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ABSTRACT

EXPENDITURE PATTERNS AND SERVICES RENDERED BY MICHIGAN TOWNSHIPS, 1945 - 1958

by Johannes Delphendahl

The purpose of this study is to describe and analyze the type of services provided by Michigan townships. It was assumed that townships located near urban centers provide more services than townships in agricultural or northern counties. Special emphasis is directed toward the change of the revenue and disbursement pattern of townships as affected by the costs for additional services provided.

A random sample stratified by the geographical location of the townships was drawn. Thirty-nine urbanized, 43 agricultural, and 40 northern townships were sampled in 1957, and in 1958, 43 urbanized, 49 agricultural, and 39 northern townships were sampled. The expenditure patterns and services rendered were analyzed.

The data support the assumption that local governments in the urban-rural fringe area provide more services than governments in rural locations. Seventy-two per cent of the urbanized townships, 37 per cent of the agricultural group, and 44 per cent of the northern townships rendered police protection in 1958. Most of the urbanized townships maintained full-time fire departments while agricultural and northern townships either supported a voluntary fire

department or had contractual agreements with adjacent townships or municipalities to provide fire protection.

Agricultural and northern townships financed their services almost exclusively through State-collected locally-shared revenues, while 85 per cent of the urbanized townships collected property taxes to support the services rendered by the township government.

Expenditures for maintenance and construction of roads ranked first percentagewise of all disbursements among all three groups of townships. Disbursements for fire protection and for general administration followed.

A second stratified sample was drawn. It contained 5 urbanized, 5 agricultural, and 5 northern townships.

State-collected locally-shared taxes increased substantially as sources of revenue from 1945 to 1958. Property taxes declined correspondingly. The indices of total expenditures (1945 = 100, in constant 1958 dollars) increased at a lower rate for the urbanized townships than those for the agricultural and northern townships.

The urbanized townships rendered a greater number of services in 1945, and added more services between 1945 and 1958 than either the agricultural or northern group. New services provided included: police and fire protection, recreational facilities, and township libraries.

Expenditures for road maintenance ranked first. Disbursements for fire protection and for general administration

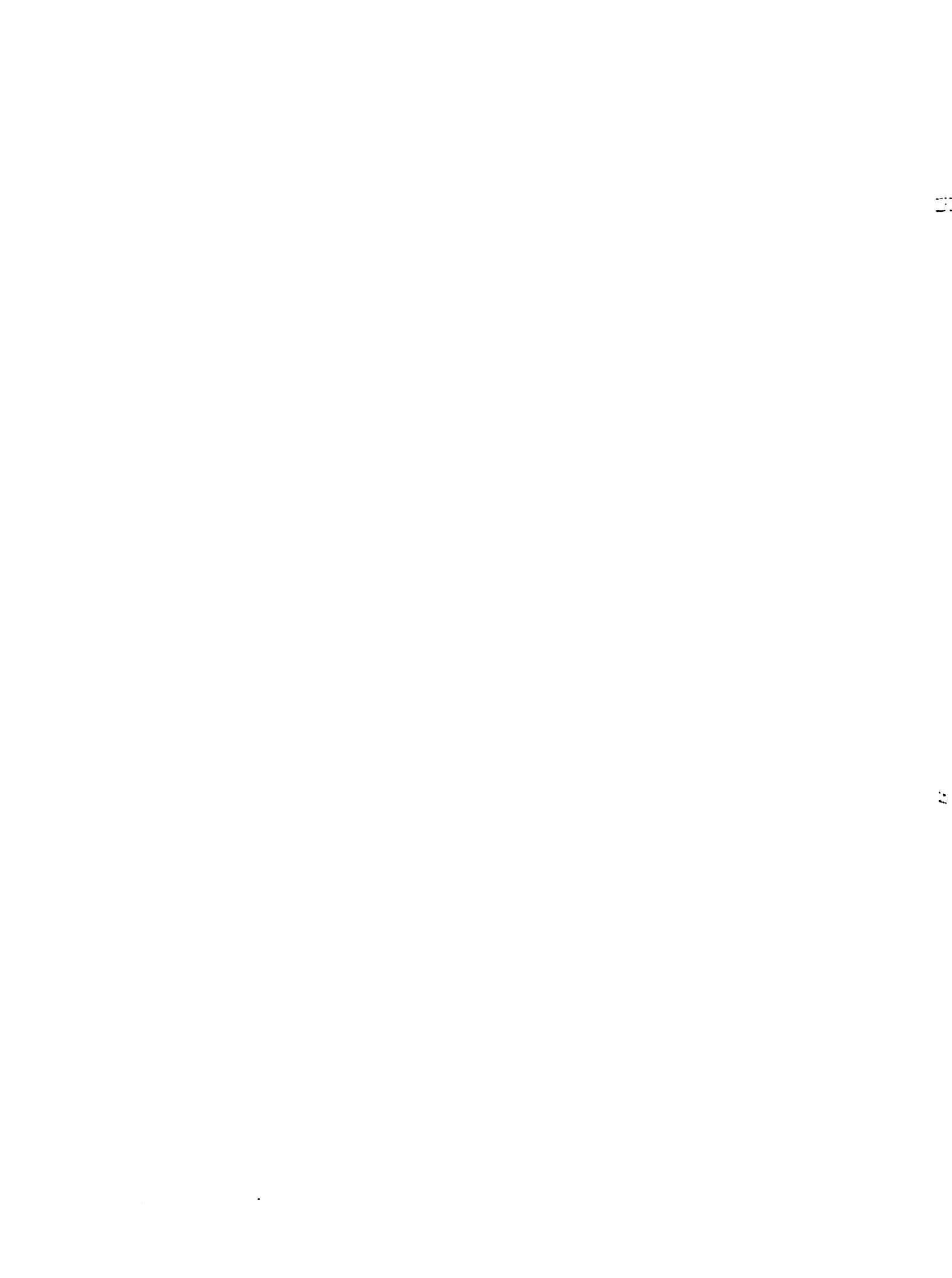
followed. The disbursements of all three township groups followed the same expenditure pattern.

The agricultural townships added maintenance of cemeteries, and water and sewer facilities as the only new services between 1945 and 1958.

A common characteristic of the disbursement pattern of the northern townships is the large per cent of total expenditures spent in 1945 and 1958 for maintenance and construction of roads. It can be concluded that these expenditures represent the major services performed by the northern townships.

Property taxes are levied by three levels of government: the counties, the school districts, and the townships or municipalities. The urbanized township levied higher property tax rates on the average than the other two township groups. The county and the school district property tax accounted for the largest part of the total levy. Only two of the sampled townships levied property taxes throughout the entire period analyzed.

The services provided by the agricultural and northern townships are duplicated by each of these governments located in sparsely settled areas. It appears from the data that county governments and township governments should consider the possibility of consolidation of their services. Most of the services rendered by the urbanized townships could be transferred to an adjacent municipality.



EXPENDITURE PATTERNS AND SERVICES RENDERED
BY MICHIGAN TOWNSHIPS, 1945 - 1958

By
Johannes Delphendahl

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TABLE OF CONTENTS

| <u>Chapter</u> | | <u>Page</u> |
|----------------|---|-------------|
| I | INTRODUCTION. | 1 |
| | Objectives. | 21 |
| | The Sample. | 22 |
| | Source of Data. | 38 |
| II | LITERATURE REVIEW | 40 |
| III | ANALYSIS OF THE FINANCIAL STRUCTURE OF 150 TOWNSHIPS IN MICHIGAN FOR FISCAL YEARS 1957 AND 1958 | 59 |
| | History of Michigan's Tax Structure since 1945. | 59 |
| | Number of Local Governments in Michigan, 1952 and 1957 | 64 |
| | Aggregate Revenue and Expenditures of Michigan Townships. | 67 |
| | Number and Kind of Services rendered by Town- ships in Michigan in 1957 and 1958 | 76 |
| | The Revenue Patterns of the sampled Townships in 1957 and 1958 | 84 |
| | The Disbursement Patterns of Townships in 1957 and 1958 | 91 |
| | Relationship of the major Services to Total Disbursement | 92 |
| | Debts of the Urbanized Townships. | 101 |
| IV | CHANGE OF SERVICES PROVIDED BY MICHIGAN TOWNSHIPS FROM 1945 TO 1958. | 103 |
| | Revenue Patterns of Townships, 1945-1958. | 105 |
| | The Property Tax Index. | 106 |
| | State-Collected Locally-Shared Taxes as Source of Revenue. | 126 |
| | Index of State-Collected Locally-Shared Taxes Received by Townships, 1945 = 100. | 136 |
| | Disbursement Pattern of Selected Michigan Townships, 1945, 1950, 1953, 1957, 1958. | 138 |
| | Urbanized Townships | 139 |
| | Agricultural Townships. | 148 |
| | Northern Townships. | 155 |
| | Expenditures per \$1,000 of Assessed Valuation. | 159 |
| | Average Total Expenditures and Average per Capita Expenditures | 159c |

TABLE OF CONTENTS (continued)

| <u>Chapter</u> | <u>Page</u> | |
|----------------|--|---------|
| V | CHANGES IN THE PROPERTY TAX RATES, AND THE RELATIVE IMPORTANCE OF THE COUNTY, SCHOOL DISTRICT AND COUNTY LEVY, 1945 TO 1958. | 160 |
| | The Total Property Tax Levy. | 161 |
| | The Importance of the County, School District and Township Property Tax Rate. | 168 |
| | Urbanized Townships. | 168 |
| | Agricultural Townships | 170 |
| | Northern Townships | 172 |
| VI | SUMMARY AND CONCLUSIONS. | 174 |
| | BIBLIOGRAPHY | 179 |
| | APPENDIX | 184 |

LIST OF TABLES

| <u>Table</u> | <u>Page</u> |
|--|-------------|
| 1 Population of Selected Urbanized, Agricultural, and Northern Counties, 1940, 1950, 1958 and 1960; Population Changes 1940-1950, 1950-1958 and Per Cent of Urban Population | 4 |
| 2 Population Density of Selected Michigan Counties in 1940, 1950 and 1958, (Persons per Square Mile). | 9 |
| 3 Areas of Selected Michigan Counties, in Square Miles. | 13 |
| 4 Number of Farms and Proportion of Land in Farms, Michigan 1935-1954 | 14 |
| 5 Number of Farms and Land in Farms in Urbanized, Agricultural, and Northern Counties and Townships of Michigan, 1945, 1950, 1954. | 15 |
| 6 Number of Local Governments in Michigan, 1952 and 1957 | 65 |
| 7 Aggregate Revenue of Michigan Townships in 1957. | 71 |
| 8 Aggregate Expenditure of Townships in Michigan, in 1957, by Character and Object | 72 |
| 9 Aggregate Expenditure of Townships in Michigan, in 1957, by Function | 73 |
| 10 Aggregate Capital Outlay of Townships in Michigan, 1957 | 75 |
| 11 Number of Townships Sampled in 1957 and 1958 | 76 |
| 12 Services Provided by Townships in Michigan, 1957 and 1958. | 77 |
| 13 Number and Per Cent of Townships Performing a Service, in Michigan, 1957 and 1958. | 79 |
| 14 Property Tax Collection in Michigan, and Distribution to Local Governments, 1957, in Dollars and Per Cent of Total Revenues | 85 |

1
2
3
4
5
6
7
8
9
10
11
12
13
14
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18
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87
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89
90
91
92
93
94
95
96
97
98
99
100

LIST OF TABLES (continued)

| <u>Table</u> | <u>Page</u> |
|--|-------------|
| 15 State-Collected Locally-Shared Taxes as Percentage of Receipts, Stratified Sample of Townships in Michigan, 1957 and 1958 | 87 |
| 16 Sundry Receipts, as Per Cent of Total Receipts Urbanized Townships, 1957 and 1958 | 88 |
| 17 Sundry Receipts as Per Cent of Total Revenue, Agricultural Townships, 1957 and 1958. | 90 |
| 18 Disbursements as Per Cent of Receipts of Selected Michigan Townships in 1957 and 1958 | 93 |
| 19 Number of Townships Reporting Police and Fire Protection, 1957 and 1958. | 94 |
| 20 Average Disbursement of Agricultural and Northern Townships for Police Protection in 1957 and 1958. | 96 |
| 21 Services which Required the Highest Per Cent of Total Disbursement, Urbanized Townships, 1957 and 1958 | 98 |
| 22 Services which Required the Highest Per Cent of Total Disbursement, Agricultural Townships, 1957 and 1958. | 99 |
| 23 Services which Required the Highest Per Cent of Total Disbursement, Northern Townships, 1957 and 1958 | 100 |
| 24 Year and Number of Series of Bonds Issued by Urbanized Townships in Michigan. | 102 |
| 25 Amount and Index of Tax Collection in Michigan by State and Local Governmental Units, 1944-1958, (1944 = 100) | 104 |
| 26 Index of Property Tax Collection, and State-Collected Locally-Shared Taxes, Urbanized Townships, 1945-1958 (1945 = 100). | 108 |
| 27 Index of Property Tax Collection, and State-Collected Locally-Shared Taxes, Agricultural Townships, 1945-1958 (1945 = 100). | 112 |

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
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82
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84
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86
87
88
89
90
91
92
93
94
95
96
97
98
99
100

LIST OF TABLES (continued)

| <u>Table</u> | <u>Page</u> |
|--------------|--|
| 28 | Index of Property Tax Collection, and State-Collected Locally-Shared Taxes, Northern Townships, 1945-1958 (1945 = 100) 114 |
| 29 | Types of Revenues of Selected Urbanized Townships in Michigan, in Per Cent of Total Receipts, 1945, 1950, 1955, 1957, 1958 118 |
| 30 | Types of Revenues of Selected Agricultural Townships in Michigan, in Per Cent of Total Receipts, 1945, 1950, 1955, 1957, 1958. 121 |
| 31 | Types of Revenues of Selected Northern Townships in Michigan, in Per Cent of Total Receipts, 1945, 1950, 1955, 1957, 1958. 123 |
| 32 | Services Provided by Townships in Michigan. 132 |
| 33 | Disbursements for Poor Relief, Calvin Township, 1945-1958, in Constant 1958 Dollars and as a Percentage of Total Disbursements 149 |
| 33-1 | Expenditures Per \$1,000 Assessed Valuation of Selected Michigan Townships in 1958 159 a |
| 33-2 | Average Total Expenditures, and Average Per Capita Total Expenditures of Selected Townships in 1950 159 d |
| 33-3 | Percentage Change of Average Population Increase, Average Total Expenditures, and Average Per Capita Expenditures of Selected Townships, 1950-1958 159 e |
| 33-4 | Average Total Expenditures, and Average Per Capita Total Expenditures of Selected Townships in 1958 159 f |

1
2
3
4
5
6
7
8
9
10
11
12
13
14
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16
17
18
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20
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91
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93
94
95
96
97
98
99
100

LIST OF TABLES (continued)

| <u>Table</u> | | <u>Page</u> |
|--------------|---|-------------|
| 34 | Index of Pupils in 1958 and Number of School Districts; 1945 and 1958 within Selected Urbanized, Agricultural, and Northern Townships in Michigan | 162 |
| 35 | Range of School District Levies within Selected Urbanized Townships, 1953, in Mills. | 163 |
| 36 | Average Total Property Tax Rates of Selected Urbanized, Agricultural, and Northern Townships in Michigan, 1945 and 1958, in Mills. | 166 |
| 37 | Index of Mills and Actual Rates Levied by School Districts Located Within Selected Urbanized Townships in 1958 (1945 = 100). . . | 169 |
| 38 | Change in Tax Rates of the County and School Districts, 1945 and 1958 (in Percentage Points) | 171 |

LIST OF MAPS AND FIGURES

| <u>Map Number</u> | | <u>Page</u> |
|-------------------|--|-------------|
| 1 | Michigan State Economic Areas, 1950. . . . | 25 |
| 2 | Location of Urbanized Townships sampled, Michigan, 1957 | 27 |
| 3 | Location of Agricultural Townships sampled, Michigan, 1957. | 28 |
| 4 | Location of Northern Townships sampled, Michigan, 1957 | 30 |
| 5 | Urbanized Township: Portsmouth, Bay County, 1957 | 32 |
| 6 | Urbanized Township: Genesee, Genesee County, 1957 | 33 |
| 7 | Urbanized Township: Summit, Jackson County, 1957 | 34 |
| 8 | Urbanized Township: Wyoming, Kent County, 1957 | 35 |
| 9 | Urbanized Township: West Bloomfield, Oakland County, 1957 | 36 |
| 10 | Type-of-Farming Areas in Michigan, 1957, and Location of the Agricultural and Northern Townships sampled | 37 |

Figure Number

| | | |
|---|--|-----|
| 1 | State-Collected Locally-Shared Taxes as a Percentage of Total Receipts, Urbanized Townships, 1945 and 1958 . . . | 127 |
| 2 | State-Collected Locally-Shared Taxes as a Percentage of Total Receipts, Agricultural Townships, 1945 and 1958. . | 131 |
| 3 | State-Collected Locally-Shared Taxes as a Percentage of Total Receipts, Northern Townships, 1945 and 1958. . . . | 134 |
| 4 | Average Property Tax Levy of Urbanized, Agricultural and Northern Townships, 1945 and 1958. | 167 |

100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
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164
165
166
167
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169
170
171
172
173
174
175
176
177
178
179
180
181
182
183
184
185
186
187
188
189
190
191
192
193
194
195
196
197
198
199
200

LIST OF APPENDIX TABLES

| <u>Table</u> | | <u>Page</u> |
|--------------|--|-------------|
| 1 | Disbursements of Portsmouth Township, Bay County, in Michigan 1945 to 1958, in Constant 1958 Dollars | 184 |
| 2 | Disbursements of Genesee Township, Genesee County, in Michigan 1945 to 1958, in Constant 1958 Dollars | 185 |
| 3 | Disbursements of Summit Township, Jackson County, in Michigan 1945 to 1958, in Constant 1958 Dollars | 186 |
| 4 | Disbursements of Wyoming Township, Kent County, in Michigan 1945 to 1958, in Constant 1958 Dollars | 187 |
| 5 | Disbursements of West Bloomfield Township, Oakland County, in Michigan 1945 to 1958, in Constant 1958 Dollars. | 188 |
| 6 | Expenditures for Services Rendered by Portsmouth Township, Bay County, in Michigan 1945 to 1958 as a Percentage of Total Disbursements. | 189 |
| 7 | Expenditures for Services Rendered by Genesee Township, Genesee County, in Michigan 1945 to 1958 as a Percentage of Total Disbursements . . . | 190 |
| 8 | Expenditures for Services Rendered by Summit Township, Jackson County, in Michigan 1945 to 1958 as a Percentage of Total Disbursements . . . | 191 |
| 9 | Expenditures for Services Rendered by Wyoming Township, Kent County, in Michigan 1945 to 1958 as a Percentage of Total Disbursements . . . | 192 |
| 10 | Expenditures for Services Rendered by West Bloom- field Township, Oakland County, in Michigan 1945 to 1958 as a Percentage of Total Disbursements. . | 193 |
| 11 | Disbursements of Calvin Township, Cass County, in Michigan 1945 to 1958, in Constant 1958 Dollars . | 194 |
| 12 | Disbursements of Carmel Township, Eaton County, in Michigan 1945 to 1958, in Constant 1958 Dollars . | 195 |
| 13 | Disbursements of Newark Township, Gratiot County, in Michigan 1945 to 1958, in Constant 1958 Dollars | 196 |

LIST OF APPENDIX TABLES continued

| <u>Table</u> | | <u>Page</u> |
|--------------|--|-------------|
| 14 | Disbursements of Wheatland Township, Hillsdale County, in Michigan 1945 to 1958, in Constant 1958 Dollars | 197 |
| 15 | Disbursements of Grant Township, Huron County, in Michigan 1945 to 1958, in Constant 1958 Dollars. | 198 |
| 16 | Expenditures for Services Rendered by Calvin Township, Cass County, in Michigan 1945 to 1958 as a Percentage of Total Disbursements. | 199 |
| 17 | Expenditures for Services Rendered by Carmel Township, Eaton County, in Michigan 1945 to 1958 as a Percentage of Total Disbursements. | 200 |
| 18 | Expenditures for Services Rendered by Newark Township, Gratiot County, in Michigan 1945 to 1958 as a Percentage of Total Disbursements | 201 |
| 19 | Expenditures for Services Rendered by Wheatland Township, Hillsdale County, in Michigan 1945 to 1958 as a Percentage of Total Disbursements. . . | 202 |
| 20 | Expenditures for Services Rendered by Grant Township, Huron County, in Michigan 1945 to 1958 as a Percentage of Total Disbursements. | 203 |
| 21 | Disbursements of Marion Township, Charlevoix County, in Michigan 1945 to 1958, in Constant 1958 Dollars | 204 |
| 22 | Disbursements of Soo Township, Chippewa County, in Michigan 1945 to 1958, in Constant 1958 Dollars. | 205 |
| 23 | Disbursements of Gladwin Township, Gladwin County, in Michigan 1945 to 1958, in Constant 1958 Dollars. | 206 |
| 24 | Disbursements of Riverton Township, Mason County, in Michigan 1945 to 1958, in Constant 1958 Dollars. | 207 |
| 25 | Disbursements of Goodwell Township, Newaygo County, in Michigan 1945 to 1958, in Constant 1958 Dollars. | 208 |

LIST OF APPENDIX TABLES continued

| <u>Table</u> | | <u>Page</u> |
|--------------|---|-------------|
| 26 | Expenditures for Services Rendered by Gladwin Township, Gladwin County, in Michigan 1945 to 1958 as a Percentage of Total Disbursements . . | 209 |
| 27 | Expenditures for Services Rendered by Marion Township, Charlevoix County, in Michigan 1945 to 1958 as a Percentage of Total Disbursements. | 210 |
| 28 | Expenditures for Services Rendered by Soo Township, Chippewa County, in Michigan 1945 to 1958 as a Percentage of Total Disbursements. | 211 |
| 29 | Expenditures for Services Rendered by Riverton Township, Mason County, in Michigan 1945 to 1958 as a Percentage of Total Disbursements . . | 212 |
| 30 | Expenditures for Services Rendered by Goodwell Township, Newaygo County, in Michigan 1945 to 1958 as a Percentage of Total Disbursements . . | 213 |

112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
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CHAPTER I
INTRODUCTION

Suburbanization has been a leading land use problem in Michigan throughout the postwar period. Population growth, continued concentration of population in metropolitan areas, rising real incomes, and high family mobility prompted by highway improvements and widescale ownership of automobiles have helped create this problem.

High consumer's purchasing power has brought increased demand for nonfood commodities, larger and modern houses located in suburban developments, automobiles, home furnishings and recreational facilities. The ability of large sectors of the population to acquire automobiles for family transportation has accelerated the development of subdivisions and "bedroom" satellite cities. Popular demand for single-floor houses on large lots with additional outdoor space around the house and rapid population growth have accelerated the demand for land for nonagricultural purposes. Other demands for nonagricultural lands have come with our growing need for school buildings, recreational facilities, roads, expressways, and general service areas.

Approximately 10 per cent of the surface land area of the United States is now used for nonagricultural purposes.^{1/} Estimates about future demand for nonagricultural land call

^{1/} Cf. Raleigh Barlowe, "Our Future Needs for non Farm Lands", Yearbook of Agriculture, 1958, Washington, United States Department of Agriculture, 1958, p. 474.

for at least "7.6 million additional acres of residential land for a population of 225 million" and "for all transportation purposes about 40.4 million acres in 1975".^{2/} This observation suggests an increment in demand for nonagricultural land associated with a shift of agricultural land to nonagricultural purposes, especially in view of higher prices paid per acre for land resources utilized for nonagricultural purposes.

Estimates of future demand for nonagricultural land use vary over a wide range. The results depend to a large extent on the underlying assumption made with regard to population trends. Clawson estimated that "the area within cities and other urbanized areas would rise from about 16.5 million acres in 1950 to about 30 million acres in 1980".^{3/} Clawson pointed out, however, "if the increased urban areas were to have a lower average density - say 2,500 persons per square mile - about 39 million acres would be required by 1980".^{3/}

Suburbanization has been most important around the cities of southern Michigan. Jensen's observations of 1955 indicated considerable "ribbon developments" of residential and semi-commercial dwellings around the cities of southern Michigan.^{4/} The spreading of residential and small business establishments can be envisaged in a certain pattern.

^{2/} Barlowe, op. cit., pp. 476-477.

^{3/} Marion Clawson, R. Burnell Held, Charles H. Stoddard, Land for the Future, Baltimore, The Johns Hopkins Press, 1960, p. III.

^{4/} Clarence W. Jensen, The Effects of Urbanization of Agricultural Land Use in Lower Michigan, unpublished Ph.D. dissertation, Michigan State University, 1958, p. 3.

Farmers sell lots along the front part of their farms, lots located along highways, and continue to operate smaller farm enterprises or buy additional land adjacent to their "back" acres. Another alternative which some farmers choose is to operate the curtailed farm with the anticipation of selling the rest of their farms for subdivisions or of selling single lots at a later date at more favorable prices. Cash funds obtained in this way enable the farmer either to buy another farm at a different location or to invest in non-farm enterprises.

The transition from rural townships into urbanized residential sections was accelerated by the rapid growth of the population. Population data for the townships are not available for non-census years. Therefore, population changes within counties will be used as measure of population increase. The population figures of the counties of the subsample indicate that important changes have occurred. (Table 1)

Oakland county is an outstanding example of population in movement. From 1940 to 1950 the population increased by 55.9 per cent and from 1950 to 1958 by 59.3 per cent. The population of Genesee county increased by 18.9 per cent from 1940 to 1950 and by 31.3 per cent from 1950 to 1958. The population increase reported for Kent county for the two time intervals was 17.0 and 17.3 per cent respectively. A similar population trend occurred in Jackson county. In

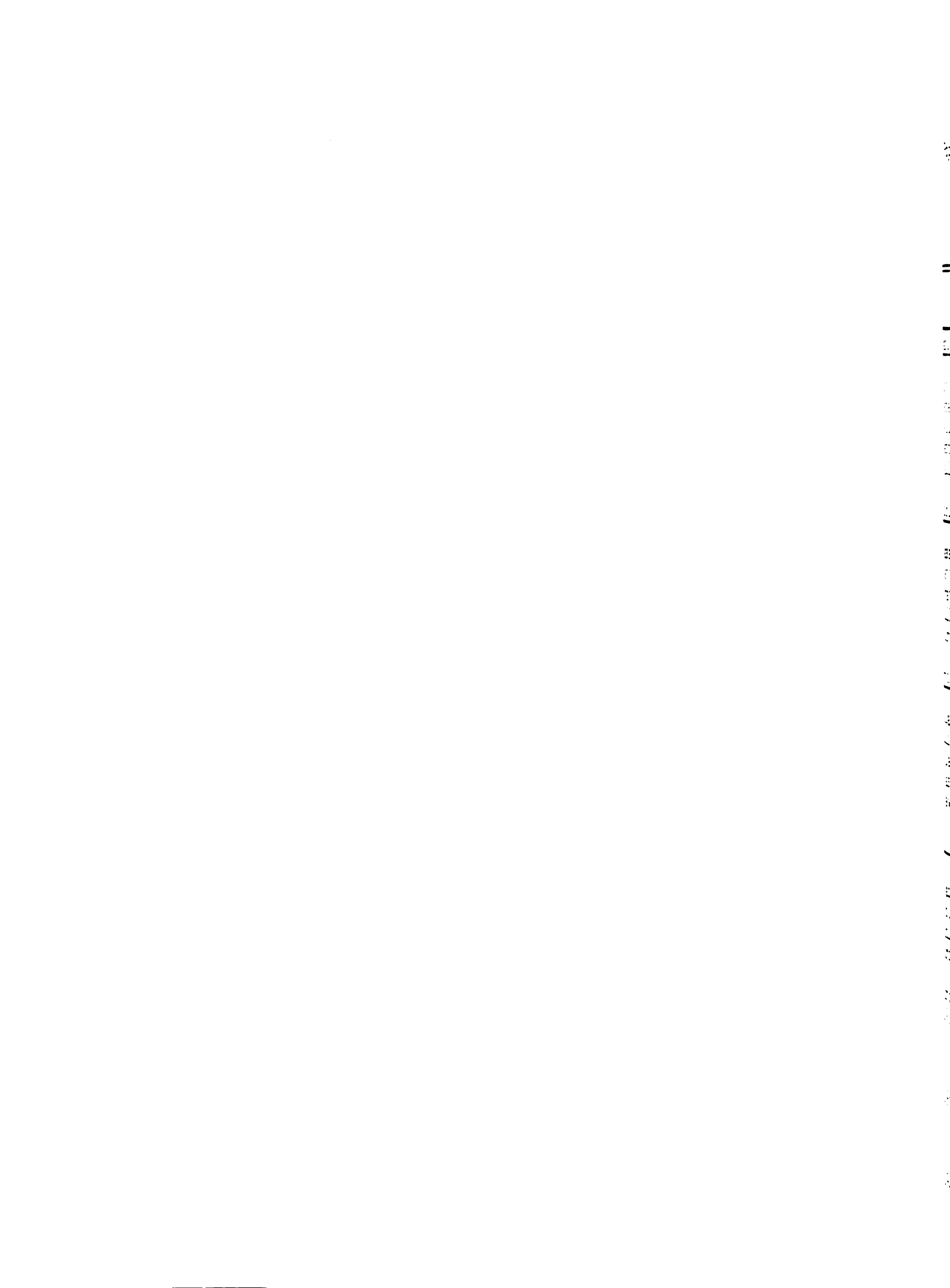


Table 1

Population of Selected Urbanized - Agricultural - and
Northern Counties, 1940, 1950, 1958 and 1960;
Population Changes 1940 - 1950, 1950 - 1958 and
Percent of Urban Population

| | 1960 | 1958 | 1950 | 1940 |
|------------------------------|---------|---------|---------|---------|
| <u>Urbanized Counties</u> | | | | |
| Bay | 107,042 | 102,000 | 88,461 | 74,981 |
| Genesee | 374,313 | 355,800 | 270,963 | 227,944 |
| Jackson | 131,994 | 126,200 | 107,925 | 93,108 |
| Kent | 363,187 | 338,100 | 288,292 | 246,338 |
| Oakland | 690,259 | 631,000 | 396,001 | 254,068 |
| <u>Agricultural Counties</u> | | | | |
| Cass | 36,932 | 35,000 | 28,135 | 21,910 |
| Eaton | 49,684 | 46,500 | 40,023 | 34,124 |
| Gratiot | 37,012 | 34,800 | 33,429 | 32,205 |
| Hillsdale | 34,742 | 35,100 | 31,916 | 29,092 |
| Huron | 34,006 | 34,100 | 33,149 | 32,584 |
| <u>Northern Counties</u> | | | | |
| Charlevoix | 13,421 | 13,800 | 13,475 | 13,031 |
| Chippewa | 32,655 | 32,000 | 29,206 | 27,807 |
| Gladwin | 10,769 | 9,500 | 9,451 | 9,385 |
| Mason | 21,929 | 21,500 | 20,474 | 19,378 |
| Newaygo | 24,160 | 24,500 | 21,567 | 19,286 |

^{1/} Table I - II, Estimated Michigan Urban Population by Counties, 1940, 1950, and 1958. New urban includes unincorporated urban places which are excluded in the old urban definition.

Source:

1958 data: Michigan Statistical Abstract, Second Edition 1958, Bureau of Business and Economic Research, Michigan State University, 1958, Table I, 4.

1950 data: County and City Data Book, 1956, Bureau of the Census, U. S. Department of Commerce, 1957; Item 1 - 16, Table 2, pp. 138 - 153.

1940 data: County Data Book, 1947, Bureau of the Census, U. S. Department of Commerce, 1947, pp. 194 - 208.

Table 1 continued

| | Percentage Change | | Percent of Urban Population | | |
|-------------------------------------|-------------------|---------|-----------------------------|------|------|
| | 1940-50 | 1950-58 | 1958 ¹ | 1950 | 1940 |
| <u>Urbanized Counties</u> | | | | | |
| Bay | 18.0 | 15.3 | 62.4 | 63.0 | 64.0 |
| Genesee | 18.9 | 31.3 | 72.6 | 74.5 | 69.9 |
| Jackson | 15.9 | 16.9 | 55.8 | 56.8 | 55.1 |
| Kent | 17.0 | 17.3 | 77.0 | 78.7 | 69.5 |
| Oakland | 55.9 | 59.3 | 64.8 | 72.5 | 57.6 |
| <u>Agricultural Counties</u> | | | | | |
| Cass | 28.6 | 24.2 | 23.4 | 23.2 | 24.5 |
| Eaton | 17.3 | 16.2 | 37.2 | 37.8 | 36.7 |
| Gratiot | 3.8 | 4.1 | 37.3 | 35.0 | 31.8 |
| Hillsdale | 9.7 | 10.0 | 22.8 | 22.9 | 21.9 |
| Huron | 1.7 | 2.9 | 9.1 | 9.0 | 8.1 |
| <u>Northern Counties</u> | | | | | |
| Charlevoix | 3.4 | 2.4 | 43.5 | 42.5 | 22.8 |
| Chippewa | 5.0 | 9.6 | 63.1 | 61.3 | 58.1 |
| Gladwin | 0.7 | 0.5 | N.A. | N.A. | N.A. |
| Mason | 5.7 | 5.0 | 51.6 | 46.4 | 45.3 |
| Newaygo | 11.8 | 13.6 | 14.3 | 14.2 | 13.2 |

N.A. = not available



this county, population increased 15.9 per cent from 1940 to 1950 and 16.9 per cent from 1950 to 1958. In Bay county population changes were the greatest between 1940 and 1950 with 18.0 per cent while the increase from 1950 to 1958 was 15.3 per cent.

The increase in population of the agricultural counties ranged from 1.7 to 28.6 per cent for the period of 1940 to 1950 and from 2.9 per cent to 24.2 per cent from 1950 to 1958. For both time intervals Cass county reported the highest percentage change with 28.6 (1940 to 1950) and 24.2 (1950 to 1958) per cent. This increment is considerably larger than in the second ranking Eaton county, in which the population changed 17.3 per cent and 16.3 per cent, respectively. Cass and Eaton counties are adjacent to the metropolitan areas of Kalamazoo and Lansing. The geographical location of these two counties might explain the relatively large increment compared with other agricultural counties. In Hillsdale county a 9.7 percent increase and 10.0 per cent increment occurred for the periods from 1940 to 1950 and 1950 to 1958, respectively. Gratiot and Huron counties experienced a relatively small change of the population. Gratiot county population increased 3.8 per cent from 1940 to 1950 and 4.1 per cent from 1950 to 1958. Huron county reports a population increment of 1.7 per cent and 2.9 per cent for the two time periods.



The increase in population in the northern township counties ranged from 0.5 to 13.6 per cent for the period from 1950 to 1958. Newaygo county, the most southerly located of the northern counties, had an 11.8 per cent increase in population from 1940 to 1950 and an increment of 13.6 per cent for the years 1950 to 1958. It is interesting to observe that the population of Chippewa county increased 5.0 per cent from 1940 to 1950 and 9.6 per cent from 1950 to 1958. Chippewa county includes the city of Sault St. Marie in the northwestern part of the Upper Penninsula. The population increase might also be correlated with the installation of a military air base in the county. The counties of Charlevoix, Gladwin, and Mason experienced increments of population ranging from 0.5 to 5.0 per cent. The county estimates for 1958 based on Department of Health figures were the best source available at the time of this study. The state estimates for 1958 were high but they are roughly comparable with the 1960 Census figures. (Table 1)

Persons per square mile is another measure of population change. The increments of population density can be depicted from Table 2. Population increases and population density per square mile are highly correlated, hence similar trends of both population measures can be observed. Oakland county reports the highest percentage change and Bay county the lowest percentage change of population

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density. In this respect, it is interesting to note that Oakland county has an area of 877 square miles and Bay county 446 square miles. (Table 2) Changes in population density between 1940 and 1958 are indicated by Table 2. The growth pattern of the population is distinctively different between the urbanized, agricultural, and northern townships.

The population density of Oakland county increased 59.3 per cent from 1950 to 1958, and 55.9 per cent during the time period from 1940 to 1950. Change of population density is not of the same magnitude in the other sample counties as in Oakland county. Genesee county reports an increase of 31.4 and 18.9 per cent from 1950 to 1958, and from 1940 to 1950 respectively. Population growth in Bay, Jackson, and Kent counties ranged from 15.7 to 18 per cent during both periods of time.

Though the land area of Oakland county is almost twice as large as that of Bay county, three times as many people were living on a square mile in Oakland county in 1958.

If one relates these figures to the absolute density of population, considerable population congestion may be claimed for Oakland county.

The population density of the agricultural townships suggests an entirely different population trend than within the urbanized strata. All five counties report a population

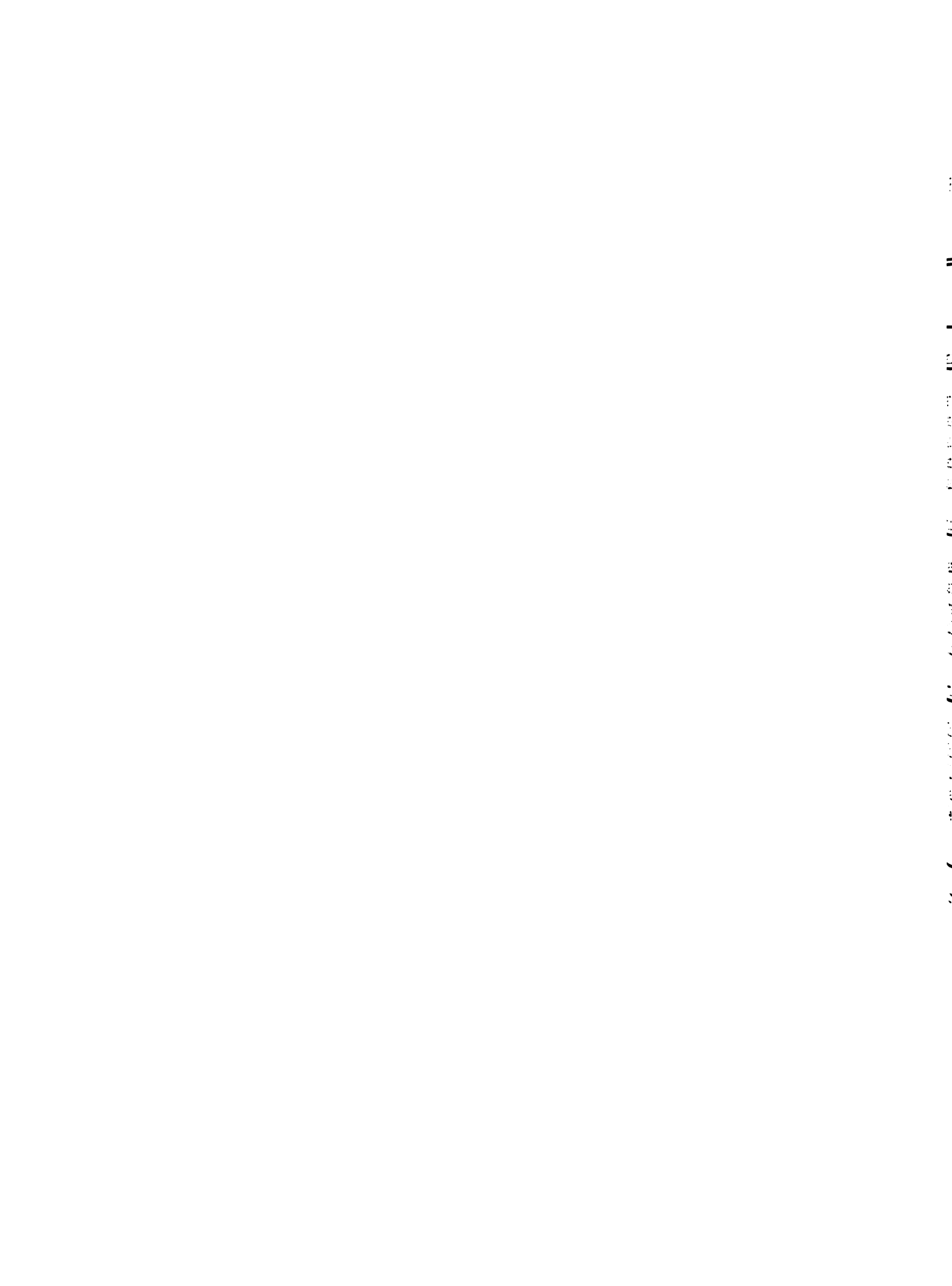


Table 2

Population Density of Selected Michigan Counties in
1940, 1950 and 1958, (Persons per Square Mile)

| | Persons per Square Mile | | | Percentage Change | |
|------------------------------|----------------------------|------|------|----------------------|---------|
| | 1958 | 1950 | 1940 | 1950-58 | 1940-50 |
| <u>Urbanized Counties</u> | | | | | |
| Bay | 229 | 198 | 168 | 15.7 | 18.0 |
| Genesee | 553 | 421 | 354 | 31.4 | 18.9 |
| Jackson | 179 | 153 | 132 | 17.0 | 15.9 |
| Kent | 392 | 334 | 286 | 17.4 | 17.0 |
| Oakland | 720 | 452 | 290 | 59.3 | 55.9 |
| <u>Agricultural Counties</u> | | | | | |
| Cass | 72 | 58 | 45 | 24.1 | 28.6 |
| Eaton | 82 | 71 | 60 | 12.7 | 17.3 |
| Gratiot | 62 | 59 | 57 | 5.1 | 3.8 |
| Hillsdale | 58 | 53 | 48 | 9.4 | 9.7 |
| Huron | 42 | 40 | 39 | 5.0 | 1.7 |
| <u>Northern Counties</u> | | | | | |
| Charlevoix | 33 | 33 | 31 | 0 | 3.4 |
| Chippewa | 20 | 19 | 18 | 5.3 | 5.0 |
| Gladwin | 19 | 19 | 19 | 0 | 0.7 |
| Mason | 44 | 42 | 39 | 4.8 | 5.7 |
| Newaygo | 29 | 25 | 23 | 16.0 | 11.8 |

Source: 1958 Data: Michigan Statistical Abstract, Second Edition 1958; Bureau of Business and Economic Research, Michigan State University, Table I, 5.

1950 Data: County and City Data Book 1956, Bureau of the Census, U. S. Department of Commerce, 1957, Table 2, pp. 138-153, Item 1-16.

1940 Data: County Data Book, Bureau of the Census, U. S. Department of Commerce, 1947, pp. 194-208.

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Table 3

Area of Selected Michigan Counties, in square miles

Urbanized Counties

| | |
|---------|-----|
| Bay | 446 |
| Genesee | 664 |
| Jackson | 705 |
| Kent | 862 |
| Oakland | 877 |

Agricultural Counties

| | |
|-----------|-----|
| Cass | 488 |
| Eaton | 567 |
| Gratiot | 566 |
| Hillsdale | 601 |
| Huron | 822 |

Northern Counties

| | |
|------------|------|
| Charlevoix | 414 |
| Chippewa | 1580 |
| Gladwin | 508 |
| Mason | 493 |
| Newaygo | 857 |



density ranging from 42 to 72 persons per square mile. Comparing these figures with the range for the urbanized counties, from 179 to 720 persons per square mile, it is easy to envisage the effects of urbanization in the more heavily populated counties. Considering the percentage change of population density, however, the range is 5.0 to 24.1 per cent for the period from 1950 to 1958.

The northern counties are sparsely populated in comparison with the southern counties, as suggested by Table 2. In the northern counties the number of persons per square mile ranges from 19 to 33 persons. Changes in population density are relatively small. Mason county reports a 4.8 per cent increase and Chippewa county a 5.3 per cent increment from 1950 to 1958. During 1950 and 1958 there was no change in density of population, and between 1940 to 1950 only an unimportant increase was reported. The population picture in Newaygo county is somewhat different from the other northern counties. The number of persons per square mile increased from 1950 to 1958 by 16.0 per cent and from 1940 to 1950 by 11.8 per cent. Newaygo county is located north of the Kent county metropolitan area with the city of Grand Rapids. Newaygo county reports a larger population increase than the other northern counties which might be explained by a spilling over effect of population from Kent county.



The rapid growth of population combined with a rise in real income generated an increase in demand for dwelling units in suburban and urban fringe areas. Land resources used for agricultural purposes were shifted to nonagricultural uses, to be utilized as building lots, streets and service areas. Therefore, the change in number of farms and area in farms shall be discussed.

According to a 1940 measurement, the land area of Michigan consists of 36,494,160 acres. (Table 4) The number of farms declined from 175,589 in 1945 to 138,922 in 1954, or 20.9 per cent. During the same period, however, the proportion of the total land area in farms declined only 5.3 percentage points. These figures indicate that the size of farms increased from 1945 to 1954 and that only 5.3 per cent of farm land was shifted to nonagricultural uses. Hathaway observed that farms selling less than \$2,500 worth of farm products declined 27.5 per cent in number from 1949 to 1954. The north experienced a decrease of 24.0 per cent while the south had a 29.0 per cent decline. Commercial farms which sold more than \$2,500 worth of farm products increased by 1.0 per cent from 1949 to 1954.^{5/}

^{5/} Dale E. Hathaway, Michigan Farm Economics, No. 186, Department of Agricultural Economics, Michigan State University, July 1958.

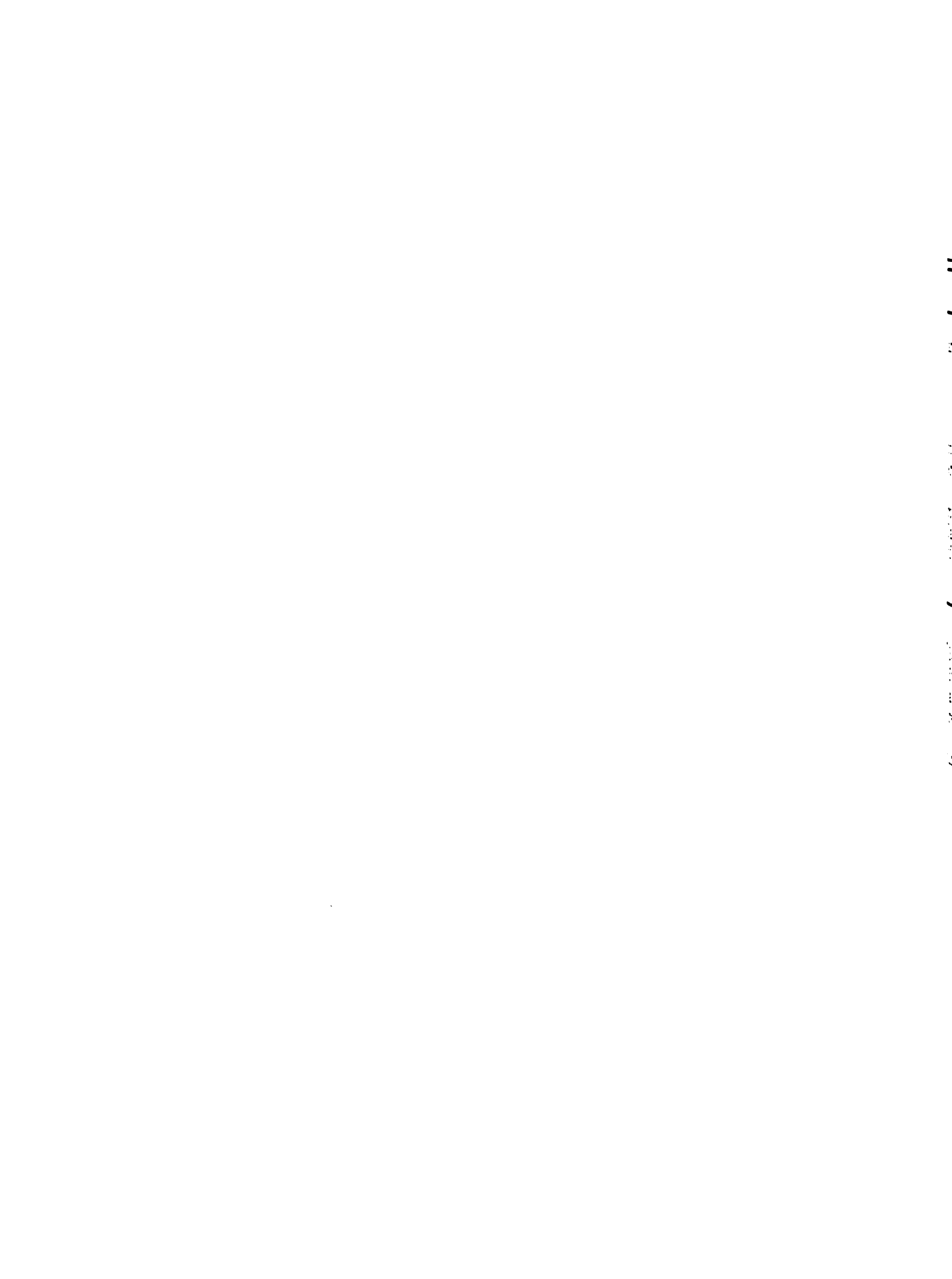
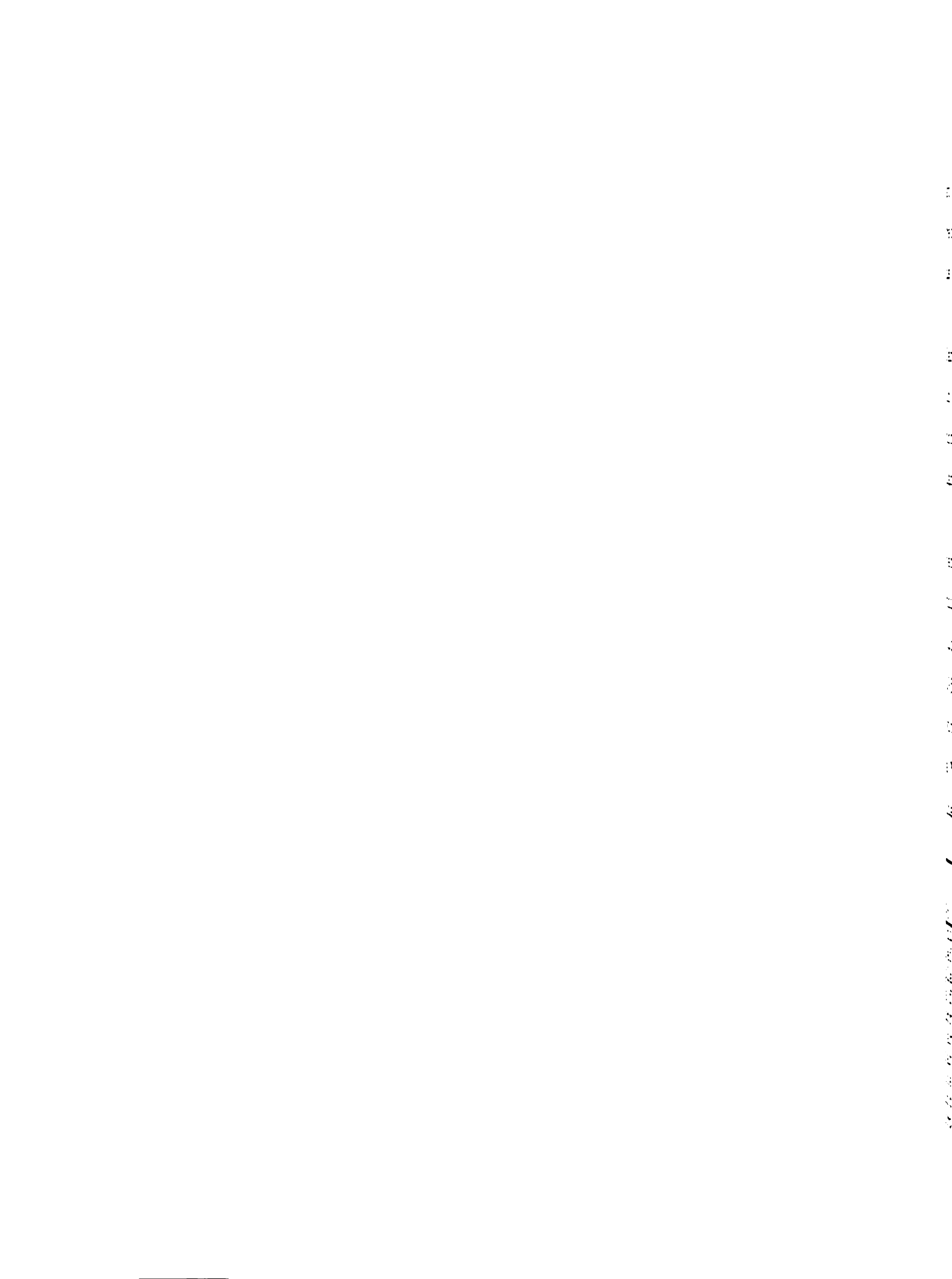


Table 4
 Number of Farms and Proportion of Land
 in Farms, Michigan 1935-1954

| | 1954 | 1950 | 1945 | 1940 | 1935 |
|--|------------|---------|---------|---------|---------|
| Farms, number | 138,922 | 155,589 | 175,589 | 187,589 | 196,517 |
| per cent, 1945=100 | 79.1 | 88.6 | 100.0 | 106.8 | 111.9 |
| Approximate Land Area, acres ^{1/} | 36,494,160 | | | | |
| Proportion in Farms, per cent of Land Area | 45.1 | 47.1 | 50.4 | 49.4 | 50.2 |

^{1/} Based on the 1940 complete re-measurement of the United States. Changes since 1940 represent changes in boundary, actual changes in land area due to the construction of reservoirs, etc.

Source: State Table 1, 1950 United States Census of Agriculture Bureau of the Census, U. S. Department of Commerce.



The 1954 Census figures were the best data available at the time of this study. The 1959 Census data published recently indicate a continued decline of land area in farms, as well as a decrease in number of farms.

The proportion of the total land area of Michigan in farms declined from 45.1 per cent in 1954 to 40.5 per cent in 1959. About 1.6 million acres of farm land shifted to nonagricultural uses between 1954 and 1959. This change in land use reduced the total farm acreage by 10.2 per cent.

The total number of farms in Michigan declined 19.5 per cent between 1954 and 1959. Without further explanation, this statement could lead one to the conclusion that Michigan's farms diminished at an accelerated rate. The 1954 and 1959 Census data, however, are not comparable without some consideration of the change in definition of a "farm".^{6/} Michigan lost 3,649 farms as a result of the change in the Census definition of a farm between 1954 and

^{6/} Cf. Richard G. Wheeler, Michigan Farm Economics, No. 216, Department of Agricultural Economics, Michigan State University, January 1961, pp. 2-4.
Definition of What the Census Calls a "Farm": In 1959, each place operated as a unit of 10 acres or more was counted as a farm if sales of agricultural products totaled \$50 or more; units of less than 10 acres were counted as farms if farm product sales totaled \$250 or more. The 1954 count of farms did not include a place of less than 3 acres unless the value of farm product sales exceeded \$150, but it did include places of 3 acres or more if the value of farm production, other than home gardens, totaled \$150 or more.

1959. After adjusting the 1959 data according to the new definition, the number of Michigan farms declined by 17 per cent between 1954 and 1959.^{7/} Wheeler observed that the number of small commercial farms with sales under \$2,500 declined by two-thirds, but that the number of farms with sales of \$10,000 or more increased by 50 per cent.

Structural changes occurred during the last decade within the agricultural sector of the economy. The more important aggregate measurements of change are summarized in Table 5. The urbanized townships report a decline in number of farms from 1945 to 1954 ranging from 6.2 per cent in Portsmouth township (Bay county) to 75.9 per cent in the township of West Bloomfield (Oakland county).^{8/} With the exception of Portsmouth, the number of farms located in the sample townships declined at a higher rate than the number of farms of the county in which the township is located. In West Bloomfield township in Oakland county, the number of farms declined by 75.9 per cent. The proportion of land in farms in Oakland county declined 62.2 per cent from 1945 to 1954. In Kent county, the land in farms declined 17.1 per cent; but for Wyoming township in the same county, a 46.4 percentage decrease occurred. In Genesee county, land in farms declined 33.5 per cent

^{7/} Wheeler, op. cit., p. 3.

^{8/} Township data for 1959 are not yet available.

Table 5

Number of Farms and Land in Farms in Urbanized, Agricultural,
and Northern Counties and Townships of Michigan
1945, 1950, 1954

| County and Township | Number of Farms | | | Percentage Change 1945 to 1954 |
|-------------------------------|---------------------|-------|-------|--------------------------------------|
| | 1954 | 1950 | 1945 | |
| <u>Urbanized Townships</u> | | | | |
| Bay County | 2,349 | 2,842 | 2,966 | -20.8 |
| Portsmouth | 182 | 204 | 194 | - 6.2 |
| Genesee County | 3,275 | 3,691 | 4,816 | -32.0 |
| Genesee | 156 | 212 | 348 | -55.2 |
| Jackson County | 2,306 | 2,854 | 2,737 | -15.7 |
| Summit | 42 | 90 | 72 | -41.7 |
| Kent County | 3,769 | 4,302 | 5,284 | -28.7 |
| Wyoming | 127 | 149 | 289 | -56.1 |
| Oakland County | 2,064 ^{1/} | 3,107 | 4,054 | -49.1 |
| West Bloomfield | 351 ^{2/} | 75 | 145 | -75.9 |
| <u>Agricultural Townships</u> | | | | |
| Cass County | 2,103 | 2,269 | 2,465 | -14.7 |
| Calvin | 163 | 152 | 196 | -16.8 |
| Eaton County | 2,790 | 3,107 | 3,326 | -40.2 |
| Carmel | 175 | 178 | 206 | -15.0 |
| Gratiot County | 2,498 | 2,816 | 3,041 | -18.1 |
| Newark | 146 | 164 | 187 | -21.9 |
| Hillsdale County | 2,907 | 3,925 | 3,329 | -12.7 |
| Wheatland | 188 | 206 | 192 | - 2.1 |
| Huron County | 3,524 | 3,716 | 3,803 | - 7.3 |
| Grant | 152 | 165 | 188 | -19.1 |

^{1/}1954 - combined with Orchard Lake.

^{2/}, ^{3/}, ^{4/}, and ^{5/} 1945 and 1954 data not comparable, because data of several townships were combined.

Source: County Data - 1945: County Data Book 1947; 1950: County Data Book 1952; 1954: County Data Book 1956. Bureau of the Census, U. S. Department of Commerce, Washington, D. C. Item 119-133.

Township Data - Michigan Agricultural Census by County and Minor Civil Divisions, Bureau of the Census, U. S. Department of Commerce, Washington,

Table 5 continued

| County and Township | Land Area in Farms, Total Acres | | | Percentage Change |
|-------------------------------|------------------------------------|---------|---------|----------------------|
| | 1954 | 1950 | 1945 | 1945 to 1954 |
| <u>Urbanized Townships</u> | | | | |
| Bay County | 203,000 | 231,000 | 238,000 | -14.7 |
| Portsmouth | 11,500 | 12,138 | 12,077 | -11.8 |
| Genesee County | 272,000 | 293,000 | 319,000 | -14.7 |
| Genesee | 9,001 | 11,047 | 13,532 | -33.5 |
| Jackson County | 320,000 | 353,000 | 369,000 | -13.3 |
| Summit | 6,967 | 10,190 | 9,514 | -26.8 |
| Kent County | 364,000 | 388,000 | 439,000 | -17.1 |
| Wyoming | 5,791 | 7,242 | 10,815 | -46.4 |
| Oakland County | 238,000 | 285,000 | 357,000 | -33.3 |
| West Bloomfield | 4,445 | 6,260 | 11,759 | -62.2 |
| <u>Agricultural Townships</u> | | | | |
| Cass County | 245,000 | 253,000 | 259,000 | - 2.3 |
| Calvin | 17,803 | 15,912 | 19,214 | - 2.1 |
| Eaton County | 323,000 | 334,000 | 334,000 | - 6.1 |
| Carmel | 20,210 | 19,642 | 22,054 | - 8.0 |
| Gratiot County | 312,000 | 323,000 | 331,000 | - 5.7 |
| Newark | 20,220 | 20,522 | 22,247 | - 9.1 |
| Hillsdale County | 327,000 | 341,000 | 365,000 | -10.4 |
| Wheatland | 19,026 | 19,814 | 23,528 | -19.1 |
| Huron County | 480,000 | 481,000 | 494,000 | - 2.8 |
| Grant | 19,718 | 18,551 | 20,781 | - 5.1 |

Table 5 continued

Number of Farms and Land in Farms in Urbanized, Agricultural,
and Northern Counties and Townships of Michigan
1945, 1950, 1954

| County and Township | Number of Farms | | | Percentage Change 1945 to 1954 |
|---------------------------|-----------------|-------|-------|--------------------------------------|
| | 1954 | 1950 | 1945 | |
| <u>Northern Townships</u> | | | | |
| Charlevoix County | 758 | 976 | 992 | - 23.6 |
| Marion ^{2/} | 208 | 107 | 99 | 111.02 |
| Chippewa County | 999 | 1,154 | 1,445 | - 30.9 |
| Soo ^{3/} | 123 | 110 | 156 | - 21.2 |
| Gladwin County | 1,074 | 1,145 | 1,306 | - 17.8 |
| Gladwin ^{4/} | 177 | 120 | 135 | 31.04 |
| Mason County | 1,327 | 1,491 | 1,574 | - 15.7 |
| Riverton | 220 | 245 | 255 | - 13.7 |
| Newaygo County | 2,028 | 2,156 | 2,244 | - 9.6 |
| Goodwell ^{5/} | 111 | 63 | 56 | 98.25 |

^{1/}1954 - combined with Orchard Lake.

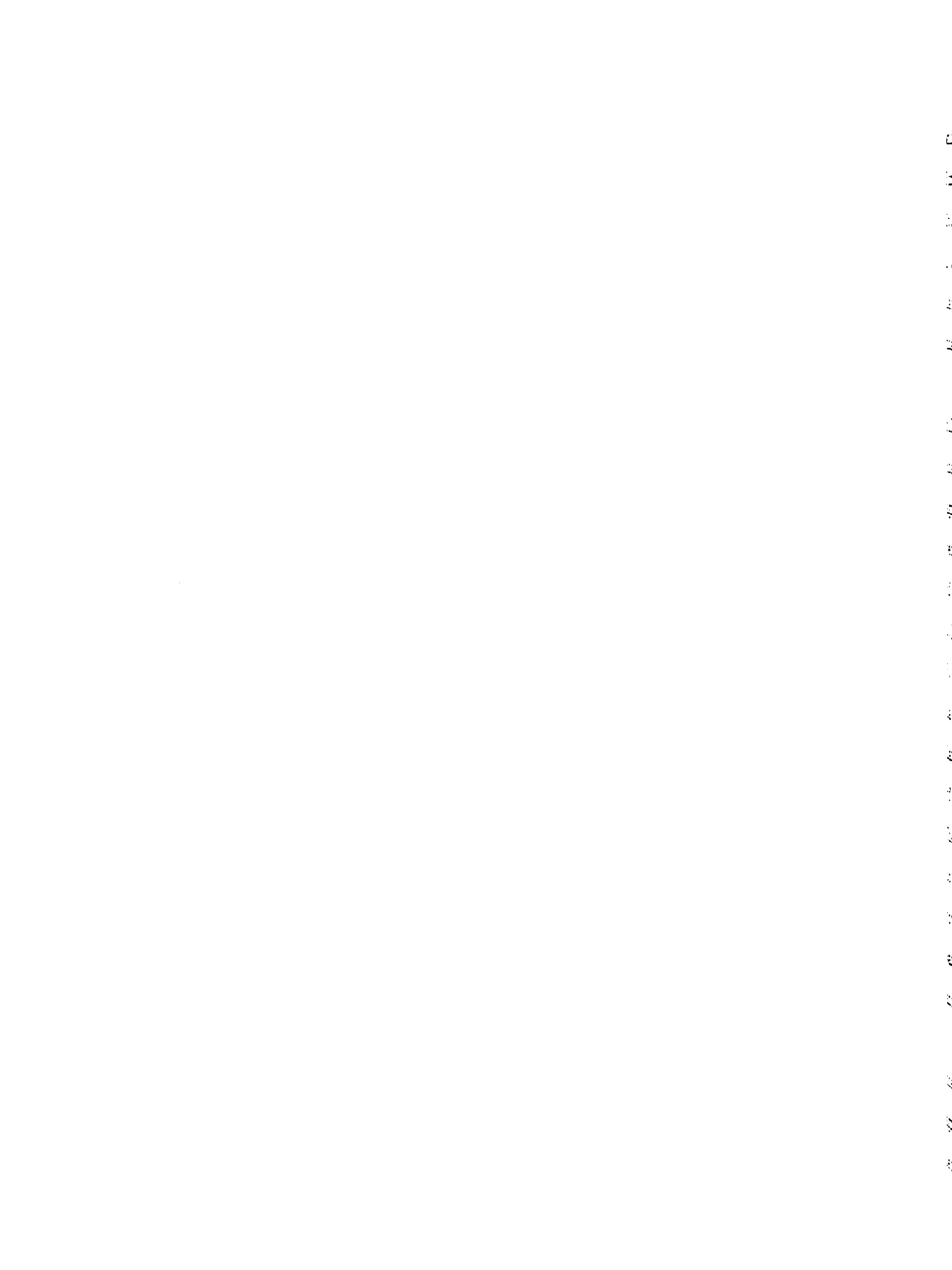
^{2/}, ^{3/}, ^{4/}, and ^{5/}1945 and 1954 data not comparable, because data of several townships were combined.

Source: County Data - 1945: County Data Book 1947; 1950: County Data Book 1952; 1954: County Data Book 1956. Bureau of the Census, U. S. Department of Commerce, Washington, D. C. Item 119-133.

Township Data - Michigan Agricultural Census by County and Minor Civil Divisions, Bureau of the Census, U. S. Department of Commerce, Washington, D. C. 1954.

Table 5 continued

| County and Township | Land Area in Farms, Total Acres | | | Percentage Change |
|--------------------------------------|------------------------------------|---------|---------|--|
| | 1954 | 1950 | 1945 | 1945 to 1954 |
| <u>Northern Townships</u> | | | | |
| Charlevoix County | 111,000 | 123,000 | 133,000 | - 16.5 |
| Marion ² / ₂ | 32,543 | 13,991 | 12,481 | 7 160.7 2 / ₂ |
| Chippewa County | 175,000 | 187,000 | 199,000 | - 3.8 |
| Soc ² / ₂ | 16,852 | 14,199 | 16,873 | - 0.1 |
| Gladwin County | 153,000 | 154,000 | 162,000 | - 5.6 |
| Gladwin ⁴ / ₄ | 27,062 | 20,638 | 17,377 | 7 55.7 4 / ₄ |
| Mason County | 155,000 | 165,000 | 170,000 | - 8.8 |
| Riverton | 20,086 | 21,708 | 21,431 | - 6.3 |
| Newaygo County | 230,000 | 238,000 | 238,000 | - 3.4 |
| Goodwell ² / ₂ | 15,225 | 10,515 | 9,241 | 7 64.8 5 / ₂ |



while in Genesee township a 55.2 per cent decrease occurred. In Summit township in Jackson county the land in farms declined 26.8 per cent. The rate for all of Jackson county was a 13.3 per cent decrease. Portsmouth township in Bay county had an 11.8 per cent decline which is 2.9 per cent lower than the 14.7 per cent decrease of the entire county.

The percentage change of land in farms in the agricultural counties range from 2.3 to 2.8 per cent. The change within the agricultural townships located in the agricultural counties ranged from 2.1 per cent to 19.1 per cent. Calvin township in Cass county reports a change of land area of 2.1 per cent while for the entire county a 2.3 percentage is reported. The land area in farms declined 8.0 per cent in Carmel township. In contrast, Eaton county had only a 6.1 per cent decline. In Gratiot county, the land area in farms declined 5.7 per cent but in the township of Newark, in the same county, it declined 9.1 per cent. The largest decline of land in farms occurred in Hillsdale county which experienced a 10.4 per cent decrease. In the township of Wheatland, in Hillsdale county, a 19.1 per cent was recorded. Huron county reports a 2.8 per cent decline and Grant township in the same county a 5.1 per cent change.

If one compares the structural changes which affected the agricultural sector of the economy of the urbanized and agricultural township strata, the considerably larger decline of land area in farms within the urbanized strata

becomes evident. Land resources shifted to nonagricultural uses, presumably largely to residential lots, industrial sites, service areas and roads.

Changes of land area in farms in the northern counties cannot be determined from the census classification. Several townships are combined into one reporting unit. In early census publications all townships were listed as separate administrative units. Therefore the rate of change of land in farms within the counties will be considered the sole measurement. Charlevoix county reports the highest decline with 16.5 per cent followed by Mason county with 8.8 per cent, Gladwin county with 5.6 per cent, and Chippewa and Newaygo county with 3.8 per cent and 3.4 per cent respectively. It should be noted that in four counties the land area used for agricultural purposes accounts for only 41 to 49 per cent of the total as compared with a range of from 78 to 91 per cent in the agricultural townships. Only 17 per cent of the land area of Chippewa county is in agricultural land use.

Objectives of the Study

The dynamic process of suburbanization generates numerous problems for township governments. In Michigan this type of local government was designed originally at a time when most of the state was sparsely populated and opportunities for communication were extremely limited. Transition from an agricultural to an industrial society and concentration of population in metropolitan areas has

brought additional problems for many townships.

A hypothesis may be advanced to the effect that suburbanization leads to more demand for services from local governments and that this pressure causes urbanized townships to provide a larger variety of services than the more rural townships. Following this line of reasoning suburbanization normally causes an increase in the total expenditures of townships and requires higher taxes to finance the additional costs of the new or improved services.

With the progress of the suburbanization in southern Michigan, it appears that many townships which are now agricultural in nature and many other townships which are already partially settled by suburban residents must expect higher taxes and local government expenditures. Emphasis in this study is on the past developments in expenditures and local government services provided by a sample of Michigan townships. These trends indicate not only the nature of what has happened in recent years but also provide some indications of events to come.

The following hypotheses will be tested specifically:

1. Townships provide a greater number and a wider variety of services in urban than in rural areas.
2. Average total and average per capita disbursements of the urbanized townships are higher than those of the agricultural and northern townships.
3. With increased urbanization, townships depend to a

larger extent upon the general property tax as a source of total revenues to finance township, school district, and county functions.

4. The general property tax has declined in relative importance as a source of revenue but has increased in absolute terms, especially in the urbanized townships as compared to agricultural or northern townships.

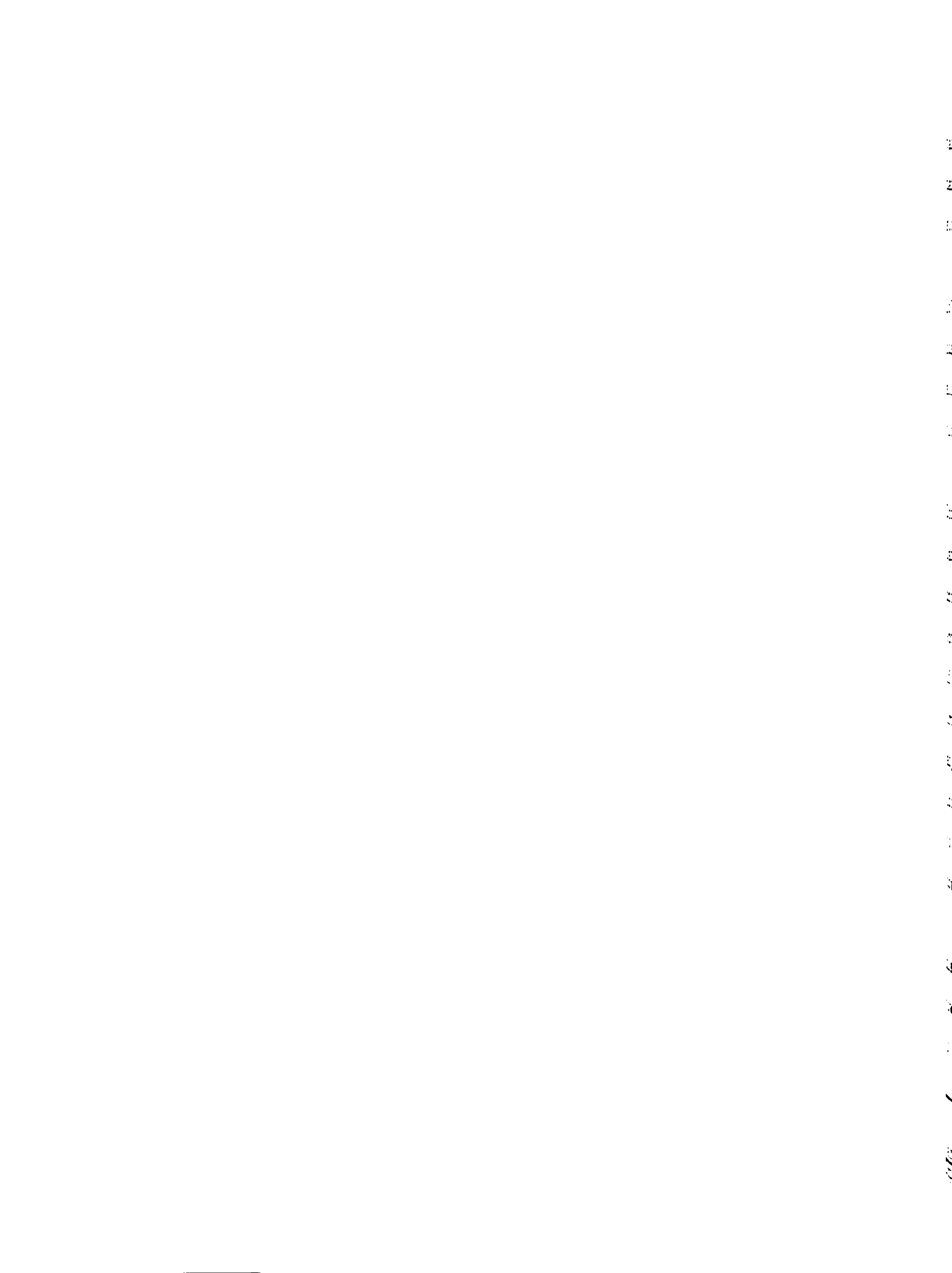
5. Tax rates levied by townships in urban areas are higher than in the agricultural and northern areas.

The Sample

The sample used for this study is based on a sample of Michigan townships originally drawn for a study of tax trends in Michigan. The initial sampling procedure is reported in "Michigan Tax Trends as Related to Agriculture".^{2/}

The major criterion for selection of the original sample of agricultural townships in 1940 was that 90 per cent or more of the total population of the townships was classified in the census as "rural farm population". The sample was further stratified through the elimination of townships with a large part of their area in public ownership. Also excluded were townships in which forests predominated as a land use. A further stratification was considered necessary. Townships receiving large amounts of severance tax money were eliminated because the severance

^{2/}Denzel C. Cline, Michigan Tax Trends as Related to Agriculture, Michigan Agricultural Experiment Station, Special Bulletin No. 301, 1940, pp. 34-39.



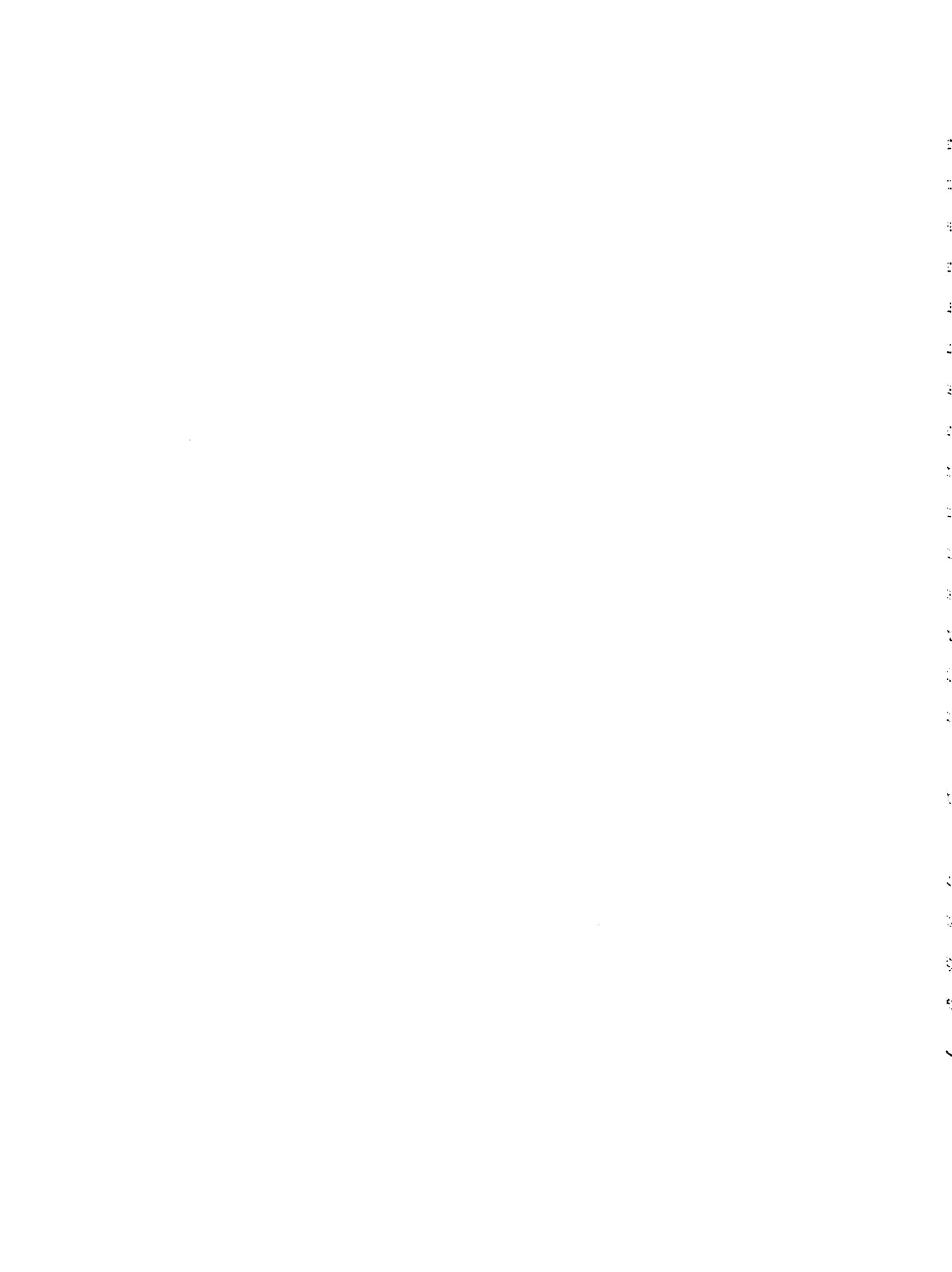
tax returns permitted the townships to lower the property tax proportionally more than those townships which were not subject to severance tax payments.

After all these stratifications, the sample contained 167 townships. The sample lacked a satisfactory geographical distribution, however. Therefore an additional 33 townships were chosen. Eighty per cent or more of the population of these townships were classified as rural.

At a later date the Department of Agricultural Economics, Michigan State University, used the original sample for a study of property tax trends.^{10/} Several modifications were made to account for changes in the economic structure of Michigan. From the original sample of 200 townships every fourth was selected. Fifty urbanized townships were added. The term urbanized means adjacent to a metropolitan area. Supplementary townships located north of the Bay City - Muskegon line were selected to obtain data from the forested and recreation-oriented townships of northern Michigan.

The township sample of the study reported here consisted of 43 urbanized, 49 agricultural and 39 northern townships. Map No. 1 illustrates the threefold stratification of the townships. The metropolitan state economic areas

^{10/} William H. Heneberry and Raleigh Barlowe, Property Tax Trends Affecting Michigan Farmers, Michigan Agricultural Experiment Station, Special Bulletin 421, 1958.



are south of the Bay City - Muskegon line. The concentration of these metropolitan centers is found in the southeastern part of the state. The impact of metropolitan areas upon the organization of the agricultural sector is summarized by Jensen: urbanization means "... to include the full variety of urban and urban-type developments such as residential site plattings, streets, service areas and roads, industrial uses of land for factory sites, roadside shops, stores, filling stations, drive-in theaters, recreation area developments, and any other nonagricultural uses to which agricultural lands may be put. ... it includes also the many home sites, or rural residences, that may be found out beyond any platted or developed residential area which may or may not be contiguous to the city proper."^{11/}

The distribution of the 43 urbanized townships within selected counties is pictured on Map No. 2.

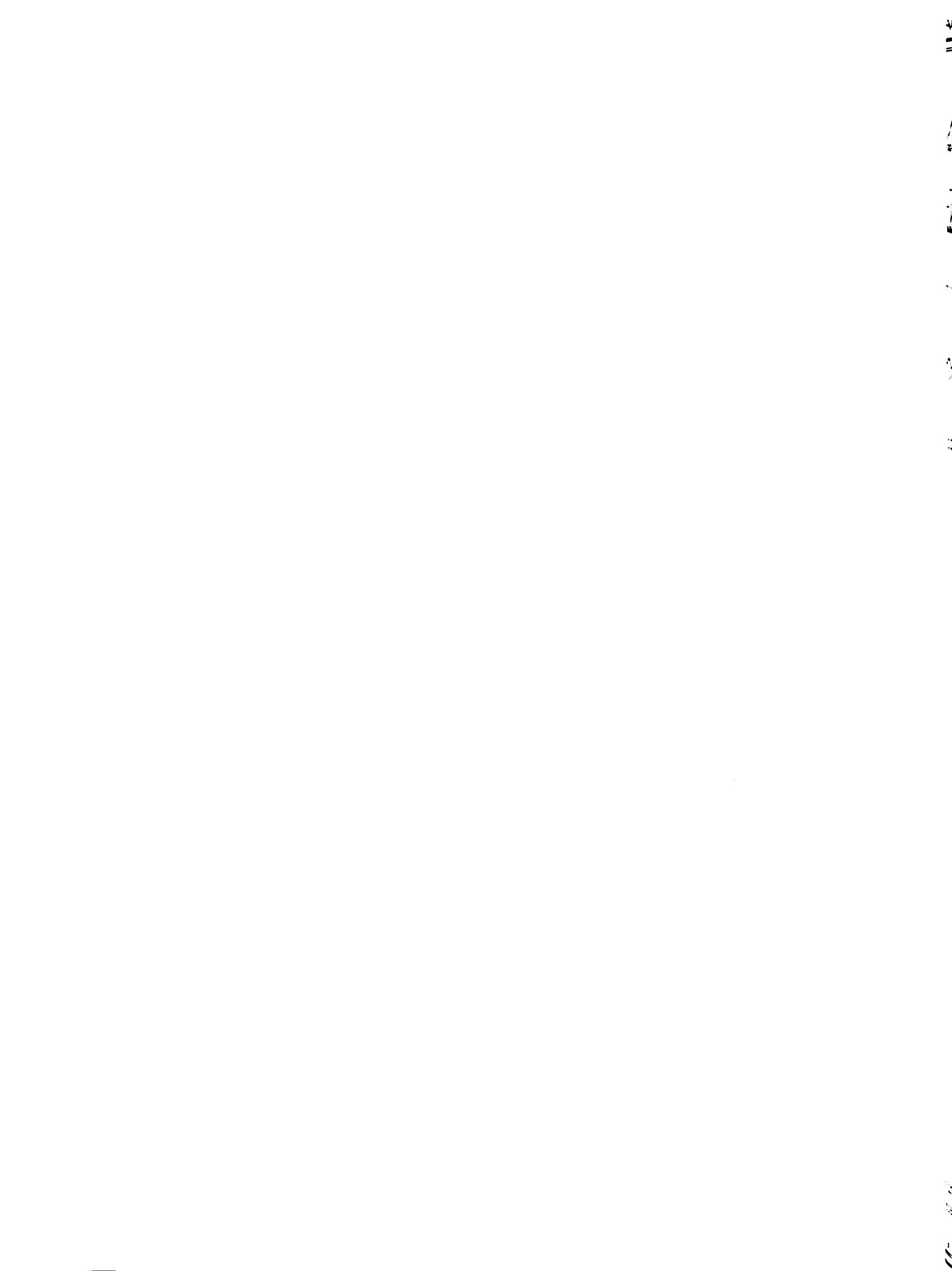
Although the following nine counties are located in the urbanized area of Michigan, some townships within the boundaries of these same counties were selected as agricultural townships. Townships within these counties were included in the sample to demonstrate the impact of

^{11/} Jensen, op. cit., p. 1.

suburbanization upon agricultural enterprises. The 49 agricultural townships are representing the major sector of Michigan's agriculture. (Map No. 3)

Urbanized Townships within Selected Counties:

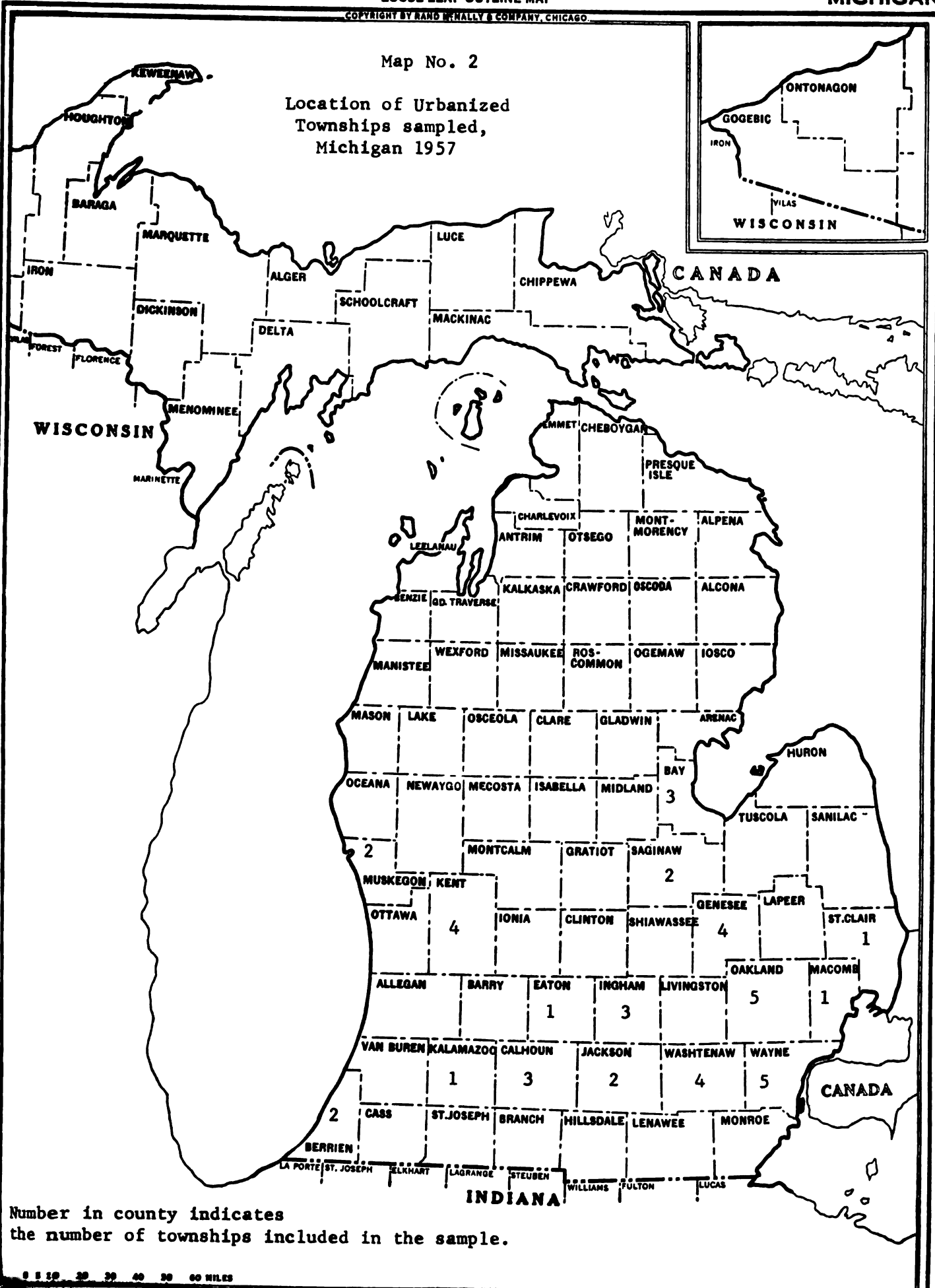
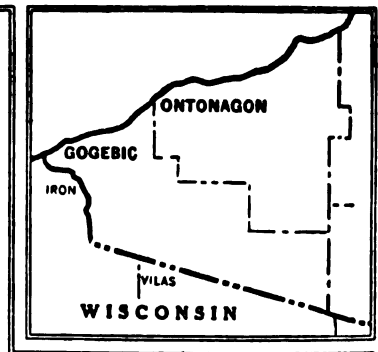
| <u>County</u> | <u>Number of Townships</u> |
|---------------|----------------------------|
| Bay | 3 |
| Berrien | 2 |
| Calhoun | 3 |
| Eaton | 1 |
| Genesee | 4 |
| Ingham | 3 |
| Jackson | 2 |
| Kalamazoo | 1 |
| Kent | 4 |
| Macomb | 1 |
| Muskegon | 2 |
| Oakland | 5 |
| St. Clair | 1 |
| Saginaw | 2 |
| Washtenaw | 4 |
| Wayne | 5 |



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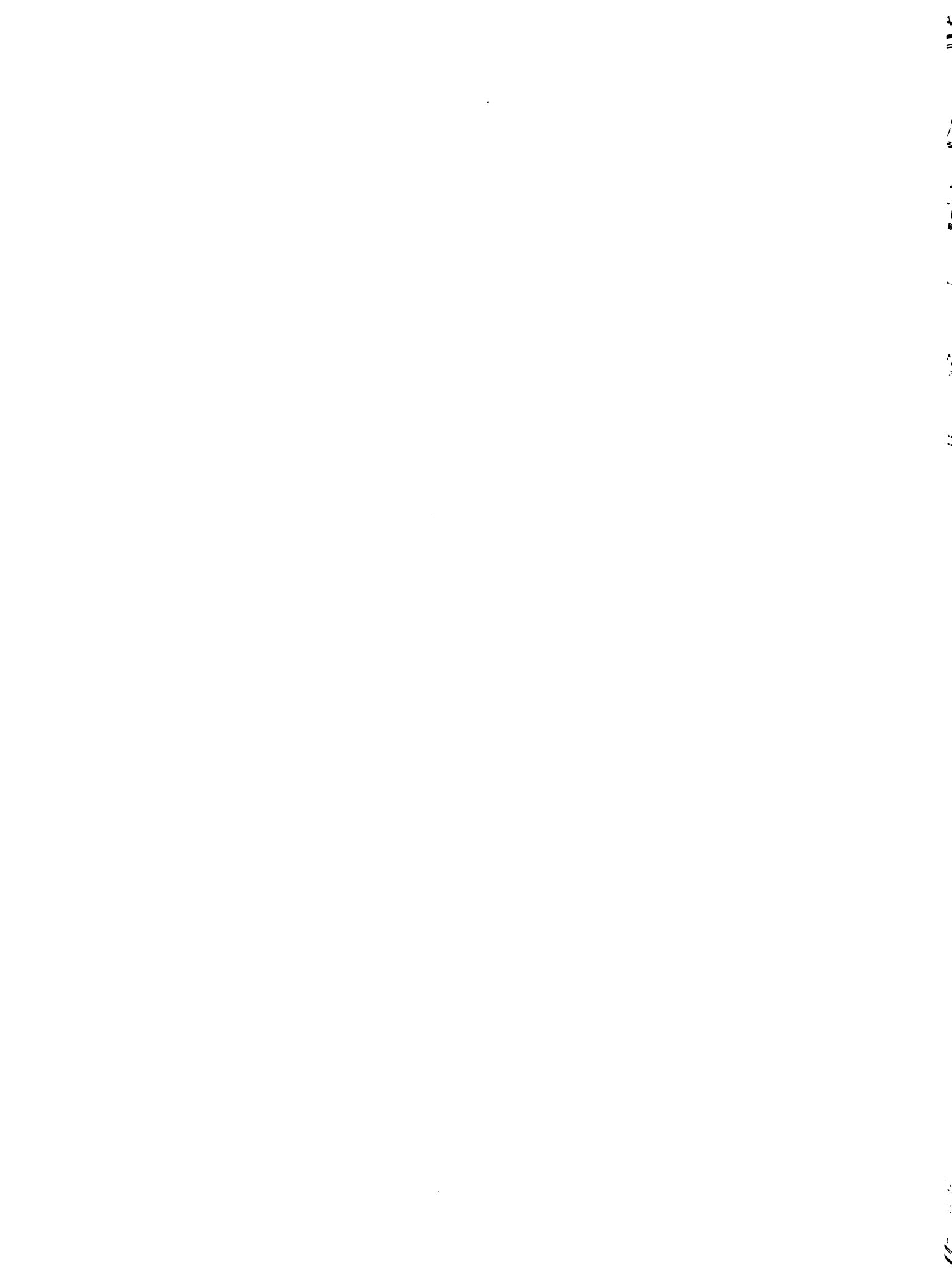
Map No. 2

Location of Urbanized Townships sampled, Michigan 1957



Number in county indicates the number of townships included in the sample.

0 10 20 30 40 50 60 MILES



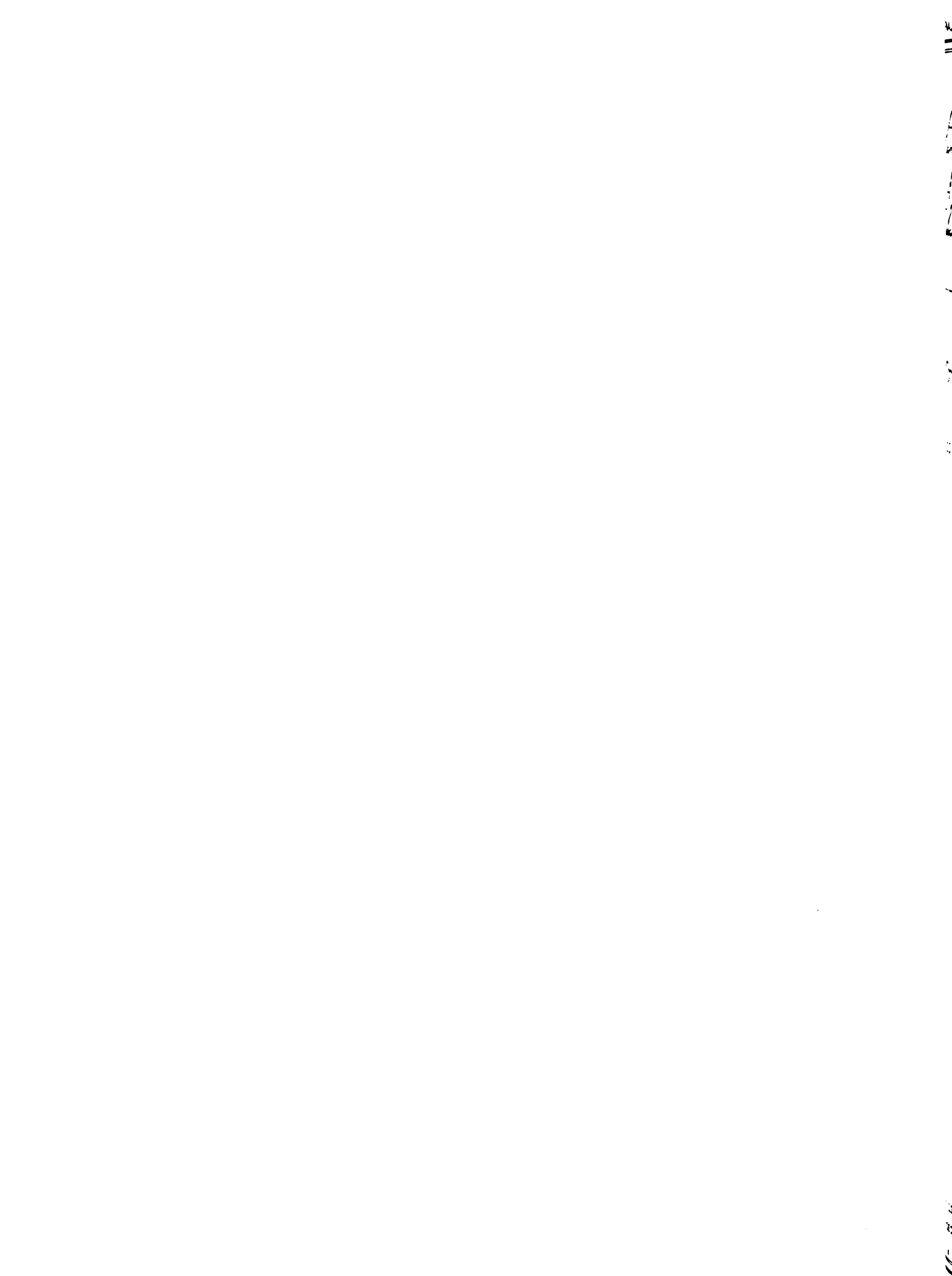
Agricultural Townships within Selected Counties:

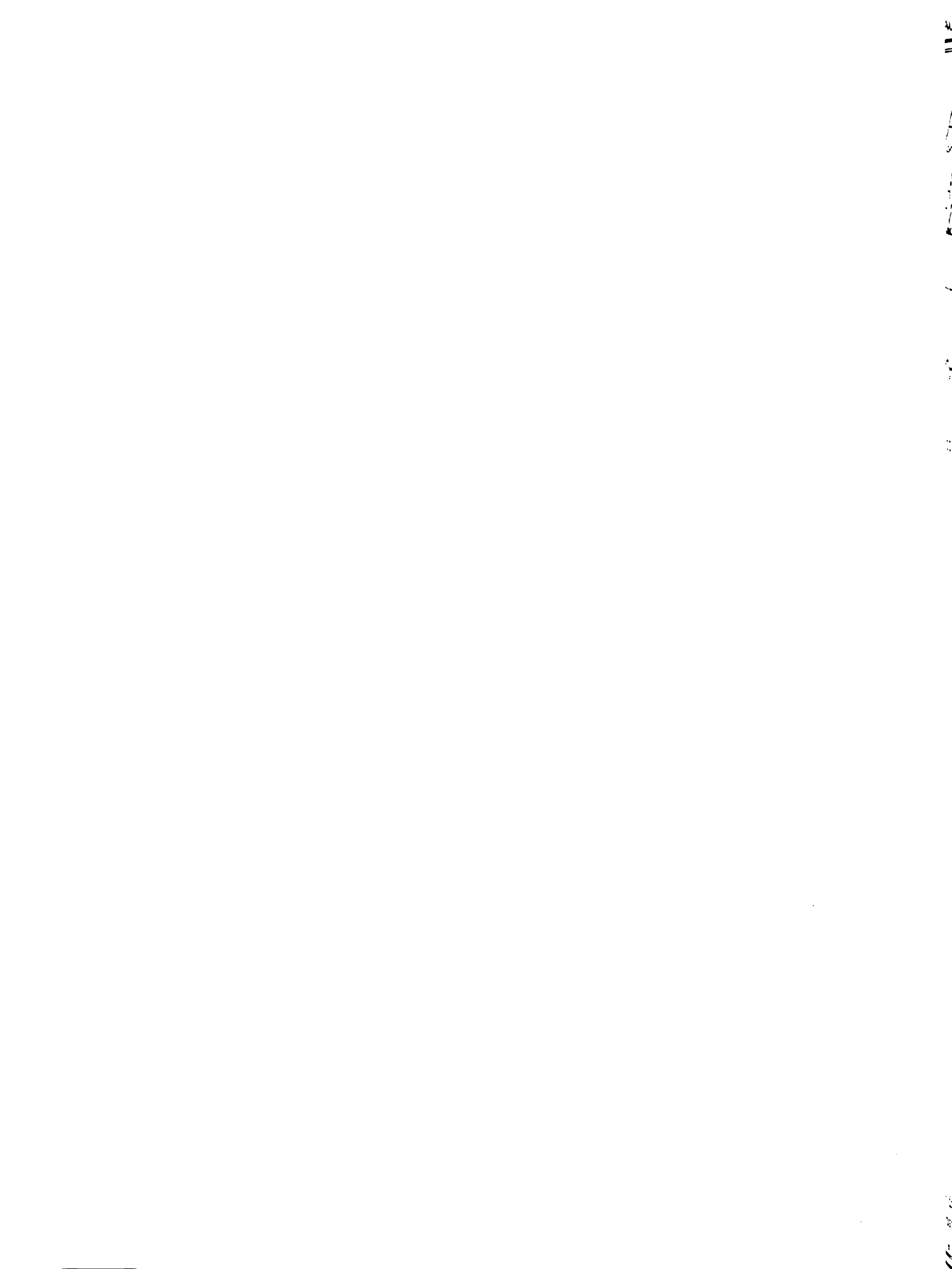
| <u>County</u> | <u>Number of Townships</u> | <u>County</u> | <u>Number of Townships</u> |
|---------------|--------------------------------|---------------|--------------------------------|
| Allegan | 2 | Isabella | 2 |
| Barry | 2 | Kalamazoo | 1 |
| Bay | 1 | Lapeer | 3 |
| Berrien | 2 | Lenawee | 1 |
| Branch | 1 | Livingston | 2 |
| Calhoun | 2 | Montcalm | 2 |
| Cass | 1 | Ottawa | 1 |
| Clinton | 2 | Saginaw | 2 |
| Eaton | 1 | Sanilac | 4 |
| Genesee | 1 | Shiawassee | 1 |
| Gratiot | 2 | St. Clair | 1 |
| Hillsdale | 2 | Tuscola | 3 |
| Huron | 3 | Van Buren | 1 |
| Ingham | 1 | Washtenaw | 1 |
| Ionia | 1 | | |

All 9 northern townships are located north of the Bay City - Muskegon line. (Map No. 4)

Number of Northern Townships within Selected Counties:

| <u>County</u> | <u>Number of Townships</u> | <u>County</u> | <u>Number of Townships</u> |
|---------------|--------------------------------|---------------|--------------------------------|
| Antrim | 2 | Marquette | 1 |
| Benzie | 2 | Mecosta | 4 |
| Charlevoix | 3 | Menominee | 1 |
| Cheboygan | 3 | Missaukee | 2 |
| Chippewa | 3 | Newaygo | 4 |
| Clare | 2 | Oceana | 1 |
| Gladwin | 3 | Ogemaw | 1 |
| Leelanau | 2 | Osceola | 1 |
| Mason | 3 | Presque Isle | 3 |

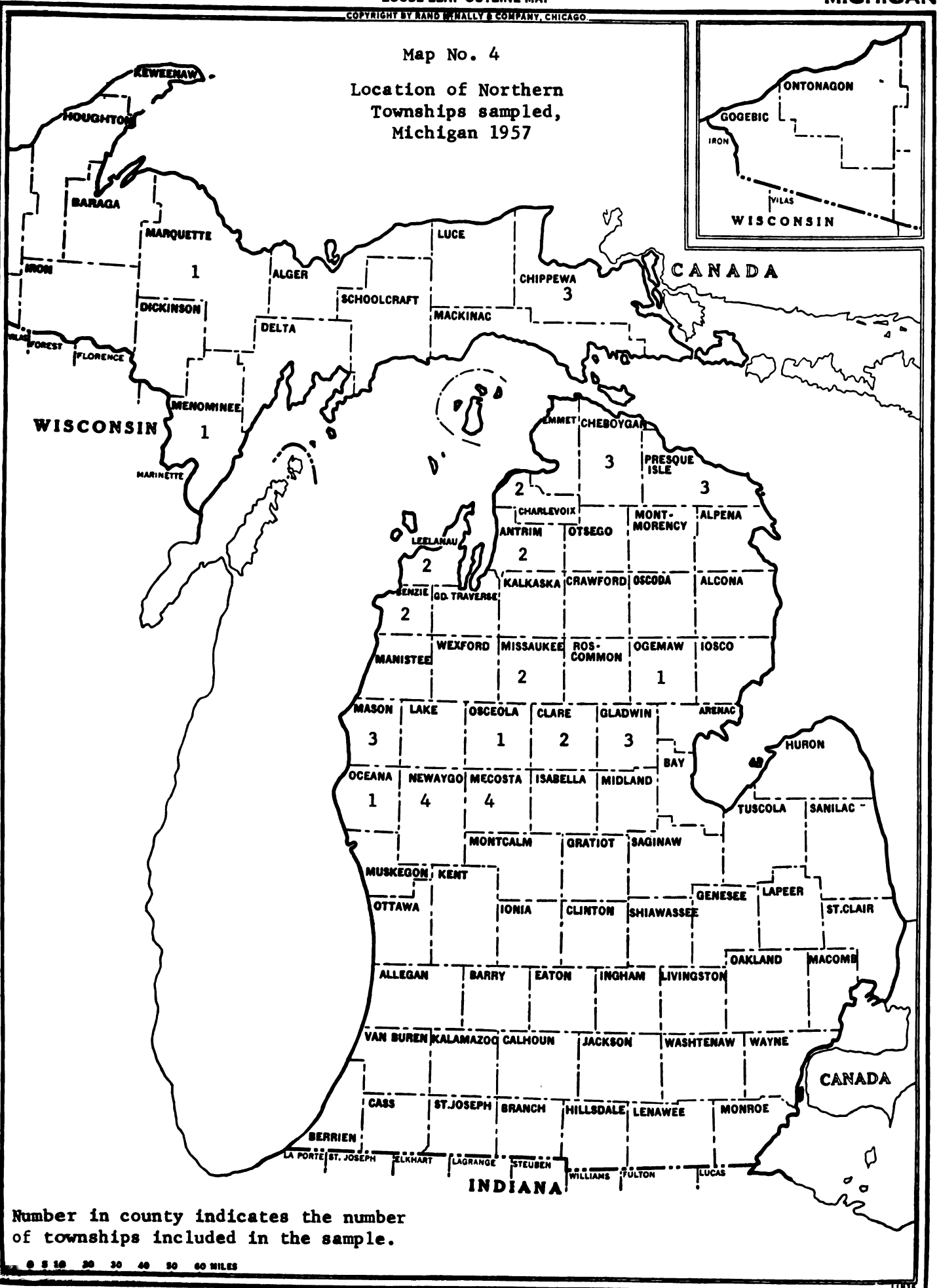
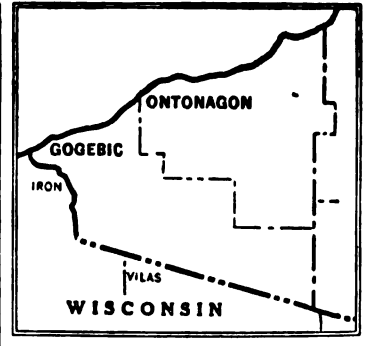




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Map No. 4

Location of Northern
Townships sampled,
Michigan 1957



Number in county indicates the number
of townships included in the sample.

0 5 10 20 30 40 50 60 MILES



To facilitate detailed analysis of township finances and services rendered, a 10 per cent random subsample of the 131 townships was drawn. This subsample was stratified within the same three strata as the larger sample.^{12/} The subsample consists of 15 townships equally stratified into urbanized, agricultural, and northern townships.

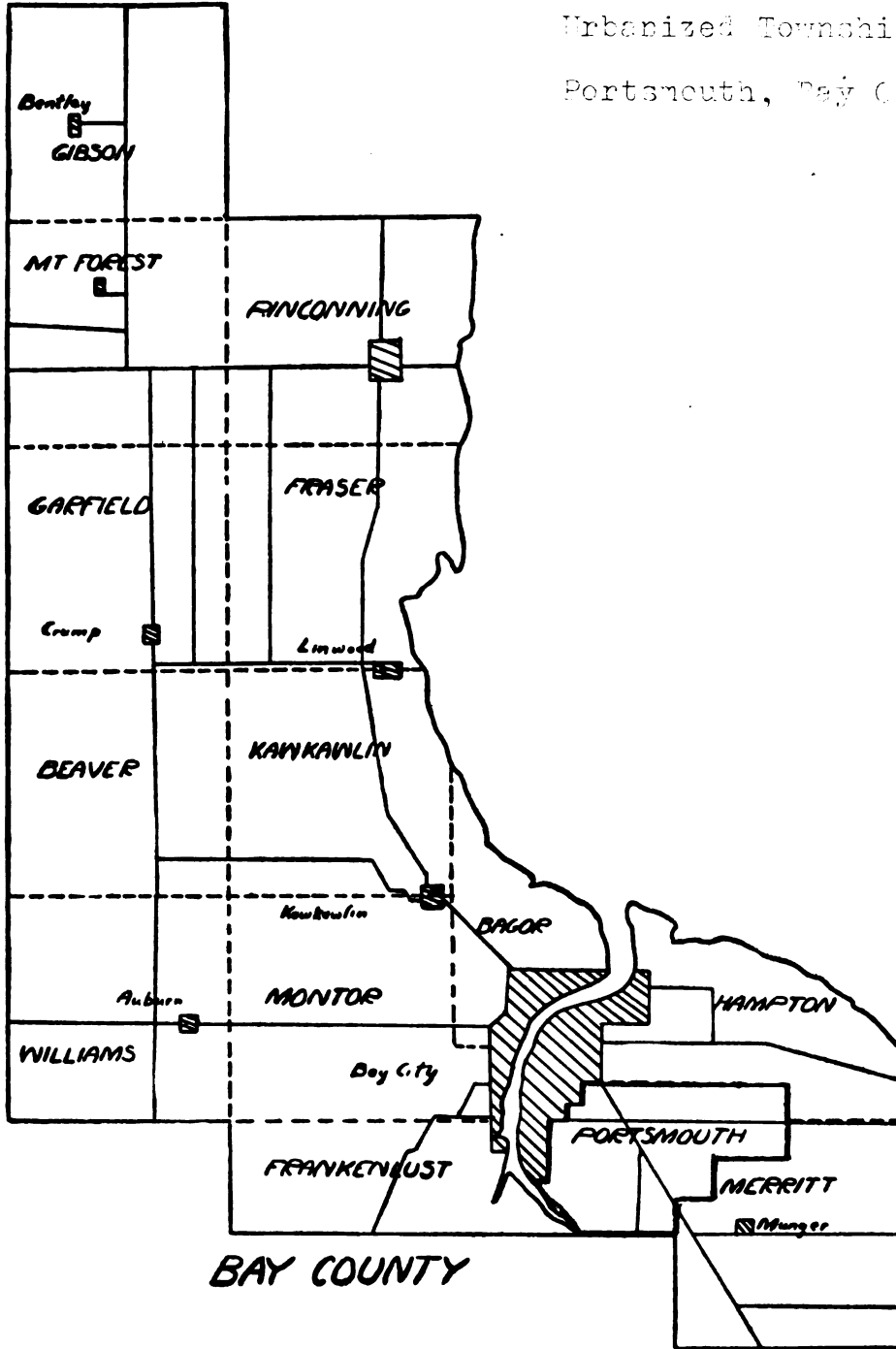
Urbanized townships (see Maps 5-9) within the subsample are adjacent to metropolitan areas. Portsmouth township (Bay County) is located southeast of the city of Bay City. Genesee township in Genesee county is situated northeast of the city of Flint. Summit township in Jackson county is located south of the city of Jackson. The township of Wyoming in Kent county is the largest township of the subsample in terms of population. It is located southwest of the city of Grand Rapids. Wyoming became a city early in 1959, after the data of the township services had been collected.

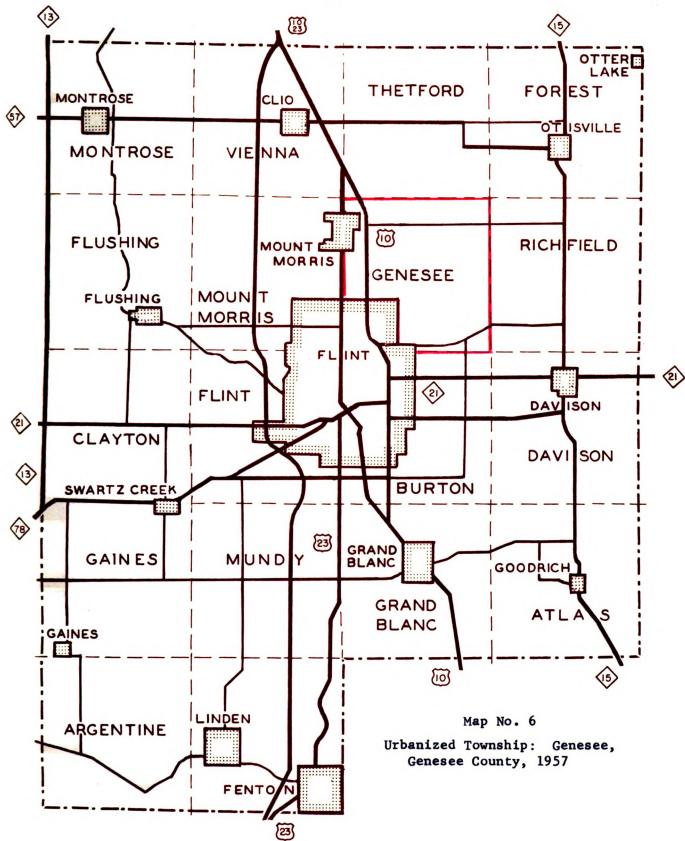
The agricultural and northern townships represent a major part of Michigan's agriculture, as can be depicted from Map No. 10. Calvin township in Cass county is situated in the dairy, livestock, and corn area. Carmel township in Eaton county represents dairy farming. The

^{12/} The random numbers are based on: W. A. Spurr, L. S. Kellogg, J. H. Smith, Business and Economic Statistics, Homewood, Ill., Richard D. Irwin Inc., Table 5-3, p. 92.

Map No. 5

Urbanized Township:
Portsmouth, Bay County, 1957.

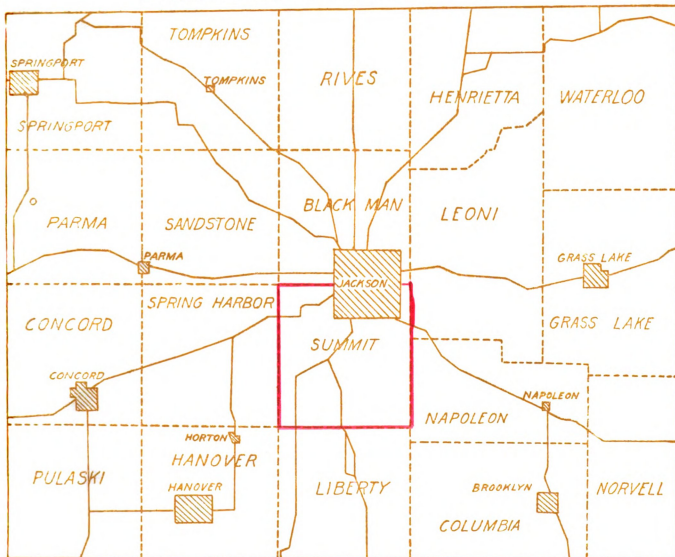




GENESEE COUNTY

Map No. 7

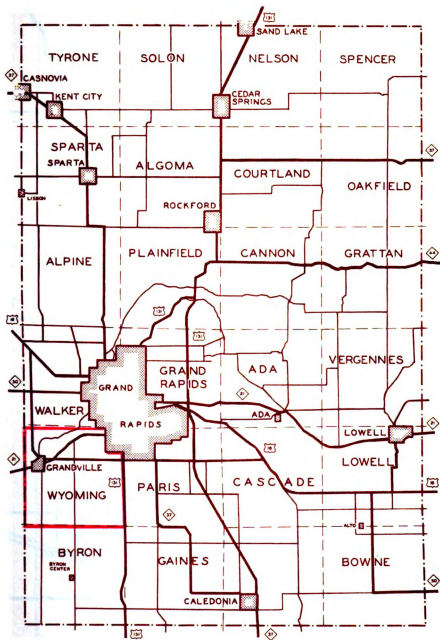
Urbanized Township: Summit, Jackson County, 1957



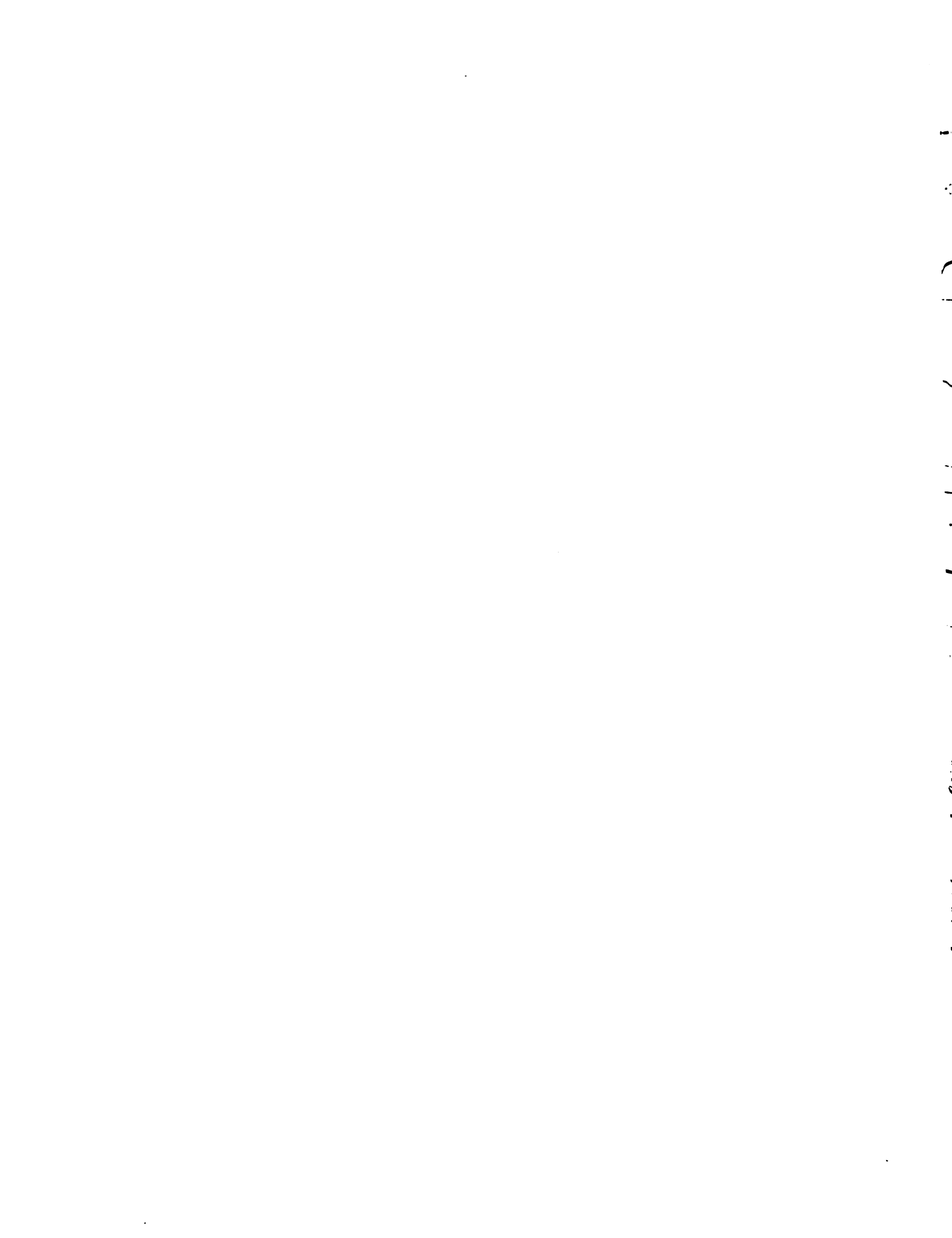
JACKSON COUNTY

Map No. 8

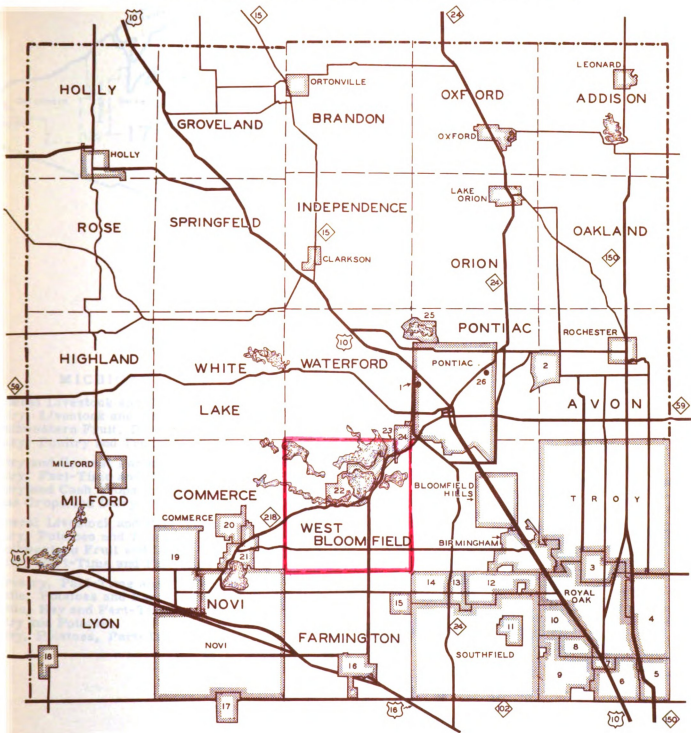
Urbanized Township: Wyoming, Kent County, 1957



KENT COUNTY, MICHIGAN



Urbanized Township: West Bloomfield, Oakland County, 1957



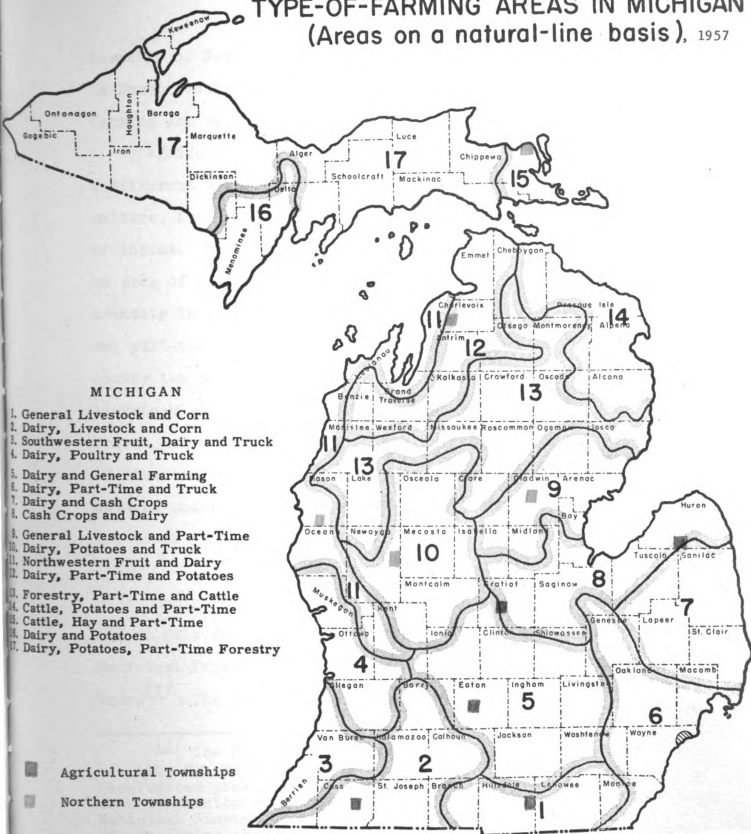
OAKLAND COUNTY

KEY

- | | | |
|---------------------|-------------------------------------|--------------------|
| 2. MSU-O | 10. Berkley | 18. South Lyon |
| 3. Clawson | 11. Lathrup | 19. Wixom |
| 4. Madison Heights | 12. Westwood | 20. Wolverine Lake |
| 5. Hazel Park | 13. Bingham Farms | 21. Walled Lake |
| 6. Ferndale | 14. Franklin | 22. Orchard Lake |
| 7. Pleasant Ridge | 15. Woodcreek Farms | 23. Keego Harbor |
| 8. Huntington Woods | 16. Farmington | 24. Sylvan Lake |
| 9. Oak Park | 17. Northville | 25. Lake Angelus |
| | 26. Oakland County 4-H Fair Grounds | |

TYPE-OF-FARMING AREAS IN MICHIGAN

(Areas on a natural-line basis), 1957



The 83 counties in Michigan are here grouped into 17 type-of-farming areas as indicated in this map. The "natural" boundaries of these areas do not, however, follow county boundaries, but lines representing the influences of soil, climate and markets.

township of Newark in Gratiot county, and Grant township in Huron county are located in an area where cash-crop farming and dairy prevail.

Agriculture in the northern part of Michigan is of a different type than in the southern counties. Agriculture, forestry and tourist trade are the major sources of income. Marion township in Charlevoix county is in an area of part-time dairy and potato farming. Soo township in Chippewa county lies in the cattle, hay, and part-time farming area. Gladwin township in Gladwin county can be characterized as an area of general livestock and part-time farming. The northwestern fruit and dairy belt is represented by the township of Riverton in Mason county. Goodwell township in Newaygo county is located in an area of dairy, potato, and truck farming.

Source of Data

Municipal governments in Michigan are required by law to file copies of their budgets with the Michigan Municipal Finance Commission at the end of each fiscal year.^{13/} The form filed is a summary statement of

^{13/} The Municipal Finance Commission was created by Act 202, Public Acts, 1943. The powers and duties which were vested previously in the loan board and the public debt commission were transferred to the newly established Municipal Finance Commission. It is charged with the duty of protecting the credit of the state and its municipalities with respect to fiscal questions. The Finance Commission has also the duty of examining the books and the records of any municipality in relation to its obligations. Furthermore, the Commission is responsible for the enforcement of the Municipal Finance Act.

receipts and disbursements. The receipts are grouped into taxes collected, State-collected locally-shared revenues, sundry receipts, and the miscellaneous receipts. The disbursements are classified in various classes. Details will be reported in the chapter about the services rendered by townships.

The summary statements of all the sampled townships were copied for the fiscal years 1957 and 1958. Data for previous fiscal years were obtained from micro-films at the Michigan Record Center.

The data on school district finances originated with the annual statistical and financial reports filed by the superintendent of a school district with the Michigan Department of Public Instruction and with the appropriate County Superintendent of Schools. Tax rates were obtained from township and school districts tax roles. Supplementary data about township finances were ascertained through personal interviews of county treasurers and township supervisors. These officials pointed out some of the urgent township problems and possible solutions. Interviews conducted with County Superintendents of Schools provided information about problems of financing schools in townships and counties.

CHAPTER II

LITERATURE REVIEW

Suburbanization is associated with the change of a land resource from agricultural use to urban utilization. The price offered for a land resource and the economic return obtainable are choice indicators in regard to the utilization of the land resource. Land resources will shift toward those uses which will generate the highest economic return. This economic phenomenon is defined as succession in land use. Barlowe observed in regard to succession "...whenever changes in the effective demand for different types of land use lead to changes in the use-capacities of the lands available for these uses, the land resources in question tend to shift to their highest and best economic uses unless prevented by institutional barriers, contrary goals, or individual inertia."^{1/}

Succession in land use is usually a phenomenon occurring in a dynamic economy with rising real incomes and rising levels of living. Land resource development is associated occasionally with some undesirable aspects. In the urban-fringe area, subdivisions enclose fertile farm land and the

^{1/} Barlowe, Raleigh, Land Resource Economics, Englewood Cliff, N. J., Prentice-Hall, Inc., 1958, pp. 219-220.

farm operator may find it difficult to operate his farm because a road divides his fields. Clearly, individuals may have many objections to land resource development. The nature of these objections depends on one's attitude and how one's social and economic status is affected by the land development.^{2/}

Barlowe and Hostetler's study of southwestern Michigan analyzed the development of subdivisions from 1944 to 1958. Six counties, Allegan, Van Buren, Kalamazoo, Berrien, Cass, and St. Joseph were studied. Adverse effects of subdividing land were given special consideration. The results of the study suggest that 41 per cent of the subdivisions platted between 1946 and 1956 were developed prematurely. The authors also found that subdivisions located near a metropolitan area developed at a faster rate than those developed in areas farther out.^{3/}

Vargha analyzed the transition of a township in the rural-urban fringe area northwest of Pontiac and Detroit.^{4/}

^{2/} Barlowe, Raleigh, "Minimizing Adverse Effects of Major Shifts in Land Use", Journal of Farm Economics, XL, No. 5, December 1958, pp. 1341-42.

^{3/} Barlowe, Raleigh, and John E. Hostetler, "Subdivision Trends in Southwestern Michigan, 1944-1958", Quarterly Bulletin, Michigan Agricultural Experiment Station, Michigan State University, East Lansing, Vol. 42, No. 2, November 1959, pp. 379-380.

^{4/} Vargha, Louis, A., Independence Township: A Township in Transition, A Study of Suburbanization in a Selected Portion of the Rural-Urban Fringe of Oakland County, Michigan. Unpublished Master's Thesis, Michigan State University, 1958.

Between 1950 and 1953, 43 subdivisions were platted, containing 900 lots. Approximately 900 acres shifted to a higher use capacity, residential use. Vargha found that contractors bought parcels of land and subdivided them into lots. These buyers constructed houses and tried to sell the finished houses and lots in one transaction. This type of subdivision developed faster than those subdivisions in which building lots were sold and building the house was left to the initiative of the buyer. Only a few houses were built on the purchased lots. The development of subdivisions as individual entities often results in underdeveloped tracts of land located between subdivisions. Increased taxation makes agricultural utilization not feasible since this land is taxed on the basis of its future value as residential area.

Walrath studied the impact of urbanization upon the land use pattern in southeastern Wisconsin.^{5/} Almost 52,000 acres of farmland shifted out of agricultural production between 1950 and 1955, but only 6,000 acres were subdivided. The remaining acreage was kept idle, or held for speculative purposes to be sold at a later date for subdivisions at higher prices. The change in land use affected farming operations. Additional land was rented

^{5/} Arthur J. Walrath, Impacts of Changes in Land Use, United States Department of Agriculture, ARS 43-95, 1959.

and the size of milking herds was increased, but no structural changes of farm organizations were reported. The shift of land resources to nonagricultural uses "trapped" some farms. Farms were surrounded by subdivisions. This change caused problems of trespassing and accessibility to fields.

Community problems arise during the transition from a rural to an urban community. Merchants whose business depends entirely on agriculture e.g. farm equipment dealers, have to shift to other lines of business to serve the new residents. Walrath found that sewage disposal was inadequate, in fact many septic tanks proved to be ineffective. Walrath concluded that the transition from rural to urban land use should be well planned. Subdivision ordinances should be enacted to guarantee orderly development. School districts need to be enlarged to give each a larger tax base.

Stocker studied the effects of suburban residential development on local finances in Wisconsin.^{6/} This study examines the financial problems of four school districts located in the suburban fringe of Milwaukee, Wisconsin.

Farmers favored small school districts "as a means of preventing the urban population from shifting part of the

^{6/} Frederick D. Stocker, "Some Effects of Suburban Residential Development on Local Finances", Agricultural Economics Research, Washington: U. S. Government Printing Office, Vol. IX, No. 2, April 1957.

cost of education to the owners of a farm property".^{7/}
 This intention seemed to be justified as long as urbanization did not occur. Economic pressure, however, brought suburbanization and the tax base of the school districts proved to be inadequate. Educational programs were limited and the small tax base prevented an expansion of the one room school house. Many districts do not have the possibility of enlarging their tax base by including commercial or industrial properties. Residential property was heavily taxed in order to support the school districts. Stocker concluded that school districts must be consolidated to provide a wider tax base and to ease the tax burden on residential property.

Clawson, et.al., recently estimated the future growth of cities. It is assumed that "centrifugal forces operate not only for residential land use, but also for trade, business and industry."^{8/} It is suggested that commercial buildings will be built larger horizontally, but lower vertically. The authors project a lower density of land use than presently and consequently an increased effect upon land use requirements.

Moore and Barlowe studied the effects of suburbanization upon rural land use in the Lansing, Michigan, metropolitan area. The authors classified 58 per cent of the population

^{7/} Ibid., p. 51.

^{8/} Clawson, Marion, Burnell R. Held, and Charles H. Stoddard, Land for the Future, p. 115, Baltimore: The Johns Hopkins Press, 1960.



as rural residents.^{9/} Sixty-six per cent of this group owned less than three acres.^{10/} The impact of the nearby metropolitan area seemed to be reflected in the future plans of the full-time farmers. Moore and Barlowe observed in this respect that subdivision, or sale of the farm, was anticipated by 9 per cent of farmers and rural residents in the Williamston area and 25 per cent in the Okemos area.^{11/} The dynamic process of suburbanization probably has effects on land use. It was found that about 45 per cent of the area held by rural residents in the Okemos area and 26 per cent in the Williamston area was classified as idle.^{12/} Unused land was a sufficient source of supply for building lots because "about half of the rural residents had moved to land that had been idle for one or more reasons".^{13/}

Suburbanization and its effects upon the demand for land is considered by some authors as a phenomenon which endangers the supply of food, fiber and timber. Holm and Scofield estimated that about a million acres of land are shifted

^{9/} Howard E. Moore and Raleigh Barlowe, Effects of Suburbanization upon Rural Land Use, Michigan Agricultural Experiment Station Technical Bulletin 252, 1955, p. 9.

^{10/} Ibid., p. 14.

^{11/} Ibid., p. 17.

^{12/} Ibid., p. 19.

^{13/} Ibid., p. 19.



yearly to residential and industrial uses, highways, and similar nonagricultural uses.^{14/} Clawson, however, pointed out that one has to distinguish between the increase in demand for land and the increase in demand for the products of the land.^{15/} Increased application of technology, and other inputs have increased agricultural output 36 per cent from 1940 to 1956 without an increase of the land area in cultivation.^{16/} A substitution of capital for land took place during this period.

Bogue estimated that 7.44 million acres of agricultural land would be shifted to nonagricultural uses by 1975.^{17/} It is assumed that the population of the 147 standard metropolitan areas will account for 75 per cent of the total population increase of the United States. The decrease of the agricultural land area is substantial although the shift of land use should be interpreted within the context of increased

^{14/} Paul H. Holm and William H. Scofield, "The Market for Farm Real Estate" in U. S. Department of Agriculture, Land, Yearbook of Agriculture 1958, Washington, U. S. Government Printing Office, 1958, p. 202.

^{15/} Marion Clawson, "Land Use and Demand for Land in the United States" in Modern Land Policy, Urbana, Ill., University of Illinois Press, 1960, p. 11.

^{16/} William H. Scofield, "Prevailing Land Market Forces" Journal of Farm Economics, Vol. 39, No. 5, December 1957, p. 1503.

^{17/} Donald J. Bogue, "Metropolitan Growth and Farm Land", Farm Policy Forum, Ames, Iowa, The Iowa State University Press, Vol. 9, No. 3, Winter 1957, pp. 8-9.



productivity per unit of land through the application of additional factor inputs. Clawson argues that the increase of the population has to occur within the city in order "to conserve or reduce the area of land required for site purposes."^{18/}

Within the process of suburbanization, resources will move out of agriculture. The rate of shift of the resource depends upon its type. A recent study of the succession in land use from dairy farms to urban-industrial uses in Connecticut, investigated the shift of land, labor, and capital out of the agricultural sector of the economy.^{19/} Kottke found that only 10 per cent of the land and building resources were shifted to nonagricultural uses and the remaining area was kept idle. Farmers anticipated further urban expansion and higher land prices and therefore tried to keep the land for speculative purposes. He also found that the land resource shift has been fairly large and had a restraining effect on further expansion of the total milk supply in Connecticut.

Beer and Barlowe measured the impact of the property tax on Michigan farmers from 1939 to 1956.^{20/} The average amount

^{18/} Clawson, et. al., op. cit., Modern Land Policy, p. 12.

^{19/} Marvin W. Kottke, "Withdrawal of Resources out of Agriculture in an Expanding Urban-Industrial Economy", Journal of Farm Economics, Vol. 42, No. 5, December 1960, pp. 1508-9.

^{20/} Charles Beer and Raleigh Barlowe, "Impact of Property Taxes on Michigan Farmers, 1939-1956", Quarterly Bulletin, Michigan Agricultural Experiment Station, Michigan State University, East Lansing, Vol. 40, No. 1, August 1957, pp. 172-180.

of the property tax paid per farm increased from \$75 in 1939 to \$375 in 1956 or 400 per cent. It should be pointed out that the average farm increased from 165 to 234 acres and that the farms had larger investments in livestock, machinery and other taxable personal property. The actual property tax levy on a per tillable acre base increased from 69 cents in 1939 to \$2.25 in 1956 or 256 per cent. The sharpest rate of increase was observed from 1951 to 1956.

The value of farm real estate increased at a faster rate than property taxes during the 1940's. After 1948 the value of the farm real estate advanced at a lower rate than the property tax.

Krueger studied the tax problem in the urban fringe area.^{21/} He suggested that people who move to suburbs do not pay their share of the additional costs of services which the local government provides. Krueger analyzed the amount of taxes paid and the monetary value of services rendered. It was found that farmers paid an average of \$237 in taxes but received services valued at \$173. In contrast, rural nonfarm residents paid \$85 in taxes and benefitted from services valued at \$167. Krueger's data suggest that the township reported an increase in per capita recreation costs from \$0.03 in 1951 to \$0.54 in 1955. This increment is caused by

^{21/} Ralph R. Krueger, "The Rural-Urban Fringe Taxation Problem: A Case Study of Louth Township", Land Economics, Vol. 33, No. 3, August 1957, pp. 264-269.

the movement of the urban population in the townships. These people were accustomed to recreational facilities and demanded improvements although the resident farmers were content with the level of services previously rendered.

"Property Tax Trends Affecting Michigan Farmers", a study by Heneberry and Barlowe^{22/} is a more comprehensive inquiry than the one by Beer and Barlowe mentioned above.^{23/} Heneberry observed that "the total property levy more than quadrupled between 1940 and 1957 ... and the State equalized valuation of taxable properties increased from \$5.6 billion to \$21.6 billion during this 18-year period".^{24/} Property taxes amounted to 5.2 per cent of the average per capita income in 1940. Since per capita income has gone up from \$616 in 1940 to \$2,179 in 1957, and other State taxes have increased, the property tax required 3.6 per cent of the average per capita income. The values of farm and urban properties increased approximately three and a half times between 1940 and 1957.

Property tax paid per acre increased from \$0.46 in 1940 to \$1.54 in 1957, or about three and a half times.^{25/} If the

^{22/} William H. Heneberry and Raleigh Barlowe, Property Tax Trend Affecting Michigan Farmers, Michigan Agricultural Experiment Station, Special Bulletin 421, 1958.

^{23/} Beer, op. cit.

^{24/} Heneberry, loc. cit., p. 6.

^{25/} Heneberry, op. cit., pp. 19-20.

property tax is expressed per \$100 of value, the tax rate was only about 5 per cent higher in 1957 than in 1940. A more comprehensive review of property tax trends, property levies and increases in valuation is found in the introduction to Chapter V.

Local units of government in Kansas, especially counties and school districts depend upon the property tax as their major source of revenue.^{26/} Property taxes levied on Kansas farm real estate increased three times from 1943 to 1955. The county and the school district levy accounted for 85 per cent of the total tax rate.^{27/} Property tax paid per acre amounted to \$0.36 in 1940 which was 10 cents below the levy in Michigan. The rates per acre increased to \$0.92 in 1954, but Michigan farmers paid \$0.30 more per acre in 1955 than the farmers in Kansas. The property tax levy per \$100 full value declined in Kansas from \$1.23 in 1940 to \$1.14 in 1954 or 7 per cent.^{28/} The tax rates in Michigan per \$100 full value were 5 per cent higher in 1957 than in 1940.^{29/}

^{26/} Wilfred H. Pine, Farm and City Real Estate Taxes in Kansas, Kansas Agricultural Experiment Station, Bulletin 382.

^{27/} Ibid., pp. 5-6.

^{28/} Ibid., Table 11, p. 16.

^{29/} Heneberry, op. cit., pp. 19-20.

The Michigan Tax Study is a comprehensive analysis of the Michigan tax system.^{30/} Special emphasis was given to the various taxes levied in Michigan and their effects on the economy of Michigan. The chapter entitled "The General Property Tax" is a good source of background information for the study of local government finances.^{31/} The general property tax, or simply, the property tax, is defined as: "a tax on all wealth, tangible and intangible, which possesses exchange value. It is levied according to exchange value, at least in theory, and at a common rate for all property in the same district. It is thus a uniform and universal tax based upon value of goods owned. Usually it is levied upon property wherever located, and the tax is paid by the owner".^{32/} The amount of revenue from the property tax can be predicted with great certainty. Property tax revenues provide a relative stable income for many local governments and it is relatively easy to administer. These are reasons why, at least for administrative reasons, the property tax is a good tax. Two major criticisms in regard to the property tax are heard frequently. Property tax revenues are allocated in such a manner that the taxed properties do not receive benefit from the taxation. The second argument against the property tax

^{30/} Michigan Tax Study, Staff Papers, Lansing, Michigan, 1958.

^{31/} Ibid., pp. 185-241.

^{32/} Ibid., p. 186.

is that it is levied upon property without regard to the ability or inability of owner of land resource to pay the tax. This argument was probably justified at a time when wealth and land ownership were synonymous. But it does not hold true for a western capitalistic society where considerable wealth is owned in the form of stocks, bonds, or other intangible property.

The property tax affects the land utilization decisions of the land resource owner. A high levy on property may induce owners to shift their land resources to higher and better uses. Property taxation of farm land shifting to suburban uses is a case in point. Assessment of farm land located in a subdivision at building lot rates might force the owner to develop his land earlier than he had planned.

Shifting of agricultural land resources to residential subdivisions or industrial sites has generated assessment problems in the rural-urban fringe areas.^{33/} Some states have passed laws which require the assessment of land in the rural-urban fringe area on the basis of its agricultural use and to discount possible future urban uses. The purpose of such laws is to have a guarantee of orderly development of metropolitan areas, and to preserve "the economic condition of agriculture".^{34/} It was found in a recent Maryland

^{33/} Farm Real Estate Taxes, Economic Research Service, United States Department of Agriculture, June 1961, pp. 15-16.

^{34/} Farm Real Estate Taxes, op. cit., p. 15.



study that taxes on farm land in the rural-urban area were reduced by 1 to 7 per cent.^{35/} Administrative difficulties arose, however, in defining "agricultural use".

The importance of the property tax as a source of revenue has declined in relation to other tax sources of the federal, state, and local governments since the early part of the century.^{36/} The property tax declined from 6.7 per cent in 1946 to 4.4 per cent in 1957 as per cent of all State tax collection in Michigan.^{37/} It should be stressed, however, that the State of Michigan has not levied the property tax since 1932.

Twenty-six States levied the property tax in 1957. Thirty-one per cent of the property tax collected by State governments in 1957 was earmarked for the State's general funds.^{38/} Support of public schools required 24 per cent of all State general property taxes.^{39/} The number of States which levied the property tax declined from 22 in 1947 to 14 in 1957.

^{35/} Ibid., p. 16.

^{36/} Michigan Tax Study Staff Papers, op. cit., pp. 191-192.

^{37/} Ibid., Table 4, Chapter 5, p. 192.

^{38/} McGehee H. Spears, The General Property Tax in State Finances, Agricultural Research Service, U. S. Department of Agriculture, ARS 43-111, 1960, p. 11.

^{39/} Ibid., p. 11.

Recent changes in State and local revenue structures in the United States were discussed by Leonard.^{40/} The property tax has declined as a source of revenue for State governments but is still a major source of revenue for local governments. In a few states, especially California, Pennsylvania, Ohio, Illinois, and New York, authority has been granted to local governments to collect non-property taxes. Examples of these taxes are local sales taxes and local income taxes.

Leonard found a decline of revenue and tax impacts in the Northeast, Lake and Corn Belt States, and conversely an increase in the Southeast and Delta States.^{41/} These shifts seemed to be a reflection of changes in regional income levels. It was also observed that population density and cost of government per person were inversely related. Regional shifts of the relative importance of various taxes were less pronounced than changes in per capita taxes between 1942 and 1953. Southern states received a large share of their revenue from sales and gross receipt taxes. Leonard suggests that this revenue pattern might be correlated with homestead exemptions and the intention to attract industries in these areas through tax concessions. The Lake, Pacific, and

^{40/} Lawrence A. Leonard, "State and Local Governmental Revenue Structures - A National and Regional Analysis", National Tax Journal, Vol. 11, No. 1, March 1958, pp. 67-77.

^{41/} Ibid., p. 71.

Appalachian States relied heavily upon the State income tax as source of revenue.

These regional comparisons reflect basic structural differences between regions, but also variations in income, degree of urbanization and population density. Leonard observed, however, that "the overall picture is complex and many economic, political, and other factors have been working at cross purposes."^{42/}

A study in Connecticut investigated the methods of raising public funds for local government financing and the possibility of distributing state grants to local governments which have inadequate financial capacity.^{43/} Towns are the local governments in Connecticut that provide all the essential services, including education. Property taxes were the most important source of revenue and they accounted for 79 per cent of local government revenues in 1952.^{44/} Goodwin found that the largest per-capita expenditures occurred in the larger cities and fast-growing primarily residential towns. The cost of services borne by farm towns was obscured by state grants. These governments rendered "simpler services" but may have higher unit costs. Goodwin suggested a formula

^{42/} Leonard, op. cit., p. 77.

^{43/} Dorothy C. Goodwin, "Fiscal Needs and Capacity of Connecticut Towns", Journal of Farm Economics, Vol. 38, No. 5, December 1956, pp. 1475-1482.

^{44/} Ibid., p. 1475.



for grants to towns especially to urbanized towns but this would eliminate the system of earmarked taxes. The grant would be based on the following formula: "... prorate a given total sum of money among towns by multiplying population density per acre or per square mile in each town by total population for the town".^{45/}

Brazer discussed the role of the metropolitan center in state and local finances.^{46/} He observed that the property tax base of the metropolitan areas will decrease because industry is moving out and service industries are remaining. Brazer argues that the cities should be granted broader tax powers. The tax power should be extended to include the economic boundaries of the cities rather than be limited by the geographical area of the city.

Brazer suggested that the property tax as major source of revenue should be replaced gradually by the income tax and sales tax. These two taxes should be the predominant source of revenue of the central city.

Isard and Coughlin analyzed the costs and revenues of services of hypothetical municipalities.^{47/} The authors

^{45/} Ibid., p. 1481.

^{46/} Harvey E. Brazer, "The Role of Major Metropolitan Centers in State and Local Finance", The American Economic Review, Vol. 48, No. 2, May 1958, pp. 305-316.

^{47/} Walter Isard and Robert Coughlin, Municipal Costs and Revenues Resulting from Community Growth, Wellesley, Massachusetts: Chandler-Davis Publishing Co., 1957.

investigated the effects of community growth on single services and were concerned mostly with technical inputs. They concluded in regard to potential revenue of the municipality that the income of residents as it affects property variations is the most important factor.

Aex argued that there should be a close relationship in the planning for school plants and municipal improvements.^{48/} The school district and the municipality receive a large part of their revenue from the property tax. The legal debt limit as well as the limit of the property tax levy applies to the aggregate limits of the local government. Urban renewal projects result in increased assessed valuation in the long run. This higher assessed valuation will be an additional source of revenue.

Jans examined six alternative solutions which could be applied to the urban fringe problem under Michigan law.^{49/} The alternatives are: 1) organization of urbanized but unincorporated townships as charter townships; 2) incorporation of new cities; 3) incorporation of new villages; 4) annexation of fringe areas to a central city or village; 5) creation of a metropolitan district to handle one or a

^{48/} Robert P. Aex, "Effects of School Financing on other Local Government Services", Municipal Finance, Vol. 32, August 1959, No. 1, pp. 66-68.

^{49/} Ralph T. Jans, Urban Fringe Problem: Solution under Michigan Law, Bureau of Government, Institute of Public Administration, University of Michigan, No. 26, 1957.

few municipal services over a wide area, and 6) intergovernmental cooperation of various types. The author found that the home-rule city plan appears to be more applicable than the general law village as far as new incorporations are concerned.

It appears that annexation of the urban fringe area to an incorporated municipality would be the best way to solve the problem of unincorporated areas around the city. Existing State laws have to be modified, however, before annexation can be applied extensively. Jans concludes his study with the observation that "each community must determine for itself which of the available alternative solutions is most likely to prove effective in attacking its own fringe problem."^{50/}

^{50/} Ralph T. Jans, Urban Fringe Problem: Solutions under Michigan Law, Bureau of Government, Institute of Public Administration, University of Michigan, No. 26, 1957, p. 56.

CHAPTER III

ANALYSIS OF THE FINANCIAL STRUCTURE OF 150 TOWNSHIPS IN MICHIGAN FOR FISCAL YEARS 1957 AND 1958

History of Michigan's Tax Structure Since 1945

Fifteen years have passed since the end of World War II. The United States has experienced a tremendous growth of population during this one and one-half decades. Rising disposable incomes have enabled large segments of the population to achieve a high standard of living. This population growth and the newly acquired wealth have generated numerous problems for all levels of government. State and local governments especially have been forced to render new and additional services. These governmental units, however, lack the tax resources of the Federal Government. Local governments depend largely on the general property tax for revenue to finance their expenditures.

The financial situation of the State of Michigan was excellent at the end of World War II. The State had accumulated a large monetary surplus due to war-time limitations on purchases of supplies for current operations. Many services had been curtailed. Capital outlays were practically eliminated during the war-time years.

Local governments, municipalities, and school districts alike sought increased aid from the state government

in 1945. These local governments pleaded for a state aid of about \$18 million annually. It was anticipated that a one-sixth of the state sales tax would produce this revenue. The State Legislature, however, sought another source of funds. A 10 per cent excise tax on the sale of alcoholic beverages was enacted and the revenues earmarked for state aid payments to local governments. One-third of the State's tax on intangibles also was earmarked for the local governments. The revenue from these two taxes was estimated at \$16 million.^{1/} Local governments did not receive at this particular time the \$18 million state aid for which they had agitated.

All levels of local governments, townships, and school districts enjoyed comparatively strong representation in the Legislature. Lobbying for more state aid continued until the adoption of the sales tax diversion amendment in 1946. This amendment specified that one-sixth of the sales tax revenue be distributed on a per capita basis to cities, villages, and townships. School districts received another one-sixth of the sales tax receipts. The aid to school districts is based on the number of the school age population in the district.

^{1/} Michigan Tax Study, Staff Papers, Lansing, Michigan 1958, p. 33.

State aid to local governments was given an additional boost in the 1946 diversion amendment by a provision requiring continuation of the existing allocation of sales tax revenues to local governments. The appropriation for school purposes and other state aids to the local units called for 44.77 per cent "of the sales tax receipts of the immediately preceding year".^{2/} This meant that the State was bound to allocate two-sixths of its sales tax receipts plus an amount equal to 44.77 per cent of its sales tax receipts for the previous year (or approximately 78 per cent of its sales tax revenues) to local governments. The State collected the tax and retained 22 per cent which was available to cover current expenditures.

Disbursements exceeded revenues for several years and the General Fund showed a deficit of more than \$65 million at the end of the fiscal year 1952.^{3/} The Legislature of 1952 faced the task of finding new, permanent revenues. It should be pointed out, however, that the \$50 million Veteran's Trust Fund had been established through appropriation of this amount of money from the surplus of the General Fund.

^{2/} Michigan Tax Study, Staff Papers, op. cit., p. 33.

^{3/} Michigan Department of Revenue, 13th Annual Report, 1953-54, Lansing, Michigan, Speaker-Hines and Thomas, inc., 1954, p. 1.

Several new taxes were enacted by the 1952 Legislature. Used car sales were made subject to the use tax. The franchise tax laws were changed in such a manner that the tax was applicable to railroads, telephone, and telegraph companies. The local government share of the intangibles tax revenue was reduced from \$11 million to \$9.5 million. The revenue of these new taxes was overestimated. Thus, the deficit of the General Fund approximated \$90 million at the end of the fiscal year 1953. The Legislature searched for new tax revenues to overcome this chronic deficit. The business activities tax was enacted. It was stipulated that business enterprises were to be assessed 4 mills and public utilities 1 mill of adjusted receipts. The business activities tax proved to be an important source of revenue. Although this tax was scheduled to expire in 1955, the Legislature amended the business activities tax law in the same year. The business activities tax was made a permanent part of Michigan's tax revenue. The allocation formula was changed to include "the situs of property and payrolls as well as sales"^{4/} Furthermore, the tax rates were increased. The business activities tax was one of the most important sources of revenue for the General Fund in 1956.^{5/}

^{4/} Michigan Department of Revenue, 17th Annual Report, 1957-58, Lansing, Michigan, Speaker-Hines and Thomas, inc., 1958, p. 12.

^{5/} Cf. Ibid., p. 12.

The 1954 Legislature enacted several important tax laws. A constitutional amendment was passed which changed the distribution formula of the sales tax. Now, two-thirds of the net sales tax receipts are distributed to school districts, and the transfer payments to cities, townships, and villages in the amount of one-sixth of the net receipts are continued. This new provision gives the school districts a greater share of the sales tax than the previous law which stipulated that one-sixth plus 44.77 per cent of receipts of the year prior to the year of distribution, be earmarked for distribution to the school districts.^{6/} The amendment contained a provision which prohibited a levy of the sales tax in excess of three per cent.

The gasoline tax was increased to six cents per gallon in 1955. The revenues of the gasoline tax are utilized for the financing of highway construction. Increased aid to school districts was being financed through an additional levy of two cents on a package of cigarettes and a four per cent excise tax on the sale of liquor. The two tax measures were part of the 1957 School Aid Bill.

The state's financial status improved continuously until 1956. The General Fund had accumulated a surplus

Michigan Department of Revenue, 17th Annual Report,
op. cit., p. 12.

of \$25.6 million. This substantial surplus was reduced by about \$19 million during the fiscal year of 1957. Rising costs for personnel and supplies, and a decline of tax revenue coinciding with a downturn of the general business activities were the major elements contributing to the reduction in the surplus. The recession of 1957-58 had a severe effect on most Michigan businesses and consequently the tax revenues collected by the state. This aggravated the financial crisis faced by the State of Michigan. The General Fund showed a substantial deficit at the end of fiscal year 1959. The State had practically no borrowing power and the Legislature and the administration did not agree on a tax policy for solving the financial crisis.

Number of Local Governments
in Michigan 1952 and 1957

As has been noted above, a high proportion of the tax revenue collected by the State of Michigan is earmarked for distribution to local governments or to other specific uses. Michigan collected \$750 million taxes in 1957, but less than \$250 million were available for appropriation by the Legislature.^{2/} It seems appropriate, therefore, to discuss details of the financial structure of the townships.

^{2/} Michigan Department of Revenue, 17th Annual Report, op. cit., p. 12.

Michigan had 5,160 units of government in 1957.

(Table 6)

Table 6

Number of Local Governments in Michigan 1952 and 1957

| Type of government | 1952 (Number) | 1957 (Number) | Increase or decrease (+) 1952 to 1957 (Per Cent) |
|--------------------|------------------|------------------|---|
| Total | 6,766 | 5,160 | -23.7 |
| School Districts | 4,845 | 3,214 | -33.7 |
| Counties | 83 | 83 | 0.0 |
| Municipalities | 489 | 498 | 1.8 |
| Townships | 1,264 | 1,262 | - 0.2 |
| Special Districts | 84 | 102 | 21.4 |

Source: U. S. Bureau of the Census, 1957 Census of Govern-
ments, Vol. VI, No. 20, Table 1, p. 1.

School districts were the most numerous with 3,214 units.

Townships ranked second in number with 1,262 units.

Michigan's 1,262 townships may be classified as rural local governments operating within a defined geographical area.

This definition stresses the geographical and spatial nature of townships. The municipal governmental units, in contrast, involve population concentrations. The number of municipalities was reported as 498 in 1957.

School districts operate within the same areas as townships and municipalities and all three of these local government

units operate within the geographical and political unit of the county. There are 83 counties in Michigan.

Local governments not classified within the previous categories are grouped under special districts of which Michigan had 102 in 1957. A variety of governmental functions are combined within the special districts. The 73 soil-conservation districts are the most numerous among the special districts. Water and sanitation districts are becoming more important through the impact of urbanization. Water- and sewage-disposal districts, rubbish- and garbage-disposal authorities are important special districts in Michigan.

The 1957 Census of Governments defines a governmental unit as "an organized entity which must possess, in addition to having governmental character, sufficient discretion in the management of its own affairs, to distinguish it as separate from administrative structure of any other governmental unit."^{8/} Each unit has the authority to levy property taxes, issue bonds and fix and collect charges. Officers of the governmental unit are either elected or appointed by officials of other governments. The governmental unit demonstrates its responsibility to the public by making its records accessible for examination

^{8/} U. S. Bureau of the Census, 1957 Census of Governments, Vol. 1, No. 3, Local Government Structure, Washington: U. S. Government Printing Office, 1957, p. 3.

and by a public reporting of its financial status and activities at certain time intervals.

Two important changes in the number of governments occurred from 1952 to 1957. First, the number of school districts declined by 33.7 per cent, and secondly, the number of special districts increased by 21.4 per cent. The increase in the number of special districts might be associated with additional services local governments are performing.

Aggregate Revenue and Expenditures of
Michigan Townships

There are numerous forms of municipal and local governments in Michigan operating under different laws and performing multiple functions. A study of the legal powers and of the functions performed by cities, townships, and charter townships was completed recently.^{2/} Two types of township organizations are in existence in Michigan. Most of the townships were organized under the provision of the Northwest Ordinance of 1787, and contain approximately 36 square miles. The second type of township, the charter township, was organized under the Charter Township Act of 1937.

The criterion for organizing a charter township requires a population of 5,000, or a population of 2,000

^{2/} Kenneth Verburg, A Study of the Legal Powers of Michigan Local Governments, Institute for Community Development and Services, Michigan State University, Technical Study No. 1, 1960.

and being adjacent to a city with a population of at least 25,000. Verburg observed that only four charter townships were organized. Two of these governments are still in existence, one voted to become a city, and one reverted to the regular township organization. Charter townships do not have to appoint a superintendent. Verburg suggests this as a reason why charter townships were not very successful in Michigan.^{10/}

The Township and Village Public Improvement Act authorizes townships to levy a special assessment to finance certain services, e.g. garbage- and sewage disposal plants, water supply systems, etc.^{11/} The township must maintain a cemetery or contribute toward the maintenance of a cemetery operated by a municipality adjacent to the township. The responsibility of constructing and maintaining streets and roads was transferred to the County Road Commission in 1931. County governments, rather than townships, are the recipients of motor fuel tax revenue, though under a different distribution formula than cities and villages. The length of streets and roads in the county, population and number of vehicles registered in the county, are the important factors upon which the fuel tax distribution is based.

^{10/} Verburg, op. cit., pp. 4-5.

^{11/} Ibid., p. 13.

The 1,264 townships in Michigan are local governments rendering a limited number of services either to sparsely populated rural areas or to settlements in the urban fringe area. Fire protection performed by voluntary fire departments, maintenance of cemeteries, and maintenance of township offices are examples of services performed by these local governments.

The general property tax and license fees are the only taxes collected by the townships. As noted earlier, a major portion of all taxes collected in Michigan are distributed to local governments. Locally collected general property taxes amounted to \$710.5 million in 1958. In addition, the State acts as a collection agency for other taxes and distributes much of its revenue to local governments. Only about 32 per cent of the total tax revenues collected by the State were available for appropriations of the General Fund. The State collected \$770.1 million in taxes and redistributed \$567.7 million to local government units in 1958.^{12/} Local governments had around 1.3 billion available to finance their services.

School districts are included among the local governments, and it can be assumed that school districts received a large share of these tax revenues. Data available for 1957 suggest that local government units received

^{12/} Michigan Department of Revenue, 17th Annual Report, 1957-58, op. cit., p. 18.

\$1.3 billion of which school districts received about \$588 million.^{13/}

Township revenues in 1957 included about \$18 million of shared taxes (60%), about \$8 million in general property taxes (25%), and \$1.8 million in license fees (6%). (Table 7) Charges and miscellaneous general revenue yielded \$4.2 million (13%). Five million seven hundred thousand dollars in utility revenues are not included in the general revenue. State-collected locally-shared taxes are the largest aggregate source of revenue of the townships. Total taxes are the second important source of revenue, and charges and miscellaneous general revenue are 12.9 per cent of the general revenue. The Census Bureau classified revenue from special assessment within this category, although the disbursement is predetermined by the special assessment ordinance.

The summary (Table 8) of aggregate expenditures of townships suggests that 70 per cent, or about \$26 million, were utilized for current expenditures, and \$10 million or about 28 per cent for capital outlay. These aggregate figures do not indicate the function to which the monies were disbursed. Aggregate expenditures by function are summarized in Table 9. The largest percentage of the disbursements was spent for water supply expenditures.

^{13/} Michigan Department of Revenue, 16th Annual Report, 1956-57, Lansing, Michigan, Speaker-Hines and Thomas, inc., 1957 p. 16, and 1957 Census of Governments, Vol. III, No. 1, Finances of School Districts, Table 2, p. 10.

Table 7

Aggregate Revenue of Michigan Townships in 1957

| (In Thousands of Dollars): | | |
|--|----------|-----------|
| | Revenue | : Percent |
| Total revenue | \$37,862 | |
| Utility revenue ^{1/} | 5,723 | |
| Insurance trust revenue ^{2/} | 15 | |
| General revenue | 32,124 | 100.0 |
| Intergovernmental revenue | 18,142 | 56.5 |
| <hr/> | | |
| From Federal Government | \$ 1 | 0.0 |
| From the State | 17,949 | 55.9 |
| Local governments | 192 | 0.6 |
| Total Tax Revenue | 9,830 | 30.6 |
| <hr/> | | |
| Property Tax | 8,030 | 25.0 |
| Licenses | 1,800 | 5.6 |
| Charges and miscellaneous general revenue | 4,152 | 12.9 |
| <hr/> | | |
| Current charges | 1,415 | 4.4 |
| Special assessment | 2,133 | 6.6 |
| Sale of property | 111 | 0.3 |
| Interest earnings | 122 | 0.4 |
| Other | 371 | 1.2 |

^{1/} Only water supply systems are subject to townships supervision.

^{2/} Employee retirement fund.

Source: U. S. Bureau of the Census, 1957 Census of Government, Vol. III, No. 5, Washington: U. S. Government Printing Office, 1959, Table 46, p. 108.

Table 8

Aggregate Expenditure of Townships
in Michigan, in 1957, by Character and Object

| (In thousands of Dollars) | | | |
|-------------------------------|----------|-------------|---------|
| | | Expenditure | Percent |
| Total Expenditure | | \$39,699 | |
| Intergovernmental expenditure | | 2,677 | |
| Direct Operation | | 37,022 | 100.0 |
| Current Operation | \$25,872 | | 69.9 |
| Capital outlay | 10,307 | | 27.8 |
| Assistance | 35 | | .1 |
| Interests on debts | 808 | | 2.2 |

Source: 1957 Census of Governments, Vol. III, No. 5, Op. Cit., p. 109.

Table 9

Aggregate Expenditure of Townships
in Michigan, in 1957, by Function

| (In thousands of Dollars) | | |
|-------------------------------------|-------------|---------|
| | Expenditure | Percent |
| Direct Operation, Total | \$37,022 | 100.0 |
| Highways | 6,927 | 18.71 |
| Public welfare | 222 | .60 |
| Hospitals | 32 | .08 |
| Health | 77 | .21 |
| Local fire protection | 1,661 | 4.49 |
| Natural resources | 3,588 | 9.69 |
| Sewage systems | 3,539 | 9.56 |
| Other sanitation | 792 | 2.14 |
| Local parks, recreation | 584 | 1.58 |
| Housing and community redevelopment | 323 | .87 |
| Non-highway transportation | 25 | .07 |
| Libraries | 358 | .97 |
| General control | 5,136 | 13.87 |
| General public buildings | 1,399 | 3.78 |
| Interest on general debts | 259 | .70 |
| Other general government | 3,715 | 10.03 |
| Water Supply Expenditures | 8,385 | 22.65 |

Source: 1957 Census of Governments, Vol. III, No. 5, Op. Cit.
p. 109.

Almost 23 per cent were utilized for this function which is actually performed by special districts within the geographical limits of the townships. Likewise, highway expenditures are charged to the townships although the responsibility of maintaining roads is vested with the county governments. Some urbanized townships provide street lighting which is also classified within this function of road maintenance. General control expenditures accounted for about 14 per cent, or 5.1 million. Expenditures of \$3.5 million in 1957, or about 10 per cent of the total funds were used for natural resources and sewage systems.^{11/} Local fire protection required 4.5 per cent, or \$1.67 million of the aggregate expenditures. The remaining expenditure functions are of minor importance.

The aggregate capital outlay of townships in Michigan in 1957 (Table 10) shows that water supply- and sewage systems accounted for 72 per cent of the total capital outlay. This figure seems high compared to the results obtained from the sample which will be discussed later.

^{11/} Expenditures for natural resources are defined as: Disbursements for county and special district activities for conservation and development of soil and water resources. (Cf. 1957 Census of Governments, Vol. VI, No. 20, p. 87).

Table 10

Aggregate Capital Outlay of
Townships in Michigan, 1957

| (In thousands of Dollars) | | Percent |
|---------------------------|----------|---------|
| Total capital outlay | \$10,307 | 100.0 |
| Highways | 1,094 | 10.7 |
| Sewage systems | 2,908 | 28.2 |
| Community redevelopment | 5 | 0.0 |
| General public buildings | 653 | 6.3 |
| Water supply systems | 4,527 | 43.9 |
| Miscellaneous | 1,120 | 10.9 |

Source: 1957 Census of Governments, Vol. III, No. 5,
Op. Cit. p. 109.

Number and Kind of Services Rendered
by Townships in Michigan in 1957 and 1958

The data from the Census of Governments are aggregate data. All townships are considered to have the same economic structure and are providing the same kind of services. A stratified sample was drawn to analyze the kind of services urbanized, agricultural, and northern townships are rendering.^{12/} The second problem investigated is the financial structure of the townships, their source of revenue and disbursement pattern. Although the original sample was equally divided among the three strata, data for 122 townships were ascertained for 1957, and 131 for 1958. (Table 11)

Table 11

Number of Townships Sampled in 1957 and 1958

| | 1957 | 1958 |
|------------------------|-----------|-----------|
| Urbanized Townships | 39 | 43 |
| Agricultural Townships | 43 | 49 |
| Northern Townships | <u>40</u> | <u>39</u> |
| Total | 122 | 131 |

It is generally assumed that townships do not provide essential services, especially since the responsibility of maintaining roads was transferred to county governments. The township governments do transfer funds, however, to the County Road

^{12/} For details of the sampling method see pp. 19-35.

Commission for maintaining roads. The number and kind of services rendered by townships will be discussed in the following paragraphs.

Table 12

Services Provided by Townships
in Michigan, 1957 and 1958 1/

| | |
|-----------------------|---|
| Administration | Payments to the County Road Commission |
| Police Protection | |
| Fire Protection | Highway Lighting |
| Health and Sanitation | Cemeteries |
| Election | Poor Relief |
| Recreation | Water and Sewer |
| Library Services | |

1/As reported by the townships to the Finance Commission.

The 1,262 townships are distributed over a geographical area stretching from the southern to the northern boundary of Michigan and from Lake Superior and Lake Michigan to Lake Huron. The three-way stratification of the sample in urbanized, agricultural, and northern townships demonstrates the difference of services provided by the townships in various geographical locations. Services classified under "administration" or general control were provided by all townships sampled. This classification was obvious because even if no other services were rendered, assessment of

property was needed for levying the general property tax. The cost of this service is to be charged to the category of general administration.

Increased police protection is frequently associated with urbanization and increased population density. The data from the sample support this hypothesis. Twenty-five per cent of the northern townships, 25.6 per cent of the agricultural townships and 69.2 per cent of the urbanized townships furnished police protection in 1957 (Table 13). The number of townships providing police protection has increased, as may be noted from Table 13.

The largest percentage increment occurred within the northern townships. Almost 44 per cent of the northern townships reported that they furnished police protection in 1958. It should be pointed out, however, that police protection included enforcement of the liquor control law and similar tasks. Improvement in the enforcement of these laws might account for the increment in police protection.

The number of agricultural townships providing police protection also increased between 1957 and 1958. About 70 per cent of the urbanized townships furnished police protection in 1957 and 1958. The percentage is considerably higher than within the agricultural- and northern townships.

The percentage of urbanized townships providing fire protection did not change between 1957 and 1958. Ninety-seven per cent of the urbanized townships furnished fire

Table 13

Number and Percent of Townships Performing
a Service, in Michigan, 1957 and 1958

| Services | 1958 | | | | | |
|------------------------|---------------------|-------|------------------------|-------|--------------------|-------|
| | Urbanized Townships | | Agricultural Townships | | Northern Townships | |
| | Number | % | Number | % | Number | % |
| Number of Observations | 43 | 100.0 | 49 | 100.0 | 39 | 100.0 |
| Administration | 43 | 100.0 | 49 | 100.0 | 39 | 100.0 |
| Police Protection | 31 | 72.1 | 18 | 36.7 | 17 | 43.6 |
| Fire Protection | 42 | 97.7 | 43 | 87.8 | 11 | 28.2 |
| Health & Sanitation | 18 | 41.9 | 11 | 22.4 | 9 | 23.1 |
| Election | 42 | 97.7 | 49 | 100.0 | 38 | 97.4 |
| Recreation | 26 | 60.5 | 4 | 8.2 | 11 | 28.2 |
| Library | 13 | 30.2 | 5 | 10.2 | 2 | 5.1 |
| Road Commission | 35 | 81.4 | 48 | 98.0 | 34 | 87.2 |
| Highway Lighting | 29 | 67.4 | 12 | 24.5 | 26 | 66.7 |
| Cemeteries | 28 | 65.1 | 41 | 83.7 | 25 | 64.1 |
| Poor Relief | 14 | 32.6 | 10 | 20.4 | -- | ----- |
| Water - Sewer | 18 | 41.9 | 17 | 34.7 | -- | ----- |
| Miscellaneous | 43 | 100.0 | 49 | 100.0 | 39 | 100.0 |

Table 13 continued

| Services | 1957 | | | | | |
|------------------------|---------------------|-------|------------------------|-------|--------------------|-------|
| | Urbanized Townships | | Agricultural Townships | | Northern Townships | |
| | Number | % | Number | % | Number | % |
| Number of Observations | 39 | 100.0 | 43 | 100.0 | 40 | 100.0 |
| Administration | 39 | 100.0 | 43 | 100.0 | 40 | 100.0 |
| Police Protection | 27 | 69.2 | 11 | 25.6 | 10 | 25.0 |
| Fire Protection | 38 | 97.4 | 35 | 81.4 | 24 | 60.0 |
| Health & Sanitation | 20 | 51.3 | 7 | 16.3 | 10 | 25.0 |
| Election | 38 | 97.4 | 43 | 100.0 | 36 | 90.0 |
| Recreation | 19 | 48.7 | 3 | 7.0 | 7 | 17.5 |
| Library | 16 | 41.0 | 5 | 11.6 | 6 | 15.0 |
| Road Commission | 34 | 87.2 | 39 | 90.7 | 35 | 87.5 |
| Highway Lighting | 26 | 66.7 | 12 | 27.9 | 7 | 17.5 |
| Cemeteries | 21 | 53.8 | 36 | 83.7 | 21 | 52.5 |
| Poor Relief | 16 | 41.0 | 5 | 11.6 | -- | ----- |
| Water - Sewer | 17 | 43.6 | 15 | 34.9 | -- | ----- |
| Miscellaneous | 39 | 100.0 | 43 | 100.0 | 40 | 100.0 |

protection in 1957 and 1958. About 88 per cent of the agricultural townships rendered fire protection in 1958 which is 6 per cent more than during 1957.

An interesting trend in the provision of fire protection was observed within the northern townships. In 1957, 60 per cent, and in 1958, 28 per cent, of the northern townships furnished fire protection. Fire protection within agricultural and northern townships is ordinarily performed by voluntary fire departments. Many northern townships governments decided in 1958 to discontinue their voluntary fire departments and to make contractual agreements with townships or municipalities in the vicinity of the townships area. The township has to pay for each fire call. Such arrangements explain the decline of the fire protection provided by northern townships.

Services connected with health and sanitation are provided by a minority of the townships. These services were provided by 16 per cent of the agricultural townships in 1957 to 51 per cent of the urbanized townships in 1957.

Preparation and supervision of elections is another service provided by the townships. Almost all townships sampled furnished this service.

Providing recreational facilities is a function performed by township governments. There is a significant difference between the three strata sampled with regard to recreational services. In 1957, about 49 per cent of the urbanized, and only 7 per cent of the agricultural and

almost 18 per cent of the northern townships provided recreational services.

A substantial increase of recreational services may be noted in 1958 for the urbanized and northern townships. About 61 per cent of the urbanized townships and 28 per cent of the northern townships provided recreational facilities in 1958. The rate of increase within each of these strata was approximately 12 per cent. Within the agricultural strata a one per cent increase was observed in the number of townships providing recreational service. The increment of recreational services provided by the northern townships may be associated with the efforts of these communities to attract tourist trade which for some communities is a major source of income.

Several townships maintained small community libraries. A greater percentage of townships provided library services in 1957 than in 1958. Within the urbanized group the percentage declined from 41 per cent in 1957 to 30 per cent in 1958. A similar decline occurred within the northern township group from 1957 to 1958. A decline of one per cent in the number of agricultural townships providing library services was noted. This decrease might originate with the transfer of funds to other services.

Townships do not maintain roads or highways. This task is performed by the county, although the townships

have to contribute to the county road commission funds. The contribution is related to the miles of road within the township area and the general maintenance costs of these roads. The data, therefore, are not too conclusive.

Highway or street lighting is a service which becomes more important with the progress of urbanization. Sixty-seven of the urbanized townships furnished highway lighting in 1957 and 1958. The percentage of agricultural townships providing highway lighting declined 4 per cent from 1957 to 1958. A significant number of northern townships increased their street lighting services. In 1957 about 18 per cent reported furnishing highway lighting but in 1958, 66 per cent provided this service.

Maintaining cemeteries is one service generally not recognized as part of the services provided by township governments. About 84 per cent of the agricultural townships maintained cemeteries in 1957 and 1958. Eleven per cent more townships of the urbanized and northern group maintained cemeteries in 1958 than in 1957.

Services classified under the category of poor relief are expenditures which the township government extended to persons not receiving any other kind of welfare payments. None of the northern townships sampled provided this service. The data on poor relief are not conclusive since the number of townships within the agricultural group rendering poor relief increased, but

declined within the urbanized township. Since welfare payments are highly correlated to the level of employment and local economic conditions no further analysis of this service will be made.

Water and sewer facilities are frequently provided by special districts and are therefore not furnished by all townships. About 42 per cent of the urbanized townships, and 35 per cent of the agricultural townships are engaged in these activities. None of the northern townships reported water or sewer facilities.

The previous analysis of the services rendered by the townships in Michigan in 1957 and 1958 clearly revealed that a larger per cent of the urbanized townships are providing services than either the agricultural or the northern townships. The numerical count of the number of services is not too conclusive without an analysis of the financing of the services. The source of revenue and the disbursement pattern will be analyzed in subsequent paragraphs.

The Revenue Pattern of the Sampled Townships in 1957 and 1958

Aggregate township revenues in 1957 included \$18 million of shared taxes, \$8 million in general property taxes and \$6 million from fees and miscellaneous revenues. The aggregate property tax receipts of the townships accounted for one per cent of the total property taxes collected in Michigan in 1957. (Table 14) School districts received 43 per cent, municipalities 33 per cent, and

Table 14

Property Tax Collection in Michigan,
and Distribution to Local Governments
1957, in Dollars and Per Cent of Total Revenues

| | Thousands of Dollars | Percent |
|----------------------------|-------------------------|---------|
| Total Property Tax Revenue | 644,132 | 100.0 |
| Distributed to: | | |
| State | 33,671 | 5.2 |
| Counties | 115,699 | 18.0 |
| Municipalities | 209,383 | 32.5 |
| Townships | 8,030 | 1.2 |
| School Districts | 274,606 | 42.7 |
| Special Districts | 2,743 | 0.4 |

Source: U. S. Bureau of the Census, 1957 Census of Govern-
ments, Vol. III, No. 5, Compendium of Government
Finances, Washington: U. S. Government Printing
Office, 1959, Table 46, p. 108.

counties 18 per cent of the total property tax revenues in 1957. These data indicate that the townships did not depend heavily upon property taxes.

Within the modal group of urbanized townships, State-collected locally-shared taxes accounted between 40 to 60 per cent of total revenues in 1957, and between 40 to 55 per cent in 1958. (Table 15) The spread between the smallest and largest percentages ranged from 21 to 100 per cent in 1957 and from 15 to 100 per cent in 1958.

Sundry receipts are an important source of revenue for many townships, ranging from less than one per cent to 37 per cent of total revenue in 1958. For the modal group the per cent ranges between 5 and 10 per cent. Similar results were found for 1957 (Table 16).

Eighty-five per cent of the urbanized townships collected property taxes to support the activities and services of their township governments. Property tax collections ranged from 0.1 per cent to 56 per cent of the total receipts in 1957, with the modal group between 35 and 38 per cent. In 1958 four per cent more townships collected property taxes than in 1957. Property taxes constituted a larger per cent of the total receipts in 1958 than in 1957. Property taxes accounted for between 4 and 63 per cent of the total revenue in 1958, with a modal group range of 30 to 37 per cent. One explanation of this increment is the impact of the 1958 recession

Table 15

State-Collected Locally-Shared Taxes as
 Percentage of Receipts, Stratified
 Sample of Townships in Michigan, 1957 and 1958

| | T O W N S H I P S | | | | | |
|------------------------|-------------------|---------------|---------------|---------------|---------------|---------------|
| | Urbanized | | Agricultural | | Northern | |
| | 1958 | 1957 | 1958 | 1957 | 1958 | 1957 |
| Number of Observations | 45 | 40 | 49 | 43 | 39 | 40 |
| Range | 14.8- 99.8 | 20.7- 99.9 | 27.9- 100 | 44.1- 100 | 74.4- 100 | 67.1- 100 |
| Median | 50.5- 54.9 | 55.0- 59.9 | 80.0- 84.9 | 90.0- 94.9 | 90.0- 94.9 | 90.0- 94.9 |
| Modal Group | 40.0- 54.9 | 40.0- 59.9 | 95.0- 99.9 | 95.0- 99.9 | 95.0- 99.9 | 95.0- 100 |

Table 16

Sundry Receipts, as Per Cent of Total Receipts
Urbanized Townships, 1957 and 1958

| Fiscal Year | 1958 | 1957 |
|------------------------|-------------|-------------|
| Number of Observations | 45 | 40 |
| Per Cent | | |
| None | -- | -- |
| 1 or less | 2 | 1 |
| 1.1 - 5.0 | 7 | 6 |
| 5.1 - 10.0 | 12 | 12 |
| 10.1 - 15.0 | 11 | 5 |
| 15.1 - 20.0 | 4 | 6 |
| 20.1 - 25.0 | 3 | 2 |
| 25.1 - 30.0 | 4 | 4 |
| 30.1 and above | 2 | 4 |
| Range | 0.2 - 37.2 | 0.1 - 34.9 |
| Median | 10.1 - 15.0 | 10.1 - 15.0 |
| Modal Group | 5.1 - 10.0 | 5.1 - 10.0 |

upon the tax revenue of the State of Michigan, and consequently a decrease of locally-shared taxes.

Receipts classified as revenue from utilities operated by townships do not reflect the true conditions because some townships included miscellaneous receipts within this classification. One township, Benton in Berrien county, classified revenue from a housing enterprise owned and operated by the township in this category. Thirteen urbanized townships (32.5%), three agricultural townships (6.5%), and five northern townships (12.5%) reported revenue within the category of utilities in 1957. The revenue pattern changed considerably during 1958. Twenty-two urbanized townships (49%), six agricultural townships (12%), and 2 northern townships (5%) reported revenue from utility enterprises in 1958. These data are not conclusive, however, as some townships reported miscellaneous receipts within this category.

State-collected locally-shared taxes accounted for larger portions of the revenue of the agricultural townships than of the urbanized townships. The modal group ranged between 95.0 and 99.9 per cent of total receipts for both years, 1957 and 1958. The range was from 44 to 100 per cent in 1957 and from 28 to 100 per cent in 1958, as reported in Table 14. Sundry receipts were of minor importance in the agricultural townships. (Table 17)

The mode was determined for both years between 1.1 and 5.0

Table 17

Sundry Receipts as Per Cent of Total
Revenue, Agricultural Townships, 1957 and 1958

| Fiscal Year | 1958 | 1957 |
|------------------------|-----------|-----------|
| Number of Observations | 49 | 43 |
| Per Cent | -- | -- |
| None | 4 | 5 |
| 1 or less | 10 | 6 |
| 1.1 - 5.0 | 22 | 17 |
| 5.1 - 10.0 | 9 | 11 |
| 10.1 - 15.0 | -- | 1 |
| 15.1 - 20.0 | -- | 1 |
| 20.1 - 25.0 | 1 | -- |
| 25.1 - 30.0 | 1 | -- |
| 30.1 or above | 2 | 2 |
| Range | 0 - 56.8 | 0 - 40.4 |
| Median | 1.1 - 5.0 | 1.1 - 5.0 |
| Modal Group | 1.1 - 5.0 | 1.1 - 5.0 |

per cent, and the range from zero to 40 per cent in 1957, and from zero to 57 per cent in 1958. The northern townships generally depended on the State-collected locally-shared taxes for most of their revenue. Nineteen townships, or almost 48 per cent reported in 1957 that the shared taxes accounted for 95 to 100 per cent of their revenue. A similar revenue pattern was found in 1958. Shared taxes provided from 67 to 100 per cent in 1957 and from 74 to 100 per cent in 1958 of their revenue. The range is another indicator of the dependence of the northern townships on shared taxes as substantial source of revenue. Sundry receipts were either non-existent or constituted one per cent or less of the total revenue in the majority of northern townships.

The Disbursement Pattern of Townships
in 1957 and 1958

Townships provide numerous services which are paid either by the State-collected locally-shared taxes, or by the financial resources of the townships.

Disbursements were computed as a percentage of the total receipts. The results revealed that in 1957 twenty-one urbanized townships (52%) spent more than their total receipts. In 1958, seventeen townships (38%) exceeded their revenue. A reversed pattern can be observed within the agricultural groups. Fourteen townships (32.5%) disbursed more money than they received in 1957. The number of agricultural townships which spent more money

than they received increased to 25 (51%) in 1958. The trend of disbursements in the northern townships is comparable to that in the agricultural townships. Thirty per cent of the northern townships spent more than their receipts during the fiscal year 1957. During the following year 51 per cent of the northern townships had larger disbursements than receipts.

It should be noted, however, that in 1957 the modal group of the urbanized strata ranged between 100 and 105 per cent of the receipts, the modal group of the agricultural townships ranged from 90 to 95 per cent and the modal group of the northern townships was below 65 per cent (Table 18).

These results indicate that the majority of all townships accumulated cash reserves which were spent during the fiscal year 1958. This observation applies especially to the northern townships and agricultural townships. The disbursements of the modal group of these strata exceeded the receipts by 30 per cent or more. Accumulated cash reserves from previous fiscal years provide one explanation of disbursements in excess of revenues.

Relationship of the Major Services to Total Disbursements

Administration or general control is the kind of service commonly associated with government. The sample of the urbanized townships shows that the majority of these townships spent between 5 and 15 per cent of their disburse-

Table 18

Disbursements as Per Cent of Receipts
of Selected Michigan Townships in 1957 and 1958

| | T O W N S H I P S | | | | | |
|------------------------|-------------------|-----------------|-----------------|----------------|-----------------|----------------|
| | Urbanized | | Agricultural | | Northern | |
| | 1958 | 1957 | 1958 | 1957 | 1958 | 1957 |
| Number of Observations | 45 | 40 | 49 | 43 | 39 | 40 |
| Range | 69.9- 146.4 | 73.6- 154.7 | 45.3- 211.1 | 33.3- 143.8 | 43.6- 222.4 | 32.4- 158.4 |
| Median | 95.0- 99.9 | 100.0- 104.9 | 100.0- 104.9 | 90.0- 94.9 | 100.0- 104.9 | 80.0- 84.9 |
| Modal Group | 95.0- 99.9 | 100.0- 104.9 | 130.0/ above | 90.0- 94.9 | 130.0/ above | below 65.0 |

ments for administration in 1957 and 1958. The difference between the lowest and highest ranged from 3 to 27 per cent in 1957, and from 3 to 34 per cent in 1958. A similar disbursement pattern for administration was observed for the agricultural and northern township strata.

The hypothesis was stated that urbanized townships have to provide more police and fire protection than township governments in the agricultural and northern areas. The analysis of the data supports this hypothesis (Table 19).

Table 19

Number of Townships Reporting Police
and Fire Protection, 1957 and 1958

| | T O W N S H I P S | | | | | |
|--------------------------|-------------------|------|--------------|------|----------|------|
| | Urbanized | | Agricultural | | Northern | |
| | 1957 | 1958 | 1957 | 1958 | 1957 | 1958 |
| Number of Observations | 39 | 43 | 43 | 49 | 40 | 39 |
| Police Protection | 25 | 31 | 13 | 18 | 10 | 17 |
| Per Cent of Observations | 64 | 72 | 30 | 37 | 25 | 44 |
| Fire Protection | 38 | 42 | 35 | 43 | 24 | 28 |
| Per Cent of Observations | 97 | 98 | 81 | 88 | 60 | 72 |

Sixty-four per cent of urbanized townships provided Police protection in 1957, and 72 per cent in 1958. This is in contrast to the police protection rendered by the agricultural and northern townships. About one-third of

the agricultural townships furnished police protection during 1957 and 1958. Northern townships reported that in 1957 twenty-five per cent, and in 1958 forty-four per cent furnished services connected with police protection. These results, however, do not indicate the real difference of the police protection provided by the urbanized, agricultural, and northern townships.

The disbursements for police protection provided by 25 urbanized townships were analyzed. Each of these townships spent on the average \$26,197 for police protection in 1957. The disbursements ranged from a low of \$497 to \$117,840 with a median value of \$15,009. Six townships, Bangor and Hampton in Bay county, Lincoln in Berrien county, Genesee in Genesee county, Grand Rapids in Kent county, and Kimball in St. Clair county reported disbursements (\$497 - \$3,543) which were inadequate to pay for a full-time police officer.

Two townships disbursed large amounts of money for police protection in 1957. Waterford township in Oakland county spent \$117,840 and Wyoming in Kent county reported expenditures for police protection of \$89,078. The disbursement pattern of Wyoming township for 1958 shows that a comparable amount was spent for police protection. The expenditures of Waterford township for police protection declined in 1958 to \$52,732 or 12% of the total disbursement. This might be an indication that the large

disbursement in 1957 which accounted for 20 per cent of total expenditures of the township was actually a capital outlay instead of a current disbursement. Disregarding the disbursements of Wyoming and Waterford townships, the expenditures for police protection averaged \$19,478 in 1957.

Seventy per cent of the urbanized townships furnished police protection in 1958. This represents an increase of 12 per cent over the amount of police protection provided in 1957. The average disbursement per township was slightly lower in 1958 with \$25,570 but the range extended from \$161 to \$88,973.

Agricultural and northern townships reported disbursements for police protection but the average disbursements were considerably below those of the urbanized group. (Table 20)

Table 20

Average Disbursement of Agricultural and Northern Townships for Police Protection in 1957 and 1958

| | Average | | Range | |
|------------------------|---------|-------|------------|------------|
| | 1957 | 1958 | 1957 | 1958 |
| Agricultural Townships | \$292 | \$330 | \$43-1,304 | \$10-1,574 |
| Northern Townships | 270 | 210 | 67-1,139 | 15- 839 |

These averages indicate that not enough money was spent in any township to employ a full-time police officer. Some townships reported that their police protection disbursements were spent for liquor law enforcement, supervision of zoning ordinances and fence viewing. The difference in police protection by urbanized, agricultural, and northern townships is an example of the impact of urbanization upon the level and the cost of services provided by local governments.

Succession in land use from agricultural to urban utilization is commonly associated with large cash outlays for streets and sewage systems. The costs for these services are generally paid by the buyers of the real estate rather than by the township governments. This situation assumes a zoning ordinance requiring the paving of streets and establishment of a sewage system for each subdivision.

Maintenance of streets and roads requires substantial amounts of money. In Michigan the county road commission performs the work but the townships and municipalities are required to help defray the costs of the work of the commission. It might be assumed that transfer payments from the townships to the county road commission account for a larger per cent of the total disbursements of the commission. The analysis of the stratified data shows that payments to the county road commission in 1957 required the

highest per cent of all disbursements in 39 per cent of the urbanized townships (Table 21).

Table 21

Services which Required the Highest Per Cent of Total Disbursement, Urbanized Townships, 1957 and 1958

| Service | Per Cent of Townships | |
|------------------------|-----------------------|------|
| | 1957 ^{1/} | 1958 |
| County Road Commission | 39 | 28 |
| Fire Protection | 28 | 30 |
| Administration | 13 | 26 |
| Police Protection | 8 | 7 |
| Health | 5 | 2 |
| Elections | 3 | - |
| Water-Sewer Systems | 3 | 7 |
| Library | 3 | - |

^{1/} Does not add up to 100 due to rounding.

Percentagewise, fire protection was the largest expenditure for 28 per cent of the urbanized townships. Administrative services required the highest per cent of total disbursement in 13 per cent of the urbanized strata.

Eight per cent of the townships disbursed the largest percentage of their funds for police protection. A shift within this expenditure pattern occurred between the fiscal years 1957 and 1958. Again the three main services provided

by the townships - fire protection, transfer payments to the county road commission, and administration - were the chief expenditure for the majority of the urbanized townships. Disbursement for fire protection was the highest cost for 30 per cent of the urbanized townships. Twenty-eight per cent of the townships reported their highest disbursements involved transfer payments to the road commission and 26 per cent reported administrative services as their highest cost. Police protection was the largest expenditure percentagewise in 7 per cent of the urbanized townships. The same relationship was found for water and sewer expenditures.

Within the agricultural townships, the same general expenditure pattern was reported for the two years observed. (Table 22).

Table 22

Services Which Required the Highest Per Cent of Total Disbursement, Agricultural Townships, 1957 and 1958

| Services | Per Cent of Townships | |
|------------------------|-----------------------|------|
| | 1957 | 1958 |
| County Road Commission | 81 | 78 |
| Administration | 12 | 8 |
| Fire Protection | 5 | 6 |
| Water-Sewer Systems | 2 | 4 |
| Cemeteries | - | 2 |
| Poor Relief | - | 2 |

Expenditures for road purposes accounted for the largest per cent of the total expenditure. Eighty-one per cent of the agricultural townships reported road expenditures as their highest disbursement cost in 1957. The expenditure pattern varied slightly in 1958 when 78 per cent of the townships spent the highest percentage of their expenditures for road purposes. Total expenditures disbursed for road purposes varied over a wide range between 0 and 92.4 per cent in 1957 and between 0 and 84.1 per cent in 1958.

The modal group spent between 50 and 60 per cent for road purposes in 1957 but between 40 and 50 per cent in 1958. Two townships reported that the highest percentage of their disbursements was spent for care of cemeteries. One township reported poor relief as its largest disbursement.

Disbursements to the county road commission were the largest percentage of total disbursement within the northern township strata in 1957 and 1958. (Table 23).

Table 23

Services which Required the Highest Per Cent of Total Disbursement, Northern Townships, 1957 and 1958

| Services | Per Cent of Townships | |
|------------------------|-----------------------|------|
| | 1957 | 1958 |
| County Road Commission | 73 | 85 |
| Administration | 25 | 15 |
| Recreation | 2 | - |

About 73 per cent of the townships disbursed the highest percentage of their total expenditures for road purposes in 1957. The modal group spent between 60 and 70 per cent for road purposes. Twenty-five per cent of the northern townships list administrative disbursements as their largest expenditure, although the modal group spent only between 10 to 20 per cent of their total disbursement for that purpose. In 1958, expenditures for road purposes constituted the largest percentage of expenditures by 85 per cent of the northern townships. Fifteen per cent of the townships reported that their disbursements for administration required the largest percentage of all expenditures. The modal group was not identifiable. Ten out of 39 townships spent between 10-15 per cent, and 9 townships list 20-25 per cent for administrative expenditures.

Debts of the Urbanized Townships

The impact of urbanization on the financial resources of the urbanized townships is also evident in the amount of bonds outstanding. In fiscal year 1958 twenty-seven out of 45 urbanized townships reported outstanding bonds. These obligations were used by 23 townships to finance expansion of water supply systems, by 7 townships to expand sewer facilities, and by 5 townships for street improvement purposes.

One township had bonded itself to purchase voting machines. A number of townships had outstanding obligations

issued in the same year for multiple purposes. Six townships reported obligations for water supply and sewer systems, and three obtained bonds for water systems and street improvement purposes. The majority of the bonds were issued after 1950 (Table 24).

Table 24
Year and Number of Series of Bonds
Issued by Urbanized Townships in Michigan

| Year issued | Series of Bonds issued | Year issued | Series of Bonds issued |
|-------------|------------------------|-------------|------------------------|
| 1941-45 | 6 | 1954 | 13 |
| 1945-50 | 10 | 1955 | 10 |
| 1951 | 7 | 1956 | 11 |
| 1952 | 6 | 1957 | 20 |
| 1953 | 4 | 1958 | 2 |

The scheduled maturity of the bonds depends primarily upon the purpose for which they were issued. Generally, bonds for water supply and sewer systems are written for a longer period of time, approximately 25 to 30 years, while bonds for street improvement are issued for shorter periods. A recent study of the aggregate debts of local governments in Michigan indicates that in 1958-60 eighteen per cent, in 1961-65 twenty-three per cent, in 1966-70 seventeen percent, and in 1971 and subsequent years 42 per cent of the township bonds outstanding in 1957 will be retired.^{13/}

^{13/} Alfred L. Edwards, A Study of Local Government Debt in Michigan, Technical Study No. 2, Institute for Community Development, Michigan State University, 1960, pp. 37-39.

CHAPTER IV

CHANGE OF SERVICES PROVIDED BY MICHIGAN TOWNSHIPS FROM 1945 TO 1958

General price levels advanced continuously from 1945 to 1958. The increase of the consumer price index from 76.9 in 1945 to 123.5 in 1958 (1947-49 = 100) provides a measure of this rising price level.^{1/} Revenues and disbursements were converted to 1958 constant dollars in order that changes in the real level of revenues and disbursements would be reflected. Not only the consumer price index increased 61 per cent, but also taxes collected by State and local governments, increased substantially from 1945 to 1958. (Table 25)

The revenues from taxes collected by the State increased 173.3 index points while taxes collected by the local governmental units advanced 135.0 index points from 1944 to 1958. Local governments collected \$21.1 million more than the State government in 1944. This relationship reversed itself during the following years when the State collected a larger amount of taxes than the local governments. State tax collections increased 52.1 index points from 1944 to 1958 but local tax collection advanced only 24.2 index points. State tax collection increased from

^{1/} Survey of Current Business, Office of Business Economics, Vol. 39, No. 2, February 1959.

Table 25

Amount and Index of Tax Collection in Michigan by State
and Local Governmental Units, 1944-1958
1944 = 100
(in constant 1958 dollars)

| Fiscal Year | Taxes collected by | | | |
|--------------------|--------------------|-------|-----------------------|-------|
| | State | | Local government | |
| | Amount million | Index | Amount million | Index |
| 1944 ^{1/} | \$281.3 | 100.0 | \$302.4 ^{2/} | 100.0 |
| 1950 | 428.6 | 152.1 | 375.5 | 124.2 |
| 1955 | 674.6 | 239.4 | 536.2 | 177.3 |
| 1957 | 771.2 | 273.7 | 640.4 | 211.8 |
| 1958 | 770.1 | 273.3 | 710.5 | 235.0 |

^{1/}1945 data not available.

^{2/}Local taxes are revenue from the general property tax.
Michigan Department of Revenue, 17th Annual Report,
Lansing, Michigan, 1958, Table 1F, p. 18.

Source: For fiscal year 1944-47, Michigan Department of Revenue, 15th Annual Report, Lansing, Michigan, 1957, Table 1, p. 18.

For fiscal year 1948-58, Michigan Department of Revenue, 17th Annual Report, Lansing, Michigan, 1958, Table 1C, p. 15.

1950 to 1955 87.3 index points which is a greater rate than local government tax collection which advanced 53.1 index points. State and local tax collections advanced identical index points, 34.3 and 34.5 respectively from 1955 to 1957. This trend continued and local tax collections increased \$70.1 million or 23.2 index points from 1957 to 1958. During the same period of time State tax collections actually decreased 0.4 index points. The sales tax diversion amendments actually added to the State taxes while they meant additional revenue for the local governments. It should be pointed out that the above discussion is based on constant 1958 Dollars.

Revenue Pattern of Townships, 1945-1958

The constitution of Michigan limits the total levy of the property tax to 15 mills which includes the school district and the county levy. A higher levy might be enacted with the approval of the township electorate, but only when there are special circumstances. The law stipulates that these increases of the levy must be for a specific purpose, beneficial to the township, that the total property tax levy may not exceed 50 mills of the state equalized valuation, and that the special millage levied may not be extended over a period longer than 20 years.^{2/}

^{2/} Kenneth Verburg, A Study of the Legal Powers of Michigan Local Governments, Institute for Community Development and Services, Michigan State University, Technical Study No. 1, 1960, pp. 22-23.

Townships may issue special revenue bonds within the limits described by the Revenue Bond Act. The issuance of bonds, however, must be approved by the Municipal Finance Commission. Although Michigan townships receive about two-thirds of their revenue from State collected locally shared taxes, some townships borrowed money in order to finance certain services. Townships in Michigan reported an indebtedness of \$32.4 million at the end of fiscal year 1959.^{3/} Fifty-eight per cent of the outstanding debts of the townships were incurred to finance services classified under utility purpose. Cash outlays for water systems, water supply, and street lighting were included in this category. Sewer construction and other sanitary improvements accounted for 17 per cent of the outstanding debt. The financing of special assessment required 20 per cent of the outstanding debts of the townships. Street improvements, especially installation of curbs and gutters, accounted for most of the special assessments. The remaining 5 per cent were used to finance short-term loans, for refunding purpose and miscellaneous improvements.^{4/}

The Property Tax Index

The revenue pattern of all Michigan townships changed considerably from 1945 to 1958. The general property tax declined in relative importance as a source of revenue.

^{3/} Alfred L. Edwards, A Study of Local Government Debt in Michigan, Institute of Community Development, Michigan State University, Technical Study No. 2, 1960, p. 33.

^{4/} Edwards, op. cit., pp. 37-38.

It was replaced by State-collected locally-shared taxes. The purpose of the following paragraphs is to analyze the change of the revenue pattern of 15 townships from 1945 to 1958. Each township strata is represented by 5 townships. The sampling procedure is reported in Chapter I. An index of property tax collection, and an index of State-collected locally-shared taxes was computed, 1945 = 100.

The property tax collection of the urbanized townships declined at various rates (Table 26). Portsmouth township reported in 1950 an index of 1.7 indicating a decline of 98.3 per cent. The property tax collection of Summit township decreased 95.9 per cent. The index of property tax collection of West Bloomfield stood at 16.2 in 1950. This indicated a decrease of 83.8 per cent. Genesee and Wyoming townships reported the smallest decline with 74.7 and 40.0 per cent respectively. Genesee and Summit townships did not collect property taxes in 1955 and 1957. The index of the property tax collection of Portsmouth township advanced 1.4 index points from 1950 to 1955 and then declined 0.4 index points in 1957. The property tax collection was insignificant in monetary terms, except in 1945 when \$1,785 were collected. The property tax accounted for less than one per cent of the total revenue of Portsmouth township except in 1945 when 39 per cent of the total revenue were derived from this source.

Table 26

Index of Property Tax Collection, and State-Collected
 Locally-Shared Taxes, Urbanized Townships, 1945-1958
 1945 = 100
 (in constant 1958 dollars)

| Township | Portsmouth | | Genesee | |
|----------|-------------------------------|----------------------------|-------------------------------|----------------------------|
| | Property tax collection | Locally shared taxes | Property tax collection | Locally shared taxes |
| Year | | | | |
| 1945 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1950 | 1.7 | 643.3 | 25.3 | 1078.1 |
| 1955 | 3.1 | 789.7 | 0.0 | 1597.8 |
| 1957 | 2.7 | 834.6 | 0.0 | 1697.9 |
| 1958 | 0.1 | 822.3 | 645.8 | 1641.5 |

Table 26 continued

| Township | Summit | | Wyoming | | West Bloomfield | |
|----------|-------------------------------|----------------------------|-------------------------------|----------------------------|-------------------------------|----------------------------|
| | Property tax collection | Locally shared taxes | Property tax collection | Locally shared taxes | Property tax collection | Locally shared taxes |
| Year | | | | | | |
| 1945 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1950 | 4.1 | 829.5 | 60.0 | 970.9 | 16.2 | 735.5 |
| 1955 | 0.0 | 1186.3 | 113.2 | 1384.4 | 35.2 | 1075.6 |
| 1957 | 0.0 | 1262.7 | 133.5 | 1438.7 | 276.9 | 837.5 |
| 1958 | 88.6 | 1217.8 | 132.0 | 1333.4 | 291.8 | 807.3 |

The index of the property tax collection of Genesee township reached 645.8 index points in 1958. During 1955 and 1957 no property tax was collected for township purposes. Property taxes provided \$45,358 or 36.5 per cent of total revenue in 1958. A similar trend is reported for Summit township.

Property tax revenues amounted to \$13,994 and an index of 88.6 in 1958. Summit township did not collect a property tax in 1955 and 1957. Wyoming township in Kent county collected the largest amount of property tax among all townships sampled in 1945 as well as in 1958. Property tax revenues amounted to \$177,453 in 1945 and to \$234,290 in 1958. The property tax index of these local governments advanced during the same period of time 32 index points, although it had dropped 40 index points from 1945 to 1950. A similar trend in property tax revenues can be observed for the township of West Bloomfield. The property tax index increased continuously from 1950 to 1958, or a total of 191.8 index points from 1945 to 1958. The index reached 16.2 points in 1950.

The property tax trend of the urbanized townships can now be briefly summarized. Portsmouth discontinued the property tax and relied upon State collected locally shared taxes as main source of revenue. Genesee and Summit townships did not collect property taxes in 1955 and 1957 but levied taxes in 1958. Wyoming and West Bloomfield's property tax

advanced continuously since 1950 though it had dropped from 1945 to 1950. Four of the urbanized townships collected property taxes in 1958.

The property tax index of the agricultural townships followed a similar trend to that of the urbanized strata. (Table 27) Four townships reported a sharp drop in property tax collections, ranging from 0.1 to 17.0 index points from 1945 to 1950 (Table 27). The property tax index of Grant township in Huron county decreased 8.9 index points from 1945 to 1950, but increased 204.6 index points in 1958. The property tax index of Calvin township in Cass county increased 15.8 index points from 1950 to 1958. During the same period of time the index of Carmel township increased 33.2 index points although the index had dropped to 6.0 in 1955. Newark- (Gratiot county) and Wheatland- (Hillsdale county) township did not levy the property tax after 1945. Grant township seems to be a special case. Its property tax index increased 195.7 index points from 1945 to 1958. This increment is the largest within the agricultural strata. Property tax revenue increased from \$538 in 1945 to \$1,591 in 1958.

The index of the property tax collection of the northern strata does not suggest a trend which would be similar to the urbanized or agricultural strata (Table 28). Each township sampled appears to be a special case. The property tax index of Marion township indicated cyclical

Table 27

Index of Property Tax Collection, and State-Collected
 Locally-Shared Taxes, Agricultural Townships, 1945-1958
 1945 = 100
 (in constant 1958 dollars)

| Township | Calvin | | Carmel | |
|----------|-------------------------------|----------------------------|-------------------------------|----------------------------|
| | Property tax collection | Locally shared taxes | Property tax collection | Locally shared taxes |
| Year | | | | |
| 1945 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1950 | 17.0 | 838.9 | 10.2 | 1274.4 |
| 1955 | 22.9 | 958.0 | 6.0 | 1369.9 |
| 1957 | 33.4 | 1007.0 | 22.1 | 1458.2 |
| 1958 | 32.8 | 1014.1 | 43.4 | 1406.9 |

¹/N.A = not available.

Table 27 continued

| Township | Newark | | Wheatland | | Grant | |
|----------|-------------------------|----------------------|-------------------------|----------------------|-------------------------|----------------------|
| | Property tax collection | Locally shared taxes | Property tax collection | Locally shared taxes | Property tax collection | Locally shared taxes |
| Year | | | | | | |
| 1945 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1950 | 1.5 | 1274.9 | 0.1 | 1273.5 | 91.1 | 1273.1 |
| 1955 | 0.0 | 1201.8 | 0.0 | 1379.7 | 129.6 | 1162.0 |
| 1957 | N.A. ^{1/} | N.A | 0.0 | 1468.1 | 126.2 | 1236.8 |
| 1958 | 0.0 | 1221.0 | 0.0 | 1416.5 | 295.7 | 1193.4 |

Table 28

Index of Property Tax Collection, and State-Collected
 Locally-Shared Taxes, Northern Townships, 1945-1958
 1945 = 100
 (in constant 1958 dollars)

| Township | Marion | | Soo | |
|----------|-------------------------------|----------------------------|-------------------------------|----------------------------|
| | Property tax collection | Locally shared taxes | Property tax collection | Locally shared taxes |
| Year | | | | |
| 1945 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1950 | 6.1 | 1277.5 | 260.0 | 1321.3 |
| 1955 | 50.0 | 1239.7 | 13.3 | 1775.7 |
| 1957 | 40.6 | 1319.6 | 656.3 | 1869.9 |
| 1958 | 42.9 | 1273.3 | 1043.8 | 1812.6 |

Table 28 continued

| Township | Gladwin | | Riverton | | Goodwell | |
|----------|-------------------------|----------------------|-------------------------|----------------------|-------------------------|----------------------|
| | Property tax collection | Locally shared taxes | Property tax collection | Locally shared taxes | Property tax collection | Locally shared taxes |
| Year | | | | | | |
| 1945 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1950 | 10.6 | 1276.5 | 74.5 | 1275.2 | 48.6 | 257.0 |
| 1955 | 67.6 | 1202.3 | 50.7 | 1243.2 | 86.1 | 194.4 |
| 1957 | 75.0 | 1290.0 | 1.1 | 1436.8 | 126.5 | 207.0 |
| 1958 | 64.6 | 1240.9 | 0.0 | 1276.9 | 123.5 | 199.7 |

fluctuations of the property tax collection. Property tax revenue amounted to \$1,214 in 1945, and declined to \$74 in 1950, or an index of 6.1. The index reached 50.0 points in 1955 and then declined to 40.6 points in 1957 and increased slightly to 42.9 points in 1958.

The property tax revenue of Soo township increased 1,030.5 index points from 1955 to 1958. Between 1945 and 1950 the property tax index advanced 160.0 points but declined in the following five years to 13.3.

Gladwin township reports that its property tax index increased by 74.4 index points between 1950 and 1957, but declined 10.4 points in 1958. The property tax collection of Riverton township declined 98.1 per cent from 1945 to 1957 and no property tax was collected in 1958. The property tax index of Goodwell township moved in a corresponding way as the property tax index of Gladwin township. The decrease of the index from 1945 to 1950 was followed by an increase up to 1957 and then showed a small -3.0 index points-downward movement by 1958.

The overall trend of the property tax of the northern townships from 1945 to 1958 can be summarized in the following way. The property tax collection had declined from 1945 to 1950 and then either decreased or increased depending on the local requirements for additional revenue.

The declining percentage importance of the property tax as a source of revenue in the urbanized Michigan

townships is depicted in Table 29. The findings reported are comparable to the movement of the trend of the index of the property tax collection. The property tax accounted for approximately 40 per cent of the total revenue of Portsmouth and Genesee townships in 1945. Summit, Wyoming, and West Bloomfield townships relied to a larger extent on the property tax as source of revenue than the townships which were mentioned previously. In 1945 the total receipts of Summit township were composed of 65 per cent of property tax revenue. Wyoming and West Bloomfield depended almost entirely on the property tax as source of revenue. The group of urbanized townships which were mentioned first did not collect the property tax between 1950 and 1957. Summit and Genesee township levied the property tax in 1958 but Portsmouth township reported no property tax receipts at all.

Wyoming township levied the property tax during the entire period of observation. The property tax accounted for about 81 per cent of the total receipts in 1945. In the period from 1950 to 1957 the property tax constituted from 31 to 38 per cent of the total revenue. Property taxes accounted for approximately 44 per cent of the total receipts in 1958. Wyoming township is an example of a local government which relied continuously on the property tax as source of revenue rather than depending largely on the State-collected locally-shared taxes.

Table 29

Types of Revenue of Selected Urbanized Townships in Michigan,
in Percent of Total Receipts, 1945, 1950, 1955, 1957, 1958

| | Property tax Collection | Locally Shared Taxes | Sundry Receipts | Township Utilities |
|-----------------------|-------------------------------|----------------------------|--------------------|-----------------------|
| Bay County | | | | |
| Portsmouth | | | | |
| 1945 | 38.7 | 56.7 | 4.5 | |
| 1950 | .2 | 98.3 | 1.5 | |
| 1955 | .2 | 84.9 | 14.9 | |
| 1957 | .2 | 97.4 | 2.4 | |
| 1958 | ---- | 99.3 | .7 | |
| Genesee County | | | | |
| Genesee | | | | |
| 1945 | 40.8 | 42.8 | 16.4 | |
| 1950 | 2.1 | 95.5 | 2.3 | |
| 1955 | ---- | 90.5 | 9.5 | |
| 1957 | ---- | 93.6 | 6.4 | |
| 1958 | 36.5 | 50.7 | 11.9 | 0.8 |
| Jackson County | | | | |
| Summit | | | | |
| 1945 | 65.2 | 34.6 | .2 | |
| 1950 | .9 | 94.9 | 4.2 | |
| 1955 | ---- | 91.3 | 6.8 | 1.8 |
| 1957 | | 92.5 | 7.5 | |
| 1958 | 9.8 | 71.9 | 5.8 | 12.5 |
| Kent County | | | | |
| Wyoming | | | | |
| 1945 | 80.9 | 9.1 | 10.0 | |
| 1950 | 30.9 | 56.1 | 12.9 | |
| 1955 | 37.6 | 51.5 | 10.9 | |
| 1957 | 37.2 | 44.9 | 17.9 | |
| 1958 | 43.9 | 49.6 | 6.5 | |
| Oakland County | | | | |
| W. Bloomfield | | | | |
| 1945 | 78.4 | 19.6 | 2.0 | |
| 1950 | 7.7 | 87.7 | 4.5 | |
| 1955 | 7.6 | 58.4 | 33.9 | |
| 1957 | 42.1 | 31.8 | 26.1 | |
| 1958 | 35.8 | 24.8 | 30.3 | 9.1 |

Table 29 continued

| | Miscel- laneous | Cash Balance | | Disburse- ments |
|-----------------------|--------------------|--------------|-------|--------------------|
| | | Begin | End | |
| Bay County | | | | |
| Portsmouth | | | | |
| 1945 | | 108.3 | 88.8 | 119.5 |
| 1950 | | 67.0 | 70.6 | 96.4 |
| 1955 | | 75.9 | 81.4 | 94.5 |
| 1957 | | 92.1 | 101.1 | 91.0 |
| 1958 | | 101.6 | 86.2 | 115.4 |
| Genesee County | | | | |
| Genesee | | | | |
| 1945 | | 72.1 | 94.2 | 77.9 |
| 1950 | | 7.3 | 41.4 | 65.9 |
| 1955 | | 109.2 | 48.0 | 161.7 |
| 1957 | | 57.1 | 3.0 | 154.7 |
| 1958 | | 15.7 | 43.6 | 72.0 |
| Jackson County | | | | |
| Summit | | | | |
| 1945 | | 97.7 | 102.9 | 94.8 |
| 1950 | | 24.4 | 33.1 | 91.3 |
| 1955 | | 26.1 | 26.2 | 99.9 |
| 1957 | | 46.4 | 25.5 | 120.9 |
| 1958 | | 14.7 | 14.0 | 100.7 |
| Kent County | | | | |
| Wyoming | | | | |
| 1945 | | 70.9 | 98.5 | 72.3 |
| 1950 | | 7.1 | 7.1 | 99.9 |
| 1955 | | 15.5 | 11.8 | 103.7 |
| 1957 | | 20.5 | 35.2 | 85.3 |
| 1958 | | 40.7 | 11.0 | 129.8 |
| Oakland County | | | | |
| W. Bloomfield | | | | |
| 1945 | | 61.4 | 41.3 | 120.0 |
| 1950 | | 64.0 | 81.1 | 82.9 |
| 1955 | | 21.0 | 7.2 | 113.9 |
| 1957 | | 18.7 | 24.1 | 94.6 |
| 1958 | | 18.9 | 34.5 | 84.4 |

The property tax constituted a part of the revenue of West Bloomfield township from 1945 to 1958, but accounted for a smaller percentage than has been observed for Wyoming township. The difference is particularly evident for the years 1950 to 1955 in which property tax levies provided about eight per cent of the revenue of West Bloomfield township.

It can be concluded that the property tax declined percentagewise as source of revenue in the urbanized townships during the period of time from 1945 to 1958.

A similar trend of the property tax as source of revenue can be observed for the agricultural and northern strata (Tables 30 and 31). All townships depended upon the property tax as major source of revenue in 1945. Other sources of revenue, especially State-collected locally-shared taxes, became the principal source of revenue after 1945. Three agricultural townships - Calvin, Carmel, and Grant - collected the property tax continuously during the entire period of observation. Newark and Wheatland township discontinued levying the property tax. Calvin township in Cass county reported property tax collections ranging from 12 per cent in 1955 to 27 per cent in 1958. A relatively high percentage, 18.5 per cent, of the total revenue of Grant township in Huron county was derived from the property tax.

Table 30

Types of Revenue of Selected Agricultural Townships in
Michigan, in Percent of Total Receipts,
1945, 1950, 1955, 1957, 1958

| | Property tax Collection | Locally Shared Taxes | Sundry Receipts | Township Utilities |
|-------------------------|-------------------------------|----------------------------|--------------------|-----------------------|
| Cass County | | | | |
| Calvin | | | | |
| 1945 | 92.9 | 7.1 | | |
| 1950 | 21.1 | 78.9 | | |
| 1955 | 11.6 | 36.7 | 1.8 | 50.0 |
| 1957 | 27.2 | 62.3 | 10.4 | |
| 1958 | 27.2 | 63.8 | 1.5 | |
| Eaton County | | | | |
| Carmel | | | | |
| 1945 | 77.8 | 19.1 | 3.1 | |
| 1950 | 3.0 | 92.4 | 4.6 | |
| 1955 | 1.7 | 92.3 | 6.0 | |
| 1957 | 5.6 | 90.5 | 3.9 | |
| 1958 | 7.8 | 62.6 | 1.4 | |
| Gratiot County | | | | |
| Newark | | | | |
| 1945 | 52.1 | 43.9 | 4.0 | |
| 1950 | .1 | 99.9 | | |
| 1955 | | 96.3 | 3.7 | |
| 1957 | N.A. ^{2/} | | | |
| 1958 | | 97.7 | 2.3 | |
| Hillsdale County | | | | |
| Wheatland | | | | |
| 1945 | 57.0 | 30.7 | 12.4 | |
| 1950 | .1 | 99.2 | .7 | |
| 1955 | ---- | 99.2 | .8 | |
| 1957 | ---- | 84.4 | 15.6 | |
| 1958 | ---- | 81.0 | 19.0 | |
| Huron County | | | | |
| Grant | | | | |
| 1945 | 44.2 | 47.2 | 8.7 | |
| 1950 | 6.2 | 92.0 | 1.8 | |
| 1955 | 9.0 | 86.2 | 4.8 | |
| 1957 | 8.1 | 85.0 | 6.9 | |
| 1958 | 18.5 | 79.4 | 2.1 | |

^{1/}Investment sold

^{2/}N.A. = not available

Table 30 continued

| | Miscel- laneous | Cash Balance | | Disburse- ments |
|-------------------------|----------------------------------|--------------|-------|--------------------|
| | | Begin | End | |
| Cass County | | | | |
| Calvin | | | | |
| 1945 | | 56.2 | 117.5 | 38.7 |
| 1950 | | 124.2 | 97.9 | 126.3 |
| 1955 | | 66.3 | 98.3 | 68.0 |
| 1957 | | 111.2 | 125.9 | 85.4 |
| 1958 | 7.4 | 124.2 | 109.0 | 115.2 |
| Eaton County | | | | |
| Carmel | | | | |
| 1945 | | 167.8 | 226.7 | 41.1 |
| 1950 | | 126.8 | 92.8 | 134.0 |
| 1955 | | 49.8 | 26.6 | 123.2 |
| 1957 | | 47.4 | 44.4 | 103.0 |
| 1958 | 28.1 ¹ / ₁ | 30.9 | 2.8 | 128.1 |
| Gratiot County | | | | |
| Newark | | | | |
| 1945 | | 94.3 | 98.9 | 95.4 |
| 1950 | | 126.3 | 89.6 | 136.7 |
| 1955 | | 37.9 | 7.4 | 130.6 |
| 1957 | | | | |
| 1958 | | 30.6 | 34.2 | 96.4 |
| Hillsdale County | | | | |
| Wheatland | | | | |
| 1945 | | 84.7 | 77.6 | 107.1 |
| 1950 | | 84.6 | 139.8 | 44.8 |
| 1955 | | 84.7 | 131.4 | 53.3 |
| 1957 | | 106.7 | 84.7 | 122.1 |
| 1958 | | 81.8 | 103.1 | 78.6 |
| Huron County | | | | |
| Grant | | | | |
| 1945 | | 383.2 | 355.9 | 127.4 |
| 1950 | | 25.9 | 60.4 | 65.5 |
| 1955 | | 131.8 | 66.7 | 165.1 |
| 1957 | | 86.5 | 72.7 | 113.8 |
| 1958 | | 68.4 | 2.0 | 166.4 |

Table 31

Types of Revenue of Selected Northern Townships in Michigan,
in Percent of Total Receipts, 1945, 1950, 1955, 1957, 1958

| | Property tax Collection | Locally Shared Taxes | Sundry Receipts | Township Utilities |
|-------------------|-------------------------------|----------------------------|--------------------|-----------------------|
| Charlevoix County | | | | |
| Marion | | | | |
| 1945 | 76.2 | 23.8 | | |
| 1950 | 1.4 | 92.1 | 6.5 | |
| 1955 | 8.3 | 63.8 | .2 | |
| 1957 | 9.0 | 91.0 | | |
| 1958 | 9.8 | 90.1 | .1 | |
| Chippewa County | | | | |
| Soo | | | | |
| 1945 | 26.0 | 74.0 | | |
| 1950 | 5.8 | 83.5 | 10.9 | |
| 1955 | .3 | 99.7 | .1 | |
| 1957 | 9.0 | 72.8 | .6 | |
| 1958 | 16.7 | 82.8 | .4 | |
| Gladwin County | | | | |
| Gladwin | | | | |
| 1945 | 71.1 | 23.9 | 5.0 | |
| 1950 | 2.4 | 97.6 | | |
| 1955 | 14.1 | 84.8 | 1.0 | |
| 1957 | 14.6 | 84.7 | .7 | |
| 1958 | 13.3 | 85.9 | .9 | |
| Mason County | | | | |
| Riverton | | | | |
| 1945 | 66.1 | 32.2 | 1.6 | |
| 1950 | 9.9 | 82.8 | 7.2 | |
| 1955 | 7.1 | 85.1 | 7.8 | |
| 1957 | ---- | 100.0 | ---- | |
| 1958 | ---- | 92.8 | 7.2 | |
| Newaygo County | | | | |
| Goodwell | | | | |
| 1945 | 38.9 | 58.1 | 3.0 | |
| 1950 | 11.2 | 88.8 | ---- | |
| 1955 | 10.6 | 35.8 | ---- | |
| 1957 | 28.9 | 70.8 | .3 | |
| 1958 | 29.0 | 70.3 | .7 | |

Table 31 continued

| | Miscel- laneous | Cash Balance | | Disburse- ments |
|-------------------|--------------------|--------------|-------|--------------------|
| | | Begin | End | |
| Charlevoix County | | | | |
| Marion | | | | |
| 1945 | | 191.5 | 264.1 | 27.4 |
| 1950 | | .1 | 80.1 | 20.0 |
| 1955 | 27.7 | 30.3 | 59.9 | 70.5 |
| 1957 | | 71.1 | 72.9 | 98.2 |
| 1958 | | 72.7 | 52.4 | 120.2 |
| Chippewa County | | | | |
| Soo | | | | |
| 1945 | | 315.0 | 223.9 | 190.9 |
| 1950 | | 29.3 | 74.1 | 55.2 |
| 1955 | | 14.8 | 11.6 | 103.1 |
| 1957 | 17.6 | 4.9 | 8.9 | 95.9 |
| 1958 | (borrowed) | 10.2 | 6.3 | 103.9 |
| Gladwin County | | | | |
| Gladwin | | | | |
| 1945 | | 89.6 | 112.7 | 76.9 |
| 1950 | | 115.7 | 162.9 | 52.9 |
| 1955 | | 151.9 | 107.1 | 144.7 |
| 1957 | | 112.2 | 52.8 | 158.4 |
| 1958 | | 54.1 | 77.5 | 76.7 |
| Mason County | | | | |
| Riverton | | | | |
| 1945 | | 390.4 | 428.6 | 61.7 |
| 1950 | | 45.5 | 51.7 | 93.8 |
| 1955 | | 146.3 | 89.5 | 156.8 |
| 1957 | | 57.4 | 94.5 | 62.9 |
| 1958 | | 96.1 | 84.3 | 111.8 |
| Newaygo County | | | | |
| Goodwell | | | | |
| 1945 | | 174.8 | 274.8 | 0 |
| 1950 | | 208.9 | 9.8 | 299.2 |
| 1955 | 53.7 | 21.1 | 26.0 | 95.1 |
| 1957 | | 57.1 | 66.2 | 90.9 |
| 1958 | | 66.0 | 26.5 | 133.8 |

The property tax collections of the northern townships did not follow a uniform trend. Each township is a separate case. Property tax revenue requirements were determined by local demand for services or special financial obligations. The property tax collection of Marion township ranged from 1.4 per cent of total revenue in 1950 to 9.8 per cent in 1958. During the period from 1955 to 1958 the property tax accounted for 8 to 9.8 per cent although the State-collected locally-shared taxes increased 26.3 percentage points during the same period of time. Soo township's property tax collection reached 16.7 per cent in 1958 which was the highest percentage during the period of observation. In 1955 this township depended on State-collected locally-shared taxes for its revenue.

The property tax trend for Gladwin township is similar to that of Marion township. Revenues from the property tax accounted for approximately 14 per cent of the total revenue from 1955 to 1958, but only 2.4 per cent of the revenue was derived from the property tax in 1950.

Riverton township did not apply the property tax after 1955 although during 1950 and 1955, 9.9 per cent and 7.1 per cent of the total revenue was derived from the property tax.

Goodwell township collected the property tax from 1945 to 1958. Revenue from the property tax accounted for 39 per cent of the total revenue in 1945, declined to 11

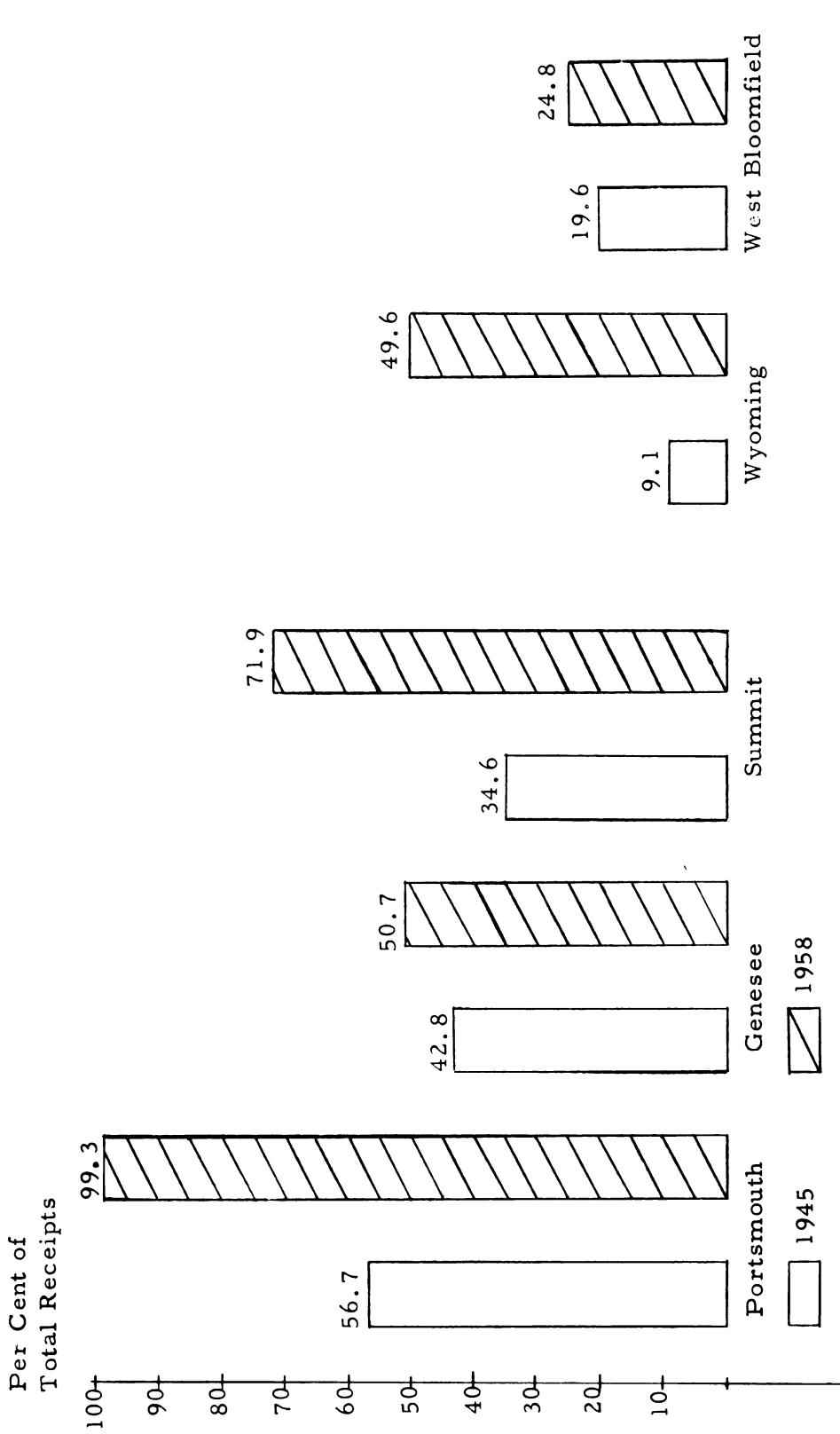
per cent in 1950 and 1955. Approximately one-third of the total revenue was derived from the property tax in 1957 and 1958. This was the highest percentage of property tax revenue within the northern township strata. Goodwell township depends for a large portion of its total revenue on the property tax because State-collected locally-shared tax revenues seem to be insufficient.

State-Collected Locally-Shared Taxes
as Source of Revenue

In the period of time from 1946 to 1958 transfer payments from the State to local governments increased substantially. This has already been observed during the discussion of the historical development of Michigan's tax structure.

The analysis of the revenue pattern of the townships reflects the trend of increased revenue from shared taxes. Within the urbanized strata the State-collected locally-shared taxes ranged from 9 per cent to 57 per cent in 1945, as can be depicted from Figure 1. Wyoming township received 9.1 per cent of its revenue from shared taxes which was the lowest percentage in 1945. Portsmouth depended for 56.7 per cent of its revenue upon shared taxes. In 1958 the revenue pattern of the urbanized townships reflected the additional amount of shared taxes available to townships. The rate of increase of the shared taxes varies among the townships. There appears to be some correlation, however, between the increase of the shared taxes and the decrease of the property tax.

Figure 1. State-Collected, Locally-Shared Taxes as a Percentage of Total Receipts, Urbanized Townships, 1945 and 1958.



Portsmouth township collected \$1,785^{5/} property tax (38.7%) and received \$2,619 (56.7%) shared taxes in 1945. (Fig. 1) The total receipts amounted to \$4,616 including sundry receipts. In fiscal year 1958, only an insignificant amount of property tax was collected. The shared taxes amounted to \$21,537 (99.3%). Genesee township received 40.8 per cent of its revenue from the property tax, and 42.8 per cent from shared taxes in 1945. Sundry receipts accounted for 16.4 per cent in the same year. Shared taxes received increased only eight percentage points from 1945 to 1958. The monetary increment, however, amounted to \$113,516. The property tax contributed \$45,358 or 36.5 per cent to the total revenue. The sundry receipts declined as a per cent of total revenue to 11.9 per cent but increased to a total of \$6,345 in 1958.

Property tax revenue was the major source of income of Summit township in 1945. These revenues accounted for 65.2 of the total revenue. Thirty-five per cent (or \$8,393) were sundry receipts.

Revenues from the property tax were about twice as large as the receipts from shared taxes in 1945. The relationship between these sources of revenue had shifted in 1958. Revenue from the property tax amounted to \$13,994 (9.8%) but the State-collected locally-shared taxes had

^{5/} All receipts in Constant 1958 Dollars.

increased sevenfold to \$102,212 (71.9%). Wyoming township derived 80.9 per cent of its total revenue from the property tax which amounted to \$177,453 in 1945. The shared taxes contributed 9.1 per cent or \$19,887 to the total receipts. Sundry receipts provided 10 per cent of the total revenue. The property tax revenue in 1958 amounted to \$234,290 or 43.9 per cent of total revenue, and shared revenue accounted for 49.6 per cent or \$265,169. Sundry receipts had increased from \$22,030 to \$34,865 though declined percentagewise to 6.5 per cent.

The revenue pattern of West Bloomfield township is similar to that of Wyoming township. Revenue from the property tax amounted to 78.4 per cent, or \$32,425, of the total revenue.

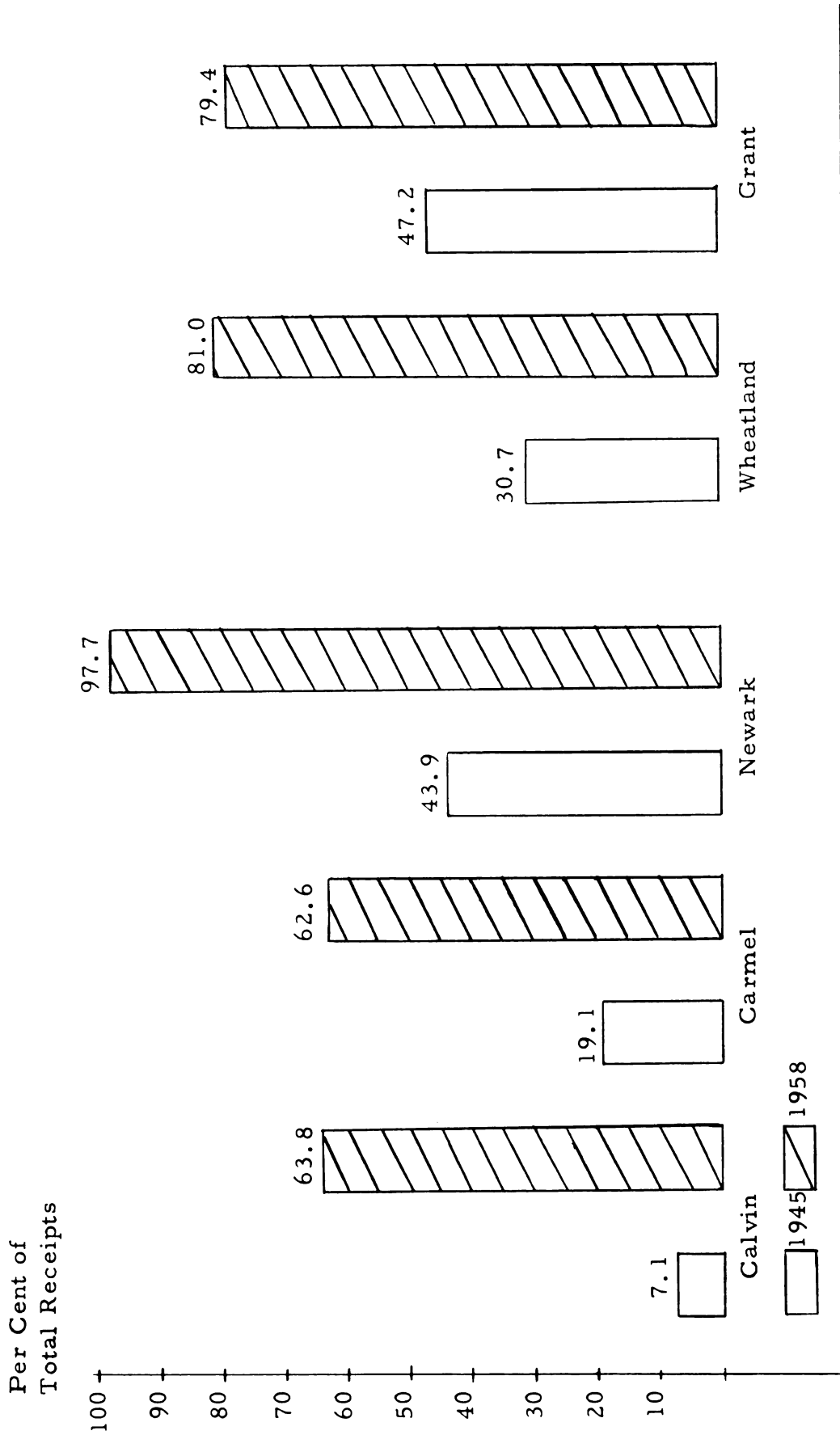
State-collected locally-shared taxes provided 19.6 per cent of the total revenue, or \$8,108. This amount had increased to \$65,457, or 24.8 per cent by 1958. Property tax revenue increased to \$94,623 but declined percentagewise to 35.8 per cent. Sundry receipts of West Bloomfield township contributed \$818 or 2 per cent of the total revenue in 1945, but accounted for \$98,027 or 30.3 per cent in 1958. This analysis demonstrated for three of the five urbanized townships that State-collected locally-shared taxes combined with the property tax were an important source of revenue. One township, Portsmouth, did not collect the property tax for township purposes and depended entirely upon the shared taxes as source of revenue. The revenue pattern of Summit

township followed a similar trend until 1957 but this local government supplemented the shared taxes with revenue from the property tax.

On the average, agricultural townships received a higher percentage of their total revenue from State-collected locally-shared taxes than the urbanized townships. This observation applied to the years 1945 and 1958, as suggested by Figure 2. Calvin township in Cass county reported the largest percentage increase of shared taxes as a per cent of total revenue. In 1945 Calvin depended for 92.9 per cent of its total revenue upon the property tax. The revenue from the tax amounted to \$13,527. Only 7.1 per cent of the revenue originated from shared taxes. The relationship of property tax to shared taxes was reversed in 1958. Sixty-four per cent (or \$10,415) of the total revenue came from shared taxes, whereas 27.2 per cent came from the property tax revenue and 8.9 per cent from sundry receipts.

The revenues of Carmel township followed a similar trend as those of Calvin township. In 1945, the revenue from the property tax constituted the major source of income, 77.8 per cent. Shared taxes accounted for 19.1 per cent and sundry receipts for 3.1 per cent. Although revenue from the property tax decreased from \$2,579 to \$1,118 from 1945 to 1958 they accounted for only 7.8 per cent of total revenue. Shared taxes were the main revenue source in 1958. Approximately 63 per cent of the total revenue was derived from

Figure 2. State-Collected, Locally-Shared Taxes as a Percentage of Total Receipts, Agricultural Townships, 1945 and 1958.



shared taxes and 29.5 per cent from sundry receipts. Within the last category receipts from the sale of investments were included.

The data on revenues for Newark township suggest a similar development as observed for Calvin and Carmel townships. Newark township did not collect a property tax in 1958. It received 97.7 per cent of its revenue from shared taxes, and 2.3 per cent from sundry receipts. Wheatland township discontinued the property tax collection after 1945. This local government reports an unusually large amount of sundry receipts for 1957 (15.6%) and for 1958 (19.0%). The reason for these high percentages was tax refunds from the school district. The township had made advance payments of property tax, which was delinquent, to the school district.

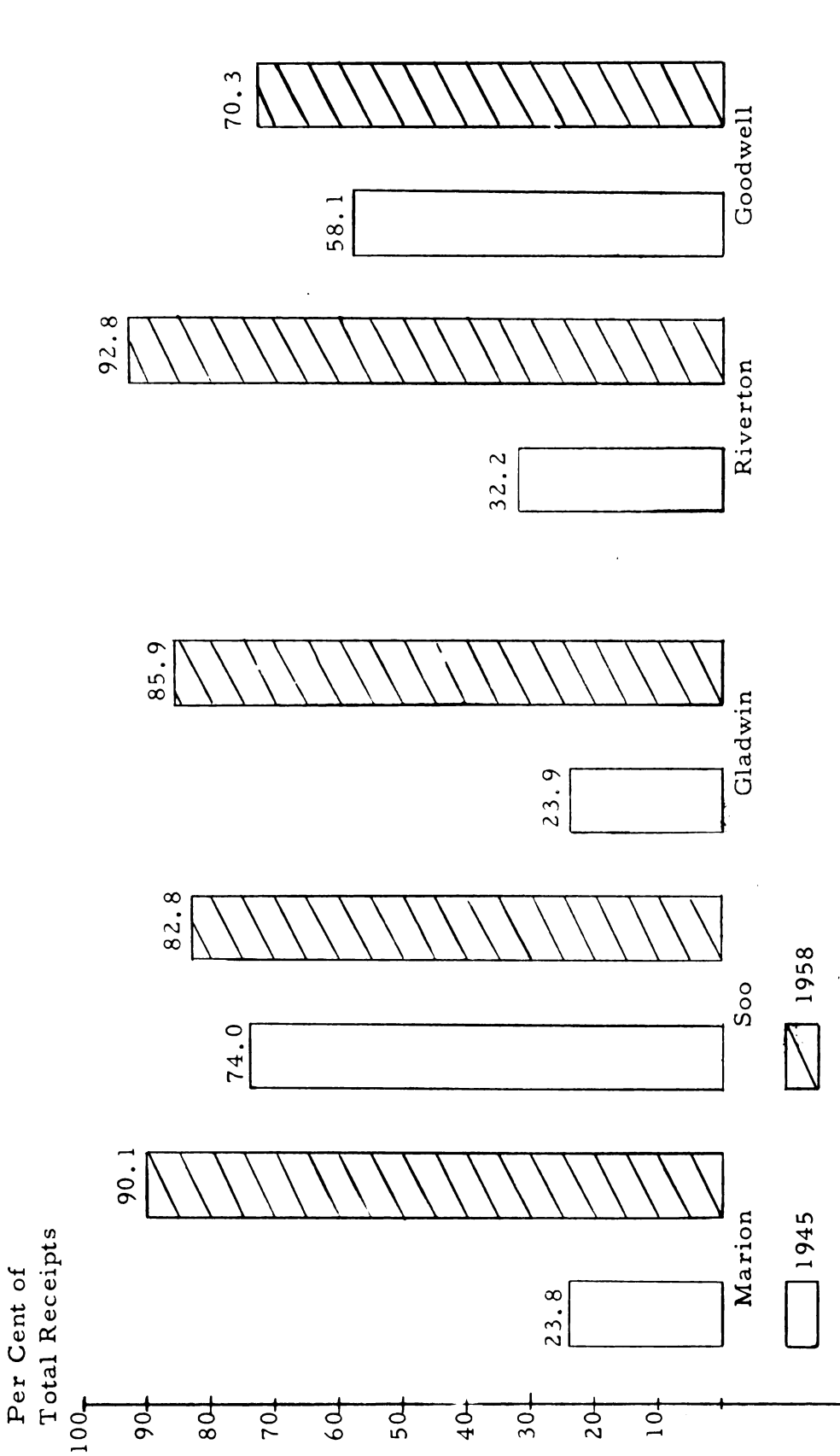
Grant township in Huron county was another local government of the agricultural group which has collected the property tax continuously since 1945. Although revenue from the property tax accounted for only 18.5 per cent of the total revenue in 1958, the index of the property tax collection, however, increased to 296. Shared revenue constituted 79.4 per cent of the total revenue. The index of this type of revenue had advanced to 1,193 (1945 = 100) in 1958, and this indicates the tremendous increase of the State-collected locally-shared taxes as source of revenue. The index of total revenue increased to 708. Therefore, it may be concluded

that the total revenue increased at a slower rate than revenue from the shared taxes.

In 1945 and 1958 the northern townships received a larger share of their revenue from State-collected locally-shared taxes than either the urbanized or the agricultural townships. This development is depicted in Figure 3. Shared taxes, as a percentage of total revenue, ranged from 23.8 to 92.8 per cent in 1945 but from 70.2 to 92.8 per cent in 1958. Marion and Gladwin townships received an identical percentage of their total revenue, 24 per cent, from shared revenue in 1945. Five per cent of the revenue of Gladwin township originated from sundry receipts and the remaining income came from the property tax. Gladwin township received a higher percentage of its revenue from the property tax from 1950 and 1958 than Marion township which depended for 90 per cent of its revenue upon the shared taxes in 1958. The total revenues of Gladwin township were composed of 86 per cent shared revenue, 13 per cent property tax and approximately 1 per cent sundry receipts. About 10 per cent of the total revenue of Marion township came from the property tax in 1958.

Riverton township is the only township of the northern group which did not collect the property tax in 1957 or 1958. This township received 66 per cent of its revenue from the property tax and 32 per cent from shared taxes in 1945. Sundry receipts accounted for approximately 7 per cent of

Figure 3. State-Collected, Locally-Shared Taxes as a Percentage of Total Receipts, Northern Townships, 1945 and 1958.



the total revenue from 1950 to 1958 while shared taxes were the main source of revenue after 1950.

The revenue pattern in Goodwell township did not follow the same trend as the revenue patterns of the other northern townships. In 1945 Goodwell township received 58 per cent of its revenue from shared taxes, 39 per cent from the property tax and 3 per cent from sundry receipts. In 1958 State-collected locally-shared revenue comprised 70 per cent, property tax revenue 29 per cent, and sundry receipts approximately one per cent of total revenue. Although shared taxes increased 12 percentage points from 58 to 70 per cent, it was the smallest percentage of total revenue received from shared taxes within the northern township strata. Goodwell township reported the highest property tax revenue percentagewise within the northern township strata. The increment of the shared taxes is also distinctively different from the other northern township finances analyzed. The index of shared taxes was at 199.7 in 1958. This is very low compared to the index of the northern townships which ranged from 1,217 to 1,813. Analysis of the revenue for Soo township shows an opposite trend in revenues. Seventy-four per cent of the total revenue was shared taxes, and 26 per cent came from the property tax in 1945. The revenue pattern was reversed by 1958, about 17 per cent were property tax revenues and approximately 83 per cent were derived from shared taxes.

Index of State-Collected Locally-
Shared Taxes Received by Townships
1945 = 100

The index of the State-collected locally-shared taxes follows a uniform trend within the urbanized, agricultural, and northern townships.^{6/} It increased continuously from 1945 to 1957 for the urbanized, agricultural, and northern groups. The index of shared taxes for the urbanized group increased at a smaller rate than the index of the agricultural or northern groups. The increase in the urbanized township index ranged from 807.3 to 1,641.5 index points. The index of shared taxes advanced substantially from 1945 to 1957. There is a wide range of increase, however, among the urbanized townships.

The index of shared taxes of Portsmouth and West Bloomfield townships increased 834.6 and 837.5 index points respectively. Summit township reported an increase of 1,262.7 index points, Wyoming township an increase of 1,438.7 and Genesee township an increase of 1,697.9 index points which is the largest increment of all three township groups.

The increase of the index of State-collected locally-shared taxes in the agricultural townships ranged from 1,014.1 to 1,416.5 index points. The increments of the index show less variation than the index of the urbanized townships. The index of Calvin township had advanced to 1,014.1 index

^{6/} For a discussion of the State allocation of the State-collected locally-shared taxes, see introduction to Chapter III.

points which was the smallest increase of the agricultural strata. The index of four agricultural townships had increased to about 1,274 in 1950. Calvin township reported an index of 838.9 for the same year.

The index of the State-collected locally-shared taxes of the northern townships follows generally the same trend observed for the urbanized and agricultural townships. The index increased sharply from 1945 to 1950. Four townships report increments from 1,175.2 to 1,221.3 index points. Only the index of Goodwell township stood at 257.0 index points. The index of shared taxes declined slightly from 1950 to 1955, except for Soo township whose index increased 454.4 during the same period of time. The trend of shared revenue rose from 1955 to 1957 but declined then slightly from 1957 to 1958.

Marion, Gladwin, and Riverton townships reported in 1958 indices ranging from 1,240.9 to 1,276.9. The index of Soo township with 1,812.6 was the highest of the urbanized, agricultural, and northern townships. The revenue pattern of Goodwell township did not follow the same trend as the remaining townships. Goodwell township reported an index of shared taxes of 197.7 in 1958. This was the lowest index number reported of all townships sampled. The index of the property tax collection, however, had increased to 123.5. This increment was about twice as large as for the remaining northern townships. One explanation for this development

might be the relatively high amount of shared taxes, \$1,406, received in 1945. Thus, the base of the index is relatively high in comparison to the amount of shared taxes received by the other northern townships. Furthermore, Goodwell township received very small increments of the state-collected locally-shared taxes. The revenues from shared taxes doubled from 1945 to 1958 while the other northern townships reported increments of more than twelve times the amounts of 1945.

The Disbursement Pattern of Selected Michigan Townships
1945, 1950, 1955, 1957, 1958

Michigan townships provide numerous services. The expenditures for each of the services are grouped by the Michigan Finance Commission into several classes. (Table 32)

Table 32

Services Provided by Townships in Michigan

| | |
|-----------------------|---|
| Administration | Payments to the County Road Commission |
| Police Protection | Highway Lighting |
| Fire Protection | Cemeteries |
| Health and Sanitation | Poor Relief |
| Elections | Water and Sewer |
| Recreation | |
| Library Services | |

Disbursements for the above services were computed as a per cent of total disbursements. All expenditures were converted to 1958 constant Dollars and an index 1945 = 100 for each service was computed. The extent to which shifts between these expenditures for services occurred will be analyzed in the following paragraphs.

Urbanized Townships

The index of total expenditures of the urbanized townships ranged from 433 to 1,125 in 1958.^{2/} The townships of Portsmouth, Wyoming, and West Bloomfield reported indices of 454, 437, and 433 in 1958. The index of total expenditures of Portsmouth township increased 323 per cent and the expenditures of Genesee township 1,025 per cent from 1945 to 1958.

The disbursements of Portsmouth township increased from \$5,516 in 1945 to \$25,022 in 1958 which is a relatively small increment compared to the cash outlays of the other urbanized townships. Expenditures for administration declined from 29 to 11 per cent from 1945 to 1958, although the index of administrative expenditures advanced 74 per cent during the same time period. A similar change of expenditures occurred for the fire department. It should be noted, however, that the disbursements for the fire department were only sufficient to provide for a voluntary fire brigade.

^{2/} Disbursements of the urbanized townships see Appendix Tables 1-10.

In 1950, the service of supervising elections was added but only 2 per cent (\$343) of the total disbursements were spent for it. A township library was established in 1955 requiring 2 per cent of the total disbursements. The index of library services increased 283 per cent from 1955 to 1958. Contributions to the County Road Commission accounted for 10 per cent in 1945 but for 40 per cent of total expenditures in 1958. The index of this service increased 1,742 per cent since 1945.

The index of total expenditures for Genesee township increased at the greatest rate of all townships sampled. It advanced 1,025 per cent from 1945 to 1958. But the index declined from 1,569 in 1955 to 1,543 in 1957 and decreased further to 1,125 in 1958.

Several new services were inaugurated during the years analyzed. The index of administrative services advanced to 291 points which is the largest increment of the administrative services of the urbanized township strata. Police protection was added in 1950 but the expenditures for the police department suggested that only the enforcement of the liquor law or similar tasks were performed. A small fraction of the total disbursements was spent for this purpose. Fire protection was another service added in 1950. Expenditures for this service accounted for 41 per cent of the total disbursements or \$22,598. The expenditures for fire protection declined to 13 per cent or \$19,644 in 1958. Establishment of a fire department requires a large initial cash outlay

for equipment. Maintenance of equipment and personnel expenditures are the largest disbursements thereafter. The per cent of the total disbursements spent for elections declined from 16 in 1945 to 0.6 per cent in 1958, though 2 per cent were spent in 1957 for this service. In 1955, monies were disbursed for recreation for the first time in the amount of \$2,214 or 1.1 per cent. Disbursements declined to \$760 or 0.5 per cent in 1958. Contributions to the County Road Commission have accounted for a relatively large part of the total disbursements of Genesee township since 1950. No transfer payments were reported for 1945. Road payments accounted for 11 per cent of the total disbursements in 1950 and 1955 but increased to 31 per cent in 1957. Disbursements for road purposes declined to 20 per cent in 1958. The index of disbursements to the Road Commission indicated a 915 per cent increase from 1950 to 1957 but then a decline to 477 index points in 1958. Although the expenditure index for highway lighting advanced 855 per cent, a relatively small percentage of the total disbursement was spent for this service. Approximately 5 per cent were disbursed in 1958 as well as in 1945 for highway lighting. During the remaining years approximately 1.5 per cent were spent.

Maintenance of cemeteries is another service rendered by four of the five urbanized townships. Genesee township spent on the average 0.1 per cent of the total disbursements for this service. The expenditures amounted to an average

of \$245 for 1955, 1957, and 1958. In 1950 average disbursements of \$612 were reported.

The index of total disbursements in Summit township increased 523 per cent from 1945 to 1958. During this period four new services were added. "Recreation", "library", and "contributions to the Road Commission" were the additional services provided since 1950. Disbursements classified under the category of health were reported after 1955. Highway lighting was not paid from the general fund of the township in 1958. It is possible that this expenditure was perhaps classified under miscellaneous disbursements. Expenditures for water and sewer were reported only for 1945 or 1958. It may be assumed that these expenditures were a capital outlay rather than current expenditures. No poor relief was paid after 1950. The index of disbursements for the police department increased 1,222 per cent between 1945 and 1958. Summit township spent \$1,365 (6%) in 1945 and \$18,051 (13%) in 1958 for police protection. The data indicate that this local government has supported a full-time police force since 1945. The index of disbursements for fire protection increased 797 per cent. The cash outlay, however, exceeded the one for the police department. In 1958 expenditures for the fire department amounted to \$27,200 (or 19% of total disbursements). The index for this service advanced 129 index points from 1945 to 1950, and 479 index points during the following five years. The increment from 1955 to 1958,

89 index points, suggests a smaller rate of increase than that of the police department.

Expenditures for administration accounted for 12 per cent or \$17,786 in 1958, and \$6,936 in 1945, during which time they accounted for 30 per cent of the total expenditures. The index of health-, recreation-, and library services declined slightly, though expressed in per cent of total disbursement, no change was reported. Contributions to the County Road Commission began in 1950. Two thousand five hundred and three dollars were transferred. This amount increased substantially in 1955 and amounted to \$32,040. During the following years the transfer payments to Road Commission declined to \$14,204 in 1958.

Services rendered by Wyoming township changed very little between 1945 and 1958. The reason for the relatively small change is that Wyoming township provided most of the services in 1945, and that it has outgrown the classification of a township in regard to total population as well as in regard to the monetary volume of its revenues and disbursements. Total disbursements of Wyoming township in 1958 exceeded the total of the other four urbanized townships by about \$160,000. The same observation applies to the time between 1945 and 1957. The index of total disbursements of Wyoming increased 337 per cent from 1945 to 1958. Establishment of a library in 1950 was the only service added. The 1958 indices of recreational service and the police department

are the highest of all services provided, 529 and 526 respectively. Expenditures for the police department, for the fire department and transfer payments to the County Road Commission accounted for the largest per cent of total disbursements during the entire period of observation. The disbursement index of the police department advanced 426 per cent. Expressed in per cent of total disbursements expenditures accounted for between 11 and 18 per cent. The index of the fire department was 396 in 1958. It increased at a smaller rate than that of the police department. The expenditures for the fire department ranged between 13 and 19 per cent of total expenditures. The transfer payments to the County Road Commission were the third type of service which required a large portion of the total disbursements. They ranged between 7 and 22 per cent of total disbursements. The largest payment was made in 1955 with \$124,178 (or 22% of total disbursements). Wyoming spent substantial sums for recreational purposes, \$12,357 or 8 per cent in 1945 and \$65,344 or 9 per cent in 1958. Except for the years 1945 and 1950, disbursements for recreation exceeded substantially those for administration, which amounted to 18 per cent in 1945, but declined to 4 and 3 per cent in 1950 and 1955, respectively. They increased to 5 per cent in 1957 and to 9 per cent in 1958.

Maintenance of cemeteries is another service provided. It required about 5 per cent of total disbursements in 1958. The cash outlay doubled after 1945 as indicated by the index

which increased 98 per cent from 1945 to 1958. Wyoming township spent \$15,921 in 1945 and \$31,549 in 1958 for cemeteries. Expenditures for health and poor relief declined during the period of time analyzed. Disbursements for health declined from \$4,769 in 1945 to \$415 in 1958. The State and the Federal government took over the responsibility for providing health services. Poor relief decreased 64 per cent, from \$2,700 to \$914. Improvement of the unemployment compensation provided by the State and by the Federal government may be correlated with this decline.

West Bloomfield is the second largest urbanized township in terms of total disbursements which amounted to \$215,032 in 1958. The index of total disbursements increased 333 per cent from 1945 to 1958. The largest increase of the index, 230 index points, occurred during the years from 1950 to 1955. This increment of the total disbursement index is associated with substantial advances of disbursements for certain services. The index of the police department increased 1,274 index points. Disbursements increased \$27,719 during the same time. Expenditures for the fire department advanced 217 index points. Cash outlays for police protection increased \$16,709 from 1950 to 1955. Library facilities were added in 1950. Twelve per cent of the total disbursements or \$6,467 were spent for this service. Actual cash outlay for library facilities increased to \$18,031 in 1958, but expressed in per cent of total disbursement, expenditures declined to 8 per cent in 1958.

Transfer payments to the County Road Commission were reported after 1955 and \$2,819 (1.7%) were disbursed for this service. Payments to the Road Commission increased \$3,040 or 179 per cent between 1955 and 1958. They accounted for three per cent of the total disbursements in 1958. The indices of health, elections, highway lighting, and cemeteries declined a few index points. Likewise, the disbursements for these services declined as a percentage of total disbursements. Administrative expenditures of West Bloomfield township increased 79 per cent after 1945. They declined continuously, however, as a percentage of total disbursements, from 39 per cent in 1945 to 16 per cent in 1958. Since total expenditures increased by more than 300 per cent, the administrative disbursements increased monetarily by \$15,061, from \$19,125 in 1945 to \$34,186 in 1958. These administrative expenditures accounted for the largest per cent of total disbursements of all urbanized townships sampled. West Bloomfield is the only urbanized township whose administrative expenditures decreased, however, throughout the entire period of observation. Disbursements for administration of the remaining townships declined from 1945 to 1955 and advanced in 1957 and 1959. Wyoming township spent 9 per cent, Portsmouth- 11 per cent, and Summit-, and Genesee township each 12 per cent for administration.

A few general observations about the disbursement pattern of the urbanized townships can now be made. The

disbursement data suggest that Portsmouth- and Genesee township provided fewer services than Summit, Wyoming, and West Bloomfield townships. Both townships spent the largest per cent of their disbursements for transfer payments to the County Road Commission. Portsmouth township disbursed 40 per cent and Genesee township 20 per cent in 1950 for this service. Expenditures for the fire department were the second largest percentagewise. They accounted for 18 and 13 per cent respectively. Administrative disbursements amounted to 11 per cent for Portsmouth- and to 12 per cent for Genesee township.

In 1958 Summit and Wyoming township disbursed the largest percentage of their total disbursements for their fire departments, 19 and 14 per cent, respectively. Police protection in both townships required 13 per cent, which was the second largest percentage. Administrative services accounted for 12 and 9 per cent in 1958. The pattern was reversed for West Bloomfield. This local government spent the largest percentage, 16 per cent, for administrative services. Disbursements for fire protection amounted to 12 per cent and police protection for 9 per cent. Transfer payments to the Road Commission accounted for 10 per cent of Total disbursements of Summit township, for 12 per cent in Wyoming township, and for 3 per cent in West Bloomfield.

Agricultural Townships

The expenditure pattern and the services provided by the agricultural townships were distinctively different from the expenditure patterns and services rendered by urbanized townships.^{8/} Agricultural townships provided fewer services than the urbanized stratum. The index of total disbursements of the agricultural townships fluctuated widely from 1945 to 1958. The agricultural townships reported indices which ranged from 334 to 1,340 in 1958. Total monetary expenditures ranged from \$8,737 to \$18,803 in 1958. These cash outlays are small compared to the expenditures of urbanized townships.

The index of total disbursements of Calvin township increased 242 per cent from 1945 to 1950. It declined from 1955 to 1957 by 22 per cent and increased then again 35 per cent from 1957 to 1958. Calvin township rendered one more service in 1958 than in 1945. Transfer payments to the County Road Commission were reported since 1950.

The index of expenditures for fire protection increased more than 4,000 per cent. Expressed in monetary terms, the increment amounted to a total of \$1,176, from \$24 in 1945 to \$1,200 in 1958. The money disbursed in 1958 did not support a fire department. Transfer payments to the Road Commission accounted for the largest per cent of total disbursements from 1950 to 1958, ranging between 12 and 47 per cent.

^{8/} Disbursements of agricultural townships see Appendix Table 11-20.

Calvin township reported a relatively large per cent of the total disbursements spent for poor relief, as can be depicted from Table 33.

Table 33

Disbursements for Poor Relief, Calvin Township, 1945-1958,
in Constant 1958 Dollars and as a
Percentage of Total Disbursements

| Year | Amount | Per Cent of Total Disbursements |
|------|---------|---------------------------------|
| 1945 | \$2,674 | 48 |
| 1950 | 3,485 | 25 |
| 1955 | 3,325 | 18 |
| 1957 | 915 | 7 |
| 1958 | 3,228 | 17 |

Disbursements for poor relief increased 21 per cent from 1945 to 1958 while total expenditures advanced 224 per cent during the same period of time. Two additional townships, one of the northern group and one of the agricultural group, provided this service. Carmel township disbursed \$416 or 3.5 per cent in 1945 and \$284 or 2.4 per cent in 1950 for this service. Riverton township in the northern group spent \$72 (5%) in 1945 for poor relief. Three urbanized townships rendered poor relief. Summit township disbursed 19 per cent or \$4,392 in 1945 and 6 per cent or \$4,037 in 1950. Wyoming township provided poor relief from 1945 to 1958. The expenditures accounted for 2 per cent or \$2,700

in 1945, and for one per cent or \$4,646 in 1950, and then declined to \$2,300 (0.4%) in 1955. During the last two years of observation, disbursements for poor relief amounted to \$802 and \$912 respectively. The disbursements of West Bloomfield township amounted to one per cent or \$602 in 1945, and thereafter to a negligible fraction of one per cent.

The State and the Federal government share the costs of four basic welfare categories: 1) old age assistance, 2) aid to dependent children, 3) aid to the blind, and 4) aid to the permanently and totally disabled.

The general relief programs rendered by local units of government, mainly at the county level, are designed to help those individuals who do not qualify for the relief payments specified under the above mentioned categories. Local governments also provide supplementary assistance to recipients of categorial aid whose needs exceed the maximum relief payment payable under the law specifying categorial aid.

Administrative expenditures of Calvin township were constant at about \$1,900, except for 1950. In this year disbursements for administration were \$2,289. Administrative expenditures declined as per cent of total disbursements from 1945 to 1958, however.

Transfer payments to the County Road Commission required the largest per cent of the total disbursements

since the introduction of this service in 1950. Road expenditures ranged from 12 per cent in 1957 to 47 per cent in 1955.

The index of total disbursements of Carmel township increased sharply from 1945 to 1958. It advanced 1,240 per cent from 1945 to 1958. Expenditures rose 761 per cent from \$1,362 in 1945 to \$11,721 in 1950. This increment was associated with the addition of several new services. Transfer payments to the County Road Commission were reported for the first time. They amounted to \$1,149 and accounted for 10 per cent of the total expenditure. During the following years, however, payments to the Road Commission required the major portion of the total disbursements. Carmel township transferred \$7,431 (64 per cent) to the Road Commission in 1955. Road payments declined to \$4,468 in 1957, but accounted for 43 per cent of the total expenditures. In 1958, transfer payments increased to \$9,506 or 52 per cent. Although road expenditures declined by \$2,963 from 1955 to 1957, total disbursements decreased by \$1,000. Additional funds were spent for administrative purposes, and for fire protection. Funds for the latter service increased \$3,618 during 1955 and 1957.

Maintenance of cemeteries is the second new service rendered since 1950. The cash outlay for this service was small with \$903 (8 per cent) in 1950. Disbursements for this service decreased to \$481 in 1957 and advanced again to \$1,162 (6 per cent) in 1958.

Disbursements for water and sewer facilities were reported since 1955. Only \$512 were spent in that year. Expenditures increased 465 per cent during the period from 1955 to 1958, the cash outlay, however, amounted to \$2,890 in 1958. This amount would be sufficient for a survey of water requirements or a similar task but it is not sufficient for maintenance and operation of a water and sewage system.

Administrative expenses increased 220 per cent but declined as a percentage of total disbursements from 37 per cent in 1945 to 9 per cent in 1958.

Newark township did not report disbursements for 1957. Consequently, observations are based on data from 4 fiscal years, 1945, 1950, 1955, and 1958. The index of total disbursements increased 703 per cent from \$1,576 in 1945 to \$12,654 in 1958. The increment in total expenditures might be explained partially by an increase of transfer payments to the Road Commission from \$138 in 1945 to \$3,553 in 1950, or 2,475 per cent. Expenditures for water and sewer facilities in the amount of \$1,105 occurred since 1950 and probably contributed to the substantial increase of total disbursements. The index of expenditures for fire protection advanced 1,127 index points from 1945 to 1955, but declined 717 points in 1958. The cash outlay for this service, \$113 in 1945 and \$810 in 1958, indicated that only a voluntary fire department was supported. Expenditures for administration constituted between 9 and 11 per cent from 1950 to 1958.

They accounted for 49 per cent in 1945. Transfer payments to the Road Commission required the largest per cent of total disbursements in 1950 and in 1958 with 29 and 44 per cent respectively. Administrative expenses required 49 per cent of the total disbursements in 1945. Newark township disbursed \$4,595 or 39 per cent in 1955 for water and sewer facilities.

The disbursements of Wheatland township increased from \$2,597 in 1945 to \$15,790 in 1957 and then declined to \$10,228 in 1958. Two additional services were provided since 1945. Disbursements classified under the service "health" and transfer payments to the Road Commission were reported since 1950. In 1958, \$60 were spent for recreational facilities and \$48 for library purposes. These amounts of money were not adequate to provide the kind of services for which they are intended. Therefore, neither of these services was considered in the analysis.

From 1945 to 1955 administrative expenses accounted for the largest per cent of the total disbursements, ranging from 38 per cent in 1945 to 26 per cent in 1955. Contribution to the Road Commission required 51 per cent of the total disbursements in 1957 and amounted to \$8,050. Disbursements for road purposes decreased by \$5,000 in 1958 to \$3,034 or 30 per cent of total disbursements. Administrative expenses increased 68 index points or \$676 during the same time indicating a shift within the disbursement pattern.

Disbursements of the remaining services rendered increased moderately from 1945 to 1958. The index of expenditures for fire protection changed 210 per cent, from \$242 to \$760. Expenditures for health service increased 25 per cent. The cost of providing for elections is correlated with election years and cyclical movements of the expenditures for this service are expected. Maintenance of cemeteries is another service provided by Wheatland township. The cost of this service accounted for 7 per cent in 1958 but for 20 per cent of total disbursements in 1955. The index of this service suggests an increment of expenditures of 294 per cent from 1945 to 1955. The index declined 56 index points during the following two years, and 102 points from 1957 to 1958.

In 1945 Grant township in Huron county provided administrative services, health service, elections, and highway lighting. Health service and highway lighting were discontinued. Grant township spent eight dollars for the health service in 1945. This small amount is inadequate to pay for this service. Several new services were added in 1950. These are disbursements for road purposes, cemetery, and water, and sewer expenditures. Fire protection was added in 1955. The costs of these additional services are reflected in the increase of the total disbursements from \$1,549 in 1945 to \$14,321 in 1958, or 825 per cent. Transfer payments to the County Road Commission accounted for

63 per cent of total disbursements in 1955, for 33 per cent in 1957 and 66 per cent in 1958. Costs of road maintenance were a small item in the 1950 budget and required 6 per cent or \$298. The index of disbursements for administration advanced 63 per cent from 1945 to 1958, but it reached a peak in 1955 with 118 per cent. Administrative services declined as a percentage of total disbursements from 47 per cent in 1945 to 8 per cent in 1958. About two per cent of the total disbursements were spent for fire protection after 1955. Maintenance of a cemetery was a relatively large undertaking in 1950 costing \$2,071 or 40 per cent of total disbursements. In 1957 \$2,549 or 27 per cent were disbursed for that purpose.

Northern Townships

The northern townships are located in the thinly populated areas of northern Michigan. These local governments provide fewer services than the urbanized or agricultural townships. The disbursement pattern is more uniform than that of the two township groups analyzed previously.^{2/} Total disbursements ranged between \$5,199 and \$15,546 in 1958. All northern townships rendered additional services since 1945 and therefore the disbursements increased substantially for four of the five townships.

^{2/} Disbursements of the northern townships see Appendix Tables 21-30.

Goodwell township did not disburse monies in 1945. Therefore 1950 became the base period, and the indices computed are not comparable with those of the remaining northern townships. The index of total disbursements of Marion township increased 1,372 per cent from 1945 to 1958 whereby the largest rate of increase occurred from 1950 to 1955. Soo township and Gladwin township reported increases of 854 and 651 per cent respectively from 1945 to 1957. Disbursements of these local governments declined from 1957 to 1958. Expenditures of Riverton township advanced, 1,095 per cent from 1945 to 1955, declined 723 index points during the following two years and increased again 430 index points from 1957 to 1958. A common characteristic of the disbursement pattern of the northern townships is the large per cent of total expenditures spent for the maintenance and the construction of roads and highways. These percentages are higher than those of the urbanized and agricultural townships. Marion township disbursed between 43 and 78 per cent of the total expenditures for road purposes. Expenditures of Soo township for the same service were about 10 per cent lower than of Marion townships. Gladwin transferred on the average 42 per cent to the road commission, and the three years average of Riverton township was 55 per cent. The budget of Goodwell township is the smallest monetarywise of all townships analyzed. The main service of this local government is the construction and maintenance of roads. This becomes evident

by the size of the transfer payments to the Road Commission. These payments accounted for 34 to 70 per cent of the total disbursements. Administration required between 14 and 20 per cent of total disbursements.

Marion township provided five additional services in 1950. These services were: fire protection, providing for elections, payments to the Road Commission, and maintenance of a cemetery. Administrative services were provided since 1945. The costs of these new services rendered are correlated to the increase of total disbursements which advanced from \$436 in 1945 to \$6,418 in 1958, or 1,372 per cent. Soo township reported a similar trend of additional services, with the exception of maintenance of a cemetery. Total disbursements increased 854 per cent from 1945 to 1957 and then declined 73 index points from 1957 to 1958.

Gladwin township added one service, fire protection, since 1945. Fifty-seven per cent of the total disbursements or \$5,477 were spent for fire protection in 1955. The cash outlay was probably utilized for the purchase of a small fire engine.

Administrative services, providing for elections, maintenance of roads and a cemetery are services which were provided by Gladwin township since 1945. Expenditures reached a peak in 1957 with \$11,322 and declined to \$5,199 in 1958. In 1957, 71 per cent of the total disbursements were transferred to the Road Commission.

Riverton provided administrative services, facilitated elections and maintained a cemetery in 1945. A small sum of money, \$72 or 5 per cent of total disbursements, was paid as poor relief in 1945. Two services were added since 1945. Riverton township began to disburse money, though only \$135, for recreational facilities, and transferred money to the Road Commission.

Goodwell township did not report expenditures in 1945. In 1950, the base period, \$10,799 or 89 per cent was transferred to the Road Commission. Other services rendered include administration, supervision of elections, maintenance of roads and a cemetery. In 1955 and 1957 small amounts of money, \$401 and \$125 respectively, were disbursed for police protection. This was the only service added.

Summing up the analysis of the services provided by the urbanized, agricultural, and northern townships, it can be observed that the urbanized townships rendered a wider variety of services than either the agricultural or the northern townships. Total disbursements in the urbanized townships were substantially larger than in either of the other two groups. Four of the five urbanized townships maintained a full-time fire department, and three townships supported a police department. None of the agricultural or the northern townships maintained either, but they did support voluntary fire brigades and a part-time constable. Recreational facilities were provided by three urbanized

townships and by one northern township. There was no difference between the three groups in supervising elections. Three urbanized townships maintained a library. Among the agricultural and northern townships only one governmental unit rendered this service. All townships contributed to the Road Commission. Only three urbanized townships reported disbursements for highway lighting. Most townships maintained cemeteries.

Expenditures Per \$1,000 of Assessed Valuation

Expenditures per \$1,000 of assessed valuation is another measure of the relationship of taxes and expenditures. However, several limitations of this ratio should be noted. Property taxes are levied by three levels of government: townships, school districts, and counties. Only the expenditures of township governments were related to the property tax assessment. A second point must be considered for proper interpretation of expenditures per \$1,000 of assessed valuation.^{10/} Townships receive a large per cent of their total revenues from State-collected locally-shared taxes. Only a small percentage of the total revenues were derived from the property tax, however.

¹⁰ ^{10/} Values of the local assessment were the best data available.

Expenditures per \$1,000 of assessed valuation were analyzed for the three groups of townships. Expenditures per \$1,000 assessed valuation of the urbanized townships averaged \$8.88, and the assessed valuation averaged \$27.6 million in 1958. (Table 33-1).

Table 33-1

Expenditures Per \$1,000 Assessed Valuation
of Selected Michigan Townships in 1958

| Township Group | Expenditures Per \$1,000 Assessed Valuation |
|-------------------------------|--|
| <u>Urbanized Townships</u> | |
| Portsmouth | \$ 7.01 |
| Genesee | 8.21 |
| Summit | 4.57 |
| Wyoming | 11.66 |
| West Bloomfield | 11.89 |
| Average | 8.88 |
| <u>Agricultural Townships</u> | |
| Calvin | 17.14 |
| Carmel | 9.55 |
| Newark | 4.58 |
| Wheatland | 6.69 |
| Grant | 15.98 |
| Average | 9.58 |
| <u>Northern Townships</u> | |
| Marion | 10.35 |
| Soo | 9.46 |
| Gladwin | 6.48 |
| Riverton | 8.58 |
| Goodwell | 5.11 |
| Average | 8.13 |

However, these expenditures varied over a wide range. Expenditures amounted to \$4.57 for \$1,000 assessed value in Summit

township where the assessed value of \$31.3 million was the second highest among the urbanized townships. An inverse relationship of expenditures was found in Portsmouth township. Properties were assessed at \$3.36 million and disbursements amounted to \$7.01. The assessed valuation of Wyoming township was twice as large as the average valuation of the urbanized group. It amounted to \$59.4 million and expenditures per \$1,000 assessment were \$11.66. West Bloomfield township also disbursed \$11.89 per \$1,000 of assessed valuation, although properties were only valued at \$25.6 million.

The total and the average assessed valuations of the agricultural townships were considerably lower than those of the urbanized townships. The average assessed valuation for these townships amounted to \$1.5 million. Average total expenditures per \$1,000 of assessed valuation were higher for the agricultural townships than for the urbanized townships. Agricultural townships spent, on the average, \$9.58 per \$1,000 valuation. This group of townships reported expenditures per \$1,000 of assessed valuation ranging from \$4.58 to \$17.14. Calvin township reported \$17.14 which was the highest ratio of the three township groups. The assessed valuation was \$1.1 million which was below the average of the agricultural group. Grant township is another township which disbursed more money per \$1,000 assessed valuation than the urbanized townships. The ratio amounted to \$15.98, although properties were valued only \$896,300 for assessment purposes. Assessed valuation in Carmel and Newark townships was reported at \$1.9 million for

each unit but expenditures per \$1,000 assessed valuation amounted to \$9.55 and \$4.58 respectively.

Northern townships spent less per \$1,000 assessed valuation than the urbanized and agricultural townships. The average disbursements amounted to \$8.13 with an average assessment of \$1.11 million. Marion township reported the lowest assessed valuation of all sampled townships. Properties were valued at \$620,450. This local government disbursed \$10.35 per \$1,000 assessed valuation which was the highest ratio for the northern townships. Soo township disbursed \$9.46 although the assessed valuation was two and half times higher than that of Marion township. The assessed valuation of Gladwin township was the second lowest of all townships with properties valued at \$802,300. Expenditures amounted to \$6.48 which was below the average for the northern townships.

Summing up the discussion of expenditures per \$1,000 assessed valuation, it is apparent that the ratio of expenditures to assessed valuations is high in the agricultural and rural townships with below average assessed valuations. This observation applies also to Portsmouth township, the smallest of the urbanized townships sampled. The general pattern of the ratio of expenditures to assessed valuation in the urbanized townships needs further study.

Average Total Expenditures
and Average per Capita Expenditures

Another measure of the variations in the expenditure patterns of the three groups of townships may be ascertained

by comparisons of the average total expenditures and the average per capita expenditures of the three groups of townships. These measures were computed for the sampled townships for 1950 and 1958. (Table 33-2)

Table 33-2

Average Total Expenditures, and Average Per Capita Total Expenditures of Selected Townships in 1950

| Township Group | Average Total Expenditures per Township | Average per Capita Total Expenditures |
|------------------------|---|---------------------------------------|
| Urbanized Townships | \$ 107,657 | \$ 8.54 |
| Range | 16,527 - 343,803 | 4.42 - 11.86 |
| Agricultural Townships | 9,528 | 10.18 |
| Range | 4,283 - 13,789 | 3.90 - 13.84 |
| Northern Townships | 6,853 | 9.22 |
| Range | 1,047 - 12,175 | 2.08 - 41.41 |

Average total expenditures per urbanized township in 1950 were more than ten times higher than the expenditures of the agricultural townships.^{11/} Urbanized townships disbursed on the average \$107,657 as compared to an average of \$9,528 for the agricultural group. Northern townships disbursed an average of \$6,853 per township in 1950. The urbanized townships reported a wide range of expenditures. Portsmouth township disbursed \$16,527 and Wyoming township \$343,803. The range between the lowest and highest total expenditures in the agricultural townships was from \$4,283 in Wheatland township to \$13,789 in Calvin township. Total expenditures in the northern

^{11/} Revenues and disbursements were adjusted to 1958 Constant Dollars.

townships ranged from \$1,047 in Marion township to \$12,175 in Goodwell township. The high expenditures reported by Goodwell township were caused by disbursements in the amount of \$10,799, or 89 per cent of total expenditures, for road construction and maintenance.

Analysis of the per capita expenditures shows that the agricultural townships disbursed on the average \$10.18 (range \$3.90 - 13.84). This was higher than the \$3.54 (range \$4.42 - 11.86) average per capita expenditures of the urbanized townships. Average per capita disbursements in the northern townships stood at \$9.22 (range \$2.03 - 41.41) or approximately midway between those of the urbanized and agricultural townships.

The population of the urbanized townships increased an average of 51 per cent between 1950 and 1958. Agricultural townships reported a 7 per cent increase in population and northern townships a 12 per cent increase. (Table 33-3)

Table 33-3

Percentage Change of Average Population Increase,
Average Total Expenditures, and Average Per Capita
Expenditures of Selected Townships, 1950-1958

| Township Group | Population Change | Total Expenditures | Average Per Capita Expenditures |
|------------------------|-------------------|--------------------|---------------------------------|
| Urbanized Townships | 51 % | 118 % | 51 % |
| Agricultural Townships | 7 | 48 | 41 |
| Northern Townships | 12 | 32 | 17 |

The increase of total expenditures and per capita expenditures is correlated to the change in population.

Average total expenditures of the urbanized townships increased from \$107,657 in 1950 to \$245,420 in 1958 or 113 per cent. Per capita expenditures increased 51 per cent but expressed in monetary terms ranked below the per capita expenditures of the agricultural townships. Average per capita expenditures of the urbanized townships amounted to \$12.91 (range \$7.81 - 16.33) in 1958 and average disbursements per capita in the agricultural townships rose to \$14.39 (range \$3.67 - 20.37). (Table 33-4).

Table 33-4

Average Total Expenditures, and Average Per Capita Total Expenditures of Selected Townships, in 1958

| Township Group | Average Total Expenditures Per Township | Average Per Capita Total Expenditures |
|------------------------|---|---------------------------------------|
| Urbanized Townships | \$ 245,420 | \$ 12.91 |
| Range | 25,022 - 693,307 | 7.81 - 16.33 |
| Agricultural Townships | 14,067 | 14.39 |
| Range | 8,737 - 18,803 | 3.67 - 20.37 |
| Northern Townships | 9,017 | 10.83 |
| Range | 5,199 - 15,546 | 8.10 - 17.53 |

It should be pointed out, however, that the population of the agricultural townships increased 7 per cent while the per capita expenditures advanced 41 per cent. The average total expenditures of the agricultural townships increased 48 per cent from \$9,528 in 1950 to \$14,067 in 1958.

Average total expenditures of the northern townships increased 32 per cent between 1950 and 1958. They amounted

to \$9,017 (range \$5,199 - 15,546) and ranked considerably below those of the other two groups. Per capita expenditures increased 17 per cent to \$10.83 (range \$8.10 to 17.53).

Concluding the discussion of average total expenditures and average per capita expenditures, it may be observed that total expenditures of the urbanized townships increased 118 per cent but per capita expenditures advanced only 51 per cent. In contrast to these findings are the expenditure patterns of the agricultural townships. Population increased 7 per cent while total expenditures advanced 43 per cent and per capita expenditures went up 41 per cent. The trend of the northern townships suggests that average per capita expenditures increased at a greater rate than population increments. Further investigation is needed to study the economies of scale associated with the number and costs of services provided.

CHAPTER V

CHANGES IN THE PROPERTY TAX RATES, AND THE RELATIVE IMPORTANCE OF THE COUNTY, SCHOOL DISTRICTS AND TOWNSHIP LEVY, 1945 TO 1958

The revenue pattern of selected Michigan townships was analyzed in a previous chapter. Property taxes as a source of revenue declined and State-collected locally-shared taxes replace property tax revenues in these townships. The purpose of this chapter is to analyze the changes of the property tax rate from 1945 to 1958, as well as the importance of the county levy, the school district levy and the township levy.

Property tax trends in Michigan from 1940 to 1955 have been analyzed in a recent study by Heneberry and Barlowe.^{1/} This study shows that the State equalized valuation of urbanized townships increased 200 per cent from 1940 to 1955 while an increment of 141 per cent occurred with the agricultural townships.^{2/} The largest increase occurred for the northern townships whose State equalized valuation advanced 248 per cent during the 15-year period.^{3/}

^{1/} William H. Heneberry and Raleigh Barlowe, Property Tax Trends Affecting Michigan Farmers, Michigan Agricultural Experiment Station, Special Bulletin 421, 1958.

^{2/} Heneberry and Barlowe, Ibid., p. 12.

^{3/} The same urbanized, agricultural, and northern townships were sampled for the analysis of the services rendered. Therefore a comparison of the results of Bulletin 421 and this study is possible.

Increased revenue from the property tax can be secured in three ways. Assessed valuations may be increased and the levy kept constant. The levy may be increased, or both methods may be employed simultaneously. Local political feasibility influences the choice of methods used to raise additional property tax revenues.

The Total Property Tax Levy

Three levels of local government levy property taxes in Michigan: the county, the school districts and the township or municipality. A wide range of property tax levies was observed. The urbanized townships reported, on the average, higher rates than the agricultural and northern townships.

There were a number of school districts within the geographical area of each township (Table 34). The school tax levy varied considerably from district to district within each township (Table 35). These variations of the school districts account for the range of the total property tax levy within one township.

The number of school districts within the urbanized townships declined from a total of 24 in 1945 to 15 in 1958 (Table 34). School districts were organized within four agricultural townships. Their number declined from 26 in 1945 to 16 in 1958. The decrease of school districts in Wheatland township accounted for eight alone, however, Calvin township did not have a school. The pupils attended

Table 34

Index of Pupils in 1958 and Number of School Districts
1945 and 1958 within Selected Urbanized, Agricultural,
and Northern Townships in Michigan

| | Number of School Districts | | Pupil Index |
|-------------------------------|----------------------------|-----------------|-------------------|
| | 1945 | 1958 | 1945 = 100 |
| <u>Urbanized Townships</u> | | | |
| Portsmouth | 3 | 3 | 517 |
| Genesee | 4 | 3 | 240 |
| Summit | 7 | 1 | 187 ^{1/} |
| Wyoming | 9 | 7 | 192 |
| West Bloomfield | 1 | 1 | 241 |
| <u>Agricultural Townships</u> | | | |
| Calvin | No school districts | | |
| Carmel | 8 | 6 | 125 ^{2/} |
| Newark | 7 | 7 | 152 ^{3/} |
| Wheatland | 9 | 1 ^{4/} | |
| Grant | 2 | 2 | 111 |
| <u>Northern Townships</u> | | | |
| Marion | No school districts | | |
| Soo | 1 | 1 | 143 |
| Gladwin | 6 | 4 | 92 |
| Riverton | 5 | 2 | 127 |
| Goodwell | No school districts | | |

^{1/}School districts were reorganized in 1955, index of 1955.

^{2/}1957 index: 133

^{3/}1957 index: 162

^{4/}No school districts from 1958 on.

Table 35

Range of School District Levies within
Selected Urbanized Townships, 1958, in Mills

| Townships | Levy |
|-----------------|---------------|
| Portsmouth | 8.00 - 9.00 |
| Genesee | 8.00 - 22.25 |
| Summit | 9.00 - 9.00 |
| Wyoming | 9.04 - 21.00 |
| West Bloomfield | 19.81 - 19.81 |

neighboring districts and Calvin township paid tuition to these districts. Two northern townships, maintained schools while three townships sent their pupils to school districts in adjacent townships. The number of districts within the two townships declined from 12 to 7.

The analysis of the index of property tax rates has to be correlated with the actual levy.^{3a/} Some school districts reported a very low levy during the base period and increased their levy considerably. Thus, a high index figure was the result. The reverse conditions were prevailing in other school districts. The total levy of the urbanized townships ranged between 21.89 and 31.03 mills in 1958, disregarding

^{3a/} Rates apply to the State equalized valuation.

Genesee township.^{4/} The same measures of dispersion ranged from 12.31 to 17.50 mills, in 1945 including Genesee township. Heneberry reported an average levy of 14.54 mills in 1945.^{5/}

The property tax rates of Genesee township deserve further analysis. The levy amounted to an average of 171.89 mills which is approximately a ten times increase over 1945. The levy as well as the rate were the highest of all townships analyzed. Substantial increments of the county levy since 1950 accounted for the sharp increases of the total rate. Genesee county levied the following rates in 1958.

| <u>Purpose</u> | <u>Levy (mills)</u> |
|------------------|---------------------|
| County, general | 74.33 |
| County drain | 72.30 |
| Metropolitan tax | <u>9.39</u> |
| County Total | 156.02 |

The school districts collected an additional 8.00 to 22.25 mills, and the township levied 0.75 mill. The special drain levy and the metropolitan tax were reported since 1955 but the county levy in 1950 was 37.30 mills which was 5 to 6 times higher than the county level of the remaining townships.

^{4/} These measures of dispersion are simple averages computed by averaging the low and the high levy. No weights were assigned, however. These averages are to be used to compare approximate rates for this study, but should not indicate inequalities of assessment.

^{5/} Heneberry, et. al., op. cit., Table 6, p. 16.

The total property tax rates of the agricultural townships showed less variation than the rates of the urbanized townships. The agricultural townships can be classified into three groups according to their average total tax rate in 1945. Group one composed of Newark and Carmel township, levied 9.71 and 10.19 mills, respectively, Calvin and Wheatland comprising group two levied 12.00 and 12.88 mills. Grant township levied 16.91 mills in 1945. The tax levies of the various townships increased at different rates from 1945 to 1958. Calvin township reported a 233 per cent increase and an average tax rate of 39.92 mills in 1958. The rate of increases as well as the levy were the highest of the agricultural townships. The second highest rate of increase occurred in Grant township. The total rate advanced to 32.20 mills or 90 per cent. The data suggest that the increase of the total tax rate is correlated with the substantial increments of the school district levy. Calvin township's school levy advanced from 5.00 mills in 1945 to 26.34 mills in 1958, or 427 per cent. The school district levy of Grant township increased from 7.37 to 21.20 mills, or 188 per cent. The school tax rate of 7.37 mills in 1945 was the highest for the agricultural townships. The total tax rate and the school district rate of Wheatland township followed the same trend. The 110 per cent increase of the school district levy was reflected in a 72 per cent increase of the total tax rate. Newark and Carmel reported smaller

increases of the total tax rate, 31 and 64 per cent, from 1945 to 1958.

The northern townships levied higher property tax rates than the agricultural townships in 1945. Rates ranged from 11.99 to 19.93 mills in 1945, and from 17.52 to 28.98 mills in 1958. (Table 36)

Table 36

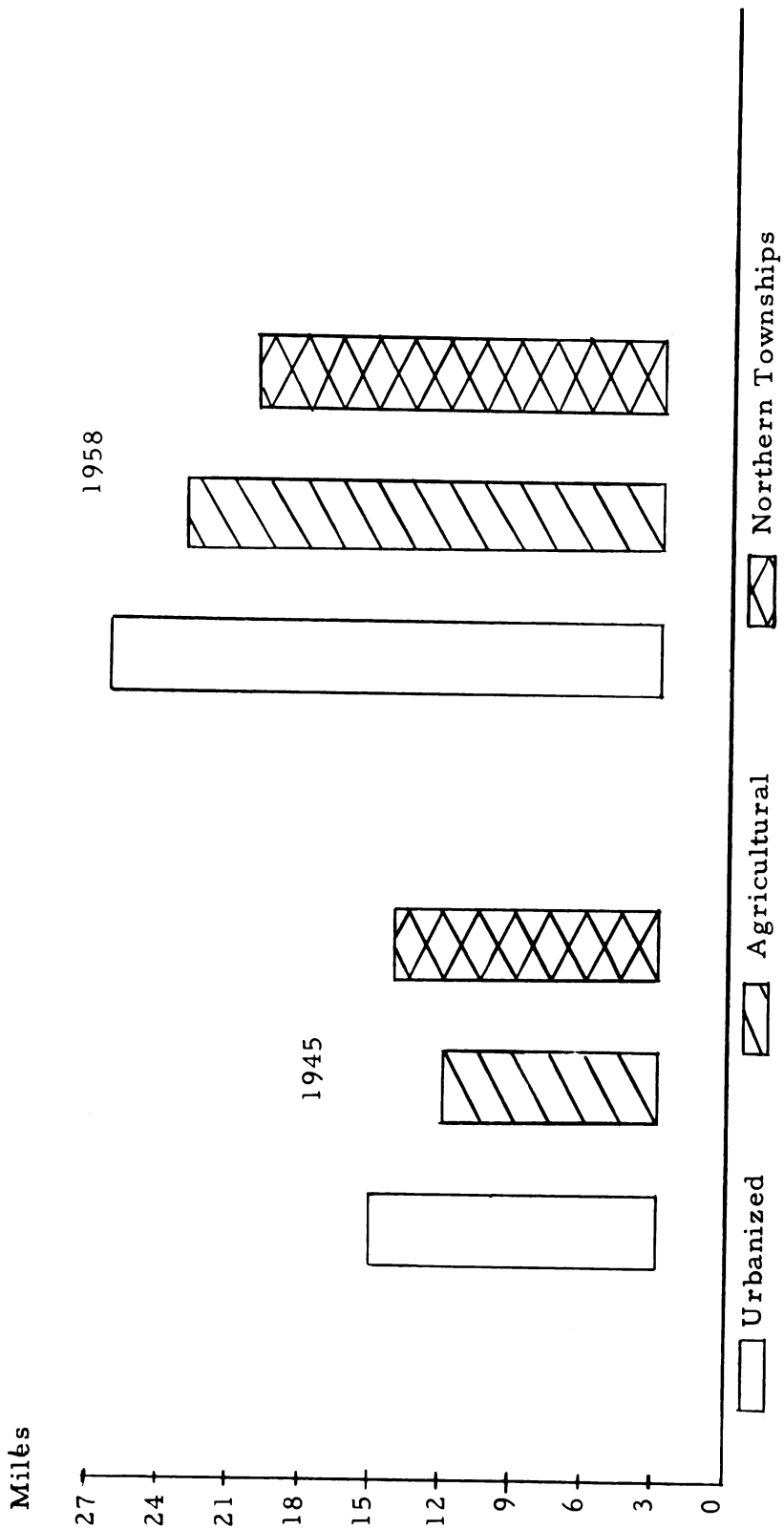
Average Total Property Tax Rates of Selected Urbanized, Agricultural, and Northern Townships in Michigan, 1945 and 1958, in Mills^{1/}

| | 1945 | 1958 |
|------------------------|-------|-------|
| Urbanized Townships | 15.00 | 26.17 |
| Agricultural Townships | 11.85 | 23.19 |
| Northern Townships | 14.65 | 20.89 |

^{1/}These are simple measures of dispersion, no weights were assigned. These figures are comparisons only and do not indicate the actual tax burden.

Summing up the discussion of total property tax rates a few general observations can be made. The average property tax rate for the urbanized townships was the highest rate of the three township groups in 1945 and in 1958. (Figure 4) The higher tax rate of the urbanized townships is associated with the greater number of services rendered as well as with their geographical location adjacent to cities. Agricultural townships levied, on the average, lower tax rates than the

Figure 4. Average Property Tax Levy of Urbanized, Agricultural and Northern Townships, 1945 and 1958.



northern townships in 1945. A possible explanation of this relation might be that the northern townships had to levy higher rates on properties with a low assessed valuation than the agricultural townships.

The average property tax rate of the urbanized townships increased 11.17 mills or 74 per cent between 1945 and 1958. The agricultural townships reported a ^{hundred} one per cent increase of the tax rate. The average rate of the northern groups increased 6.24 mills or 42 per cent. The number of services provided by this group of townships did not increase between 1945 and 1958.

The Importance of the County, School District,
and Township Property Tax Rate

Three levels of local governments levy property taxes: the counties, the school districts, and the townships. During interviews, townships supervisors and school superintendants remarked that there was competition among the three levels of governments for the revenues from the property tax.

Urbanized Townships

The county property tax rate is composed of a levy for general county purposes and special levies for miscellaneous purposes and the financing of capital outlay. The urbanized townships reported county levies which amounted to between 3.00 and 7.30 mills in 1945. The county tax rate increased between 70 and 295 per cent during the 14-year observation period and levies from 6.12 to 12.39 were

reported for 1958. The tax rate of Genesee township was discussed above and therefore is not included in this analysis.

The county rate levied in Portsmouth township constituted about 60 per cent of the total tax rate from 1945 to 1960. The county tax reported for Genesee township took 9 per cent in 1945 but about ten times as much in 1958. Summit township reported an eight percentage point increase of the county tax rate from 33 per cent in 1945 to 41 per cent in 1958. The county tax rate of Wyoming township took 18 per cent in 1945 and 38 per cent in 1958. The county tax rate of West Bloomfield township averaged 20 per cent with small variations during the entire period analyzed.

The school district tax rate of the urbanized townships varied widely in 1945 as well as in 1958. The lowest rate in 1945 was 0.52 mill and the highest 21.00 mills. The rate of increase from 1945 to 1958 and the mills levied in 1958 is shown in Table 37.

Table 37

Index of Mills and Actual Rates levied by School Districts
Located within Selected Urbanized Townships in 1958
(1945 = 100)

| School Districts in the Township of: | Range of Index 1945 = 100 | Mills levied in 1958 |
|---|------------------------------|-------------------------|
| Portsmouth | 164 - 316 | 8.00 - 9.00 |
| Genesee | 74 - 107 | 8.00 - 22.25 |
| Summit | 62 - 300 | 9.00 |
| Wyoming | 131 - 1738 | 9.04 - 21.00 |
| West Bloomfield | 168 | 19.81 |

The school district which reported a 1,638 per cent increase had a levy of 0.52 mill in 1945 and a tax rate of 9.04 mills in 1958.

The county and the school district levy accounted for the largest percentage of the total tax rate of Portsmouth, Genesee, and Summit townships. The township government of Portsmouth levied 0.94 mill (8%) in 1945 and 1.00 mill (4%) in 1958. These were the only years in which the township levied the property tax. Genesee township reported the only levy for 1958 in the amount of 0.75 mill. The levy of Summit township accounted for 1.50 mills in 1945, 0.86 mill in 1957 and 4.35 mills in 1958. The township board of supervisors felt that a special township levy was necessary in 1958 to pay for the installation of street lights. Wyoming and West Bloomfield township were the only local governments which levied tax throughout the 14-year period. Wyoming township's levy ranged from 5.32 mills in 1945 to 4.17 mills in 1958. The levy of West Bloomfield amounted to 2.00 mills in 1945. It declined to 0.50 mill in 1950 but increased then to 2.65 mills in 1958.

Agricultural Townships

The composition of the total property tax rate of the agricultural townships changed considerably from 1945 to 1958. The percentage of the school district rates increased while the county percentage declined by about identical proportions (Table 38).

Table 38

Change in Tax Rates of the County and School Districts,
1945 to 1958, (in Percentage Points)

| Township | School Districts | County |
|-----------|------------------|--------|
| Calvin | 15 | - 9 |
| Carmel | 10 | - 10 |
| Newark | 9 | - 9 |
| Wheatland | 10 | - 7 |
| Grant | 12 | - 27 |

The school district levy increased at a greater rate than the total tax levy. The index of the school district levy (computed as average) ranged from 153 to 527 in 1958. The index of the total levy, however, ranged from 131 to 333. The school district levy accounted for about two-thirds of the total levy in 1958 but for less than half in 1945.

Calvin township is the only local government which levied the property tax. The township levy took between 3 and 7 per cent of the total levy during the years 1950 to 1958 but accounted for 21 per cent in 1945. This township levy might be connected with the large burden of poor relief Calvin township carried. Wheatland township reported a .50 mill levy in 1945, and Grant township a 2.20 mills levy in 1958.

Northern Townships

The levy of the school districts is correlated to the levy of the county. The importance of the school district levy as per cent of the total levy increased between 25 and 33 percentage points but the levy of the county declined between 15 and 30 percentage points from 1945 to 1958. An exception to this trend was reported for Gladwin township. The school district levy declined two percentage points and the county levy advanced seven percentage points. The school levy and the county levy in Riverton township increased 5 and 6 percentage points respectively. Only three northern townships, Soo, Gladwin, and Riverton, maintained schools. Marion and Goodwell townships did not provide schools. Gladwin and Riverton townships decreased the number of school districts from 6 to 4 and from 5 to 2 respectively between 1945 and 1958.

The school district levy of the northern townships increased between 40 and 236 per cent, depending on the location of the school district during the time analyzed. One school district reported a decline of 25 per cent. The levy of the school districts in the northern townships ranged from 4.00 mills to 10.00 mills in 1945 and from 7.02 mills to 15.50 mills in 1958.

All five township governments levied the property tax during one or more years. Marion township levied the property tax continuously except in 1950. The rate

decreased from 1.50 mills in 1945 to 0.50 mill in 1958. Soo township collected the property tax in 1957 and 1958. The levy amounted to 5.26 mills and 1.00 mill respectively. Gladwin township collected the property tax from 1945 to 1958. The levy amounted to 1.75 mills in 1945, and 1.00 mill thereafter. Riverton levied the property tax during 1945 and 1950 and the levy amounted to 1.50 mills and 0.50 respectively. Goodwell township is the second township government which collected the property tax during the entire period analyzed. The rate was 3.00 mills in 1945 and declined to 1.00 mill for the remaining years.

The data suggest that the northern townships supplemented their share of the State-collected locally-shared taxes with property tax revenue to a greater extent than the agricultural townships.

CHAPTER VI

SUMMARY AND CONCLUSIONS

Michigan has numerous local governments. Important among these are the 1957 total of 1,262 townships. These units provide a variety of governmental services, many more in some townships than others. A major objective of the study was to examine the nature of the services and the associated expenditure patterns for different types of townships. It was hypothesized that more services are provided and more money is spent on their provision in the more urbanized townships than in rural townships. As a means of testing this hypothesis, a sample of townships was drawn and stratified by geographical location. The revenue and expenditure pattern was analyzed for 122 townships in 1957 and for 131 townships in 1958.

Analysis of the findings shows that urbanized townships provided more services than the rural townships in 1957 and 1958. Seventy-two per cent of the urbanized townships, 37 per cent of the agricultural ones, and 44 per cent of the northern townships rendered police protection in 1958. Many of the urbanized townships sampled maintained full-time fire departments. This is in contrast to the situation in the agricultural and northern townships where such fire protection as was provided usually involved voluntary fire departments or contractual agreements with adjacent townships or municipalities.

Sixty per cent of the urbanized townships disbursed moneys for recreational facilities in 1958, but only eight per cent of the agricultural, and 28 per cent of the northern

townships reported this service.

Transfer payments to county road commissions ranked first percentagewise among all disbursements for the three groups of townships sampled. Disbursements for fire protection and general administration ranked second with the urbanized townships. Payments to the county road commission and disbursements for general administration were the major expenditures of the northern townships.

Agricultural and northern townships received between 95 and 100 per cent of their revenues from the State-collected locally-shared taxes in 1958. The modal group of the urbanized townships only received between 40 and 45 per cent of the total revenues from this source, indicating that these townships have been forced to develop other sources of revenue.

These relationships were studied in more detail in a subsample of 5 urbanized, 5 agricultural, and 5 northern townships. The findings of the analysis of these groups of townships are detailed below. Property taxes declined substantially in percentage importance as a source of revenue between 1945 and 1958. Property tax revenues accounted for between 26 and 92 per cent of the total revenues of all townships sampled in 1945. By 1958, however, only four of the five urbanized townships sampled collected any property taxes, and the taxes in these units accounted for no more than 44 per cent of total revenues. Property taxes were collected in three of the five agricultural townships sampled, accounting for from zero to 27 per cent of the local revenues. They were collected

in four of the five northern townships, where these taxes accounted for zero to 29 per cent of the local revenues in 1958.

The average total expenditures per urbanized township amounted to \$107,657 in 1950, and to \$245,420 in 1958.^{1/} Average total expenditures of the agricultural townships amounted to \$9,528 in 1950 and to \$14,067 in 1958. Northern townships reported average expenditures of \$6,853 in 1950 and of \$9,017 in 1958. Comparison of these increases shows that total expenditures increased 218 per cent in the average urbanized township during this eight year period as compared with an increase of 48 per cent in the agricultural townships and only 32 per cent in the average northern township.

Per capita expenditures in the agricultural townships were higher than in the other two township groups. The average township expenditure per capita was \$10.18 in 1950 and \$14.39 in 1958 in the five agricultural townships studied. Average per capita expenditures of \$9.22 in the northern townships in 1950 were higher than in the urbanized townships where an average of \$8.54 per capita was reported. Per capita disbursements in the urbanized townships increased 51 per cent between 1950 and 1958. The average per capita expenditure for these townships amounted to \$12.91 in 1958. Average per capita expenditures were lower in the urbanized townships in 1958 than in the agricultural townships where average expenditures had increased 41 per cent and amounted to \$14.39 in 1958. Per capita expenditures in the northern townships increased 17 per cent and amounted to \$10.83 in 1958.

^{1/} Revenues and disbursements were converted to 1958 constant Dollars.

Urbanized townships provided a greater number of services in 1945 and 1958 than the townships in the rural areas. Urbanized townships also added more services between 1945 and 1958 than the other township groups sampled. Additional services included recreational facilities, township libraries, fire and police protection. Four of the five urbanized townships maintained a full-time fire department in 1958. None of the agricultural or northern townships maintained either, but some of them supported voluntary fire departments and part-time constable service. Recreational facilities were provided by three urbanized townships, by one in the northern group, and by none in the agricultural group. Three urbanized townships maintained a library. Only one of the agricultural and northern townships provided this service.

Expenditures for road maintenance and construction ranked highest percentagewise among the expenditures of three urbanized townships. Disbursements for fire protection and administration took second place.

A similar expenditure pattern was found for the agricultural townships. The agricultural group added maintenance of cemeteries, transfer payments to the county road commission and water and sewer facilities as the only new services between 1945 and 1958.

A common characteristic of the disbursement patterns of the northern townships is the large proportion of total expenditures disbursed in 1945 and 1958 for maintenance and construction of roads. It may be concluded that these road

payments are the major service performed by the northern townships. Three townships reported maintenance of a cemetery as a new service.

The urbanized townships reported higher property tax rates on the average than the agricultural and northern townships for the years between 1945 and 1958. The total property tax levy for four of the urbanized townships ranged between 21.89 and 31.03 mills in 1958, while the levy ranged between 12.31 and 17.50 mills in 1945. Genesee township reported a levy of 171.89 mills in 1958 but this high rate was due to a special county assessment.

The agricultural townships levied average property tax rates of 11.85 mills in 1945 and of 23.19 mills in 1958. These rates may be compared with average rates of 14.65 mills in 1945 and 20.89 mills in 1958 for the northern townships.

County and school district levies accounted for the largest proportion of the total property tax rates in the urbanized townships. The tax levies of these governments increased between 70 and 295 per cent from 1945 to 1958. Only two township governments levied a property tax throughout the entire 14 year period analyzed. Urbanization in these two townships has progressed very rapidly.

An inverse relation was found between the school district levy and the county levy in the agricultural townships. The school levy increased between 9 and 15 per cent while the county levy declined from 7 to 27 per cent from 1945 to 1958.

A similar trend with property tax rates was found for the northern townships. Three of the five townships maintained

schools. All five township governments levied the property tax during one or more years from 1945 to 1958.

Several hypotheses were advanced and tested in this study for two groups of data. The hypotheses and the results of the analysis were as follows:

1. Townships provide a greater number and a wider variety of services in urban than in rural areas. The analysis of the data showed that townships rendered more services and a wider variety in urban than in rural areas in 1945 and in 1958.

2. Average total and average per capita disbursements of the urbanized townships are higher than those of the agricultural and northern townships. The analysis reveals that average total expenditures per urbanized township were higher in 1950 and 1953. However, per capita expenditures of the urbanized townships were lower in 1950 than those of the townships in rural and northern areas. In 1953 per capita expenditures of the urbanized townships were lower than those of the agricultural townships but higher than those of the northern townships.

3. With increased urbanization, townships depend to a larger extent upon the general tax as a source of total revenue to finance township, school district, and county functions. The data analyzed support this hypothesis.

4. The general property tax has declined in relative importance as a source of revenue but has increased in absolute importance, especially in the urbanized townships as compared to the agricultural or northern townships. The analysis of

the data supports this hypothesis.

5. Tax rates levied by townships in urban areas are higher than in the agricultural and northern areas. Total property tax rates levied within urbanized townships for township, school district, and county purposes were higher than the tax rates levied within the agricultural and northern townships.

Many townships in Michigan which are predominantly rural in character will probably be affected by suburbanization in the future. Some townships which are already settled by suburban residents will have to provide additional services demanded by the new residents. This pressure for a greater number of services will be associated with higher total expenditures; higher property taxes will have to be levied to cover the increased costs of these services if the disbursements are financed in a pattern similar to that found in this study. It is also possible that the distribution pattern of the State-collected locally-shared taxes will be changed so as to force townships to depend to a larger degree on their own resources to finance their services. The rural taxpayer will be forced to pay higher taxes even though the new services were demanded by the new residents.

This study shows that townships in rural and northern areas provide a limited number of services. An additional study should investigate economies of scale in rendering certain services provided presently by each township, and the possibility of combining some to achieve greater efficiency in the use of tax revenues.

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APPENDIX TABLE 1

Disbursements of Portsmouth Township, Bay County, in Michigan
1945 to 1958, in Constant 1958 Dollars

| Disbursements | 1945 | 1950 | 1955 | 1957 | 1958 |
|---------------------------|---------|----------|----------|----------|----------|
| Administration | \$1,610 | \$ 1,745 | \$ 1,839 | \$ 2,009 | \$ 2,799 |
| Police Department | -- | 1,350 | -- | -- | -- |
| Fire Department | 2,479 | 2,566 | 3,582 | 3,657 | 4,514 |
| Health | -- | -- | -- | 103 | -- |
| Elections | -- | 343 | 551 | 592 | 300 |
| Recreation | -- | -- | -- | -- | -- |
| Library | -- | -- | 340 | 505 | 1,302 |
| County Road Commission | 543 | 5,700 | 8,640 | 8,240 | 10,000 |
| Highway Lighting | -- | -- | -- | -- | -- |
| Cemeteries | -- | -- | -- | -- | -- |
| Pocr Relief | -- | -- | -- | -- | -- |
| Water and Sewer | -- | -- | -- | -- | -- |
| Miscellaneous | 886 | 4,823 | 8,049 | 5,310 | 6,106 |
| Total | 5,516 | 16,527 | 23,002 | 20,433 | 25,022 |

APPENDIX TABLE 2

Disbursements of Genesee Township, Genesee County, in Michigan
1945 to 1958, in Constant 1958 Dollars

| Disbursements | 1945 | 1950 | 1955 | 1957 | 1958 |
|---------------------------|----------|----------|-----------|-----------|-----------|
| Administration | \$ 6,292 | \$ 5,489 | \$ 11,206 | \$ 14,384 | \$ 18,325 |
| Police Department | -- | 1,368 | -- | 3,017 | 764 |
| Fire Department | -- | 22,598 | 25,747 | 17,000 | 19,644 |
| Health | 713 | -- | -- | -- | -- |
| Elections | 2,165 | 790 | 2,926 | 4,990 | 909 |
| Recreation | -- | -- | 2,214 | 1,030 | 760 |
| Library | -- | -- | -- | -- | -- |
| County Road Commission | -- | 6,300 | 23,044 | 63,917 | 30,005 |
| Highway Lighting | 744 | 1,007 | 3,237 | 3,595 | 7,106 |
| Cemeteries | 24 | 612 | 262 | 274 | 204 |
| Poor Relief | -- | -- | -- | -- | -- |
| Water and Sewer | -- | -- | -- | -- | -- |
| Miscellaneous | 3,462 | 16,616 | 141,575 | 98,478 | 72,948 |
| Total | 13,398 | 54,778 | 210,211 | 206,687 | 150,665 |

APPENDIX TABLE 3

Disbursements of Summit Township, Jackson County, in Michigan
1945 to 1958, in Constant 1958 Dollars

| Disbursements | 1945 | 1950 | 1955 | 1957 | 1958 |
|---------------------------|----------|----------|-----------|-----------|-----------|
| Administration | \$ 6,936 | \$ 5,841 | \$ 11,722 | \$ 16,170 | \$ 17,786 |
| Police Department | 1,365 | 11,222 | 11,100 | 15,713 | 18,051 |
| Fire Department | 3,412 | 11,222 | 24,168 | 25,762 | 27,200 |
| Health | -- | -- | 648 | 618 | 600 |
| Elections | 1,924 | 1,430 | 3,265 | 4,727 | 980 |
| Recreation | -- | 650 | 432 | 412 | 400 |
| Library | -- | 319 | 432 | 412 | 400 |
| County Road Commission | -- | 2,503 | 32,040 | 20,627 | 14,201 |
| Highway Lighting | 2,164 | 2,217 | 3,849 | 3,684 | -- |
| Cemeteries | 242 | 171 | 432 | -- | 400 |
| Poor Relief | 4,392 | 4,037 | -- | -- | -- |
| Water and Sewer | 700 | -- | -- | -- | 29,448 |
| Miscellaneous | 1,834 | 27,339 | 20,814 | 50,352 | 33,642 |
| Total | 22,968 | 66,944 | 108,891 | 138,476 | 143,107 |

APPENDIX TABLE 4

Disbursements of Wyoming Township, Kent County, in Michigan
1945 to 1958, in Constant 1958 Dollars

| Disbursements | 1945 | 1950 | 1955 | 1957 | 1958 |
|---------------------------|-----------|-----------|-----------|-----------|-----------|
| Administration | \$ 27,798 | \$ 14,628 | \$ 19,305 | \$ 24,068 | \$ 64,051 |
| Police Department | 16,903 | 37,098 | 76,230 | 91,750 | 88,973 |
| Fire Department | 24,169 | 54,567 | 69,735 | 100,956 | 95,648 |
| Health | 4,769 | 5,567 | 1,725 | 583 | 415 |
| Elections | 4,722 | 2,884 | 3,568 | 10,079 | 3,313 |
| Recreation | 12,357 | 11,750 | 59,733 | 38,258 | 65,344 |
| Library | -- | 1,574 | 1,800 | 1,225 | 2,394 |
| County Road Commission | 23,158 | 54,872 | 124,178 | 38,606 | 79,562 |
| Highway Lighting | -- | -- | -- | -- | -- |
| Cemeteries | 15,921 | 28,827 | 29,249 | 30,267 | 31,549 |
| Poor Relief | 2,700 | 4,646 | 2,344 | 802 | 914 |
| Water and Sewer | -- | -- | -- | -- | -- |
| Miscellaneous | 26,195 | 127,393 | 166,007 | 186,384 | 261,145 |
| Total | 158,693 | 343,803 | 553,874 | 522,977 | 693,307 |

APPENDIX TABLE 5

Disbursements of West Bloomfield Township, Oakland County,
in Michigan, 1945 to 1958, in Constant 1958 Dollars

| Disbursements | 1945 | 1950 | 1955 | 1957 | 1958 |
|---------------------------|----------|----------|-----------|-----------|-----------|
| Administration | \$19,125 | \$16,808 | \$ 28,715 | \$ 32,195 | \$ 34,186 |
| Police Department | 2,175 | 8,520 | 36,239 | 29,646 | 20,107 |
| Fire Department | 7,694 | 7,156 | 23,865 | 24,942 | 25,058 |
| Health | 1,964 | 687 | -- | 1,876 | 1,800 |
| Elections | 4,223 | 503 | 2,931 | 3,976 | 706 |
| Recreation | -- | -- | -- | -- | -- |
| Library | -- | 6,467 | 8,900 | 11,565 | 18,031 |
| County Road Commission | -- | -- | 2,819 | 5,561 | 6,859 |
| Highway Lighting | 2,314 | 1,652 | 2,256 | 579 | 841 |
| Cemeteries | 322 | 228 | 324 | 309 | 300 |
| Poor Relief | 602 | 10 | 50 | -- | 722 |
| Water and Sewer | -- | -- | -- | 2,189 | -- |
| Miscellaneous | 11,206 | 14,207 | 63,900 | 89,743 | 106,422 |
| Total | 49,627 | 56,234 | 170,010 | 201,680 | 215,032 |

APPENDIX TABLE 6

Expenditures for Services Rendered by Portsmouth Township,
 Bay County, in Michigan, 1945 to 1958
 as a Percentage of Total Disbursements

| Disbursements | 1945 | 1950 | 1955 | 1957 | 1958 |
|---------------------------|------|------|------|------|------|
| Administration | 29.2 | 10.6 | 8.0 | 9.8 | 11.2 |
| Police Department | -- | 8.2 | -- | -- | -- |
| Fire Department | 45.0 | 15.5 | 15.6 | 17.9 | 18.0 |
| Health | -- | -- | -- | .5 | -- |
| Elections | -- | 2.1 | 2.4 | 2.9 | 1.2 |
| Recreation | -- | -- | -- | -- | -- |
| Library | -- | -- | 1.5 | 2.5 | 5.2 |
| County Road Commission | 9.8 | 34.5 | 37.6 | 40.3 | 40.0 |
| Highway Lighting | -- | -- | -- | -- | -- |
| Cemeteries | -- | -- | -- | -- | -- |
| Poor Relief | -- | -- | -- | -- | -- |
| Water and Sewer | -- | -- | -- | -- | -- |
| Miscellaneous & Other | 16.1 | 29.2 | 35.0 | 26.0 | 24.4 |

APPENDIX TABLE 7

Expenditures for Services Rendered by Genesee Township,
Genesee County, in Michigan, 1945 to 1958
as a Percentage of Total Disbursements

| Disbursements | 1945 | 1950 | 1955 | 1957 | 1958 |
|---------------------------|------|------|------|------|------|
| Administration | 46.9 | 10.0 | 5.3 | 7.0 | 12.2 |
| Police Department | -- | 2.5 | -- | 1.5 | .5 |
| Fire Department | -- | 41.3 | 12.2 | 8.2 | 13.0 |
| Health | 5.3 | -- | -- | -- | -- |
| Elections | 16.2 | 1.4 | 1.4 | 2.4 | .6 |
| Recreation | -- | -- | 1.1 | .5 | .5 |
| Library | -- | -- | -- | -- | -- |
| County Road Commission | -- | 11.5 | 11.0 | 30.9 | 19.9 |
| Highway Lighting | 5.6 | 1.8 | 1.5 | 1.7 | 4.7 |
| Cemeteries | .2 | 1.1 | .1 | .1 | .1 |
| Poor Relief | -- | -- | -- | -- | -- |
| Water and Sewer | -- | -- | -- | -- | -- |
| Miscellaneous & Other | 25.8 | 30.4 | 67.3 | 47.6 | 48.4 |

APPENDIX TABLE 8

Expenditures for Services Rendered by Summit Township,
Jackson County, in Michigan, 1945 to 1958
as a Percentage of Total Disbursements

| Disbursements | 1945 | 1950 | 1955 | 1957 | 1958 |
|---------------------------|------|------|------|------|------|
| Administration | 30.2 | 8.7 | 10.8 | 11.7 | 12.4 |
| Police Department | 5.9 | 16.8 | 10.2 | 11.3 | 12.6 |
| Fire Department | 14.9 | 16.8 | 22.2 | 18.6 | 19.0 |
| Health | -- | -- | .6 | .4 | .4 |
| Elections | 8.4 | 2.1 | 3.0 | 3.4 | .7 |
| Recreation | -- | 1.0 | .4 | .3 | .3 |
| Library | -- | .5 | .4 | .3 | .3 |
| County Road Commission | -- | 3.7 | 29.4 | 14.9 | 9.9 |
| Highway Lighting | 9.4 | 3.3 | 3.5 | 2.7 | -- |
| Cemeteries | 1.1 | .3 | .4 | -- | .3 |
| Poor Relief | 19.1 | 6.0 | -- | -- | -- |
| Water and Sewer | 3.0 | -- | -- | -- | 20.6 |
| Miscellaneous & Other | 8.0 | 40.8 | 19.1 | 36.4 | 23.5 |

APPENDIX TABLE 9

Expenditures for Services Rendered by Wyoming Township,
Kent County, in Michigan, 1945 to 1958
as a Percentage of Total Disbursements

| Disbursements | 1945 | 1950 | 1955 | 1957 | 1958 |
|---------------------------|------|------|------|------|------|
| Administration | 17.5 | 4.3 | 3.5 | 4.6 | 9.2 |
| Police Department | 10.7 | 10.8 | 13.8 | 17.5 | 12.8 |
| Fire Department | 15.2 | 15.9 | 12.6 | 19.3 | 13.8 |
| Health | 3.0 | 1.6 | .3 | .1 | .1 |
| Elections | 3.0 | .8 | .6 | 1.9 | .5 |
| Recreation | 7.8 | 3.4 | 10.8 | 7.3 | 9.4 |
| Library | -- | .5 | .3 | .2 | .3 |
| County Road Commission | 14.6 | 16.0 | 22.4 | 7.4 | 11.5 |
| Highway Lighting | -- | -- | -- | -- | -- |
| Cemeteries | 10.0 | 8.4 | 5.3 | 5.8 | 4.6 |
| Poor Relief | 1.7 | 1.4 | .4 | .2 | .1 |
| Water and Sewer | -- | -- | -- | -- | -- |
| Miscellaneous & Other | 16.5 | 37.0 | 30.0 | 35.6 | 37.7 |

APPENDIX TABLE 10

Expenditures for Services Rendered by West Bloomfield Township,
Oakland County, in Michigan, 1945 to 1958
as a Percentage of Total Disbursements

| Disbursements | 1945 | 1950 | 1955 | 1957 | 1958 |
|---------------------------|------|------|------|------|------|
| Administration | 38.5 | 29.9 | 16.9 | 16.0 | 15.9 |
| Police Department | 4.4 | 15.2 | 21.3 | 14.7 | 9.4 |
| Fire Department | 15.5 | 12.7 | 14.0 | 11.9 | 11.7 |
| Health | 4.0 | 1.2 | -- | .9 | .8 |
| Elections | 8.5 | .9 | 1.7 | 2.0 | .3 |
| Recreation | -- | -- | -- | -- | -- |
| Library | -- | 11.5 | 5.2 | 5.7 | 8.4 |
| County Road Commission | -- | -- | 1.7 | 2.8 | 3.2 |
| Highway Lighting | 4.7 | 2.9 | 1.3 | .3 | .4 |
| Cemeteries | .7 | .4 | .2 | .2 | .1 |
| Poor Relief | 1.2 | -- | -- | -- | .3 |
| Water and Sewer | -- | -- | -- | 1.1 | -- |
| Miscellaneous & Other | 22.6 | 25.3 | 37.6 | 44.5 | 49.5 |

APPENDIX TABLE 11

Disbursements of Calvin Township, Cass County, in Michigan
1945 to 1958, in Constant 1958 Dollars

| Disbursements | 1945 | 1950 | 1955 | 1957 | 1958 |
|---------------------------|---------|----------|----------|----------|----------|
| Administration | \$1,924 | \$ 2,289 | \$ 1,751 | \$ 1,997 | \$ 1,958 |
| Police Department | -- | -- | -- | -- | -- |
| Fire Department | 24 | 238 | 459 | 1,236 | 1,200 |
| Health | -- | -- | -- | -- | -- |
| Elections | 430 | 190 | 448 | 355 | 130 |
| Recreation | -- | -- | 145 | -- | -- |
| Library | -- | -- | -- | -- | -- |
| County Road Commission | -- | 3,420 | 8,640 | 1,637 | 3,960 |
| Highway Lighting | -- | -- | -- | -- | -- |
| Cemeteries | 353 | 679 | 913 | 1,185 | 1,090 |
| Poor Relief | 2,674 | 3,485 | 3,325 | 915 | 3,228 |
| Water and Sewer | -- | -- | -- | -- | -- |
| Miscellaneous | 227 | 3,487 | 2,560 | 6,777 | 7,239 |
| Total | 5,629 | 13,789 | 18,240 | 14,102 | 18,803 |

APPENDIX TABLE 12

Disbursements of Carmel Township, Eaton County, in Michigan
1945 to 1958, in Constant 1958 Dollars

| Disbursements | 1945 | 1950 | 1955 | 1957 | 1958 |
|---------------------------|--------|----------|--------|----------|----------|
| Administration | \$ 501 | \$ 1,268 | \$ 905 | \$ 1,167 | \$ 1,604 |
| Police Department | -- | -- | -- | -- | -- |
| Fire Department | 161 | 114 | 832 | 1,412 | 1,199 |
| Health | -- | -- | -- | -- | -- |
| Elections | 153 | 46 | 225 | 173 | 98 |
| Recreation | -- | -- | -- | -- | -- |
| Library | 200 | 179 | 183 | 182 | 183 |
| County Road Commission | -- | 1,149 | 7,431 | 4,468 | 9,506 |
| Highway Lighting | 287 | -- | -- | -- | -- |
| Cemeteries | -- | 903 | 811 | 481 | 1,162 |
| Poor Relief | -- | 416 | 284 | -- | -- |
| Water and Sewer | -- | -- | 512 | 1,735 | 2,890 |
| Miscellaneous | 63 | 7,647 | 413 | 901 | 1,596 |
| Total | 1,362 | 11,721 | 11,596 | 10,525 | 18,247 |

APPENDIX TABLE 13

Disbursements of Newark Township, Gratiot County, in Michigan
1945 to 1958, in Constant 1958 Dollars

| Disbursements | 1945 | 1950 | 1955 | 1957 | 1958 |
|---------------------------|--------|----------|--------|-------|---------|
| Administration | \$ 774 | \$ 1,086 | \$ 791 | \$ -- | \$1,000 |
| Police Department | -- | -- | -- | -- | -- |
| Fire Department | 113 | 416 | 1,274 | -- | 810 |
| Health | 23 | -- | -- | -- | -- |
| Elections | 80 | 99 | 203 | -- | 110 |
| Recreation | -- | -- | -- | -- | -- |
| Library | -- | -- | -- | -- | -- |
| County Road Commission | 138 | 3,553 | 3,366 | -- | 3,801 |
| Highway Lighting | 3 | -- | -- | -- | -- |
| Cemeteries | 374 | 307 | 377 | -- | 436 |
| Poor Relief | -- | -- | -- | -- | -- |
| Water and Sewer | -- | 1,105 | 4,595 | -- | 1,577 |
| Miscellaneous | 71 | 6,088 | 1,210 | -- | 1,004 |
| Total | 1,576 | 12,654 | 11,815 | -- | 8,737 |

APPENDIX TABLE 14

Disbursements of Wheatland Township, Hillsdale County, in Michigan
1945 to 1958, in Constant 1958 Dollars

| Disbursements | 1945 | 1950 | 1955 | 1957 | 1958 |
|---------------------------|--------|---------|---------|----------|----------|
| Administration | \$ 993 | \$1,496 | \$1,439 | \$ 1,494 | \$ 2,170 |
| Police Department | -- | -- | -- | 49 | -- |
| Fire Department | 242 | 342 | -- | 623 | 750 |
| Health | -- | 575 | 741 | -- | 720 |
| Elections | 245 | 92 | 522 | 462 | 213 |
| Recreation | -- | -- | -- | -- | 60 |
| Library | -- | -- | -- | -- | 48 |
| County Road Commission | -- | 334 | 687 | 8,050 | 3,034 |
| Highway Lighting | -- | -- | -- | -- | -- |
| Cemeteries | 282 | 644 | 1,111 | 952 | 662 |
| Poor Relief | -- | -- | -- | -- | -- |
| Water and Sewer | -- | -- | -- | -- | -- |
| Miscellaneous | 836 | 803 | 1,014 | 4,145 | 2,571 |
| Total | 2,597 | 4,283 | 5,513 | 15,790 | 10,228 |

APPENDIX TABLE 15

Disbursements of Grant Township, Huron County, in Michigan
1945 to 1958, in Constant 1958 Dollars

| Disbursements | 1945 | 1950 | 1955 | 1957 | 1958 |
|---------------------------|--------|---------|----------|---------|----------|
| Administration | \$ 725 | \$1,246 | \$ 1,583 | \$1,492 | \$ 1,182 |
| Police Department | -- | -- | -- | -- | -- |
| Fire Department | -- | -- | 243 | 206 | 252 |
| Health | 8 | -- | -- | -- | -- |
| Elections | 92 | 125 | 162 | 108 | 147 |
| Recreation | -- | -- | -- | -- | -- |
| Library | -- | -- | -- | -- | -- |
| County Road Commission | -- | 298 | 8,072 | 3,102 | 9,396 |
| Highway Lighting | 87 | -- | -- | -- | -- |
| Cemeteries | -- | 2,071 | 394 | 2,549 | 796 |
| Poor Relief | -- | -- | -- | -- | -- |
| Water and Sewer | -- | 893 | 1,115 | 333 | 518 |
| Miscellaneous | 638 | 562 | 1,184 | 1,703 | 2,030 |
| Total | 1,549 | 5,195 | 12,753 | 9,494 | 14,321 |

APPENDIX TABLE 16

Expenditures for Services Rendered by Calvin Township,
Cass County, in Michigan, 1945 to 1958
as a Percentage of Total Disbursements

| Disbursements | 1945 | 1950 | 1955 | 1957 | 1958 |
|---------------------------|------|------|------|------|------|
| Administration | 34.2 | 16.6 | 9.6 | 14.2 | 10.4 |
| Police Department | -- | -- | -- | -- | -- |
| Fire Department | .4 | 1.7 | 2.5 | 8.8 | 6.4 |
| Health | -- | -- | -- | -- | -- |
| Elections | 7.6 | 1.4 | 2.5 | 2.5 | .7 |
| Recreation | -- | -- | .8 | -- | -- |
| Library | -- | -- | -- | -- | -- |
| County Road Commission | -- | 24.8 | 47.4 | 11.6 | 21.1 |
| Highway Lighting | -- | -- | -- | -- | -- |
| Cemeteries | 6.3 | 4.9 | 5.0 | 8.4 | 5.8 |
| Poor Relief | 47.5 | 25.3 | 18.2 | 6.5 | 17.2 |
| Water and Sewer | -- | -- | -- | -- | -- |
| Miscellaneous & Other | 4.0 | 25.3 | 14.0 | 46.7 | 38.5 |

APPENDIX TABLE 17

Expenditures for Services Rendered by Carmel Township,
Eaton County, in Michigan, 1945 to 1958
as a Percentage of Total Disbursements

| Disbursements | 1945 | 1950 | 1955 | 1957 | 1958 |
|---------------------------|------|------|------|------|------|
| Administration | 36.8 | 10.8 | 7.8 | 11.1 | 8.8 |
| Police Department | -- | -- | -- | -- | -- |
| Fire Department | 11.8 | 1.0 | 7.2 | 13.4 | 6.6 |
| Health | -- | -- | -- | -- | -- |
| Elections | 11.2 | .4 | 1.9 | 1.6 | .5 |
| Recreation | -- | -- | -- | -- | -- |
| Library | 14.7 | 1.5 | 1.6 | 1.7 | 1.0 |
| County Road Commission | -- | 9.8 | 64.1 | 42.5 | 52.1 |
| Highway Lighting | 21.0 | -- | -- | -- | -- |
| Cemeteries | -- | 7.7 | 7.0 | 4.6 | 6.4 |
| Poor Relief | -- | 3.5 | 2.4 | -- | -- |
| Water and Sewer | -- | -- | 4.4 | 16.5 | 15.8 |
| Miscellaneous & Other | 4.6 | 65.2 | 3.6 | 8.6 | 8.7 |

APPENDIX TABLE 18

Expenditures for Services Rendered by Newark Township,
 Gratiot County, in Michigan, 1945 to 1958
 as a Percentage of Total Disbursements

| Disbursements | 1945 | 1950 | 1955 | 1957 | 1958 |
|---------------------------|------|------|------|------|------|
| Administration | 49.1 | 8.6 | 6.7 | -- | 11.4 |
| Police Department | -- | -- | -- | -- | -- |
| Fire Department | 7.2 | 3.3 | 10.8 | -- | 9.3 |
| Health | 1.4 | -- | -- | -- | -- |
| Elections | 5.1 | .8 | 1.7 | -- | 1.3 |
| Recreation | -- | -- | -- | -- | -- |
| Library | -- | -- | -- | -- | -- |
| County Road Commission | 8.8 | 28.1 | 28.5 | -- | 43.5 |
| Highway Lighting | .2 | -- | -- | -- | -- |
| Cemeteries | 23.7 | 2.4 | 3.2 | -- | 5.0 |
| Poor Relief | -- | -- | -- | -- | -- |
| Water and Sewer | -- | 8.7 | 38.9 | -- | 18.0 |
| Miscellaneous & Other | 4.5 | 48.1 | 10.2 | -- | 11.5 |

APPENDIX TABLE 19

Expenditures for Services Rendered by Wheatland Township,
Hillsdale County, in Michigan, 1945 to 1958
as a Percentage of Total Disbursements

| Disbursements | 1945 | 1950 | 1955 | 1957 | 1958 |
|---------------------------|------|------|------|------|------|
| Administration | 38.3 | 34.9 | 26.1 | 9.5 | 21.2 |
| Police Department | -- | -- | -- | .3 | -- |
| Fire Department | 9.3 | 8.0 | -- | 3.9 | 7.3 |
| Health | -- | 13.4 | 13.4 | -- | 7.0 |
| Election | 9.4 | 2.2 | 9.5 | 2.9 | 2.1 |
| Recreation | -- | -- | -- | -- | .6 |
| Library | -- | -- | -- | -- | .5 |
| County Road Commission | -- | 7.8 | 12.5 | 51.0 | 29.7 |
| Highway Lighting | -- | -- | -- | -- | -- |
| Cemeteries | 10.8 | 15.0 | 20.2 | 6.0 | 6.5 |
| Poor Relief | -- | -- | -- | -- | -- |
| Water and Sewer | -- | -- | -- | -- | -- |
| Miscellaneous & Other | 32.2 | 18.7 | 18.4 | 26.3 | 25.1 |

APPENDIX TABLE 20

Expenditures for Services Rendered by Grant Township,
Huron County, in Michigan, 1945 to 1958
as a Percentage of Total Disbursements

| Disbursements | 1945 | 1950 | 1955 | 1957 | 1958 |
|---------------------------|------|------|------|------|------|
| Administration | 46.8 | 24.0 | 12.4 | 15.7 | 8.3 |
| Police Department | -- | -- | -- | -- | -- |
| Fire Department | -- | -- | 1.9 | 2.2 | 1.8 |
| Health | .5 | -- | -- | -- | -- |
| Elections | 5.9 | 2.4 | 1.3 | 1.1 | 1.0 |
| Recreation | -- | -- | -- | -- | -- |
| Library | -- | -- | -- | -- | -- |
| County Road Commission | -- | 5.7 | 63.3 | 32.7 | 65.6 |
| Highway Lighting | 5.6 | -- | -- | -- | -- |
| Cemeteries | -- | 39.9 | 3.1 | 26.9 | 5.6 |
| Poor Relief | -- | -- | -- | -- | -- |
| Water and Sewer | -- | 17.2 | 8.7 | 3.5 | 3.6 |
| Miscellaneous & Other | 41.2 | 10.8 | 9.3 | 17.9 | 14.2 |

APPENDIX TABLE 21

Disbursements of Marion Township, Charlevoix County, in Michigan
1945 to 1958, in Constant 1958 Dollars

| Disbursements | 1945 | 1950 | 1955 | 1957 | 1958 |
|---------------------------|-------|--------|--------|--------|--------|
| Administration | \$436 | \$ 398 | \$ 374 | \$ 541 | \$ 490 |
| Police Department | -- | -- | -- | -- | -- |
| Fire Department | -- | 28 | 645 | 604 | 561 |
| Health | -- | -- | -- | -- | -- |
| Elections | -- | 55 | 180 | 173 | 84 |
| Recreation | -- | -- | -- | -- | -- |
| Library | -- | -- | -- | -- | -- |
| County Road Commission | -- | 451 | 3,705 | 3,715 | 5,000 |
| Highway Lighting | -- | -- | -- | -- | -- |
| Cemeteries | -- | 35 | 50 | 72 | 81 |
| Poor Relief | -- | -- | -- | -- | -- |
| Water and Sewer | -- | -- | -- | -- | -- |
| Miscellaneous | -- | 79 | 221 | 278 | 202 |
| Total | 436 | 1,047 | 5,178 | 5,382 | 6,418 |

APPENDIX TABLE 22

Disbursements of Soo Township, Chippewa County, in Michigan
1945 to 1958, in Constant 1958 Dollars

| Disbursements | 1945 | 1950 | 1955 | 1957 | 1958 |
|---------------------------|--------|---------|----------|----------|----------|
| Administration | \$ 863 | \$1,170 | \$ 2,223 | \$ 2,335 | \$ 2,136 |
| Police Department | -- | -- | -- | 129 | 24 |
| Fire Department | -- | 65 | 239 | 373 | 137 |
| Health | -- | -- | -- | 515 | 500 |
| Elections | -- | 161 | 364 | 630 | 185 |
| Recreation | -- | -- | -- | -- | -- |
| Library | -- | -- | -- | -- | -- |
| County Road Commission | -- | 3,948 | 4,320 | 8,338 | 10,800 |
| Highway Lighting | -- | -- | -- | -- | -- |
| Cemeteries | -- | -- | -- | -- | -- |
| Poor Relief | -- | -- | -- | -- | -- |
| Water and Sewer | -- | -- | -- | -- | -- |
| Miscellaneous | 902 | 634 | 5,425 | 4,525 | 1,762 |
| Total | 1,765 | 5,977 | 12,570 | 16,846 | 15,546 |

APPENDIX TABLE 23

Disbursements of Gladwin Township, Gladwin County, in Michigan
1945 to 1958, in Constant 1958 Dollars

| Disbursements | 1945 | 1950 | 1955 | 1957 | 1958 |
|---------------------------|--------|--------|--------|--------|--------|
| Administration | \$ 481 | \$ 678 | \$ 920 | \$ 661 | \$ 864 |
| Police Department | -- | -- | -- | -- | -- |
| Fire Department | -- | -- | 5,477 | 1,033 | 1,584 |
| Health | -- | -- | 65 | -- | -- |
| Elections | 129 | 42 | 216 | 261 | 190 |
| Recreation | -- | -- | -- | -- | -- |
| Library | -- | 34 | -- | -- | -- |
| County Road Commission | 725 | 1,539 | 986 | 8,073 | 1,877 |
| Highway Lighting | -- | -- | -- | -- | -- |
| Cemeteries | 64 | 99 | -- | 314 | 331 |
| Poor Relief | -- | -- | -- | -- | -- |
| Water and Sewer | -- | -- | -- | -- | -- |
| Miscellaneous | 108 | 850 | 1,969 | 981 | 353 |
| Total | 1,507 | 3,243 | 9,628 | 11,322 | 5,199 |

APPENDIX TABLE 24

Disbursements of Riverton Township, Mason County, in Michigan
1945 to 1958, in Constant 1958 Dollars

| Disbursements | 1945 | 1950 | 1955 | 1957 | 1958 |
|---------------------------|--------|----------|----------|---------|----------|
| Administration | \$ 702 | \$ 1,040 | \$ 1,808 | \$1,232 | \$ 1,350 |
| Police Department | -- | 11 | -- | -- | 92 |
| Fire Department | -- | 19 | -- | -- | 39 |
| Health | -- | 34 | -- | -- | 124 |
| Elections | 233 | 124 | 232 | 333 | 127 |
| Recreation | -- | 135 | 707 | -- | 473 |
| Library | -- | -- | -- | -- | -- |
| County Road Commission | -- | 228 | 8,961 | 3,994 | 8,032 |
| Highway Lighting | -- | -- | -- | -- | -- |
| Cemeteries | 105 | 137 | 449 | 767 | 508 |
| Poor Relief | 72 | -- | -- | -- | -- |
| Water and Sewer | -- | -- | -- | -- | -- |
| Miscellaneous | 457 | 10,096 | 7,333 | 1,082 | 1,848 |
| Total | 1,570 | 11,823 | 18,763 | 7,408 | 12,594 |

APPENDIX TABLE 25

Disbursements of Goodwell Township, Newaygo County, in Michigan
1945 to 1958, in Constant 1958 Dollars

| Disbursements | 1945 | 1950 | 1955 | 1957 | 1958 |
|---------------------------|-------|--------|--------|--------|--------|
| Administration | \$ -- | \$ 790 | \$ 906 | \$ 832 | \$ 808 |
| Police Department | -- | 68 | -- | -- | -- |
| Fire Department | -- | -- | 401 | 125 | -- |
| Health | -- | -- | -- | -- | -- |
| Elections | -- | 120 | 162 | 208 | 72 |
| Recreation | -- | -- | -- | -- | -- |
| Library | -- | -- | -- | -- | -- |
| County Road Commission | -- | 10,799 | 5,400 | 2,060 | 4,000 |
| Highway Lighting | -- | -- | -- | -- | -- |
| Cemeteries | -- | 35 | 38 | 103 | -- |
| Poor Relief | -- | -- | -- | -- | -- |
| Water and Sewer | -- | -- | -- | -- | -- |
| Miscellaneous | -- | 363 | 363 | 408 | 448 |
| Total | -- | 12,175 | 7,271 | 3,736 | 5,328 |

APPENDIX TABLE 26

Expenditures for Services Rendered by Gladwin Township,
Gladwin County, in Michigan, 1945 to 1958
as a Percentage of Total Disbursements

| Disbursements | 1945 | 1950 | 1955 | 1957 | 1958 |
|---------------------------|------|------|------|------|------|
| Administration | 31.9 | 20.9 | 9.6 | 5.8 | 16.6 |
| Police Department | -- | -- | -- | -- | -- |
| Fire Department | -- | -- | 56.9 | 9.1 | 30.5 |
| Health | -- | .7 | -- | -- | -- |
| Elections | 8.5 | 1.3 | 2.2 | 2.3 | 3.7 |
| Recreation | -- | -- | -- | -- | -- |
| Library | -- | 1.1 | -- | -- | -- |
| County Road Commission | 48.1 | 47.5 | 10.2 | 71.3 | 36.1 |
| Highway Lighting | -- | -- | -- | -- | -- |
| Cemeteries | 4.3 | 3.1 | -- | 2.8 | 6.4 |
| Poor Relief | -- | -- | -- | -- | -- |
| Water and Sewer | -- | -- | -- | -- | -- |
| Miscellaneous & Other | 7.2 | 26.2 | 20.4 | 8.7 | 6.8 |

APPENDIX TABLE 27

Expenditures for Services Rendered by Marion Township,
Charlevoix County, in Michigan, 1945 to 1958
as a Percentage of Total Disbursements

| Disbursements | 1945 | 1950 | 1955 | 1957 | 1958 |
|---------------------------|-------|------|------|------|------|
| Administration | 100.0 | 38.0 | 7.2 | 10.0 | 7.6 |
| Police Department | -- | -- | -- | -- | -- |
| Fire Department | -- | 2.7 | 12.5 | 11.2 | 8.7 |
| Health | -- | -- | -- | -- | -- |
| Elections | -- | 5.2 | 3.5 | 3.2 | 1.3 |
| Recreation | -- | -- | -- | -- | -- |
| Library | -- | -- | -- | -- | -- |
| County Road Commission | -- | 43.1 | 71.6 | 69.0 | 77.9 |
| Highway Lighting | -- | -- | -- | -- | -- |
| Cemeteries | -- | 3.4 | 1.0 | 1.3 | 1.3 |
| Poor Relief | -- | -- | -- | -- | -- |
| Water and Sewer | -- | -- | -- | -- | -- |
| Miscellaneous & Other | -- | 7.5 | 4.3 | 5.2 | 3.1 |

APPENDIX TABLE 28

Expenditures for Services Rendered by Soo Township,
Chippewa County, in Michigan, 1945 to 1958
as a Percentage of Total Disbursements

| Disbursements | 1945 | 1950 | 1955 | 1957 | 1958 |
|---------------------------|------|------|------|------|------|
| Administration | 48.9 | 19.6 | 17.7 | 13.9 | 13.7 |
| Police Department | -- | -- | -- | .8 | .2 |
| Fire Department | -- | 1.1 | 1.9 | 2.2 | .9 |
| Health | -- | -- | -- | 3.0 | 3.2 |
| Elections | -- | 2.7 | 2.9 | 3.7 | 1.2 |
| Recreation | -- | -- | -- | -- | -- |
| Library | -- | -- | -- | -- | -- |
| County Road Commission | -- | 66.0 | 34.4 | 49.5 | 69.5 |
| Highway Lighting | -- | -- | -- | -- | -- |
| Cemeteries | -- | -- | -- | -- | -- |
| Poor Relief | -- | -- | -- | -- | -- |
| Water and Sewer | -- | -- | -- | -- | -- |
| Miscellaneous & Other | 51.1 | 10.6 | 43.2 | 26.9 | 11.3 |

APPENDIX TABLE 29

Expenditures for Services Rendered by Riverton Township,
Mason County, in Michigan, 1945 to 1958
as a Percentage of Total Disbursements

| Disbursements | 1945 | 1950 | 1955 | 1957 | 1958 |
|---------------------------|------|------|------|------|------|
| Administration | 44.7 | 8.8 | 5.8 | 16.6 | 10.7 |
| Police Department | -- | .1 | -- | -- | .7 |
| Fire Department | -- | .2 | -- | -- | .3 |
| Health | -- | .3 | -- | -- | 1.0 |
| Elections | 14.9 | 1.1 | 1.2 | 4.5 | 1.0 |
| Recreation | -- | 1.1 | 3.8 | -- | 3.8 |
| Library | -- | -- | -- | -- | -- |
| County Road Commission | -- | 1.9 | 47.8 | 53.9 | 63.8 |
| Highway Lighting | -- | -- | -- | -- | -- |
| Cemeteries | 6.7 | 1.2 | 2.4 | 10.4 | 4.0 |
| Poor Relief | 4.6 | -- | -- | -- | -- |
| Water and Sewer | -- | -- | -- | -- | -- |
| Miscellaneous & Other | 29.1 | 85.4 | 39.1 | 14.6 | 14.7 |

APPENDIX TABLE 30

Expenditures for Services Rendered by Goodwell Township,
Newaygo County, in Michigan, 1945 to 1958
as a Percentage of Total Disbursements

| Disbursements | 1945 | 1950 | 1955 | 1957 | 1958 |
|---------------------------|------|------|------|------|------|
| Administration | -- | 6.5 | 12.5 | 22.3 | 15.2 |
| Police Department | -- | .6 | -- | -- | -- |
| Fire Department | -- | -- | 5.5 | 3.3 | -- |
| Health | -- | -- | -- | -- | -- |
| Elections | -- | 1.0 | 2.2 | 5.6 | 1.4 |
| Recreation | -- | -- | -- | -- | -- |
| Library | -- | -- | -- | -- | -- |
| County Road Commission | -- | 88.7 | 74.3 | 55.1 | 75.1 |
| Highway Lighting | -- | -- | -- | -- | -- |
| Cemeteries | -- | .3 | .5 | 2.8 | -- |
| Poor Relief | -- | -- | -- | -- | -- |
| Water and Sewer | -- | -- | -- | -- | -- |
| Miscellaneous & Other | -- | 3.0 | 5.0 | 10.9 | 8.4 |

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