent), though a considerably smaller proportion of the census farm operators were engaged in this activity than those farm operators in the sample. Furthermore, the census farms averaged only 15 head of beef cattle per farm compared to 29 on the sample farms.

#### SUMMARY

Rural families in Maryland and along the East Coast can and frequently do benefit themselves as well as their local economies by productively using their limited resources of crop and pasture land, part-time family labor, capital investments in buildings, equipment and livestock and their managerial capacities. Gains from enhanced real estate values and livestock inventories in Maryland have been substantial over the past decade. Part-time farmers have helped to maintain open spaces, control weed infestations and produce food products for their own use as well as commercial markets in the Northeast.

Cash crop production is especially popular with Maryland part-time farmers who produce corn, soybeans, wheat, tobacco, and occasionally hay for sale as well as some feeds such as corn, barley and oats grains plus hay and silage crop for on-farm livestock uses. Beef cattle, horses and ponies are especially popular livestock enterprises on Maryland part-time farms. In addition, small hog enterprises have provided a profitable outlet for excess labor, buildings, and lower quality feed grains and pasture crops. Sheep fit part-time farm resources in that they are labor extensive and consume excess pasture and harvested forage nutrients where dogs and diseases can be controlled.

Limited labor, land and capital resources on Maryland part-time farms generally are most effectively used to produce and market cash crops. Some farmers with excess labor and limited land shift into vegetables and fruit. But corn, soybeans, and wheat crops are more easily harvested and marketed if labor is scarce.

As more variable capital becomes available, and if unused labor is still available, low capital requiring animal enterprises such as hogs and sheep enter the higher net farm income plans and eventually beef breed cows enter to utilize pasture, hay and silage resources with no ready market. Still more capital and risk-bearing ability allows expansion into small-scale beef cattle feeding with purchased feeder cattle and feeds.

In general, dairy and poultry enterprises require daily labor and management abilities and resources not well suited to modern Maryland part-time farms with male and female family members employed full-time or part-time in off-farm employment. However, poultry and dairy activities give high returns to feed resources and limited land resources where labor resources, managerial abilities and marketing factors are favorable.

#### CONCLUSIONS

Part-time farming will tend to be a permanent method of agricultural resource utilization in many areas of Maryland and the Northeast. Off-farm employment of male and female farm operators will enable rural people fully and productively to utilize their labor and managerial abilities while satisfying their preferences for agricultural activities for themselves and their families. The permanence and vitality of part-time farmers will not halt the trends toward

larger and more productive commercial dairy, poultry, cash crops and vegetable and fruit farms in Maryland and the Northeast. Part-time farmers will generally prefer to own real estate resources for both financial and socio-economic reasons. In contrast, the part-owner of rural real estate resources has become and will continue to be the dominant tenure classification for full-time farmers. Part-time farming operations with substantial amounts of interested family labor and management will not necessarily be small in terms of land and capital inputs or volume of marketable output.

#### SELECTED BIBLIOGRAPHY ON PART-TIME FARMING

- Bollman, R.D. "Off-Farm Work by Farmers; An application of the Kinked Demand Curve for Labour." Canadian Jour. of Agri. Econ., 27(11/79):37-60.
- Crecink, J.C. Families with Farm Income, Their Income, Income Distribution and Income Sources. USDA, ESCS, Econ. Dev. Div., Nov. 1979.
- Crosswhite, W.M. "Part-time Jobs." A Place to Live, 1963 Yearbook of Agriculture, USDA, pp. 146-151.
- Erickson, M.H. and A.L. Frederick. "A Fair Return for U.S. Farmers." Farmline, USDA, ESCS, 1(5/80):8-9.
- Gardiner, W.H. "The Economic Impact of Off-Farm Employment on the Farm Operation and Farm Family Living Levels." (Unpublished Master's Thesis, University of Maryland Graduate School, College Park. Dec. 1976)
- Gardiner, W.H. and J.W. Wysong. "An Analysis of Factors Related to the Off-Farm Wage and Salary Earnings of Selected Maryland Farm Operators." Abstract, E.E.J., Fall 1977. Paper presented at the annual meeting of the Eastern Econ. Assn. in Hartford, CT, April 14, 1977.
- Gardiner, W.H. and J.W. Wysong. "Combining Non-farm and Farm Labor Employment Opportunities." Abstract in A.E.J. 2(3/76) no. 1.
- Gardiner, W.H. and J.W. Wysong. Economic Implications of Off-Farm Employment on the Farm Operation and Farm Family Living Levels in Maryland and the United States. U. of Md. Agri. Expt. Sta., Dept. of Agri. and Resource Economics. AREIS Mimeo Series, May 1977.
- Gronau, R. "Leisure, Home Production and Work - The Theory of the Allocation of Time Revisited." Jour. of Political Econ. 85(1977):1099-1123.
- Hanf, Claus-Hennig and R.A.E. Miller. "Multiple Job Holding and Leisure Time." European Review of Agricultural Economics 2-1(1974/75): 87-93.
- Kelejian, H.H. and E.O. Wallace. Introduction to Econometrics: Principles and Applications. New York: Harper and Row, 1974.
- Kerr, H.W. "Survey Shows Small Scale Northeast Farms on Increase." Maryland Farmer, Jan. 1981, p. 18.
- Larson, D.K. "Economic Class as a Measure of Farmer's Welfare." A.J.A.E. 57(11/75):-658-664.
- Maryland Department of Agriculture. Maryland Agricultural Statistics, 1980. College Park, MD June 1981.
- Maryland Dept. of Econ. Community Dev. Community Economic Inventories: Inventories: Baltimore, Carroll, Charles and St. Mary's Counties, Maryland. Annapolis, MD June 1973.
- Maryland State Conservation Needs Committee. The Maryland Conservation Needs Inventory. College Park, MD 1974
- Penn, J.B. and others. Structure Issues of American Agriculture. USDA, ESCS, Agricultural Economic Report 438. Nov. 1979.
- Redman, B.J. "The Impact of Women's Time Allocation on Expenditures for Meals Away from Home and Prepared Foods." A.J.A.E., May 1980, pp. 234-237.
- Reinsel, E.I. "Farm Family Incomes Improve at Different Rates." Agricultural Finance Review 25(10/74):31-35.
- Ross, W.N. and A.R. Hahan. Part-Time Farming: Its Role in a Changing Agriculture. Agr. Expt. Sta. Bul. 807. University of Missouri, March 1965.
- Schertz, L.P. and others. Another Revolution in U.S. Farming? USDA, ESCS, Agricultural Economic Report 441, December 1979.
- Scoville, O.J. Part-Time Farming. Farmers' Bulletin No. 2178. USDA, Washington, DC April 1968.
- Staff of U.S. G.A.O. Changing Character and Structure of American Agriculture: An Overview. U.S. G.A.O., CED 78-178, Sept. 1978.
- Thompson, D. and J.W. Wiedel. An Economic and Social Atlas of Maryland. Dept. of Geography Paper No. 3. U. of Md., College Park, March 1974.
- U.S. Dept. of Commerce, Bureau of the Census, Maryland Census of Agriculture, 1974 and 1978. Washington, DC: Gov't Print. Office.
- Turner, S. and S.L. Petranek. "Forking Over the Farm - Hard Times on the Small Farm." The Washington Post Magazine, Sunday, May 13, 1979.



ECONOMICS OF PART-TIME FARMING

Walker, W.P. and S.H. DeVault. Part-Time and Small-Scale Farming in Maryland. Agri. Expt. Sta. Bul. 357, U. of Md., College Park, Oct. 1933.

Wysong, J.W. Economics of Part-Time and Small Scale Farming. Maryland Coop. Ext. Serv., Professional Papers Series, Mimeo, June 1980.

Wysong, J.W. and W. Gardiner. "Combining Nonfarm and Farm Labor Employment Opportunities for Maximum Long-Run Income." Md. Agri-Economics, Aug. 1975.

Yeary, E. and M. Becker. "Ready to Face the Realities of Small-Scale Farming?" Living on a Few Acres, 1978 Yearbook of Agriculture, USDA.