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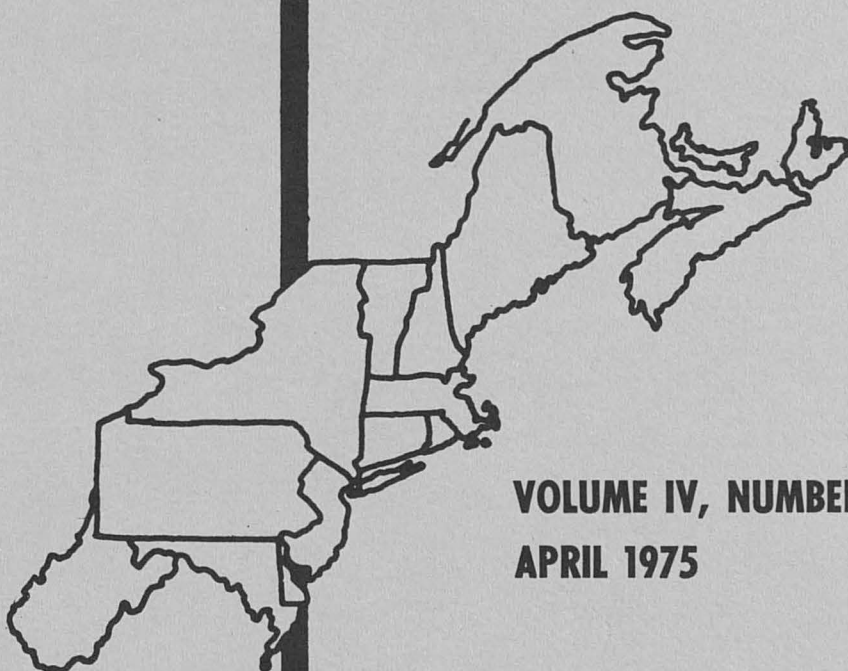
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LAND OWNERSHIP IN RURAL-URBAN FRINGE
AREAS OF PENNSYLVANIA

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Introduction

Since land accounts for more than 23 percent of the wealth in the United States, information concerning who ultimately makes decisions about how the resource is used and claims returns or benefits from the resource assumes great importance [2, p. 343]. Land ownership effects land use decisions, including all activities on the land, and influences the distribution of wealth, income, and other measures of well-being [3, p. 3]. Additional knowledge of who owns the land and his attitudes, goals, and objectives of ownership is needed to analyze the effectiveness of existing policies and to develop new policies for application in guiding the development and use of the land resource.

A great deal of information is available and/or is collected periodically concerning land. The Census of Agriculture, for example, collects considerable data concerning land in farms--about 31 percent of the total land area of Pennsylvania in 1969 [1, p. 2]. However, data collected pertain primarily to the land resource; very little is compiled relating to the farmland owner. Other periodic surveys which are concerned with all or a portion of the land resource include USDA's Conservation Needs Inventory--in the future to be termed the Land Inventory and Monitoring (LIM) Program--and the periodic forest surveys by the U.S. Forest Service. Only the forest surveys have assembled data on the basis of ownership and this has been in very broad categories. This data is of little value in analyzing existing policies or developing new land policies.

Due to the lack of available ownership information of broad geographic scope, a number of State or sub-State ownership studies have been conducted recently to provide an information base or to assist in answering local, specific policy questions. This report discusses one

such recent study conducted in Pennsylvania to provide an information base and as a contributing effort to the Pennsylvania Agricultural Experiment Station Research Project 1798: Rural Organizations and Services. The overall goal of the study in relation to rural organizations and services was to assess the effects of land use changes on local government finance in the rural-urban fringe. Considerable information pertaining to the characteristics, goals, and plans of the owners and the use of land were collected. In addition, the survey results permit comparisons of ownership patterns^{1/} and land use between rural-urban fringe townships of the second class^{1/} which exhibited rapid change^{2/} (growth townships) during the 1964-69 period and those that did not (nongrowth townships). Limited space in this paper, however, prevents presenting anything more than a description of the methodology and procedures of the study and a general profile of land ownership in the growth and nongrowth townships in the rural-urban fringes of Pennsylvania.

Methodology and Procedure

A sample of 44 townships of the second class in the rural-urban fringe were selected for the study. Of these, 22 were townships which had exhibited rapid change during the 1964-69 period. The other 22 were townships which had not exhibited rapid change during the previous 5 years but were near the "growth" townships selected. A sample of 1376 properties within these townships were selected to be surveyed. The sample was selected by overlaying each township map with a grid and selecting sample points using a computer-generated set of random grid intersections. The selected grid-intersection points were transferred to a property map to determine the present owner and property record number for searching records for the names of previous owners. The number of properties included in the study from each township depended on the size and the location of the township. Townships in the Philadelphia or Pittsburgh SMSA's^{3/} had a sample equal to two properties per square mile, but in no case less than 15 properties nor more than 40 from any one township. The townships located in other SMSA's or in non-SMSA counties had a sample equal to two properties per square mile, but in no case less than 15 properties nor more than 35 from any one township.

Present and previous owners of the sample properties were surveyed in 1970 to obtain information concerning the acquisition, ownership, use and/or disposition of the land during the period 1960-69. A telephone

^{1/} Townships of the second class are those having a population density of less than 300 per square mile, or if greater population density, have not petitioned the courts to be reclassified as a township of the first class.

^{2/} Rapid change was defined as either a \$5 million increase in the market value of taxable real estate or a 100 percent increase in the market value.

^{3/} Standard Metropolitan Statistical Areas.

interview technique was used for the survey.

Response to the Survey

The telephone interview technique worked very well. Only one prospective respondent requested authentication of the survey by calling the Department of Agricultural Economics and Rural Sociology Office for verification. Furthermore, of the sample of 2,105 owners of the 1,376 properties during the 1960-69 period, information was obtained on 1,537 or 73 percent of the owners.

This report summarizes land ownership information for the current owners of the sample properties at the end of the study period. Of the 1,376 properties included in the sample, some information on land ownership in 1969 was obtained for 1,098, or about 80 percent. Of the 278 owners for which no information was obtained, 79 prospective respondents declined to provide the information. Data for the remainder were not obtained due to the following situations: (1) inability to contact by telephone or follow-up letter (156 owners); (2) errors in obtaining owner's names from public records (18 owners); (3) inability to communicate with interviewer due to language difficulty, age, or some other reason (9 owners); (4) duplicate sample points for a single property discovered after the final sample was selected (7 owners); (5) inability to determine current address (6 owners); and (6) owner during period of study deceased (3 owners).

Survey Results

Owners of the sample properties were divided into three major categories: (1) public, quasi-public and government-regulated owners; (2) corporate owners; and (3) private, noncorporate owners. Table 1 presents the number of properties in each of these categories for which some information was obtained in the growth and nongrowth townships in the study. Also presented in the table are the number of properties in each owner category and township group which reported acreage and the total acreage reported.

The properties for which some information was obtained are about equally divided among growth and nongrowth townships. The division is also about equal for the owner categories except corporate owners. About 61 percent of the corporate properties were in growth townships. The distribution of acreage reported by owner categories is less equally divided than number of properties between the two township groups. About 60 percent of the acreage held by public, quasi-public and government-regulated owners is in nongrowth townships. In contrast, nearly 70 percent of the land owned by corporations was in growth townships even though these townships contained only 56 percent of the corporate properties in the study with acreage reported. The land area reported by private, noncorporate owners is slightly skewed toward the nongrowth townships but follows the distribution of private properties much more closely than the land owned by the other owner categories.

Table 1
 Distribution of Sample Properties and Acreage by Major Categories
 of Owner for Growth and Nongrowth Townships in the Rural-Urban
 Fringes of Pennsylvania, 1969

Owner Category	Growth Townships			Nongrowth Townships		
	Properties	Properties With Acreage Reported	Acreage Reported	Properties	Properties With Acreage Reported	Acreage Reported
Public, quasi-public and government-regulated owners	44	40	16,458	41	39	24,751
Corporate owners	56	46	23,646	36	36	10,251
Private noncorporate owners	455	455	36,678	466	465	46,945
All owners	555	541	76,782	543	540	81,947

Based on the data in Table 1 for both growth and nongrowth townships, about 84 percent of the properties are owned by private, non-corporate owners. Approximately 8 percent are owned by corporations and the remaining 8 percent owned by public agencies, quasi-public organizations, or government-regulated public service companies. The distribution of land owned by the three owner groups is considerably different, however. Based on those properties for which acreage was available, private, noncorporate owners with 85 percent of the properties owned only about 53 percent of the land. The 8 percent of corporate-owned properties comprised about 21 percent of the acreage. The public agencies and quasi-public properties totalled 7 percent of the properties with the acreage reported, but reported more than 26 percent of the land area. Of course a great deal of variation in property size exists within each category. This will be further illustrated when data for various types of property owner are presented in later sections of this paper.

The nature and extent of information obtained for the three categories of land ownership varied considerably. Rather extensive and detailed data were obtained for most of the privately owned properties. Much less information was obtained for the corporate and the public, quasi-public, and regulated owners. For this reason, each of the major categories of land owner will be discussed separately. An analysis and discussion of the data for the "public and other" owners is presented below. This is followed by similar results for corporate and private land owners in the sample.

Public, Quasi-Public and Regulated Owners

The owners included in this category were classified as one of nine types as shown in Table 2. Table 2 also contains the number of sample properties, the number of properties for which acreage was reported, and the average sizes of property for growth and nongrowth townships for each type of owner within the public, quasi-public and regulated owner category.

A municipality in this study is a township, a borough or a legal organization created by them. The seven properties in this category were in such uses as municipal building sites, parks, land fills, or municipal water supply. Even though municipalities can and often do use eminent domain, all properties in this study were purchased without the use of eminent domain proceedings. The individual properties ranged in size from about 11 to 1,250 acres. The number of municipal properties were quite evenly divided among growth and nongrowth townships. However, municipal properties in the nongrowth townships averaged considerably larger in size.

Four properties in the sample were owned by school authorities. These properties fell within 20-60 acre size range. They were acquired by direct purchase and by purchase using eminent domain proceedings. Three of the four school properties in the sample were in growth townships. The average size of these properties, however, was only

Table 2
 Distribution of Sample Properties and Acreage by Type of Public,
 Quasi-Public and Regulated Owners for Growth and Nongrowth
 Townships in the Rural-Urban Fringe of Pennsylvania, 1969

Type of Owner	Growth Townships			Nongrowth Townships		
	Properties	Properties With Acreage Reported	Acres Per Property With Acreage Reported	Properties	Properties With Acreage Reported	Acres Per Property With Acreage Reported
Municipality	4	3	52	3	3	483
School District	3	3	35	1	1	58
County	5	5	1,609	2	2	274
State	3	3	795	7	7	2,880
Federal Government	2	2	1,794	3	3	193
Nonprofit Recreation Organization	9	8	137	11	11	98
Religious Organization	13	13	60	8	7	68
Railroad	4	3	102	2	2	20
Power Company	1	0	-	4	3	120
All Owners	44	40	411	41	39	635

about 60 percent of the school property in the nongrowth townships.

There were seven county-owned properties in the survey totalling 8,590 acres. These properties ranged in size from 11 to 6,000 acres, with an average of 1,227. They were used for such purposes as county nursing homes, or rehabilitation schools, airports, water supply systems and parks. Many sites appeared to have been acquired considerably in advance of use. Due to the need for large tracts for some purposes, land has been acquired by counties through direct purchase and by purchase through eminent domain proceedings. The county-owned properties were concentrated in the growth townships and averaged nearly six times the size of the county-owned properties in the nongrowth townships.

Ten State-owned properties were selected in the sample. These properties were limited to the original tract acquired by the State that included the sample point. Most of the State-owned properties surveyed are in State Forest lands. Somewhat surprisingly nearly all were purchased without use of eminent domain proceedings. Much of the land was acquired in the early 1900's as low-valued, cut-over or mined land. Early laws permitted the State to purchase land at \$10 per acre. In subsequent years this fixed purchase price was increased. Whenever land prices fell below the legislated land purchase price, the State bought up low-valued land. Acquisitions under this program were concentrated during two periods--1902-05 and 1929-33. The State properties also included parks, recreational lands of the Game and Fish Commissions and State hospitals. The State-owned tracts surveyed ranged in size from 16 to more than 10,000 acres. As indicated in Table 2, these properties tend to be concentrated in nongrowth townships and average much larger in size than State-owned properties in growth townships. This would be expected based on the method of acquisition of many of these properties.

The Federal Government owns five of the properties included in the sample. These include parks and defense installations. Properties range in size from 50 to more than 3,000 acres. Although evenly divided in number between growth and nongrowth townships, the properties owned by the Federal Government average more than nine times larger in the growth townships than in the nongrowth townships. This parallels the size of county properties but is in contrast to properties held by other governmental units.

Twenty properties were owned by nonprofit recreation organizations. Variation within this type of property ownership is probably greater than for any of the other types of owners listed in Table 2. Included in this group were such owners as youth club camps, nonprofit golf clubs, and hunting clubs. These were considered quasi-public and only nonprofit groups were included. Properties in this category varied in size from 8 to 300 acres. The number of properties owned by nonprofit recreation organizations were fairly evenly divided between growth and nongrowth townships. However, the size of these properties averaged about 40 percent larger in the growth townships.

The 21 properties owned by religious organizations were mostly church sites and cemeteries. The properties varied in size from five to 375 acres. More than 60 percent of these properties were situated in growth townships. These properties averaged slightly smaller in size than similar properties in the nongrowth townships.

Railroads and power companies were included as they are government-regulated or controlled public service companies. In addition, both can use eminent domain under certain circumstances to obtain needed rights-of-way or facility sites. Most of the properties held by these owners were rights-of-way for rail lines or power lines, respectively. One, however, was a power generating station.

The railroad properties varied from 11 to 263 acres. The power companies which reported acreage indicated property sizes ranging from 15 to 315 acres. Most of the properties of both these owners were less than 50 acres. However, one large property in each ownership increased the averages considerably. This is indicated, for example, by the much larger average size of railroad properties in growth townships.

The variation in average size of property held by the "public and other" group in all townships surveyed ranged from 40 acres per property for sites owned by school districts up to 2,254 for State-owned properties. Of the more than 41,200 acres reported by this category of owner, nearly 55 percent was owned by that State. County governments were second with about 21 percent, followed by the Federal government with 10 percent of the land reported by this category of owners. The public owners--the first five types listed in Table 2--own about 90 percent of the land in this category of ownership. They own 23 percent of all the land reported in this study.

The other four types of owners included in Table 2 own a relatively small amount of land. Although they comprise more than 59 percent of the "public and other" category of landowner, they own only 10 percent of the land. When considered in relation to all owners and land, from Table 1, they account for about 4 percent of the owners reporting acreage owned and own less than 3 percent of the land.

Also of interest in the study was what types of owners have increased their holdings recently and which have held their lands for many years. This information is useful in planning tax policies and developing land use planning and management policies at all levels of government. This information may be most useful when analyzing private land holdings and land use plans.

Of the properties held by the "public and other" owners, about half have been acquired since 1949. Properties owned by county governments and school districts tended to be recent acquisitions. In contrast, most of the Federal and railroad properties were acquired many years ago. Acquisition by the other owners tended to follow the average with about half of the properties acquired during the preceding 20-year period.

Corporate Owners

The corporate owners included in the sample were quite diverse and were difficult to classify into a number of groups of similar type owners as was done for the public, quasi-public, and regulated owners. However, data for a few distinctive types of corporations are presented separately. Table 3 presents the number of corporate owners of each type, number reporting acreage, and average size of property by type of corporate owner, for growth and nongrowth townships in the study.

The corporate properties varied considerably in average size between types of corporation and township groups as indicated in the third and last columns of Table 3. The greatest differences were between coal company properties and properties of other types of corporation and between coal company properties in growth and nongrowth township groups.

Considerable difference in average size of properties also exists between growth and nongrowth township groups for agricultural and development corporations. These differences occur in the order one would expect. However, as for the public, quasi-public and regulated owners, the variation within owner types was quite large. For example, the agricultural corporation properties varied in size from 70 to 1,000 acres. These organizations included four dairy operations, three of which included production, processing and retail sales. Four orchards or fruit production operations were enumerated along with a horse breeding farm and an alfalfa production and dehydration operation. These 10 agricultural corporations comprised about 11 percent of the corporate properties and owned approximately 9 percent of the land area owned by corporations.

The seven coal company properties in the sample represented a much larger size range within an owner type. They ranged from 52 to more than 10,000 acres. Considering all owner types in the study, this size range was exceeded only by State-owned properties. The coal companies with only about 9 percent of the corporate owners reporting acreage, held about 39 percent of the land owned by corporations. When compared to all owners in the study, they owned about 8 percent of the land in sample properties reporting acreage but comprised less than 1 percent of the owners sampled which reported the area of the land owned.

Properties owned by other resource extraction corporations were considerably smaller than the coal company properties. The 9 corporations, representing 11 percent of the corporate owners reporting acreage, owned properties varying in size from 7 to 900 acres. The 3,089 acres owned represent only about 9 percent of the land reported owned by corporations in the sample.

Corporations established by developers and/or builders represented about 20 percent of corporate owners in the study. The development properties for which acreage was reported comprised about 19 percent of the corporate owners reporting acreage and accounted for 13 percent of corporation-owned land in the sample. The individual properties held by

Table 3
 Distribution of Sample Properties and Average Size by Type of Corporate
 Owner for Growth and Nongrowth Townships in the Rural-Urban
 Fringe of Pennsylvania, 1969

Type of Owner	Growth Townships			Nongrowth Townships		
	Properties	Properties With Acreage Reported	Acres Per Property With Acreage Reported	Properties	Properties With Acreage Reported	Acres Per Property With Acreage Reported
Agricultural Corporation	4	3	178	6	6	448
Coal Company	4	4	3,218	3	3	79
Other Resource ^{a/} Extraction Corporation	4	4	375	5	5	318
Development Corporation	14	11	324	5	5	198
Other Corporate Owners	30	24	216	17	17	279
All Owners	56	46	514	36	36	285

^{a/} Primarily stone quarrying operations for a variety of uses.

developer-builder corporations ranged from 1 acre to 3,200 acres in size.

The other corporations enumerated in the study were quite varied in nature. Included were manufacturing companies, retail sales firms, and other service-oriented corporations. Forty-one of the 47 corporations surveyed reported acreage totalling 9,925 acres. This 50 percent of corporations reporting size of property owned only 29 percent of the land area reported by corporate owners in the study. The size of properties reported by these corporations varied from 1 acre to 3,200 acres.

About 47 percent of the properties held by all corporate owners enumerated were acquired during the past decade. More than two-thirds had been acquired during the past 20 years. Property acquisition was most concentrated during the past 20 years by "other resource extraction," "development," and "other" types of corporations.

Private, Noncorporate Owners

Private, noncorporate owners were defined for this study to include a single person, a husband and wife, an unsettled family estate, a trustee, or a partnership. Table 4 lists the distribution of sample properties held by these types of owners enumerated in this study in the growth and nongrowth township groups. The average size of properties by type of owner are also presented for the two township groups.

Table 4
Distribution of Sample Properties and Average Size
by Type of Private, Noncorporate Owner for Growth
And Nongrowth Townships in the Rural-Urban Fringe
of Pennsylvania, 1969

Type of Owner	Growth Townships		Nongrowth Townships	
	Properties	Acres Per Property	Properties	Acres Per Property
Single Person	98	89	97	102 ^{a/}
Husband and Wife	299	70	326	94
Family Estate	25	119	23	175
Trustee	3	210	1	332
Partnership	30	120	19	103
All Owners	455	81	466	101

^{a/} Based on 96 properties for which acreage data were available.

The number of properties are fairly evenly divided between growth and nongrowth townships for the first three types of owner in Table 4. Properties held by trustees and partnerships tend to be concentrated in the growth townships. The average size of properties owned in partnership is also greater in the growth townships. For each of the other owner types, the properties average larger in size in the nongrowth townships.

For all townships combined, properties held by a trustee averaged considerably larger in size than properties of the other types of individual owner. This was followed by family estates, properties owned by partnerships, single persons, and husbands and wives, respectively. The average size of property for all types of individual owners for all townships was 91 acres. This, of course, was considerably smaller than properties held by either the corporate or the public, quasi-public or regulated agency owner groups.

All the properties held by a trustee had come into this ownership form since 1949. Seventy-six percent of the properties owned by partnerships were acquired during the 1950-69 period. About half were acquired during the 1960-69 decade. Properties acquired by the other types of owners were spread more evenly over the period since 1900. However, as would be expected, all owner types tended to have acquired a greater number of properties during the past 20 years. For all the private, noncorporate owners, one-third of the properties were acquired during the preceding decade; about 62 percent during the preceding 20 years; and 83 percent during the 30 years preceding the land ownership survey.

There was a slight trend for recently-acquired properties to be smaller--as was also the case for properties owned by corporations. Family estates and properties owned by partnerships did not follow this trend, however.

The private, noncorporate owners acquired their properties in a number of ways. About 81 percent purchased their property. A little more than 13 percent of the properties were inherited. Of the remainder, about 5 percent were part purchased and part inherited and approximately 1 percent acquired in other ways.

Purchased properties--averaging 83 acres in size--tended to be smaller than properties acquired in other ways. These properties also tended to have been acquired more recently by their owners. Properties which were part inherited and part purchased were the largest--averaging 129 acres. The acquisition of these properties tended to be concentrated during the 1940's. Inherited properties averaged 124 acres in size and their acquisition was distributed rather evenly throughout the period since 1900. Properties acquired in other ways averaged 117 acres in size and acquisition by their 1969 owner was concentrated during the 1950's.

Summary

The distribution of sample properties between growth and nongrowth townships was fairly even for the three major owner categories. The greatest difference was for corporations, where 61 percent of the corporate-owned properties were in the growth townships (Table 1). On the average, corporation-owned properties were also larger in the growth townships. This was primarily the result of very large coal company holdings in those townships (Table 3). The distribution of public, quasi-public and regulated owner properties was also quite even between growth and nongrowth townships for individual types of owner (Table 2). The properties averaged considerably larger in nongrowth townships, however. This was primarily the result of large State holdings acquired early in this century as low-valued, cut-over or mined lands.

Private, noncorporate properties were also quite evenly distributed between growth and nongrowth townships. The greatest relative differences occurred within the trustee and partnership-owned properties (Table 4). Also, in similarity to the other owner categories, properties in the nongrowth townships tended to be larger. The single exception among private, noncorporate owners was for properties owned in partnership (Table 4).

Based on only those properties for which acreage was reported, Federal, State, and local governments (including school districts) own more than 23 percent of the land in the rural-urban fringes of Pennsylvania. Nonprofit and religious organizations own about two percent and regulated public service companies own less than one percent. Due to the number of properties for which acreage was reported, this tends to overestimate public land holdings and underestimate the other categories.

Less than 90 percent of the corporate owners reported the size of their holdings. Therefore, the corporate land holdings are underestimated in the study. However, of those reporting, coal companies and other resource extraction corporations owned about 48 percent of the land reported owned by corporations, or about 10 percent of the land in the study. Other types of corporations owned an additional 11 percent of the land reported.

Private, noncorporate owners reported owning about 53 percent of the land in the study. About 62 percent of the privately owned land or approximately one-third of the total land is owned by husband and wife. An additional 12 percent of total land reported is owned by a single person. The remaining land--less than 9 percent--is held in other forms of private, noncorporate ownership. However, since all but one of the private, noncorporate owners reported the size of their holdings, land in this form of ownership is over estimated relative to the land owned by corporations and in public ownership.

References

1. U. S. Bureau of the Census, Census of Agriculture, 1969, Volume I. Area Reports, Part 9. Pennsylvania, Section I. Summary Data, U. S. Government Printing Office, Washington, D.C., 1972.
2. U. S. Bureau of the Census, Statistical Abstract of the United States: 1973. (94th Edition) U. S. Government Printing Office, Washington, D.C., 1973.
3. Wunderlich, Gene, Land Ownership Facts From Public Records, A paper for presentation at National Association of Counties, Dallas, Texas, July 23, 1973.