

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
<a href="http://ageconsearch.umn.edu">http://ageconsearch.umn.edu</a>
<a href="mailto:aesearch@umn.edu">aesearch@umn.edu</a>

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.

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

#### LAND OWNERSHIP:

NEW DEMOGRAPHICS, NEW INFORMATION SYSTEM

Application of Land Ownership Studies

to Kent County, Michigan

Ъy

Jack E. Visscher

MICH. STATE UNIV. AGR. ECON. DEPT. REFERENCE ROOM

A Paper

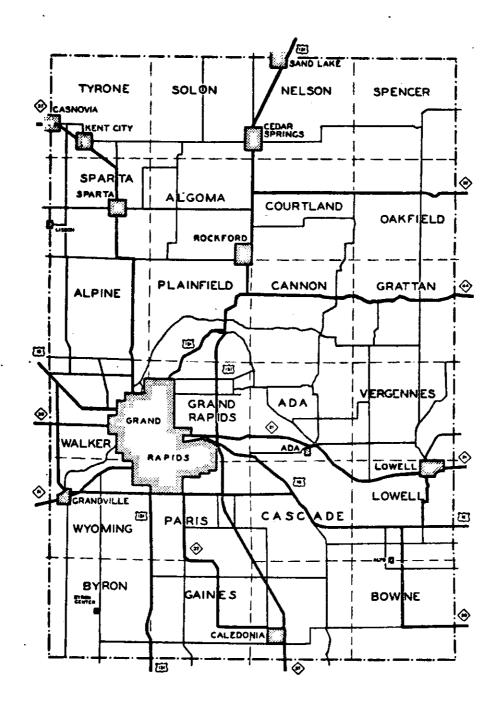
Submitted to

Michigan State University
in partial fulfillment of the requirements
for the degree of

Master of Science

Department of Agricultural Economics

1977



KENT COUNTY, MICHIGAN

# CONTENTS

# Acknowledgments

			Page
Chapter	I.	Introduction	<b>T</b>
Chapter	II.	Problem Definition Introduction Land ownership informationThe Problem Need for good land resource information Why a land ownership study now  1. Major changes in land ownership 2. To determine the substantive performance of alternat land use policy 3. More information to spread light on the land use iss in Michigan 4. Renewed interest in land ownership studies	12
		Perspectives on the land Land ownership in historical perspective America's land resources in perspective Farmland ownership in perspective Land use in transition Summary	18 18 19 20 26 30
Chapter	III.	Elements of Ownership That Are Important Residence Land Acquisition Occupation Age and Education Type of owner Tenure Land values Community involvement	32 33 34 34 35 35 36
Chapter	IV.	Toward a Land Ownership Information System for Kent County What land to include What kind of survey What land in the county should be sampled Why use parcels rather than people as a basis for study How many parcels should be included in the survey What to do about nonrespondents How to obtain a random sample for the survey questionaire How often should this type of study be made What are some other problems faced by ownership studies The Questionaire	38 39 41 42 43 44 44 46
Chapter	٧.	Conclusions	52

#### ACKNOWLEDGMENTS

This report has been strengthened by the comments of many people. All those who have contributed have been most generous in freely providing their time, their knowledge, and their access to materials. Dr. Raleigh Barlowe, Mr. Frank Moss, Dr. Lewis Moncrief, Dr. William Kimball, and Dr. Karl Wright should be named among them.

A special thanks goes to Dr. Larry Libby, major Professor, for his constant supervision and delightful personality who has given the guidance to my entire graduate program as well as to the efforts of this report. Appreciation is also expressed to Dr. John Brake and Dr. Ronald Shelton who served capably on the Committee.

#### CHAPTER ONE

#### INTRODUCTION

This report is essentially a paper on rural land ownership information. It describes the need for land ownership information, specifies the elements of land ownership that are essential to a land ownership study, and proposes a land ownership information system for Kent County, Michigan as an example of its application. The objectives of this report are:

- 1) To provide the rationale for studies of land ownership
- 2) To provide a systematic approach for gathering data on land ownership

The specific topic of land ownership studies was the suggestion of Mr. Doug Lewis and others at the Economic Research Service of the United States Department of Agriculture. The Economic Research Service has been very interested in making land ownership studies and has also helped create an interest for other studies. There are currently at least five other land ownership studies in progress in other areas of the country. All of them have been contacted. State studies are underway in Iowa, Oregon, Tennessee, and West Virginia (all of which are being made by people at their state universities) and a northeastern United States study is being conducted by the Economic Research Service in Maine, Vermont, and New Hampshire. But there is little published literature on land ownership and little attempt has been made at systematically collecting information on land ownership that can be used by public decision makers.

The original intent of this research was to apply the techniques of other land ownership studies and to make a land ownership report

on an area in Michigan complete with survey and analysis. Kent County was originally selected as the study area because it included both a large metropolitan area with all of its pressures and a somewhat remote rural area. In these respects Kent County may be considered a scaled version of the entire state of Michigan. Land ownership patterns would probably vary within the county. In addition the general familiarity and proximity of the Kent County area made it a logical choice for a land ownership study area.

With further investigation it became apparent that a detailed land ownership survey of the type underway elsewhere would be beyond the scope of a Plan B paper. Therefore, a completed survey of Kent County is not a part of this report. Its purpose is descriptive and methodological, not empirical. The preliminary work has been completed for a mailed land ownership survey. The proposed survey instrument is completed and included as part of this report. A pre-test has been performed and the results are in the appendix. The survey instrument is applicable to any county or area in Michigan. In Michigan, as well as in other states, land ownership information needs to be collected for the entire state. This report should make evident the need for aggregated land ownership information and should aid county planners, state agencies, student researchers etc. in gathering that information.

There are four basic chapters to the report. This first chapter serves as an introduction to the report. Chapter two defines the problem that is posed for land ownership surveys—Why is a land ownership study necessary and what is its purpose? Stated simply, the problem is that there is no adequate information system on the

ownership and use of land in Michigan. Public officials need some basis for making decisions related to land use. After developing this material chapter two also presents an overview of land use with a section of perspectives on the land. The third chapter of the paper is to show what elements of land ownership are important in light of the problem outlined in the previous chapter. The fourth chapter of this report is an attempt to develop the necessary inputs for a land ownership study of Kent County, Michigan. The chapter includes the preparations for a land ownership mailed survey including the model questionaire instrument. The fifth chapter of the report is for general conclusions. The Appendix which has been attached at the end of the report shows the results of the pre-test of the land ownership questionaire.

#### CHAPTER TWO

PROBLEM DEFINITION: ROLE OF OWNERSHIP INFORMATION

#### Introduction

Land use policy unquestionably requires information about land ownership. During the Congressional debate on the Land use Policy and Planning Assistance Act of 1972 Senator Henry Jackson of Washington recognized the need for land ownership information when he said:

"Rational land use planning would be impossible without knowledge of patterns of land ownership within, a given area." (1) Yet this information is not generally available for the planning process.

Senator Jackson also said: "It seems not only probable, but inevitable that, among the many other benefits of this legislation, the country may expect to obtain fairly soon a system of identifying and classifying the ownership and control of land..." (2) His prediction has not come to pass.

Basic decisions concerning land use can be influenced by public policy, but rights in land use substantially rest with land owners.

Clearly, the use of land depends on the decisions made by land owners.

But at the same time, while private rights to land ownership are substantial they are not absolute. Rights to land have been retained

<sup>1</sup>Quoted from the debate on Land Use Policy and Planning Assistance Act of 1972, Congressional Record, Vol. 118, No. 145, September 18, 1972.

2Ibid.

at the various levels of government. Barlowe has listed this "bundle of rights" as:(3)

- 1) Government owned land
- 2) Eminent domain power
- 3) Power to tax
- 4) Police power such as zoning and regulation
- 5) Power of the public purse (government expenditures)

Public policy and public law often react to the exercise of private rights, and in an increasingly complex and interdependent society these rights become increasingly important. Rights to land are in a process of change in this country and today's land use pressure seems to have accelerated the pace of that change. Much of that change and its volatile discussion revolves around land use legislation in the Michigan legislature, the legislatures of other states, and land use legislation at the national level in the Congress of the United States.

The rights of land owners are substantial. Barlowe has listed some of these fee simple rights as: (4)

- 1) Rights to sell
- 2) Rights to lease
- 3) Rights to grant a mortgage
- 4) Rights to subdivide
- 5) Rights to grant easements
- 6) Rights to leave to an heir

The use of land depends on the decisions made by land owners. Whether that private land owner be an individual, private organization, or

<sup>3</sup>Barlowe, Raleigh, "Changing Rights in Land: The Dynamics of Property." Conference Proceedings, Protection of Essential Lands, Michigan State University, April 8-9, 1976, p. 3.

<sup>&</sup>lt;sup>4</sup>Ibid., p. 3.

government agency, it is ultimately the owner who decides whether a farm should be transformed into a residential subdivision, a wooded acreage should remain forested, or a scenic area will be accessible to the public. Within defined legal constraints, the owner decides whether conservation, preservation, or otherwise productive uses will be made of the land. This is evidence that land ownership information is an important input into land use policy. Hopefully, the point can be made clearer as the paper progresses.

There is another distinct reason for gathering information on land owners which is often overlooked. Land ownership rights represent a claim on the services and income from that land. As a source of services and income, land is a store of wealth much like any other capital asset. The distribution of land ownership is a factor in the distribution of wealth in the society. Private and public policy which affects land use decisions will therefore have an effect on the distribution of income and wealth. Planning agencies and local governmental bodies should have some idea of who is in a position to gain from public land policy. Information on land owners can help show who will bear the burden or reap the benefits of public land policy.

### Land Ownership Information -- The Problem

The theme for this section of the report is that data on the characteristics of private land ownership are seriously inadequate. In Michigan as in other states there is no uniform system to the information on land ownership. Information is available but is not readily accessible. All of the following provide some of the necessary information on land ownership for their specific jurisdictions:

County Assessors office
County Register of Deeds office
County Equalization office
County and Regional Planning offices
County Extension office
Local Platt Maps
Census of Agriculture reports
Local zoning and housing departments

Each county has information on particular parcels of land in the assessor's office, the recorder's office, and the county equalization office. For the most part these offices do not assemble aggregated data on land owners, land area, or land value. There are also planning agencies at the county and regional levels which deal specifically with land use planning. County planning agencies are involved with land use in their particular county. Regional planning agencies are essentially to review and comment on proposed actions that affect the region. Their review and comment should be based on an adopted plan for the county and the best information available to the agency concerning their planning area.

The Census of Agriculture presents some data on acres of land in farms and types of ownership and tenancy of farms for a given county, but it does not provide information for all land.

## Need for good land resource information

In a recent review of the state of resource ownership research,

Philip Raup, Professor of Land and Resource Economics at the University

of Minnesota said:

III is the judgment of this reviewer that top priority should be given to the collection and interpretation of basic data that relate to the structure of American agriculture, broadly defined. This includes data on land ownership; the tenure arrangements; and the multitude of devices by which the use of land and related agricultural resources is controlled... "Our current sources of published data on a national scale do not reveal the complexity of the relationships that govern the organization and control of rural and agricultural resources. Many of the most important structural changes are hidden or obscured in conventional data series. At a time when we need disaggregated data to enable state and local units of government to make wise policy decisions in the planning of land and resource use, the traditional source of these data in the Census of Agriculture is declining in reliability and in local detail. "This is especially important with respect to data that permit a clear separation between ownership and control. Who owns the resource is a critical datum in determining the beneficiaries of policy decisions.

"Who controls is critical to the estimation of responses to economic incentives and of the intensity and efficiency of resource use." (5)

Whether or not a community decides it wants to continue in its present land use patterns, a local government needs facts and figures on which to base land use planning. Up-to-date facts about land ownership, use, and values are needed. Pieces of information such as a simple one-time land ownership survey or a set of one-time planning maps are insufficient for the continuing process of land use planning. Continually updated information on land use changes, land ownership transfers, property value changes, recreational and other resource changes will aid planners and public officials in performing their tasks more effectively. A zoning ordinance establishes

DRaup, Philip M., Summary Comment Following a Review of the Work Program and Plans of the Resource Organization & Control Program, Natural Resource Economics Division, E.R.S., U.S.D.A., Washington D.C., April 15, 1976. Cited in Boxley, p. 6.

lists of permitted uses but does not really determine use--the land owner does. Easily available information may assist private land owners and other citizens in reaching their own decisions as well. If the citizens are to participate in the decisions that will affect the future of their county the information must be accessible and usable by all persons.

## Why a land ownership study now

There is a number of reasons for making a rural land ownership study at the present time particularly in Michigan. Four reasons will be listed here and then be more carefully explained in the following paragraphs.

- 1) The ownership of rural land appears to be in a period of major change in Michigan.
- 2) Analysis of substantive performance of alternative land use policy needs good information on land ownership.
- 3) The Michigan legislature is currently dealing with state land use legislation, and there is a need for more land use information in order to focus on crucial issues of our day.
- 4) There is a renewed interest in land ownership studies with similar studies in progress in other states.

The ownership of rural land appears to be in a period of change in much of Michigan, especially in the rural-urban fringe. Valuable land especially near urban areas probably changes hands in anticipation of more intensive use, but there is very little hard evidence on which to gauge the changes in land ownership. The effects of changes in land ownership can be seen in the changes in land use. There are important demographic changes that seem to be taking place in Michigan. The first is a population migration change from urban to rural and

small town. (6) The second change is the predominance of small, part-time farming operations in Michigan. (7) A third is the increased demand for recreation facilities and lands. (8)

A significant concern of land use policy currently revolves around lands that are in transition, the rural-urban fringe. Recent land ownership studies such as the one in Rappahannock County, Virginia near Washington D.C. have been directed toward counties which are feeling the pressures of nearby urbanization. (9) In that study it was important to find out if the land owners were residents of the county or not, and it was important to gauge the land owners attitudes toward changes taking place in the county and their preferences for the future of the county. Rappahannock County, Virginia was in a period of change from what was predominantly a rural, small-farm county to a county predominated with second homes and recreation. The primary industry is no longer farming; it is real estate with the value of real estate traded as reported in public records at \$7.6 million in 1973. (10)

O'Hare, William, Beegle, and Leonard, "Recent Changes in Population Growth and Distribution in Michigan," unpublished, Sociology Department, Michigan State University, May 1977.

<sup>7</sup>Thompson, Ronald and Hepp, Description and Analysis of Michigan Small Farms Michigan State Agricultural Experiment Station, #296, March 1976.

<sup>8</sup> Rainey, Kenneth D., "Forces Influencing Rural Community Growth," American Journal of Agricultural Economics, Vol. 58, No. 5, p. 959

<sup>9</sup>Wunderlich, Gene, Land Along the Blue Ridge--Ownership and Use of Land in Rappahannock County, Virginia, Agricultural Economic Report #299

<sup>10</sup> Ibid., p. 17.

The land ownership study discovered that large amounts of land in the county were shifting from resident to nonresident ownership and if that trend continued it would likely change the features that attract new buyers to the area--farm land, open space, scenic views, and wildlife. Facts about ownership and trends were essential for future planning in Rappahannock County and no doubt would be helpful in other areas as well.

Michigan reportedly has more second homes than any other state in the union. (11) The division of farms into small parcels for vacation, part-time occupation, or investment can result in the disappearance of crops, orchards, grazing, and woodlands. There is no uniform, simple relationship between type of owner and land use, but certain types of real estate transactions such as subdivisions, tend to draw land away from certain types of land use such as agriculture. If agriculture is to be maintained in the county, county officals may wish to reassess the wisdom of breaking up 200 acre farming units into 10-30 acre units for subdivisions. Rational land use policies should be based on the best information available and an ownership survey provides some essential data.

In the recent Michigan Public Opinion Survey the people of Kent County expressed particular concern over the preservation of productive farmland with 61% of the respondents in Kent County desiring more public spending for that purpose compared with a 52% state wide figure. (12)

Reported by Robert Craig, Specialist, Land Use Division, Department of Natural Resources, State of Michigan.

Kimball, William et al., Community Needs and Priorities as Revealed by the Michigan Public Opinion Survey, Summary of Results for West Michigan (Region 8), March 1977, p. 20.

In Kent County this concern for the preservation of productive farmland placed only behind concerns of energy research and crime prevention. Although supporting research has not been completed the public concern for the preservation of productive farmland is prominent in Michigan especially in Kent County.

Real estate trading will have an impact on a county's future economy, community, characteristics, and land use. The sale of an acre of land transfers ownership of the acre, but it does not involve productive processes except for the location and holding of land. Yet this essentially unproductive process can involve large profits. Those who formulate the land policy for any county should consider these facts concerning land values as well as the historic and scenic values of the land.

Analysis of alternative land use policy

Analysis of substantive performance of alternative land use policy needs good information on land ownership. Much land use policy is ignorantly accepted as is. And yet there is policy and there are results affecting land ownership. What are the results of land policy—we don't know. We need information in order to know what are the consequences of policy. At the same time land owners undoubtedly affect the performance of policy related to land use.

The issue has not been thoroughly developed by anyone in the past, but many policy researchers are becoming interested in such things as the distributional impacts of policy. That interest is

long overdue, but at this stage it is necessary more than ever. As competition for land increases, as conflicts among land uses arise, and as more people and institutions are involved in land decisions about land and who will bear the burden or reap the benefits of those decisions. This is the substance of political debate.

#### Critical land use issue

The Michigan legislature is currently dealing with state land use legislation, and there is a need for more land use information. For each of the past few years land use legislation has been introduced into the legislature and hotly debated around the state of Michigan. It would appear that land ownership information would be an important input into the policy process. It may help to raise the level of debate on the land use issue. It would help people recognize the stakes involved and the consequences of the alternative policies. The survey itself does not imply what a county, state, Federal Government, or any other citizen should do, but it does provide a basis for discussion.

Various other issues are helping to focus attention on resource ownership. The abrupt shifts in world food supply of recent years with rising prices and the potential of food shortages, have shifted farm policy considerations from overproduction to concern for agriculture's productive capacity. The USDA Soil Conservation Service recently completed a survey of potential cropland—land suitable, to varying degrees, for cropland use but not currently in cultivation. Much of the land now classified as having cropland

potential has some slight to severe physical limitations that must be overcome before it can be cultivated. However, the Soil Conservation Service found some 24 million acres of prime farmland not now being used which could be converted simply by beginning tillage. (13) Clearly, the supply of land is a function of ownership and other institutional considerations as much as it is of physical and economic suitability.

Renewed interest

There is a renewed interest in land ownership studies with similar studies in progress in other states. Both as a research topic and as a matter of public concern, interest in ownership has waxed and waned over the decades. In the 1930's there was wide-spread concern with the rise of tenancy and lessening ratio of equity in farm real estate held by farm operators. After looking at the 1930 and 1935 Census of Agriculture, H.A. Turner concluded that "farmers are gradually losing ownership of the land." (14) The focus of research interest continued to be land tenure and in 1947 the only nationwide survey of farmland ownership was completed. Regional surveys followed of the Great Plains (1958) and the Southeast (1960).

<sup>13</sup> Boxley, Robert, Landownership Issues in Rural America, Economic Research Service report #655, April 1977, p. 5.

<sup>14</sup>Cited in Boxley, p. 4.

In the 1960's concern about ownership declined. The worst fears of the 1930's had not been realized, although trends such as the growth of larger scale, mechanized agriculture, and the outmigration of rural people indicated important changes in the nature of our rural ownership patterns. The period might be characterized as one of some uneasiness with the trends, but insufficient cause for serious public concern; ownership and tenure issues did not find a place on the agricultural research agenda.

In the 1970's there has been a resurgence of interest in ownership trends, an interest spurred in large part by environmental concerns. The so-called back-to-the-land movements and a general re-evaluation of urban life styles are evidence of this new concern, as many Americans feel the need--real or imagined--to regain control of their technology and institutions.

The Farm Ownership in the Midwest study of 1949 was the most recent land ownership study completed for the entire state of Michigan. (15) Since that time three others have been completed for parts of Michigan. Robert Vertrees made a study of land ownership in Antrim and Kalkaska Counties for a thesis in 1967. (16) Douglas McEwen made a study of Clare and Gladwin Counties for a thesis in 1970. (17) Robert Manning made a study of Kent County for a thesis in 1975. (18)

<sup>15</sup> Timmons and Barlowe, Farm Ownership in the Midwest, North Central Regional Publication #13, Ames, Iowa, June 1949.

<sup>16</sup>vertrees, Robert, A Survey of Non-resident Land Owners in Antrim and Kalkaska Counties, thesis in Department of Resource Development, Michigan State University, 1967.

<sup>17</sup>McEwen, Douglas, A Survey of Non-resident Land Owners in Clare and Gladwin Counties, thesis in Department of Resource Development, Michigan State University, 1970.

Manning, Robert, The Relationship Between Recreation and Leisure-Oriented Living Patterns and Land Use in the Urban Fringe: A Case Analysis, thesis in Department of Resource Development, MSU, 1975.

The first two studies were both made in rather rural areas in the northern lower peninsula. More recently there has been a need for information on what may be happening to land ownership near more urban areas.

The Economic Research Service of the U.S. Department of Agriculture has shown a great deal of interest in land ownership studies and their coordination. According to this author's current findings land ownership studies have recently been completed in Rappahannock County, Virginia (19) and in the Monongahela River Basin, West Virginia. (20) These empirical studies have not always clearly stated their rationale. Other land ownership studies are in progress in Iowa, Oregon, Tennessee, and West Virginia by people at each of their state universities. In addition the Economic Research Service is presently conducting a contracted study of land ownership in the Northeast (Maine, New Hampshire, and Vermont). Contact has been made with all of these ownership studies and with the Economic Research Service. There is a possibility of a joint report on these land ownership studies by the Economic Research Service of the U.S. Department of Agriculture.

#### Summary

In summary there are essentially three forces which are acting on land ownership in Michigan:

- 1) Migration changes
- 2) Recreation Demand
- 3) Farm consolidation and the predominace of part-time farming

<sup>19</sup>Wunderlich, Gene, Land Along the Blue Ridge--Ownership and Use of Land in Rappahannock County, Virginia, July 1975.

<sup>20</sup> Rural Land Use in the Monongahela River Basin, West Virginia University Agricultural Experiment Station, Bulletin 641, August 1975.

The resulting policy issues or choices for government related to the forces of land ownership might be listed as:

1) Encourage retention of agriculture

2) Control of agricultural etc. productive capacity

3) The rural economy and development 4) Performance of land control institutions

5) Control of rights to land--whose preferences count?

- 6) Preservation of open space especially as related to crucial lands
- 7) Food supply

## Perspectives On The Land

The ownership and use of land has a dynamic character. The following sections present an overview of the American land ownership situation. By reviewing a number of readings in the literature, it was possible to put together a section which could be helpful for gaining a better understanding of the historical and current land use situation. The four basic areas that are discussed are all important to the understanding of present rural land ownership problems and trends.

- 1) The historical and legal basis of American land ownership
- 2) The total amount of the American land resource
- 3) Farmland ownership
- 4) Lands in transition

# Land ownership in historical perspective

The land law of the United States, like most other kinds of
American law was inherited from England. The English system emphasized
political and economic freedom for the individual. Individual land
ownership was closely associated with individual economic and political
freedom. The American Constitution which reflected the views of
Thomas Jefferson emphasized a land policy that could be termed
"expanionist, developmental, egalitarian, and laissez-faire." (21)
Jefferson's laissez-faire attitude has often been upheld by those
who favor limited government involvement in land use decisions. But
Jefferson's laissez-faire attitude must not be overemphasized. His
attitude and the attitude of the American Constitution favored a
widely distributed land ownership and that has been an underlying
objective of our Nation's land policy throughout its history. The
dominant role in land ownership policy was given to the states, and

<sup>210</sup>ur Land and Water Resources, Current and Prospective Supplies and Uses, Misc. publication #1290, Economic Research Service, 1974.

only states had the right to tax land. Times have changed in American society and one could expect that land ownership has changed as well. The fact that farmers now constitute only 5% of the population instead of 95% as in colonial days would indicate that there is a defferent role for land ownership. People other than farmers own land and land ownership is not synonymous with farming.

There is another aspect to the change in land ownership which some have described. The rights to land ownership have been changing as land use rights are being redistributed. (22) Persons who do not have fee simple ownership rights to land desire to acquire the right to visit or have access to land. Private property is not being destroyed; it is being redefined. As these people gain a stronger voice in governmental decisions (political power with their numbers) they exercise their power by favoring policy that favors their position. They want open space, not development; they want parks, not parking lots. Local governments responding to their immediate constituency have responded with tough curbs on development and tough stands on local zoning ordinances.

# America's land resources in perspective

According to data from Economic Research Service of the USDA about two-fifths of the land area of the United States is government owned and the other three-fifths or 1.3 billion acres is held privately. (23) Very little data are held on the private ownership of land. Of the 897 million acres of public lands, 763 million acres are Federal lands and 134 million acres are state, county, and municipally held lands.

Nearly two-thirds of all Federal lands and over half of all the

<sup>22</sup>Libby, Lawrence W., "Land Use--Fact and Fiction", Michigan Farm Economics, April 1975.

<sup>230</sup>ur Land and Water Resources, p. 21.

state-owned lands are in the West including Alaska. The proportion of public to privately held lands has remained fairly constant for the last 50 years.

Based on a 1966 Census of Government survey, it was estimated that about 81.6 million parcels of property were on tax assessment rolls in 1971. Excluding joint owners and corporation stockholders there are approximately 50 or 60 million land owners in the country. Most of the ownership parcels are located in urban areas with perhaps as many as 50 million parcels used for housing units.

These data are all very approximate. Breakdown data for given states or counties are either not available or not very accurate. Referring back again to the debate on the Land Use Policy and Planning Assistance Act of 1972 Sen. Jackson also said that he hoped the legislation would provide for the collection of "information on the ownership of land by type of organization--corporate, partnership, or public body, and the like--similar to the information which is now provided by the Census of Agriculture reports. This kind of information would be helpful in projecting future land uses." (24) Farmland ownership in perspective

According to the Census of Agriculture in 1974 there were slightly over one billion acres of land in farms in the United States. About 35% of that farmland was operated by full owners and 52% was operated by persons who own some of the land they farm and rent some other land.

<sup>24</sup> Jackson, Sen. Henry, Congressional Record, Debate on the Land Use Policy and Planning Assistance Act of 1972, September 18, 1972.

There is a greater emphasis on rental land by large operators and small, independent ownership units are no longer the rule in U.S. agriculture. Resource control rather than resource ownership may be the operational concept for areas in which there is predominant agricultural use of the land. None of the other studies deal with this point and it may be too miniscule to include. The differences between ownership and control should be recognized even if it is not clear how to handle the difference.

When focusing in on the land ownership of Kent County the 1974 Census of Agriculture preliminary report (25) can be very helpful. In that report a farm is any place from which \$250 or more of agricultural products were sold, or normally would have been sold, during the census year, or any place of 10 acres or more from which \$50 or more of agricultural products were sold, or normally would have been sold, during the census year.

Data from the Census of Agriculture Preliminary Report 1974 clearly illustrate that the state of Michigan is losing both farms and farm land and Kent County seems to closely follow the pattern of the state. The following three pages of this report display some selected summary items from that Census of Agriculture Report relating to land ownership.

The selected data from the Census of Agriculture shows this amazing similarity between trends in Kent County and trends in the state of Michigan even though Kent County includes only about 2% of the states farms and land in farms. Of all of the classes of data in the following pages a comparison between Kent County and

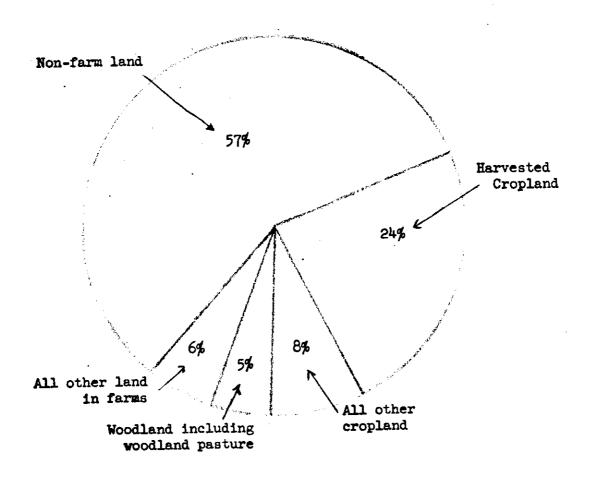
<sup>25</sup>U.S. Department of Commerce, Bureau of the Census, 1974 Census of Agriculture, Preliminary Report, Kent County, Michigan.

the state of Michigan shows that the only case in which the trends differed from 1969 to 1974 was in the case of farms under 10 acres. Kent County showed a decrease of 12% from 91 to 80 and the state of Michigan showed an increase of 25% from 1951 to 2438. All of the other selected items related to farm land ownership showed the same trends in Kent County as for the entire state.

The Census of Agriculture Report provides some useful information related to farm land ownership, but the pie diagram on page 20 shows that only 43% of the land area of the county is included under the broad definition of farm that is used. What is happening in the other 57%?--less than 10% of the Kent County land is in urban use. A study of land ownership in Kent County must include much more than just farm land ownership if it is to be a land ownership study in 1977.

# USE OF THE KENT COUNTY LAND IN 1974

Approximate land area: 548544 acres



# CENSUS OF AGRICULTURE

Selected Summary Items from 1974 Report Kent County, Michigan

•	Kent Co	unty, micr	178au		
				Farms	with Sales
		All Farms		\$1000	and over
	9	1974	1969	1974	1969
All Farms	Number	1796	1897	1608	1347
Land in Farms	Acres	233984	241101	225895	202933
Avg. size of Farm	Acres	130	127	140	151
MAR. 2176 OI LOIM	7.02 00	<b>پر</b> ــ	;		-/-
_					
Farms with Sales				_	- /-
<b>under \$250</b> 0	Number	694	817	506	267
<del></del>		_	·		
Model Cuenland	Farms.	1738	1832	1570	1316
Total Cropland	101=0	1100		->10	
Value of land and					(0000
buildings	\$1000	145955	90773	119725	68073
Avg. per farm	Dollars	81267	47851	108643	63031
	Dollars	624	376	609	379
Avg. per acre	20220	QE-4	5,0	00)	317
Farms by size		0-	•	. 05	li O
<b>Under 10 acres</b>	Farms	. 80	91	37	49
10 to 49 acres	Farms	497	387	<b>1</b> 38	113
50 to 179 acres	Fa.rms	846	1025	565	566
		298	356	287	317
180 to 499 acres	Farms				
500 to 999 acres	Farms	68	34	68	3 <del>1</del>
1000 to 1999	Farms	7	ļŧ	7	<u>ų</u>
2000 and over	Farms	ò	0	0	0
2000 and over	Lates		· ·	•	
* * *					
Land in farms by use	_	0	3.00 <b>0</b>	1000	3057
Cropland Total	Farms	1738	1832	1080	1057
	Acres	174472	177592	153857	138598
Cropland harvested	Farms	1581	1694	1070	1029
Olopiana marvesuez	Acres	132113	111295	122905	98628
			*. ·		544
Cropland pasture	Farms	834	<del>9</del> 68	473	
	Acres	23722	25624	16586	17651
Other cropland	Farms	675	1111	465	(NA)
	Acres	18907	40676	14366	22319
**3333	NOT CO	10901	40010	1,500	
Woodland incl.	· 	01.5	1000	-90	<b>65</b> 0
woodland past.	Farms	915	1092	589	
	Acres	28142	<b>3141</b> 3	21107	21760
All other land	Farms	1410	1503	871	(NA)
	Acres	31100	32093	21631	19247
•	ACT CO	31100	J=\JJ		-/1
Manage of speeds					
Tenure of operator	<b></b>	- 000	11.00	646	665
Full owner	Farms	1272	1423		
Part owner	Farms	457	<b>39</b> 8	402	354
Tenant	Farms	67	76	54	61
Principal occupation	_	- •	•	-	
<del>-</del>	Mo www.	848	(NA)	712	(NA)
<b>Farming</b>	Farms			713	1 :
Other than farming	Farms	930	(NA)	372	(NA)
Avg. age of operator	Years	50.5	50.4	50.6	49.6
•		-			
Farms by type of org.					
	3.1			969	925
Individual or famil	J			116	147
Partnership				770	741
Corporation incl.				<u>۔</u> نہ	,
family own.				16	6
Other				1	2
V 08604				<del>-</del>	

# CENSUS OF AGRICULTURE

# Selected Summary Items from 1974 Report State of Michigan

•					
		ALL	ALL FARMS		
		1974	1969		
43.3 The company	Number	68638	77946		
All Farms	Acres	10919404	11900689		
Land in Farms Avg. size of Farm	Acres	159	153		
Avg. size of Parm	VC* CO	_,,			
Farms with Sales			0.0003		
under \$2500	Number	22787	33781		
		66753	75656		
Total Cropland	Farms	90122	17070		
Value of land and	<b>63</b> 000	6145696	3883355		
buildings	\$1,000	89538	49821		
Avg. per farm	Dollars Dollars	563	326		
.Avg. per acre	DOTTSLS	703	<b>3</b>		
Farms by size		-1 - 0	* 053		
Under 10 acres	Farms	2438	1951		
10 to 49 acres	Farms	15280	14334		
50 to 179 acres	Farms	31701	39876		
180 to 499 acres	Farms	15795	19209		
500 to 999 acres	Farms	2861	2248		
1000 to 1999	Farms	<del>11</del> 58	285		
2000 and over	Farms	65	43		
Land in farms by use					
Cropland Total	Farms	66753	75656		
Olopiana losal	Acres	7961611	8580391		
Cropland harveste		62486	70605		
Or Opening the Control of the Contro	Acres	6217037	550 <b>1</b> 729		
Cropland pasture	Farms	27569	32241		
	Acres	932762	1090891		
Other cropland	Farms	26013	50388		
	Acres	811812	1987771		
Woodland incl.	_	26019	45809		
woodland past.	Farms	36948	1843581		
	Acres	1599041 54819	62391		
All other land	Farms	1358752	1476717		
	Acres	1370172	1410111		
Tenure of operator					
Full owner	Farms	47482	56 <b>2</b> 58		
Part owner	Farms	17835	17440		
Tenant	Farms	3321	4248		
Principal occupation		ماماء	/MA)		
Farming	Farms	34949	(NA)		
Other than farming		33218	(NA) 50.4		
Avg. age of operator	Years	51.3	50.4		
Farms by type of org	. (Sales	1000 and over)	_		
Individual or fami	ly	41929	38519		
Partnership	-	3477	5227		
Corporation incl.	•	- -			
family owned		392	277		
Other		53	152		
<b>—</b> — — —		•	•		

#### Land use in transition

A significant concern of land use policy currently revolves around lands that are in transition. Consequently, recent land ownership studies such as the one in Rappahannock County, Virginia, near Washington D.C. have also been directed toward counties which are feeling the pressures of nearby urbanization. The areas of urban expansion have been called by many different names meaning much the same: urban sprawl, suburbanization, subdivisions, lands in transition, fringe, or included under urban areas, S.M.S.A., metropolitan, or megalopolis. Because of the unique nature of these areas they are relevant for both urban studies and rural studies.

Interestingly enough, much of the literature and many of these terms describe the process as one that goes from the urban center out and largely ignores the reciprocal or complementary process from the rural areas which takes place at the same time. Looking at the process that we are describing from these two perspectives may be helpful for gaining some insights from the literature on the lands in transition (this term is chosen because it has the character of being least value laden of those above.) Marion Clawson has written a book titled Suburban Land Conversion in the United States: An Economic and Governmental Process (26) which is probably the classic text on the subject. The book approaches the lands in transition from the urban perspective. It explains the measures of urbanization and the historical spread of urbanization in the United States. There is a great deal that

<sup>26</sup> Clawson, Marion, Suburban Land Conversion in the United States: An Economic and Governmental Process, published for Resources for the Future Inc., 1971.

can be said on these subjects, but most of us know that the United States population was once largely a rural population but due to a number of forces in the society all operating in the direction of urbanization, the United States is predominantly urbanized. As urban areas attracted more people, they in turn spread out. Thid was largely the process as described by census information and social scientists until 1970 at which time approximately 2/3 of all Americans lived in urban areas and 1/3 of all Americans lived in rural areas. Although there really is not complete information available since 1970 many prominent persons believe and preliminary studies show that some of these trends may have changed. Due to many different factors such as: "back to the country popularity," small-town life, moves to warmer climates and the sunbelt, fear of inner city schools, and disillusionment with cities etc., there are many rural areas which are gaining population at the expense of urban and suburban expansion. For example, the sunbelt south is gaining population tremendously according to preliminary census reports. But increasingly, rural does not mean farm and these terms are not now to be confused as being synonymous.

The northeastern urban complex stretching along the Atlantic from Massarhusettes to Virginia or from roughly Boston to Washington D.C. has been the subject of urban studies for many reasons. While the northeastern urban complex and its cities are unique in many ways, they also reflect many of the population and urban problems which other similar urban areas such as population centers in the Midwest and California may face soon. The urban centers are expanding

into a megalopclis, but there is much land area to fill in. These processes of suburbanization have continued strong since the end of World War II. In relation to this general trend in land use many factors must be closely monitored such as: the general shape of the economy and society, the housing industry in terms of new single family units, replacement of old housing and apartments, and the aging of the population for the next 25 years. In addition to metropolitan expansion there will continue to be some expansion of small towns and the emergence of new towns. The shifts in migration patterns with people leaving cities is a new phenomenon of the 1970's. But even before that trend is documented, the situation of costlier energy may again divert the trends in population migration.

The process of suburbanization and the situation in which it left us requires the planning of land use in every city, county, and region. Government projects are usually acompanied by benefit-cost calculations. In addition to the usual benefit-cost calculations an estimation of the incidence of benefits and costs--who specifically gains, and who loses and by how much should be included.

The Standard Metropolitan Statistical Area is so inclusive it gives a good picture of the physical-economic situation for a given city, but it includes so much rural land that its value for land use studies is limited and may be negative if the researcher is not aware that all of this land is not actually in urban use.

There is much less literature comparable to the "urban out" perspective or from the point of view of the rural looking in toward the cities with respect to the lands in transition. To a great extent

empted nor should it be. As the society became more advanced it naturally became more urbanized and that was where the progress was. At the same time farming became more efficiently productive and there was less demand for people in the rural areas. Opportunity lay in the cities.

Until recently the loss of rural land to urban uses did not cause significant problems except for the problems it caused for some unnoticed individuals. There was always more land for agricultural and other uses—the frontier concept and spirit which has shaped so much of the American perspective.

The recent concern about land use from agricultural and other rural interests revolves around the apparent spread of urban areas into some of the nations best agricultural lands, lands which are described as prime and critical. It has been apparent for some time that America no longer has a frontier. But now Americans have come to the realization that we may well not be able to afford in the long run to give up these prime lands, unique lands, and critical lands. The point is the same--can Americans afford to continue to build, expand, grow, blacktop, and develop our lands in the name of progress. If we take the prime lands it may take twice as much other land to produce the same amount.

A recent paper of the E.R.S. titled Land Use Policy and Agriculture:

A State and Local Perspective, February 1977, (27) attempts to put the national food capacity argument into perspective and then it addresses the agricultural land use issues at the state and local level. That

Cotner, Melvin, Land Use Policy and Agriculture: A State and Local Perspective, Economic Research Service Report #650, February 1977.

report says that the United States is not running out of farmland nor is its agricultural productivity being compromised. The United States will be able to meet anticipated domestic food needs plus moderately high export demands, although there will be some pressure. The report further states that perhaps the most compelling justification for increased concern about the protection of agricultural land comes not from the need to insure adequate food production in the future, which is largely a national issue, but from the state and local issues. These issues—economic, social, and environmental—are directly affected by agriculture. If an agricultural base is desired in an area from a social, environmental, or economic viewpoint, then that fact must be recognized by local planning efforts. A study of local land owners, land use, and land owners opinions is imperative.

America may be in a new period in which the old trends no longer hold. There seems to be a trend toward new housing in rural areas. If this trend is accurate and it continues, it may demand new policy directions. There are some who say that there are no longer large tracts of land available. In many places in western Michigan it appears that ten acre tracts are being cut out of rural areas that were previously farmed. There are so many real estate salesmen around, each trying to cash in on the money to be made in land sales.

# Summary

While much recent literature names the land use question as one of the most critical environmental and social issues of our day, that discussion will be left to others. The focus of this report is on developing a systematic approach to gathering aggregate information on land ownership. However, it is important not to lose track of the

goal of this study. Land ownership information is not a goal in itself. It is valuable only to the extent that it can be used. With this paper as background future researchers and planners should be better informed on how to proceed with a study and report on land ownership.

#### CHAPTER THREE

#### ELEMENTS OF OWNERSHIP THAT ARE IMPORTANT

In response to the general lack of information on land ownership and specifically to deal with the kinds of information that can be used by planners, the next section needs to list the kinds of information that must be covered in a land ownership survey.

Most of these categories are similar to those of other land ownership studies. But the others vary tremendously in length and substance. Some are very interested in land tenure relationships while others devote a great deal of their study to the land owner's opinions about the area in terms of schools and services provided. The list of necessary "information to include" in this report is a recommended list and is what will be covered by the included survey questionaire. Different areas need different information. This list of "information to include" is not meant to be the hard and fast rule. These are meant to be basic categories to be included.

# Residence

The location of an owner's residence may affect the way in which land is operated and transferred. For example, landlords who do not live on their land are less likely to participate actively in the managerial decisions of their land than are resident landlords. Also, owners might be more inclined to sell or trade land on which they do not live because it would not involve a household move for thermselves, nor is it likely that they would have as strong a personal attachment to their land as they would if they lived on it. If the land owners do not live on the parcel of land the questionaire should find what

their permanent or legal residence is. It would be helpful to know whether or not they are residents of the county. This information maynot be so valuable in all cases. In fact there are reports that in Allegan County, Michigan many owners who have second homes in that county have changed their official residence from Chicago etc. to Allegan County. They work in Chicago during the week but they expect to have greater impact as residents of Allegan County. Land acquisition

Owners may use a variety of methods or combination of methods to acquire land, extending over a wide range such as purchase, inheritance, or assumption of tax liability. In part, these methods of land acquisition may give an indication of an owner's personal interest in the care and management of his land.

The method of land acquisition would be divided into purchase and gift or inheritance. Under purchase the researcher would want to know if the land was purchased from relatives or non-relatives. This information can be illustrated in a table as the following:

i	Purchase from		Gift or inhe		
Type of owner	Relatives	Non- Relatives	Full Interest	Part Interest	Other Methods

#### Occupation

Ownership of land is a prerogative of all individuals with sufficient capital to buy land, also of individuals who inherit land or receive it by gift. Under such unrestricted conditions it is clear that the ownership of rural land can be widespread among individuals in many different occupations. The occupation of the owner can affect the operation of rural land especially farmland. The freedom of operational control and the flow of capital and income to and from farms are directly affected by the occupation of the owner and his interest in the land.

Full-time farmers would be expected to be a large group of land owners in agricultural areas. Another group of owners would report dual occupations that included part-time farming and part-time at some other occupation. A business or professional group of owners together with a group of retired nonfarmers may be an important land owning class in the county. Other groups of land owners may be laborers and retired farmers.

#### Age and education

Land ownership is usually found to be skewed toward persons of older age groups. The greater proportion of acreage is usually held by owners in the upper age groups.

The level of education of the land owner provides some insights into the type of people who own land.

#### Type of owner

It is important to have information on the type of owner.

It would be expected that many parcels of land would be owned by a husband-wife group. Not all of the land is owned by individuals.

Some land is owned by partnerships or corporation. It may be helpful information to know how much of the local land area is owned by corporations especially if the amount is sizeable.

#### Tenure

Our system of private property, under which an owner has the right to receive benefits from a resource even though he does not use it himself, leads to a variety of tenure arrangements between land owners and land operators. The separation of ownership and use results because all persons who obtain land may not have the ability, desire, or resources necessary to operate it.

Particularly with regard to farm land the tenure relationships can present helpful information. The various tenure groups to be considered are listed below. The operator groups refer to operators of farmland and the nonoperator classes refer to individuals not operating any farmland.

Full-owner operators: Those who operate land which they own, they do not rent land to or from others.

Part-owner operators: Those who operate land which they own and rent additional land from others.

Full-owner operator-landlords: Those who operate some of the land they own but also rent out some land.

Part-owner operator-landlords: Those who operate part of their own land but also rent land to and from others.

Nonoperator-landlords: Those who operate mone of their land:

and rent land to others.

Nonoperator-owners: Those who operate none of their land and rent none of it to others.

#### Land values

The price of land is related to its use. For example, conversion of some land from agricultural to residential or industrial use is associated with increased land prices. Farmers in an area where such conversions are expected can no langer compete for land. Income from farming will not cover land costs based on residential or industrial

use. High land values usually call for more intensive uses, and land development continues to further increase land values.

For the survey land values would be determined as owners perceived them. The assessors records would show the assessed valuation of the land and could be another source of this land value information. The researcher should recognize some of the problems with determining land values as the owners perceive them. Owners tend to overvalue their own land except to the tax assessor. In conjunction with land values the tax levels for that jurisdiction should be included.

#### Community involvement

A final ownership characteristic to include in a survey is to explore the degree of owner involvement in the community, as represented by various public services. Ownership of a parcel of land implies some sort of attachment of the owner to the land, or an interest in the community where the land is located. The survey questionaire asks owners about the quality of such public services as schools, roads, and recreation. The results of such a survey can help in determining what social services are needed, who the recipients are, and which services should be emphasized in future planning. The survey may also explore the single most important reason for owning the land as perceived by each land owner.

The purpose of this section is not merely to obtain ratings, but to discover whether the respondents have an opinion about the county's public services. Non-residents are likely to be less informed on community problems and issues, and they are likely to be guided by a set of wants and needs for community services that differs from those of the residents. With a high proportion of non-residents reporting no opinion, the researchers would assume that they are either unaware of or unconcerned about community services such as police protection.

## Summary

In summary seven areas of study have been specified as important elements of land ownership:

- 1) Residence
- 2) Occupation
- 3) Age and education4) Type of owner

- 5) Tenure6) Land values
- 7) Community involvement

#### CHAPTER FOUR

## TOWARD A LAND OWNERSHIP INFORMATION SYSTEM FOR KENT COUNTY

The first step in making a report on land ownership for a county is to get an accurate as possible picture of the county: its land and its people. In the case of Kent County this might be done with the use of maps, Census of Agriculture Reports, Extension Reports, and most importantly by meeting with leaders and informed people in the area. The views of people working and living in the area can be an invaluable source and check on information gathered in this type of a study. These people can be a great asset to a study in terms of accuracy, legitimacy, and applicability. Specifically, they can help in the formulation and interpretation of the hard data. It is important to totally understand an area with more than just data when making a study.

## What land to include

Some of the earlier studies of land ownership such as the 1949 study were concerned with farm land ownership. By the early 1960's when a land ownership study was completed for the southeastern United States, the different kinds of land that owners held in the Southeast Region determined that a survey of only farm land owners would be incomplete in describing the patterns of rural land ownership. It would fail to include many important commercial forest holdings and would not provide a complete picture of changes in land use where whole tracts of land shifted out of farm use. Since that time land ownership studies have been rural land ownership studies and not farm land ownership studies.

## What kind of survey

Since land ownership studies include such a large area and so many people, it is just not physically or financially possible to include all land owners as part of the study. Therefore, random surveys have been used to describe the land ownership patterns. If care is taken to make the survey indeed random, as picture of the diversity of land ownership can be represented.

The most common form of survey instrument is the mailed questionaire. With that method the questionaire is sent to a randomly picked sample of landowners in the area. Somewhere between 20 and 60 percent of the mailed out questionaires are usually returned. If the researcher takes all necessary precautions in his mailed survey questionaire, he will get a much better response rate from his questionaire, maybe even above 60% return. Keep the questionaire as brief as possible, as neat as possible, and as authoritative as possible. Be careful for the little details and be sure to include a personal letter explaining the survey and questionaire, a return addressed stamped envelope, and if possible allow the respondee to check a box if he wants a copy of the results.

If the number returned are sufficient for the study and if there is not bias introduced between those who return the questionaire and those who do not, then the results of this mailed questionaire will be very usable.

Another survey technique that has been used in land ownership studies including the recent one in Kent County by the Department of Resource Development at Michigan State University is to obtain the necessary information by means of a personal interview with land owners chosen from a probability area sample of land owners. There are much higher costs associated with this approach and it is therefore

necessary to use a comparatively small total sample of land owners.

A third survey technique is becoming more popular in sampling public opinion, a telephone survey. If the questionaire is kept short this may be a viable alternative.

The mailed survey would seem to be the most practical form of land ownership survey in most cases. It necessitates a convenient and accurate list of land owners from which to draw the sample. In Michigan this is the case. According to Mr. Frank Moss, Equalization Director for Eaton County, each county in Michigan now has an equalization office which keeps up-to-date records (cards, files, and maps) of who owns what land in that particular county. These equalization offices are the place to go to get listings of land and its owners. From these listings every nth parcel for tax purposes can be pulled out of the list to achieve a random sample of the land parcels. These files are kept up-to-date daily with contact with the county Register of Deeds office. With a little help from the county extension office the land ownership base of the equalization office which is somewhat restricted information can be made available for such a land ownership study.

A number of the County Equalization Offices around the state of Mighigan have this information of land parcels and ownership on computer with up-to-date printouts of the entire county and by township and city coming to the equalization office every six months. Some of the counties that have such an information base available include Kent, Eaton, Gennessee, Wayne, and a few others. A computer printout of land parcels and owners that could be used for a study such as this was estimated to cost approximately \$200 dollars.

It appears that other county equalization offices will be soon to follow as this kind of printout information would be extremely helpful to even the smallest counties—the information on who owns what parcel of land is so readily available to the office it has become valuable to real estate offices who call the equalization offices regularly to find out who owns a specific parcel of land.

It is important to note that each county has a land information base with nothing at the state level. Therefore any land ownership study must be done at the county level and the information for each county aggregated if a larger area is desired.

# What land in the county should be sampled

The land ownership studies deal with rural land ownership or in this case whatever is not urban land. In addition land ownership studies deal only with privately held land so public land such as county parks or national forests etc. would not be included in the survey although they are part of the county's over-all land use picture and should be mentioned when describing the county's land use and ownership.

To be eligible for enumeration in some of the land ownership studies, the land parcel had to be 3 acres or more and had to be rural land. Other land ownership studies have required a parcel to be at least 20 acres to be included in the study. The best choice was the recent study made in Kent County, 1975 in which a parcel had to be 11 acres or more to be included in the study. A minimum parcel size of eleven acres was chosen as a limiting criterion in order that only relatively large areas of land would be included in the study and small and obviously residential properties would be avoided. The

specific minimum of eleven acres was chosen in deference to the Michigan Subdivision Control Act of 1968 which regulates land sales practices of 10 acres or less. The Act has resulted in the frequent occurence of subdivisions comprised of lots which are a fraction of an acre over 10 acres in order to avoid these regulations. A minimum parcel size of eleven acres for the research study helps to avoid most of the strictly large lot subdivisions.

#### Why use parcels rather than people as a basis for study

There are really two populations that can be recognized—one of land owners and one of parcels of land owned. The tax parcels recorded in the equalization office of each county provide a convenient way of identifying ownership units within the county. There must be an owner for each tax parcel but there may be more than one tax parcel per owner. Therefore, the number of tax parcels would be expected to exceed the number of persons or organizations who are owners.

The data collected from the questionaire can be illustrated by means of tables and graphs throughout the report. The data are intended to give the reader an estimate of proportion, but are not to be used as precise measures. If the reader then wants estimate numbers rather than percentages, the tabular percentages can be multiplied by the over-all totals of owners, parcels, and acres if they are known.

How many parcels should be included in the survey

# Rejefly, the purpose of survey design is predicion and sec

Every effort is made to obtain the required information of the best quality at the least possible cost. That is why a sample rather than a complete census is taken. A complete census would be a perfect description of the subject under study, but a carefully chosen sample can give very reliable estimates, and a statistically designed sample will indicate just what the chance of error is. A well-designed survey

can provide results that are almost as precise as a full count.

From other similar mailed surveys we know that not everyone replies to questionaire—so an allowance must be made for no response. In the study of Rappahannock County of the 4,765 parcels of land in the county 469 were selected for the survey. Out of that 469 mailed out questionaires 266 usable questionaires were returned yielding a response rate of 57%. For mailed surveys of that type a 57% response rate is considered good.

#### What to do about non-respondents

The researcher must plan on a certain number of non-respondents. If planned he will still have a large enough number of responses to do an analysis. Then he must determine if the respondents differ from non-respondents. A comparison of the non-respondents must be made to the respondents to determine if there was a bias introduced into the sample because only part of the originally contacted group replied. For detailed information on non-respondents a small sample of 20-40 parcels of land per county, for which no response was received, should be selected and the owners interviewed in person or by telephone. In that way the researcher can determine quite well whether a bias has been introduced by the lack of information from the non-respondents.

#### How to obtain a random sample for the survey questionaire

As in any example of sampling the size of the sample needed depends on the variation among members of a population (parcels of land in this survey), not on the proportion a sample is of a population. A one percent sample may be larger than necessary or a 10 percent sample may be too small. If all items in a population were exactly the same, a sample of one could represent all items. It follows then that if there are just a few broad categories, then a smaller sample is required than if there are many categories included in the sample.

For some land ownership studies the size of the land parcels may be an important variable and for other studies location may be an important variable. For example in the 1975 land ownership survey of Kent County, the county was divided into six areas so that the results could be compared among the areas. These variations can only be worked out to fit the particular study. The six areas into which the county was divided for the purposes of the study were described in terms of population density, transportation access to the metropolitan Grand Rapids area, and in terms of current land use. These types of divisions within the study area would have to be worked out for each particular study.

## How often should this type of study be made

There must be a periodic re-sampling of the study area in order to better understand the changes in land ownership. In order for the data to be comparable for each study there must be some conformity in the survey instrument. The farm land ownership studies made at Iowa State University provide the only example of the kind of periodic approach which is necessary. The studies are made at ten year intervals or less if necessary.

# What are some other problems faced by land ownership studies

The researcher must carefully protect the confidentiality of each of the individual responses. His integrity is on the line. That point is made especially important when one hears that some researchers are encountering resistance by persons who fear government pressure from the data or misuse of the data by corporations. The redistributive impacts of land ownership reports have not been carefully enough considered.

In order to obtain the necessary information from land owners the researcher must be representing a respectable organization such as MSU Agricultural Experiment Station or Extension. People respond if they can see the need for the research. The integrity of the report then relies on the integrity of the researcher.

THE QUESTIONAIRE

MICHIGAN STATE UNIVERSITY
Department of Agricultural Economics
Cooperative Extension Service

William Van Dam 2460 Plymouth Dutton, Michigan 49506

Dear Mr. Van Dam:

As you may know Michigan State University, through its Cooperative Extension Service and Agricultural Experiment Station, has a long history of researchactivity which is designed to help meet the needs of the State's citizens. This work covers a wide variety of topics including agriculture, home economics, management of recreational enterprises. Right now we are engaged in a study of rural land ownership and the focus of our study is Kent County.

The reason we are writing to you is to ask your cooperation in this project. All that is required is that you fill out our questionaire and return it in our stamped envelope.

We should add that your name was selected at random as an owner of more than ten acres of land in certain designated areas of Kent County. It is especially important that we have your help if at all possible.

If you have any questions about the study or your role in it, please feel free to call us collect at (517) 353-9751. You may also request a copy of the final results of this study if you wish.

Sincerely yours

Jack Vische

Jack Visscher Project Coordinator

Larry Libby Project Director

#### Survey Questionaire

As we explained in our letter, this questionaire deals primarily with questions about your property. There aren't any "right" or "wrong" answers to any of the questions; we're simply interested in some facts about your particular piece of property. In order for the questionaire to be useful, you will have to be as candid as possible. All your answers will be held strictly confidential and neither your name nor your property will be associated with your answers.

	At the outset it should be made clear t	that these quest	ions
	refer specifically to your acre tra	et of land which	h is
	located in sectionofTownship.	•	
Residence	1.1 According to public records as of Jan. 1 1977 you owned whole or part interest in this tract of land. (If acreage is not shown please write in	n'	
	1.2 What is the location of your residence?  on the survey parcel  adjacent to the survey print the neighborhood  in a nearby city  other (specify)	parcel	
Acquisition	2.3 In what year did you acquire the tract?	}	year
	<b>(</b> -1102 011 011 1010)	Purchase Inheritance Gift Other (specify)	

	2.5 Reason (or reasons) for acquiring	•
	If more than one reason write "1" for the most impo	rtant
	"2" for second in importance and "3" for third in i	mportance
	(If you inherited or were given the tract, check th	e hox
	showing the reason for keeping the tract)	o cox
	and the second second second second	
	Investment	
	For personal operation such as farm, timber	
	or commercial enterprises	
	For rental income	-
	For future sale	
	Residence	
•	Primary	
	Secondary (or vacation) home	
	Other esthetic or personal reasons	
	Open country recreation	
	Protection of other land	
	To keep in the family	Allegan States
	Other reasons (please specify)	
	ounce reasons (prease specify)	
Occupation		
	2 6 What is your assumption (main source of durant mulustan	. 7 4 4
	3.6 What is your occupation (main source of income, princip	ar activity)(check one)
	Farmer (self-employed)	allegations, to
	Farm worker (employed by others)	
,	Professional, technical, or managerial	
į	Clerical, sales	
	Craftspan, operator, worker	
	Other employed	
	Not employed, retired	<del>algial el</del> e.
	Not employed, other	qdigdig valu
		-
	•	
	3.7 How far do you travel to work (round trip)?	
	Del men and de des caster of horn (round orab).	**************************************
	3.8 Where is your place of main employment	
	In Kent County	attacked victors
	Outside Kent County	والتباه والباد
	Not employed	`
		_
	3.9 Flease check your economic group (cross avg. annual income	ome all sources)
	less than \$5000	
	<b>\$5000 to</b> \$9099	
	10000 to 19999	
	20000 to 49999	
	50000 and over	

Age and Occi												
•	4.10 I	Please che	ck your		than 25 34 44		-					
				55 to			-		•			
	4.11 F	Please cir	cle numb	per of y	ears of	formal	school	Ling				
		7 or less	8	9 10	11	12 13	14	15	16	17	18 or more	<b>:</b>
Type of owner Tenure Land values	6.13	Hu A An Go Ot Is the own Fu Pa No No	single sband-wipertners estate corporatermenther (experimental experimental experim	individuatife ship (other ship (other ship) tion or and in plain) he land respect operater operater operater operater operater operater or and lor-owner	her tha ttled) company stituti specifi or or land or-land	n husbar ons ed in qu lord	nd-wife	a 1.1				
The total of the t		Have you m	ade cha	nges in	the use	of all	or par	rt of	the t	ract	since acqui	isit
				yes		no	and the state of t					
		Build	•	heck a b Cron			ne of : ture		made odlan		Other	
		<del></del>							-		P 1000010	
	7.15	What would of this t						r acre		et pr z acr		
		What would of this t						r acre				
		Prices of you think	lend i this t	n Kent C	ounty h	ave inc	reased e, les	in re	cent about	years the	. Do average?	

Community Involvement
8.16 How would you rank the quality of the following public services
in Kent County?

Good Adequate Inadequate No opinion
Schools
Police protection
Fire protection
Road maintenance
Parks and recreation
Trash disposal
Building inspection control
Administration of zoning
Tax assessment
County Extension programs
Other (specify)

8.17 If you could specify how \$100 of your County taxes were to be spent among the 3 most important services, how would you distribute the \$100 among the above items.

lst	\$
2nd	\$
3rd	\$
	Total \$100

#### CHAPTER FIVE

#### POLICY CONCLUSIONS

Land ownership is important for reasons beyond the scope of this paper. As a commodity land is important to private markets and to public policy; as an institution land is important in law and economics; as a resource land is important for agriculture and for other uses; as a matter of history land ownership has proved to be important to both an agrarian and a highly industrialized and developed society.

The importance of land ownership goes back to ancient and biblical times. Land ownership as an American institution goes back to the early European settlements and is based on the American Constitution.

(In Michigan much land policy was set by the Northwest Ordinance 1787)

There has never been much information on who owns the American land and why!

The basic theme of this paper is still applicable: there is a lack of good aggregated data on land ownership. The problem posed for the paper was not only why a land ownership information system was necessary, but also what would be the best way to conduct and report on land ownership in a systematic fashion. A land ownership survey instrument was developed and recommended as the means of obtaining a land ownership data base. If the data is combined with analysis a helpful land ownership system can be developed for any county in Michigan. The appendix includes the results of an application.

The conclusion of this report is basically the conclusion of land ownership surveys and studies: Information gathered from a single land ownership survey or a set of one-time planning maps are insufficient for the continuing process of land use planning.

Continually updated information on land use changes, construction, ownership transfers, land value changes, recreational resources, and other resource changes will aid planners and public officials in performing their tasks better.

Regarding land ownership studies and land ownership information the same general position holds. It would be more helpful to do periodic studies of land ownership to see what changes are taking place. At Iowa State University this idea has been carried out. The current farm land ownership study in Iowa is part of a series of farm land ownership studies of Iowa which describe the changing pattern of farm land ownership in Iowa. Previous studies have been made in 1949, 1959, and 1969. The fourth study is the present one being completed in 1977. The data from each study is kept so that it can be compared with the others. Each of the studies is patterned after the others so that current data can be analyzed in relation to the previous studies. The agricultural technology and economic conditions of the intervening years influence and change the farm ownership structure.

The second major conclusion of this report is that there is no one single land ownership survey to be used in all cases. The sample questionaire and surrounding material provided in this text is provided as an example. It is not the last word and may not be the best land ownership survey instrument to be used in all cases.

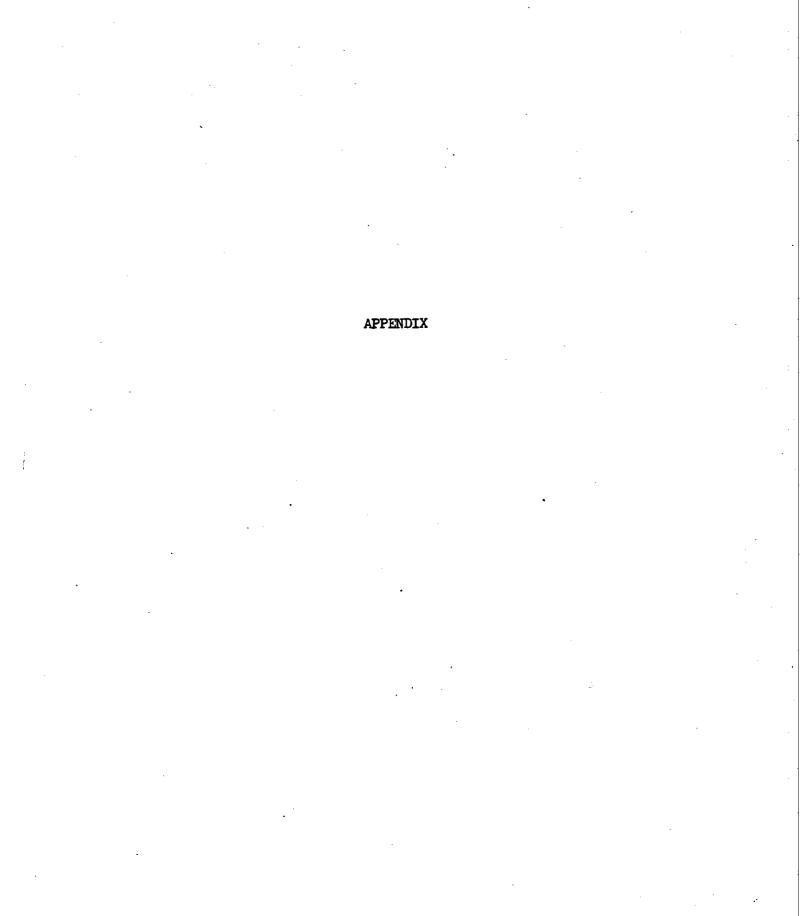
Land ownership surveys differ in their purpose and the survey instruments differ as well. This report presents a model for making a land ownership survey, but it is nothing more than a model. If the purpose of the study makes it necessary for the researcher to include extra parts and delete others, then the changes should certainly be made.

There are advantages to following a model which should not be overlooked. The text of this report and the survey were designed to be used for land ownership study of Kent County, Michigan with the intention that the same instrument could be used in any other Michigan county as well. Other areas and researchers may want to vary the model to fit their specific area. However, the model should be adhered to as much as possible in the interest of conformity. If the same instrument is used in a number of neighboring counties, then the data can be aggregated for a multi-county region. If the same instrument is used in a state-wide study as well as in a single-county study then those results can be compared as well and the researcher can find how the county compares with the results of the state as a whole. If the same instrument is used in each periodic study then those results can be compared as well.

The final conclusion provides a proper ending to this reportproper in that it provides an ending point, but maybe not the same
conclusion that every equally informed person would reach. There
are reservations regarding this type of land ownership study.

A land ownership study such as the one proposed in this report provides a good opportunity for a graduate student to do original research. The universities may be the best place for this research. No one else is collecting the information because it apparently is not being demanded.

The relationship between land use and land ownership has not yet been clearly determined. Land ownership was give some indication of future land use in conjunction with other data. Hopefully, land ownership studies can and will be pursued by student researchers with the information made available for others to use.



#### Appendix

The proposed questionaire instrument needed to be tested.

As part of this research a pre-test of the questionaire was conducted. The purpose of the pre-test was to test the questionaire in the same way as it would be used--sent to the same type of people to get their response. The small pre-test was not intended to obtain statistically significant results, only to test the questionaire to see what changes should be made in it. This appendix includes the questionaire instrument as it was mailed and an analysis of the results.

The questionaire was applied as suggested in this report. A list of names and addresses of land owners was obtained from the Equalization Office of Eaton County, and the pre-test was performed in that county. The Eaton County test area was convenient, similar to Kent County, and would show the applicability of the survey instrument to other counties in Michigan. The list of land owners was selected somewhat randomly. They were all individual owners or husband-wife owners who owned more than 10 acres of land in the county and according to public records owned only one parcel of land. The questionaire asked questions of that parcel of land only. Twenty questionaires were mailed out on June 2, 1977 and it was requested that they be returned by June 7. By June 9 thirteen of the questionaires were returned and were usable.

Eaton County does not have large land parcels of 300 acres or more. This was reflected in the results. The land parcels for which responses were received ranged from 17 acres to 197.62 acres and averaged 61 acres. The nonrespondent's parcels averaged 70 acres.

#### Residence

The residence of land owners does not seem to be an important issue of land ownership in Eaton County. Most of the land owners are residents of the county at this time.

Residents	Number 11	Percentage of owners 85	% of land owned 95
Nonresidents	2	15	5

## Acquisition

Most of the land surveyed was acquired by purchase. Two of the parcels were acquired by inheritance and the other eleven parcels were purchased.

An important finding of this acquisition section of the questionaire was to discover trends in the land acquired. By relating the date parcels were acquired and the size of the holdings, it was discovered that the more recent acquisitions were all smaller parcels and all of the large parcels were acquired some time ago.

Date Parcels Were Acquired

Date acquired	% of parcels	% of land owned	Size of holdings
1965-1976	. <b>3</b> 8	20	40,36,20,40,20
1955-1964	31	45	40,55.29,197.62,60
1945-1954	23	28	156,52,17
1935-1944	8	7	59•3
			703 21

The reasons for acquiring and holding land in Eaton County were primarily primary residence and personal operation. The two nonresidents listed future sale and open country recreation as their reasons for acquiring the land.

Reasons for acquiring	•
Primary residence	Number of parcels
Personal operation such as farm	5
Other	2

#### Occupation

There was a wide range of occupations represented by the land owners in Eaton County.

Occupation of the land owner

Occupation	Number	Percent of owners
Farmer (self-employed)	Ħ	31
Farm worker (employed by others) Professional, technical, managerial	4	31
Clerical, sales	i	8
Craftsman, operator, worker	2	15
Other employed Not employed, retired	2	15
Not employed, other	_	- <b>-</b> -

The gross average annual income of the land owners fell almost entirely within the two ranges (\$10,000-\$19,999 or \$20,000-\$49,999) with only one land owner in the \$50,000+ category. Only one of the land owners traveled more than 12 miles (round trip) to work each day and his distance was 20 miles.

## Age and Education

The average age of land owners in Eaton County was approximately 50.1 and the average number of years of formal schooling was 13.4.

Age group	Age o	f landowners f owners	Percent of land	owned
less than 25 25 to 34 35 to 44 45 to 54	ô 28 23 31		0 15 <b>15</b> <b>19</b>	
55 to 64 65 and over	23 15	*	47 14	

Educ		
Years of school	% of owners	% of land owned
7 or less	0	0
	61	83
8-12 13-16	31	14
17 or more	8	3

## Type of owner

All land owners in this survey were either a single individual or a husband-wife land owner. This seems to be the primary ownership form in Eaton County. According to the public records there were some corporation land owners in the county, but they were primarily smaller than 10 acre parcels.

#### Land values

There was a wide variation in the land values as estimated by the land owners. The average was approximately \$600 per acre but the range was from \$300 to \$1500 an acre just for the land without buildings.

Question number 14 which concerned changes in the parcel since acquisition drew some interesting responses. Almost all of the land owners indicated they had made some changes in the use of their tract since acquisition except for those who had acquired the tract very recently. One other respondent's reaction was that the question was unclear.

#### Community involvement

This section was an attempt to get the opinion of the land owners on local public services. Most opinion surveys are public opinion type polls and the opinions of the general population may differ from those of land owners. One must keep in mind that most of the local public services are paid for by property taxes which directly affect land owners.

The public services in general were viewed as adequate. Tax assessment and police protection were given the lowest ratings and were sometimes viewed as inadequate.

The land owners were most concerned about crime prevention and education. There was a heavy emphasis on spending for schools and police protection. While nearly 80% of local property taxes goes toward schools in some of these areas, the land owners wanted to put only 50% toward their schools.

#### Conclusions of the pre-test

At the conclusion of the pre-test and its analysis there are some important points still to be made. Some interesting results were:

- 1) Of the 20 recipients of the questionaire two of the parcels

  were owned by women and neither of them returned the questionaire.

  Three of seven of the individual men owners did not return

  the questionaire either. Only two of eleven of the husband
  wife owners failed to return the survey questionaire.
- 2) Nonresidents seemed to be less concerned and less interested in the public services of the county. One of them didn't even respond to that part of the questionaire.

The results of the pre-test indicated that there may be some changes to be made in the questionaire. One suggestion would be to indicate the primary use of the parcel at the present time. For example if the parcel was a farm, it would be interesting to find out what kind of farm. Since one of the uses of this data would be to indicate land use trends another question might ask the land owner what changes he foresees for his parcel in the next five years.

Although the pretest was conducted to test the questionaire instrument and not to obtain statistically valid results, the findings of the pretest suggest some areas that deserve additional attention:

- 1) A further investigation of the nonrespondents group since there was a group of single individuals who did not respond.
- 2) Nonresident owners in the county and their reasons for holding the land compared to the reasons of residents.

3) The relationship between smaller land holdings and younger people.

What does the trend toward smaller parcels of land mean for the county? It quite obviously indicates that these land owners are not interested in full time farming operations.

**COOPERATIVE EXTENSION SERVICE** 

MICHIGAN STATE UNIVERSITY and

U.S. DEPARTMENT OF AGRICULTURE COOPERATING

AGRICULTURAL ECONOMICS
AGRICULTURE HALL

EAST LANSING · MICHIGAN · 48824

Dear Sir:

We are writing to request your cooperation in designing a survey instrument for a study of rural land ownership. Similar studies have been conducted in other states. Our major purpose is to suggest the components of a land use information system.

We are now at the stage of pre-testing our questionaire. All that is required is that you fill out our questionaire and return it in the stamped envelope.

We should add that for this pre-test your name was taken from a list of land owners in Eaton County. It is especially important that we have your help if at all possible and as soon as possible. Please return the questionaire by June 7.

If you have any questions about the study or your role it it, please feel free to call us collect at (517) 353-9751. We would greatly appreciate your comments at the end of the questionaire.

Feel free to suggest changes in the questionaire.

Sincerely yours,

Jack Visscher

Graduate student

Larry Libby Professor

## Survey Questionaire

'As we explained in our letter, this questionaire deals primarily with questions about your property. There aren't any "right" or "wrong" answers to any of the questions; we're simply interested in some facts about your particular piece of property. In order for the questionaire to be useful, you will have to be as candid as possible. All your answers will be held strictly confidential and neither your name nor your property will be associated with your answers.

		_	_				
R	80	4	А	41	n	^	ρ

Residence	1.1 Are you a resident of Eaton County?	yes	no
	Tit we los a regració er maen anni l	, <u></u>	
	1.2 How many acres of land do you own in I	laton County?	
Acquisition	2.3 In what year did you acquire this land	1?	
		<del></del>	
	2.4 How did you acquire the land?		
	(check one or more)	Purchase Inheritance Gift Other (spec	

	2.5 Reason (or reasons) for acquiring	
	If more than one reason write "1" for the most im	portant
	"2" for second in importance and "3" for third in	importance
	(If you inherited or were given the tract, check	the hor
	(II you imprised or were given the treet)	
	showing the reason for keeping the tract)	
	Investment	
•	For personal operation such as farm, timber	
	or commercial enterprises	
	For rental income	<del></del>
	For future sale	<del></del>
	Residence	•
	Primary	
	Secondary (or vacation) home	
	Other esthetic or personal reasons	
	Open country recreation	
	Protection of other land	
	To keep in the family	
	Other reasons (please specify)	
	(2000)	
Occupation		
	3.6 What is your occupation (main source of income, princ	ipal activity)(check one
	Farmer (self-employed)	·
	Farm worker (employed by others)	
	Professional, technical, or managerial	
!	Clerical, sales	
	Craftsman, operator, worker	•
	Other employed	
	Not employed, retired	
	Not employed, other	-
		•
	3.7 How far do you travel to work (round trip)?	
•	•	
	3.8 Where is your place of main employment	
	In Eaton@County	
	Outside Eaton County	
	Not employed	
	•	
	3.9 Please check your economic group (gross avg. annual	income all sources)
	less than \$5000	
	\$5000 to \$9999	
	10000 to 19999	
	20000 to 49999	
	50000 and over	
	7000 mm 0.02	

)

ge and Edu	
	4.10 Please check your age group:
	less than 25
	25 to 34
	35 to 44
	45 to 54
	55 to 64
	65 and over
•	
	4.11 Please circle number of years of formal schooling
	7 or less 8 9 10 11 12 13 14 15 16 17 18 or more
	7 or less 8 9 10 11 12 13 14 15 16 17 18 or more
lype of owner	er
	5.12 Is the owner of the land specified in question 1.1
	A single individual
	Husband-wife
	A partnership (other than husband-wife)
	An estate (not settled)
	A corporation or company
	Government and institutions
	Other (explain)
<b>Fenure</b>	
	6.13 Is the owner of the land specified in question 1.1
	Full-owner operator
	Part-owner operator
	Full-owner operator landlord
	Part-owner operator-landlord
	Nonoperator-landlord
	Nonoperator-owner
Land values	
Dalla Varaca	7.14 Have you made changes in the use of all or part of the tract since acquisition
	1.24 mayo you mado distribut and and a
	yes no
	If yes check a box for each type of change made
	Buildings Cropland Pasture Woodland Other
	Dull 1183
	7.15 What would you estimate to be the current per acre market price
•	of this tract, including buildings?  \$ per acre
	AT AITO ATOLA TITATAMATIND AMMERICA.
	What would you estimate to be the current per acre market price
	of this tract without huildings \$ per acre
	of this tract without buildings \$per acre
	a deal to Wood County have increased in recent years. Do
	Prices of land in Your County have increased in recent years. Do
	you think this tract has increased more, less, or about the average?
	More About the same Less

Community Involvement

8.16 How would you rank the quality of the following public services in Your County?

Good Adequate Inadequate No opinion

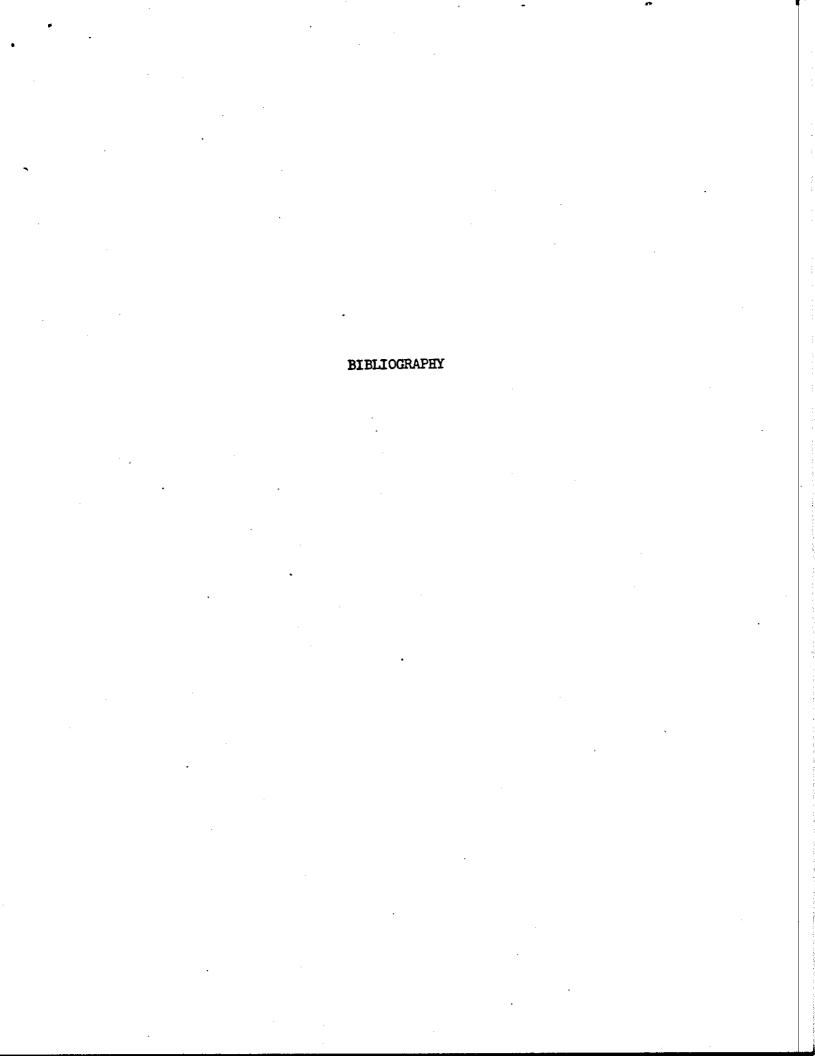
Ser 4.5 Schools

Police protection
Fire protection
Road maintenance
Parks and recreation
Trash disposal
Building inspection control
Administration of zoning
Tax assessment
County Extension programs
Other (specify)

8.17 If you could specify how \$100 of your County taxes were to be spent among the 3 most important services, how would you distribute the \$100 among the above items.

1st 2nd	\$
3rd	\$

Comments: Please feel free to suggest changes in the questionaire because that is the function of the pre-test.



- Agricultural Planning Handbook--Identifying Long-term Productive
  Farm Land, Metropolitan Council of the Twin Cities Area, St. Paul,
  Minnesota. July 1976.
- Akintola, Jacob et al., <u>Rural Land Use in the Monongahela River</u>
  <u>Basin</u>, West Virginia Agricultural Experiment Station Bulletin #641.

  August 1975.
- Barrows, Richard L., Lower Taxes for Farmland and Open Space, Cooperative Extension Programs, University of Wisconsin. November 1974.
- Beale, Calvin L., "A Further Look at Nonmetropolitan Population Growth Since 1970", American Journal of Agricultural Economics, Vol. 58, No. 5. December 1976.
- Boxley, Robert F., Landownership Issues in Rural America, Economic Research Service, USDA, Report #055. April 1977.
- Clawson, Marion, "Economic Implications of the Recent Population Shift Toward Rural Areas," American Journal of Agricultural Economics, Vol. 58, No. 5. December 1976.
- Clawson, Marion, Suburban Land Conversion in the United States: An Economic and Governmental Process, Published for Resources for the Future Inc., Johns Hopkins Press, Baltimore and London, 1971.
- Cotner, Melvin, Land Use Policy and Agriculture: A State and Local Perspective, Economic Research Service, USDA, Report #650, February 1977.
- Ferris, John N. and K.T. Wright, Status of Michigan Agriculture 1976, Agricultural Economic Report No. 299, Department of Agricultural Economics, Michigan State University, October 1976.
- Huemoeller, William A. et al., Land Use: Ongoing Developments in the North Central Region, Center for Agricultural and Rural Development, Iowa State University, Ames, Iowa. September 1976.
- Kimball, William J. et al., Community Needs and Priorities as Revealed by the Michigan Public Opinion Survey, Summary of Results for West Michigan (Region 8), Department of Resource Development Cooperative Extension Service, and the Agricultural Experiment Station, Michigan State University, East Lansing, Michigan. March 1977.
- Libby, L.W., "Land Use--Fact and Fiction," Michigan Rarm Economics #387 Cooperative Extension Service, Michigan State University, East Lansing, Michigan. April 1975.
- Libby, L.W., "Why Rural Planning and Zoning?" Michigan Farm Economics #336, Cooperative Extension Service, Michigan State University, East Lansing, Michigan. January 1971.
- Manning, Robert, The Relationship Between Recreation and Leisureoriented Living Patterns and Land Use in the Urban Fringe: A Case Analysis, thesis in Department of Resource Development, Michigan State University, 1975.
- McEwen, Douglas, A Survey of Non-resident Land Owners in Clare and Gladwin Counties, Thesis in Department of Resource Development, Michigan State University. 1970.

- O'Hare, William, Beegle, J. Allan, and Leonard, Jim, Recent Changes in Population Growth and Distribution in Michigan, unpublished report, Sociology Dep. Michigan State University. May 1977.
- Our Land and Water Resources, Current and Prospective Supplies and Uses, Misc. publication #1290, Economic Research Service, USDA, 1974.
- Ownership of Rural Land in the Southeast, Agricultural Economic Report #46, Economic Research Service, USDA, December 1963.
- Perspectives on Prime Lands, Background papers for seminar on retention of prime lands, USDA, July 16-17, 1975.
- Protection of Essential Lands, Conference Proceedings, Michigan State University, April 8-9, 1976.
- Rainey, Kenneth D., "Forces Influencing Rural Community Growth"

  <u>American Journal Of Agricultural Economics</u>, Vol. 58, No. 5,

  <u>December 1976</u>.
- Schmid, A. Allen, "Rural to Urban Land Conversion", Hearings before the National Commission on Urban Problems, Vol. I, Washington D.C. U.S. Government Printing Office, 1968. p. 314-21.
- Timmons, John and Barlowe, Raleigh, Farm Ownership in the Midwest, North Central Regional Publication #13, Ames, Iowa. June 1949.
- Thompson, Ronald L. and Ralph E. Help, Description and Analysis of Michigan Small Farms, Research Report #296 from the Michigan State University Agricultural Experiment Station, March 1976.
- Vertrees, Robert, A Survey of Non-resident Land Owners in Antrim and Kalkaska Counties, thesis in Department of Resource Development, Michigan State University, 1967.
- Verwey, David L. editor, Michigan Statistical Abstract, Division of Research, Graduate School of Business Administration, Michigan State University, Eleventh Edition, 1976.
- Wunderlich, Gene, Land Along the Blue Ridge--Ownership and Use of Land in Rappahannock County, Virginia, Economic Research Service, USDA, Agricultural Economic Report #299, Washingto D.C. July 1975.
- Jackson, Sen. Henry, Debate on Land Use Policy and Planning Assistance Act of 1972, Congressional Record, Vol. 118, No. 145, September 18, 1972.