

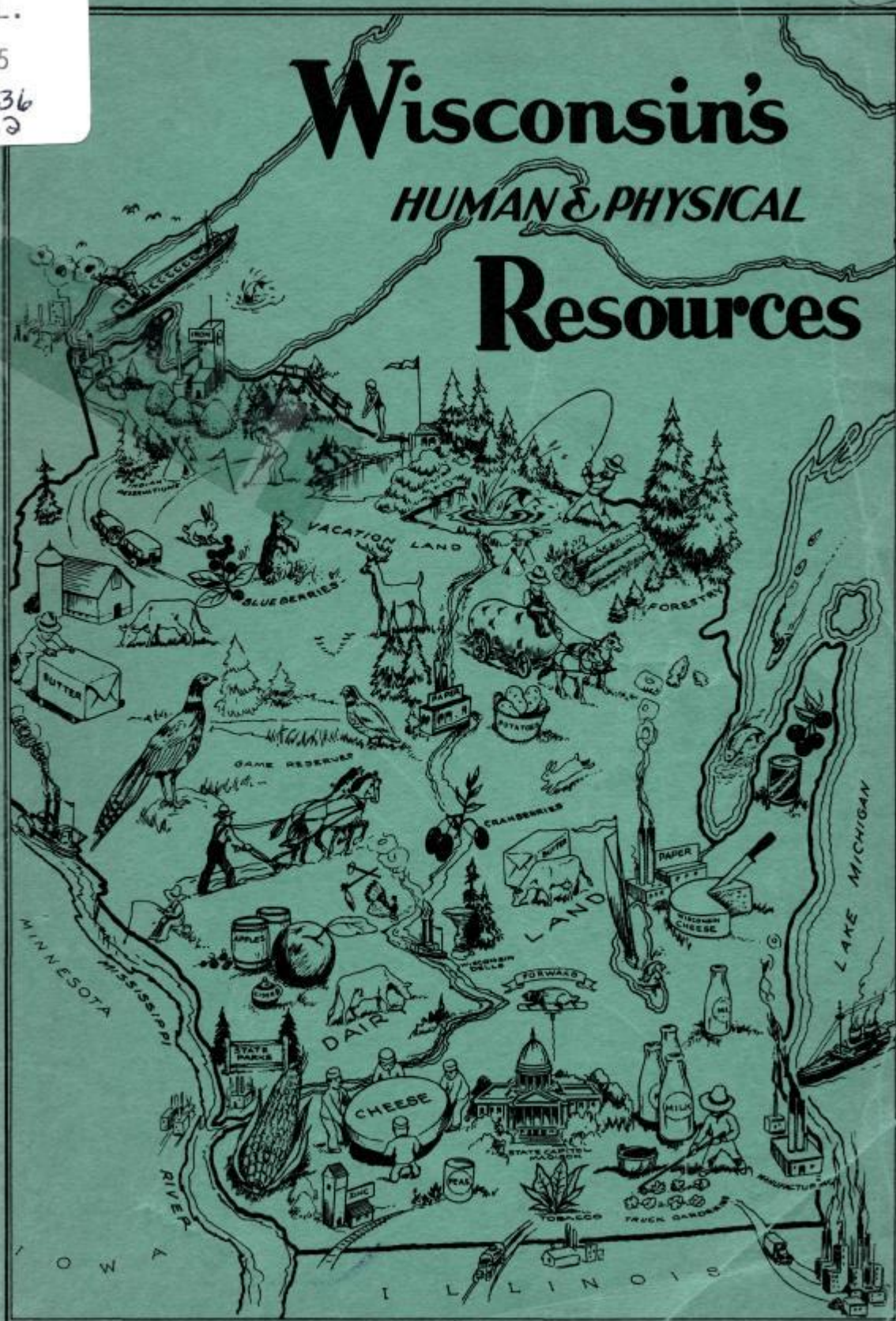
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Wisconsin's

HUMAN & PHYSICAL

Resources



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WISCONSIN'S HUMAN AND PHYSICAL RESOURCES

**A Graphic Presentation of Conditions
Affecting Rural Rehabilitation**

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**Research Section,
Resettlement Administration, Region II**

**Madison, Wisconsin
July 16, 1936**

CONTENTS

	Page
FACTORS INDICATING NEED FOR REHABILITATION	2
Distribution of Wealth Per Capita	2
Ownership and Encumbrance of Farms	3
Per Cent of Farms Operated by Tenants	3
Proportion of Owner-Operated Farms Mortgaged	5
Ratio of Debt to Mortgage Value	6
Real Estate Taxes on Owner-Operated Farms	10
Tax Delinquency	10
Per Cent of Gross Farm Income Spent on Real Estate Taxes	15
Amount and Sources of Income	16
Value of Farm Products	16
Gross Income Per Farm	18
Source of Farm Income	18
Self-sufficing Farms	20
Part-time Farming	20
Relief and Other Public Aid	23
Per Cent of Population Receiving Relief	23
Aid Granted Per Case to Households on Relief	25
Per Cent of Unemployment Relief Funds Paid Locally	28
State Aid for Schools	30
Other Forms of Aid	32
Relative Financial Condition of Counties	32
FACTORS WHICH HELP EXPLAIN OUR PRESENT CIRCUMSTANCES	36
Population Patterns	36
Development	37
Rural and Urban Distribution	39
Shifts in Farm Population	43
Foreign Born	47
Nationality	50
Age and Sex Distribution	50
Natural Increase of Population	50
Size of Family	54
Trends and Probable Density	54
Geographic Features	60
Climate	61
Topography	63
Soil Regions	64
Land Classification	65

CONTENTS (cont'd)

Agricultural Aspects	69
Per Cent of Total Land Area in Farms	69
Number of Farms	71
Change in Number of Farms	71
Size of Farms	71
Per Cent of Farm Land in Crops	75
Proportion of Farm Land Not Used	75
Value of Farm Land and Buildings	77
Principal Farming Areas	77
Eastern dairy area	77
Western livestock and dairy area	80
Central general farming area	80
North central dairy area	80
Northern dairy, hog and potato area	80
Industrial Phases	81
Mineral Resources	81
Timber Resources	82
Wood Products Plants	84
Agricultural Industries	87
Cheese factories, creameries and condenseries	87
Canning factories	89
Value of All Industrial Products	89
Predominant Industry	92
Concentration of Population and Property	92
Social Institutions and Agencies	95
Trade and Service Centers	95
Retail Stores	99
Health Facilities and Services	99
Schools and Education	102
Rural district schools	104
State graded schools	106
High schools	106
Institutions of higher learning	109
Illiteracy	112
Free Libraries	112
Churches	115
Local Organizations	117
Farm cooperatives	117
Rural social organizations	119
Adjuncts to educational set-ups	121
Other rural groups	125
Recreation	125
Highways	126
In Recapitulation	128
Standards of Living	128
Use of Farm Products for Family Living	128
Farm Power Facilities	130
Household Equipment	130
Communication Facilities	134
Daily Newspapers	134
Farmer's Dwelling	139
Farm Family Living	139

CONTENTS (cont'd)

FACTORS OFFERING POSSIBLE WAYS OF IMPROVEMENT	147
Population	148
Use of Land	149
Agriculture	149
Soil conservation	150
Production control	152
Zoning	153
Resettlement	154
Distribution of Industry	157
Provision of Social Institutions and Agencies	160
Trade Opportunities	160
Health and Social Welfare	161
Educational Institutions	163
Church Relations	164
Organizations	164
Recreation and Highways	166
Local Government and Possible Tax Reduction	167
Need for Local Planning	169

MAPS

Figure		Page
1	Per Capita Wealth in Terms of Assessed Value of Property, 1920 and 1930	4
2	Per Cent of Farms Operated by Tenants, 1920 and 1930	5
3	Proportion of Owner-Operated Farms Mortgaged, 1920 and 1930	7
4	Ratio of Debt to Value on Mortgaged Farms, 1920 and 1930	9
5	Real Estate Taxes on Owner-Operated Farms, 1930	11
6	Per Cent of 1928 Tax Levy Delinquent March 1929	12
7	Per Cent of Gross Farm Income Spent on Real Estate Taxes, 1930	14
8	Value Per Farm of All Products Sold, Traded or Used by Operator's Family, 1929	16
9	Gross Income Per Farm, 1931	17
10	Source of Farm Income, 1931	19
11	Self-Sufficing Farms, 1930	21
12	Part-time Farms and Per Cent of Total Farm Acreage in Part-time Farms, 1929	22
13	Areas in Wisconsin Qualified to Receive Federal-State Relief Funds	24
14	Per Cent of Total Population Receiving Relief, 1934	26
15	Aid Granted Per Case and Per Cent of Total Unemployment Relief Funds Paid by Local Government, 1934	27
16	Per Cent of Unemployment Relief Expenditures Paid Locally, Year Ending September 1, 1934	29
17	State Aid Per Teacher by Civil Towns, 1930-31	31
18	Relative Financial Condition of Wisconsin Counties, 1934	33
19	Population Maps of Wisconsin, 1850 and 1860	38
20	Population Maps of Wisconsin, 1880 and 1930	40
21	Per Cent of Rural Population to Total Population, 1900 and 1910	41
22	Per Cent of Rural Population to Total Population, 1920 and 1930	42
23	Incorporated Population Centers and Rural-Farm and Rural Non-Farm Population, 1930	44

MAPS (cont'd)

Figure		Page
24	Rural Farm Population Per Square Mile, 1930	45
25	Persons Moving to Farm from Cities, Towns and Villages and Vice-versa, April, 1929 to March, 1930	46
26	Foreign Born Population, 1890 and 1910	48
27	Foreign Born Population, 1930	49
28	Leading Foreign Born Nationalities, 1890 and 1910	61
29	Leading Foreign Born Nationalities, 1930	62
30	Distribution of Total Population According to Sex and Age, 1930	53
31	Rate of Population Increase, 1930	55
32	Average Size of Farm Family and Average Size of All Families, 1930	56
33	Per Cent Change in Total Population, 1920-30	67
34	Population Density, 1930 and 1960 (estimate)	58
35	Physiographic Provinces, Soil Regions, Rainfall and Growing Season	62
36	Distribution of Classes of Land	69
37	Per Cent of Total Land Area in Farms, 1920 and 1930	70
38	Number of Farms, 1930	72
39	Per Cent of Change in Number of Farms, 1920-30	73
40	Average Total Acres Per Farm, 1930	74
41	Per Cent of Total Farm Land in Harvested Crops and that Not Used for Crops, Pasture or Woodland, 1929	76
42	Value of Farm Land and Buildings Per Acre, 1930	78
43	Principal Farming Areas	79
44	Mineral Resources	83
45	Principal Kinds of Vegetation, 1882-1932	85
46	Plants Manufacturing Wood Products, 1932	86
47	Creameries, Cheese Factories and Condenseries	88
48	Canning Factories, 1934	90
49	Value of Industrial Products per 1000 Population, 1930	91

MAPS (cont'd)

Figure		Page
50	Loading Industry, 1930	95
51	Concentration of Population and Assessed Value of Property, 1920 and 1930	94
52	Location of Population Centers	96
53	Wisconsin Trade Areas	98
54	Number of Total Retail Stores per 1000 Population, Average Net Sales Per Store and Number of Farmers Per Store, 1935	100
55	Location of Hospitals, 1934	101
56	Health Service Index, 1934	103
57	Pupils Per Teacher in Rural Schools, 1933-34	105
58	Per Cent of Change in Number of Rural Schools, 1926-32	107
59	State Graded Schools, 1935	108
60	High Schools and High School Districts	110
61	Educational Institutions Above High School, 1935	111
62	Per Cent of Illiteracy in Total Population, 1920 and 1930	113
63	Location and Size of Free Libraries, 1932, and Location of Congregations for Leading Church Denominations	114
64	Proportion of Church Membership in Different Denominations and Church Members of All Denominations, 1926	116
65	Farm Cooperative Organizations, 1935	118
66	Rural Social Organizations, with and without State or National Affiliations	120
67	Future Farmers of America Chapters and Homemakers Clubs, 1935	123
68	Location and Membership of 4-H Clubs, 1934	124
69	Recreation	127
70	Per Cent of Farm Homes on Improved Roads, 1930	129
71	Per Cent of All Farm Products Used by Operator's Family, 1929	131
72	Index of Farm Power, 1931	132

MAPS (cont'd)

Figure		Page
73	Per Cent of Farm Homes Having Milking Machines, Electric Power, and Motor Trucks	133
74	Standard of Living Index, 1931	136
75	Per Cent of Farm Homes Having Electric Lights, Furnace Heat and Bath Tubs	136
76	Standard of Living Index, 1931	137
77	Per Cent of Farm Homes Having Automobiles, Radio Sets and Telephones	138
78	Per Cent of Farm Homes Having Daily Newspapers, 1931	140
79	Average Value of Farmer's Dwelling Per Farm, 1930	141
80	Tentative Land Use Problem Regions, 1936	151
81	Land Use Possibilities	156

WISCONSIN'S HUMAN AND PHYSICAL RESOURCES

E. L. Kirkpatrick and Agnes M. Boynton

The possible rehabilitation of rural families is commanding increased interest and attention in Wisconsin. This is evident in all parts of the state and especially in sections where opportunities are somewhat limited.

In common usage, rehabilitation means "making families again self-sustaining". The term is sometimes used in a broader sense; in addition to families and individuals composing them, it gives consideration to the social and economic institutions and agencies with which they are concerned. Families cannot be rehabilitated except in groups or communities of which they are a part. They must have access to facilities, including the goods and services of family and community living. As here used, then, rehabilitation refers to possible aid or assistance to rural families in their present or prospective new locations. More important, it takes into account the resources of the state with respect to the probable future welfare of rural families and communities.

Note.- This study was planned and conducted under cooperative arrangement between the Department of Rural Sociology, Wisconsin Agricultural Experiment Station; Division of Research, Statistics and Finance, Federal Emergency Relief, and Rural Division, Wisconsin Emergency Relief Administrations. With the organization of the Resettlement Administration, the Research Section of Region II assumed responsibility for completion of the study and distribution of the report.

Preface

The treatise is intended as a suggestive guide in formulating and carrying out plans for the further development of rural Wisconsin. It is based on maps intended to portray as nearly as possible the existing conditions in different parts of the state, on a comparative basis. Of the many maps available including those which were prepared specifically for this study, only the ones regarded most pertinent are included. It is hoped that the presentation will stimulate interest in other materials, particularly the Regional Planning Report, the Crop Reporting Service information, the Relief Administration data, the different Agricultural Extension Service bulletins, and reports issued by other agencies.

A compilation of information on this basis should serve as a forerunner to further study on the part of all who are striving for better home and community standards of living in Wisconsin. It should encourage cooperation toward a coordinated plan for more effective utilization of available resources. Finally, in addition to its use as a possible guide in Wisconsin, the report should be suggestive of certain benefits from similar studies in other states, and perhaps regions of the United States.

As will be noted from sources indicated, many of the maps have been obtained from other agencies. The authors take this opportunity of expressing their appreciation to all who have in any way contributed to the study.

Immediately, important questions arise. How many families and communities need attention? Where are they situated? Why are they in apparent need? Does the need vary widely by counties or sections? Are there clearly defined areas of the state with respect to needs as well as the different resources for meeting them? Can there be any suggestive plan of procedure based on a compilation and coordination of the data which are available?

Numerous factors are involved in analyzing the situation. They pertain to the geographic background, the population characteristics, the occupational opportunities, the economic aspects, the institutional phases, and the family living facilities. For convenience they are treated under three heads (1) those indicating the needs for rehabilitation, (2) those which help explain the present circumstances, and (3) those which offer possible ways of improvement.

FACTORS INDICATING

NEED FOR REHABILITATION

Factors indicating the needs include those pertaining to ownership of property, sources and amount of income, extent of public relief, and status of the tax situation. For some of these factors the maps indicate changes or trends, during the last decade particularly; for others they are limited to one year periods, principally 1930, on the assumption that these portray the situation satisfactorily.

Distribution of Wealth Per Capita

In regard to the distribution of wealth, high property value per capita is characteristic of southern and southeastern Wisconsin except for two counties

in the central and two in the northern part of the state, figure 1.¹ Three of the four exceptions are due to the extensive manufacturing, mining and resort activities carried on in the respective counties of Wood, Iron and Vilas. Buffalo county is only slightly above its immediate neighbors in assessed property values even though it falls in the higher classification. The groups of counties with the highest average values are characteristic of industrial and other interests or farming, or a combination of both. Chief among these counties are Walworth, Dane, Green, Lafayette, Iowa, Green Lake and Calumet.

Ownership and Encumbrance of Farms

Farm ownership in contrast to tenancy always has been pretty generally accepted as an indication of economic well being. Now, this "concept" is likely to be questioned in view of the many extenuating circumstances brought out by the depression, not the least of which are the difficulties growing out of mortgage encumbrances and tax burdens. Only those aspects regarded as pointing most significantly to present and future needs are considered here.

Per Cent of Farms Operated by Tenants. Proportion of the total number of farms with tenant operators varies from highest in southwestern to lowest in northern Wisconsin, figure 2. Sixteen counties in the southern and western areas had 25 per cent of all farms worked by tenants in 1930, compared to 9 in 1920. It is noteworthy that only 5 experienced a decrease in the proportion of tenant-operated farms between 1920 and 1930.

1. Per capita wealth in terms of assessed value of property is derived by dividing the assessed valuation of all property both rural and urban (as taken from the Report of the Wisconsin Tax Commission) by the total population.

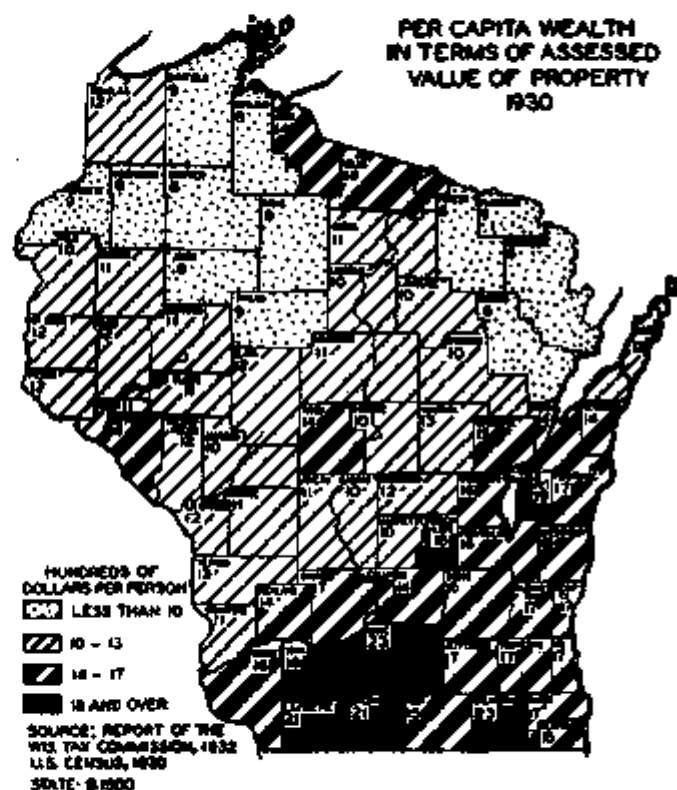
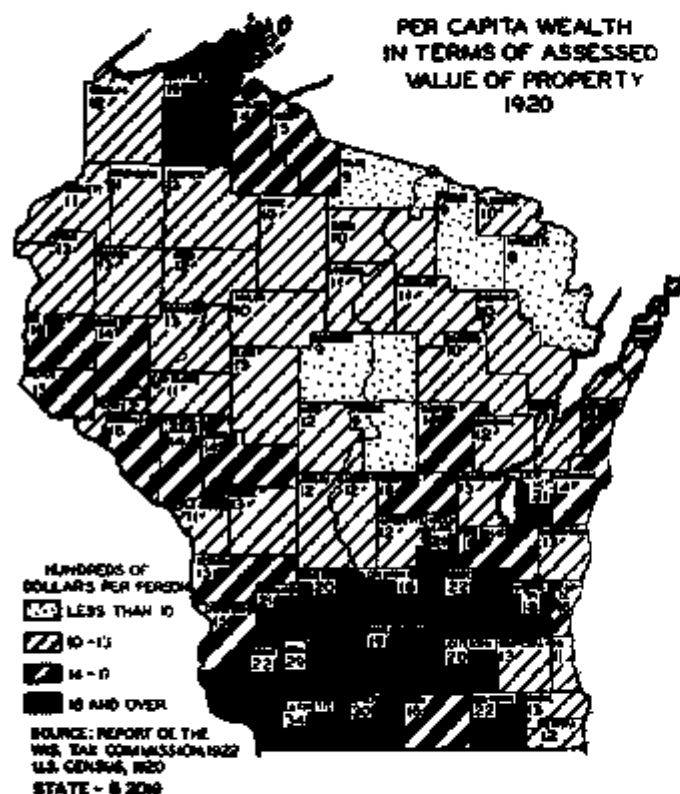


Figure 1. The per capita wealth in terms of assessed valuation which includes both personal and real property for 1930, ranges from \$2500 in Walworth and Dane to \$800 in Marinette and Forest counties. For the state as a whole, it decreased from \$2019 in 1920 to \$1500 in 1930. Although this factor is indicative of the distribution of wealth on a per capita basis it cannot be regarded as a complete index of the welfare of rural people.

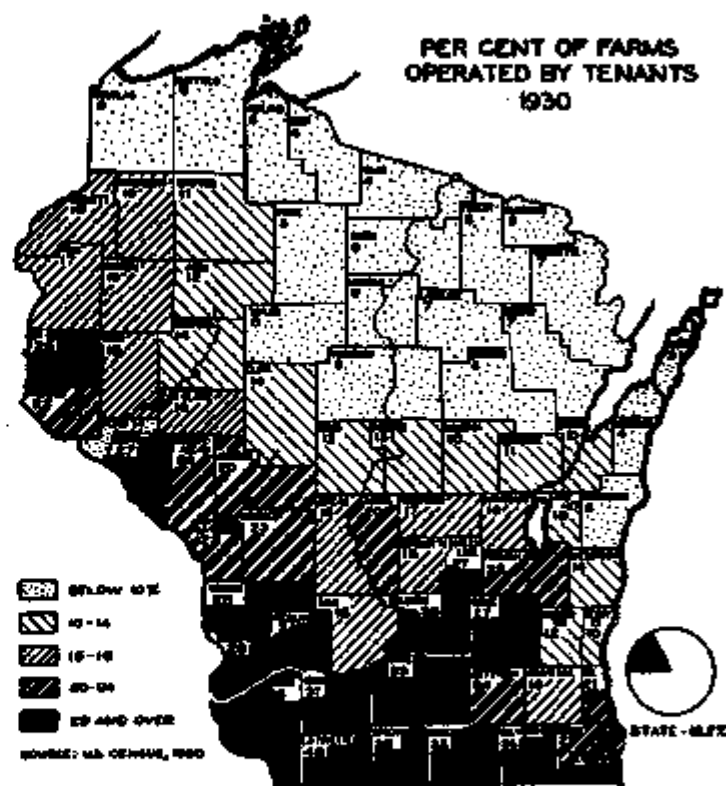
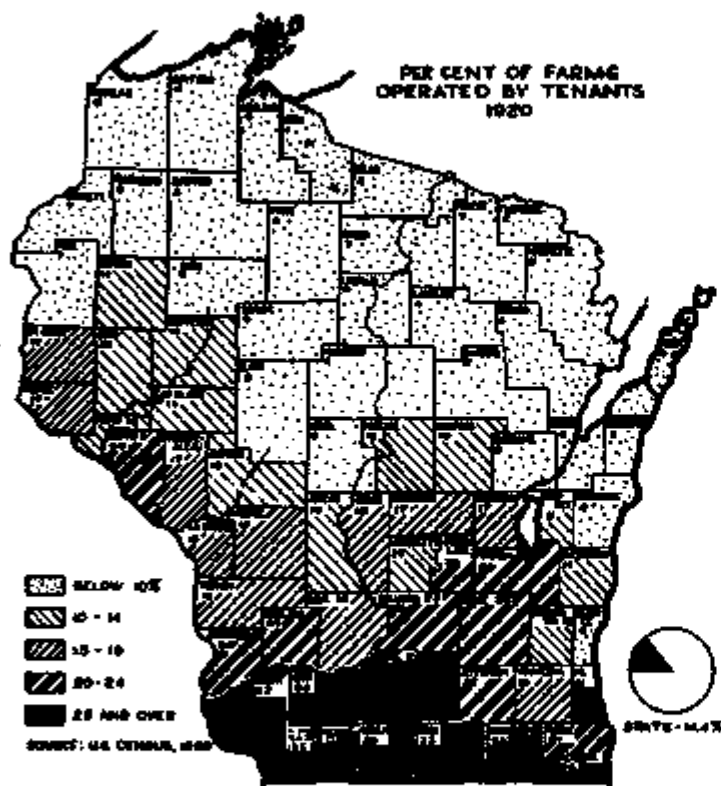


Figure 2. Percentages of the total number of farms operated by tenants in 1920 and 1930 indicates a trend toward increased tenancy. The increase from 14.4 to 18.2 per cent for the state is most noticeable in the southern and western portions.

These are Milwaukee, Waukesha, Calumet, Kenosha, and Oneida. Milwaukee shows the greatest decrease, with 10 per cent change.

An examination of corresponding data for 1935 shows a continuation of the increase in the proportion of farms operated by tenants throughout the state. Only two counties failed to show some gain in this respect; Walworth dropped from 36 to 33 and Iowa from 37 to 36 per cent of the total. On the other extreme, the gain ranges from 6 to 13 per cent of the total in Lincoln county, 8 to 15 in Burnett, and 8 to 13 in Forest.

Proportion of Owner-Operated Farms Mortgaged. The counterpart to farms worked by tenants is those operated by owners, the majority in each county. The northern counties rank higher for the owner classification than do those in the southern and western portions of the state.

In regard to encumbrances, the proportion of owner-operated farms mortgaged is indicative, figure 3. Although this decreased noticeably in certain northern counties from 1920 to 1930 it remained exactly the same for the state, 59 per cent. In other words, while mortgage obligations were done away with, due to tax delinquent land reverting to the county, to foreclosure or to payment of debt in the north, they were being balanced by increased obligations in southern, western and central northern counties.

It is often assumed that a heavy debt load is co-existent with new development. However, the highest proportion of farms mortgaged in 1930 is not found in the extreme northern part of the state with most recent settlement, but rather in a belt extending from Shawano west to Polk county. The proportion of farms mortgaged in this group of counties is higher than

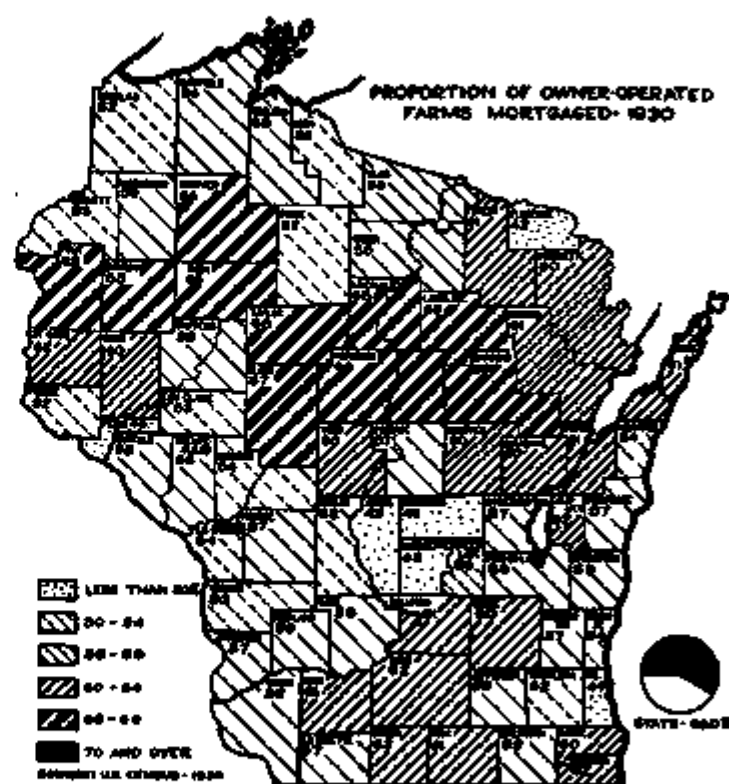
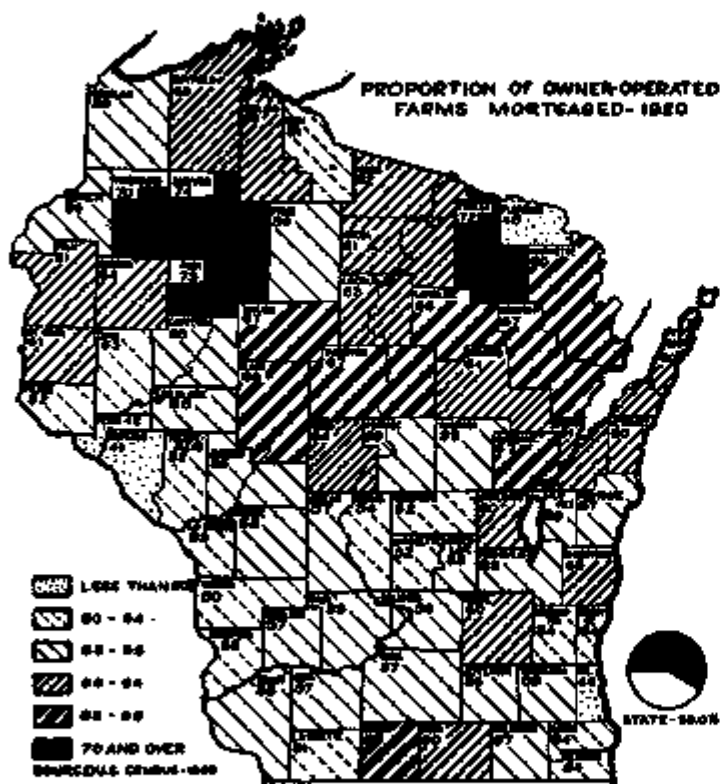


Figure 3. The proportion of owner-operated farms mortgaged remained the same (59 per cent) for the state from 1920 to 1930, although some counties vary widely in the proportion during the same period.

for any other portion of the state. It is approached only by a few near-by counties and another group in the southern part of the state.

Ratio of Debt to Mortgage Value. The extent or prevalence of mortgages tells only a part of the story. Equally important is the ratio of mortgage debt to value of farms which are encumbered. This is indicated in figure 4, for 1920 and 1930. The ratio increased from approximately 38 per cent to 51 per cent for the state during the ten year period. The spread of increase is significant; in other words it seems to be state-wide, with only Milwaukee and Florence counties as exceptions. The ratio rose from 37 to 65 for La Fayette and at an almost equal rate for Green, Grant, Iowa, Buffalo, Pepin, and St. Croix. For Adams it increased from 33 to 42 and for the adjacent counties in a similar proportion. In the majority of the cut-over area the rise was less than 10 per cent and in Waukesha, Racine, and Kenosha less than 4 per cent.

Ratio of debt to value is affected by change in the latter, as well as the former factor. The higher ratio for 1930 compared to 1920 is due therefore to decrease in land value, while mortgage debts remained steady or were actually increased in many instances. Increased or pressing mortgage obligations doubtless intensify the need for assistance and may lead finally to the necessity for rehabilitation. However, in some instances farmers have been able to meet their obligations or obtained satisfactory debt adjustments to remain off of relief. On the other hand, where the payment of added mortgage obligations had to be met, notwithstanding reductions in income or earnings from non-farm sources, the results are reflected in needs for aid and in some cases for rehabilitation.

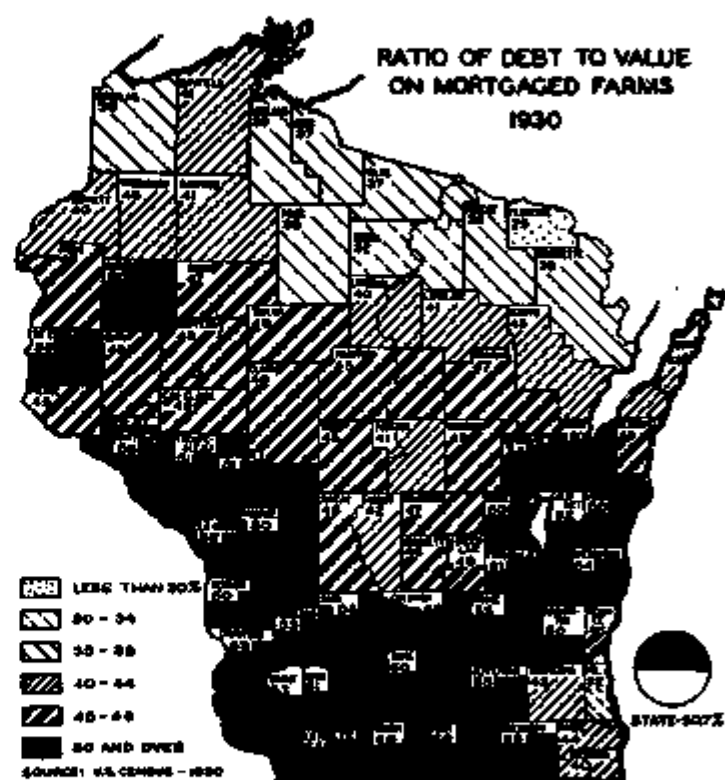
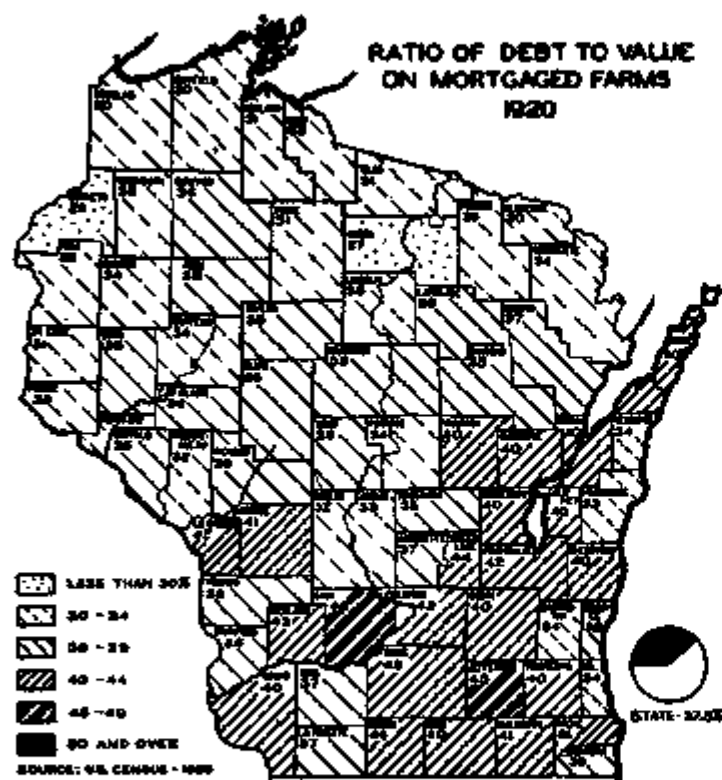


Figure 4. The ratio of debt to value on mortgaged farms for the decade 1920 to 1930 shows an increase from 37.8 to 50.7 per cent for the state as a whole and this increase reaches practically every county.

Real Estate Taxes on Owner-Operated Farms. The extent to which taxes are paid is closely associated with and has a direct bearing on the need for aid and rehabilitation. Tax assessments must be met if owners are to retain possession, and thus the ability to meet them varies in contrast to the demands of mortgage indebtedness and other pressing obligations. The average amount of real estate tax assessment on owner-operated farms shows southeastern counties having the highest levy per acre, all above the average of \$1.17, figure 5. The cut-over counties are approximately one half as high or practically in accord with the per acre land values.

Tax Delinquency - Tax delinquency is considered indicative of the prevailing needs for rehabilitation from both family and community standpoints. The extent of this, in terms of per cent of the 1928 levy delinquent in March 1929, is evident from figure 6. It is recognized, of course, that the situation at that time may not be exactly similar to recent years since the paying of taxes doubtless became more difficult and thus more land became delinquent during the years immediately following 1929. It seems desirable, however, to indicate the situation prevailing in more normal times, rather than conditions which may be widely perverted by the continued depression.

Apparently more than half the towns in the cut-over had at least a fifth of their total 1928 levy delinquent in March 1929; many of them had over a third. The real cause of the rise in tax delinquency during the past decade is an appreciable increase in assessments per acre in the face of a much greater decrease proportionally in value of land, the latter being the more important factor.²

2. Adapted from Tax Delinquency in Northern Wisconsin, Hibbard, B. H., and others, University of Wisconsin, Agricultural Experiment Station Bulletin 229, 1928, p. 23.

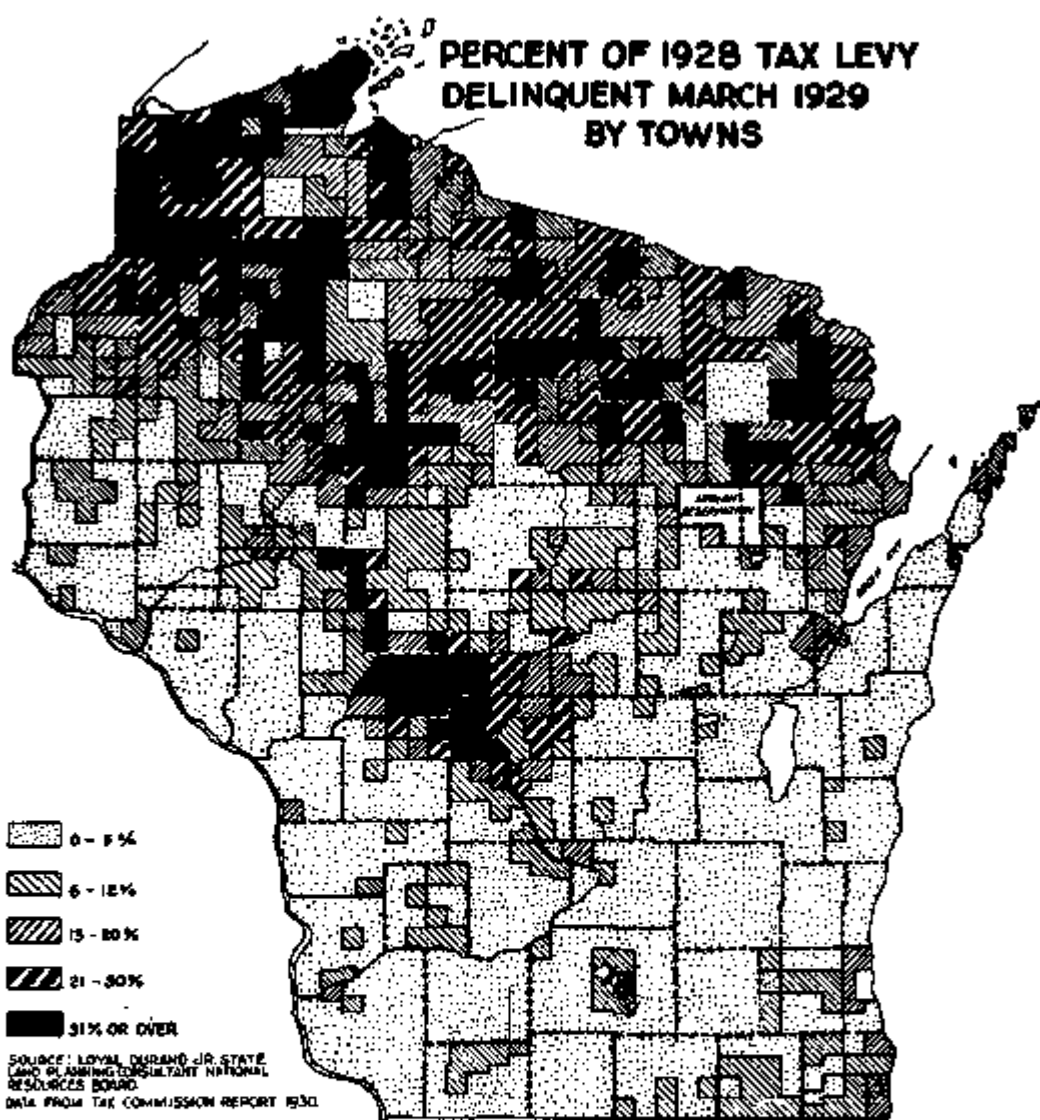


Figure 5. The per cent of 1928 tax levy delinquent in 1929 covered one-third of the land in the state. Delinquency was noticeably high in the northern and central portions.

According to the Loyal Durand, Jr., former Wisconsin land planning consultant for the National Resources Board, "The strikingly regional aspect of the tax situation in the 1920's sounded a note of impending trouble. The only towns with very low delinquencies had some special conditions within their borders, as standing timber, better farms, or manufacturing plants. Some of the low townships in that year were: Barkdale, Bayfield county, the site of a powder plant; Drummond, Bayfield county with timber; Draper and Winter, Sawyer county, with timber and resorts; Corning, Lincoln county, timber; Plum Lake, Spider Lake, and Boulder Junction, all in Vilas county, the heart of a northern resort country. Others might also be listed, but all have some special reason for little or no delinquency; they were the exception, not the rule. Tax delinquency remained high in the northern cut-over region in succeeding years. It is not a depression created problem there, as it is in the farming regions of the state."³

Per Cent of Gross Farm Income Spent on Real Estate Taxes. Since taxes must be met, if title to property is to remain in the hands of the owner, they make one of the first drains on the annual income. The proportion of total gross farm income spent for real estate taxes in 1930 tends to vary from low in southern to high in northern Wisconsin, figure 7. A few counties which are usually average in regard to factors already considered are exceptions in this case. They are Vernon, Waupaca, Outagamie, Brown, Kewaunee, and Door, with percentages between 10.6 and 12.4 whereas the state average is 9.3.

3. The Problem Regions of Wisconsin, Durand, Loyal, Jr., unpublished report to the Regional Planning committee, 1934.

This is due in part to low incomes derived from crops, livestock and their products since gross farm income does not include earnings from other sources. Thus, counties with farms which derive returns from non-agricultural sources are not truly portrayed although the situation as represented by direct receipts from farming is apparent.

Amount and Sources of Income

Limitations on income are first hand indexes of the needs for aid and rehabilitation. Likewise the sources of the available income are important. For this study data are confined to returns from farming except as other possible sources are suggested from information pertaining to self-sufficient and part-time farming.

Value of Farm Products. The amount of all farm income is indicated to a large extent in the value of products sold, traded and used by the family, figure 8. It will be observed that the value is heaviest for southern counties; in many instances three times the average in the rest of the state. It is apparent also that the value is significantly low for a group of central counties, namely Waushara and those adjacent to it on the east, west, and north. The state average of \$2,257 is approximated in a large number of southwestern and central eastern counties.

Gross Income Per Farm. Gross income derived from crops, livestock and their products ranges from high in the southern to low in the northern part of the state, figure 9. In fact, if the extreme averages are taken the low incomes are only one-fourth of the high. As with the value of farm products sold, traded or used central Wisconsin approaches a low average.

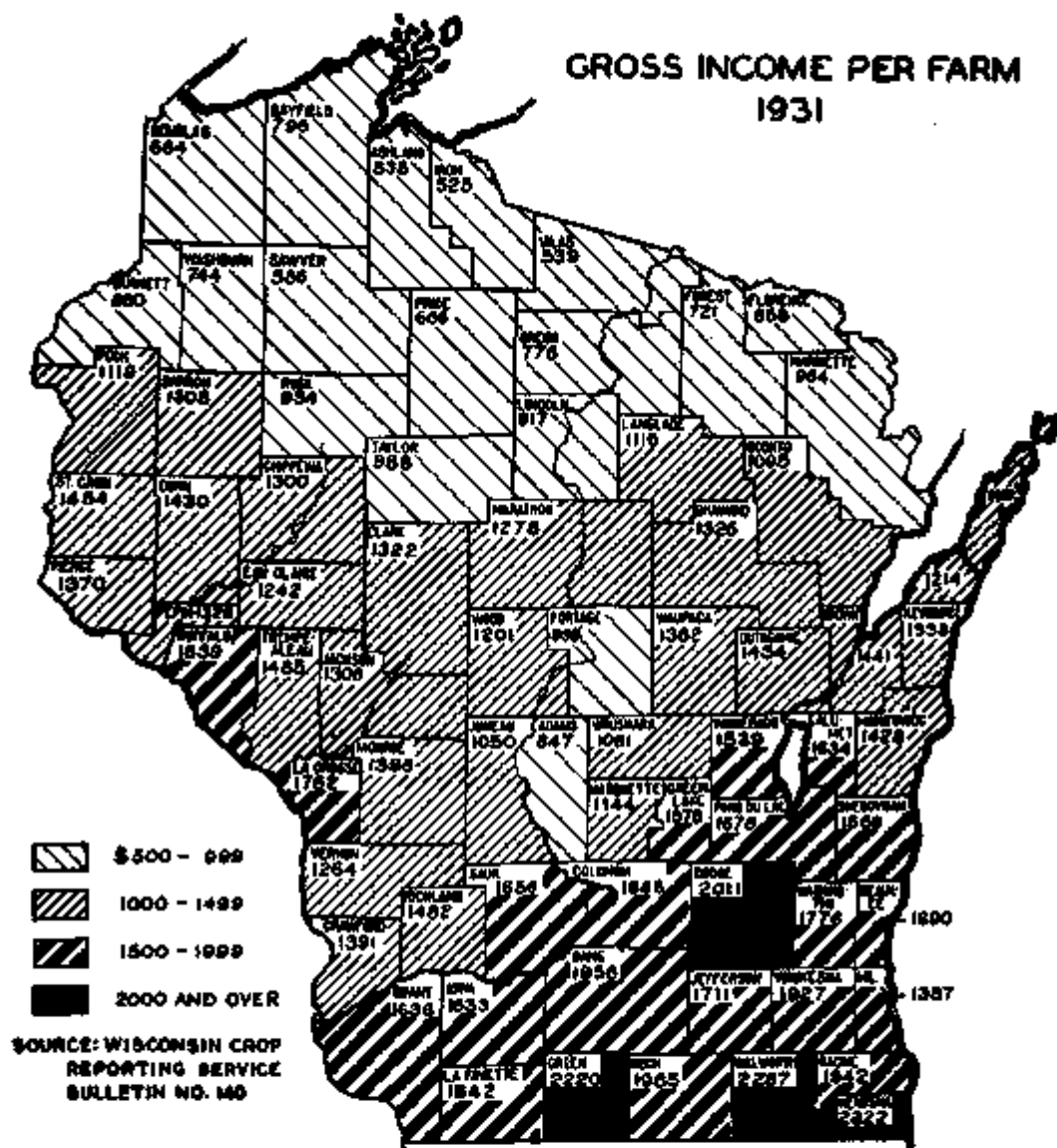


Figure 9. The gross income per farm from crops, livestock and livestock products averaged \$1423 for the state in 1931. It ranged from high in Kenosha, Walworth, Green, and Dodge to low in all northern counties. It also approached a low in the central portion of the state.

Source of Farm Income. The source of farm income is important since it has a bearing on the amount, as well as on the distribution, to meet the current farm and other expenses. The major part of such income is from milk or milk products, -- more than half of the total, -- compared to approximately one-third from livestock and one-sixth from crops, figure 10. Although the proportions from the three sources vary noticeably by counties, they seem to differ more widely for separate areas of the state.

Attention is called to the gradual change in the principal sources of farm income. In 1911 only 31 per cent was obtained from milk and the total of all of the livestock items, including milk, made up 65.3 per cent. The same year, crops accounted for 34.5 per cent of the total. These proportions held fairly steady until 1921. Ten years later, however, the income from milk accounted for 51.6 per cent of the state's total and milk, with other livestock items combined, accounted for 86.1 per cent. In other words, five in six dollars of farm income is now derived from livestock and their products. This leaves only 13.9 per cent from sale of crops.⁴

Income from these three principal sources is supplemented on many farms by production and sale of canned goods, honey, nuts, flowers and even hand-made articles. It may also be supplemented in some cases by keeping boarders and roomers.

4. Adapted from Wisconsin Agriculture. Wisconsin Crop and Livestock Reporting Service, Bulletin No. 140, 1932, p. 4.

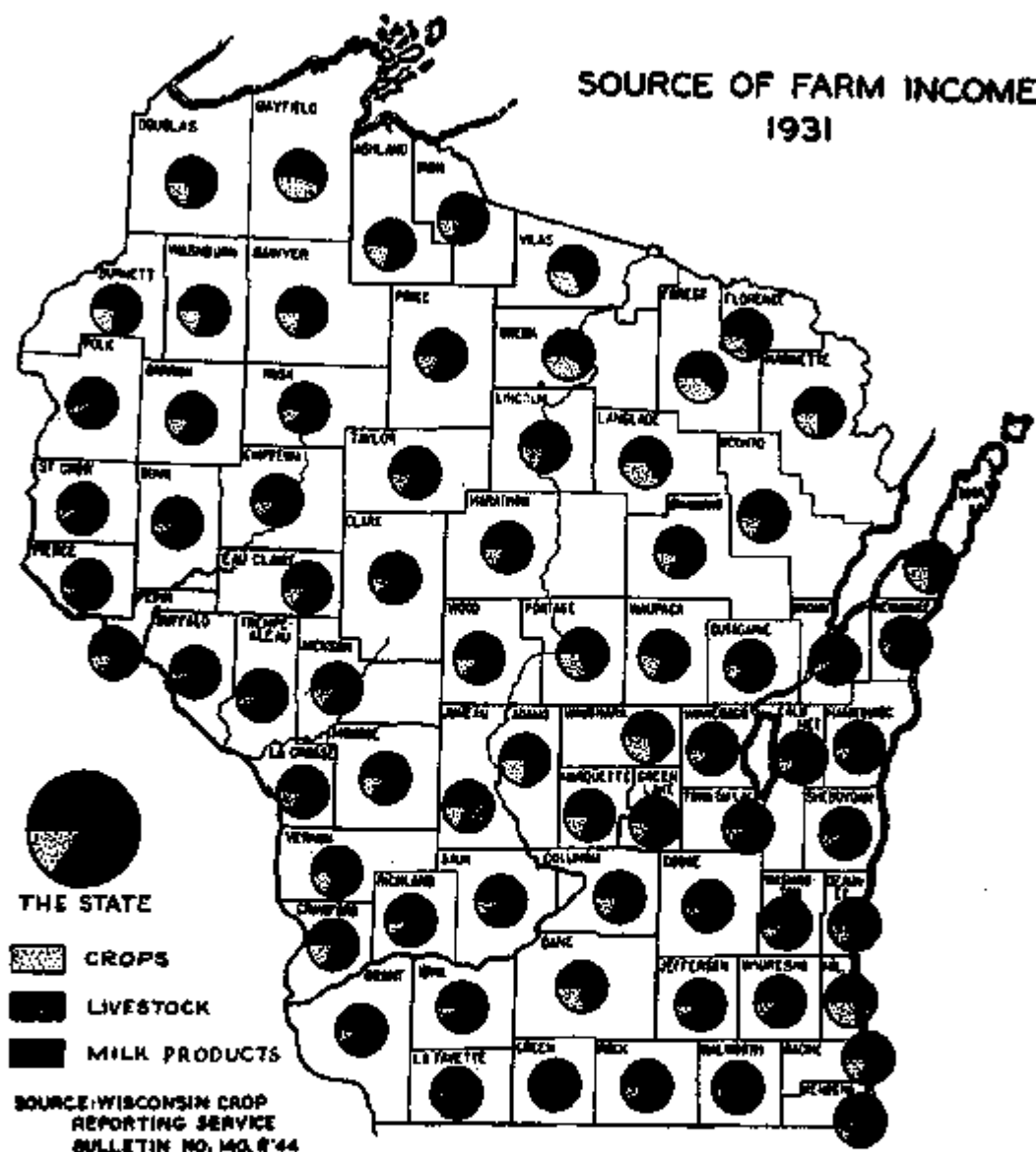


Figure 10. The three principal sources of farm income are milk products, livestock, and crops, in the order named. There was no noticeable variation in the proportions of these by sections of the state in 1931.

Self-Sufficient Farms. According to the U. S. Census, 1930, a farm is classified self-sufficient when the value of products used by the operator's family is 50 per cent or more of the total. This implies, therefore, that fewer goods are produced for market thus limiting incomes and resulting in relatively low prevailing standards of living in areas for which it is characteristic.

The extent of self-sufficient farming, although not high in any county, stands out predominantly in percentage of the total number of farms in the cut-over, figure 11. It approaches a high percentage, above the state average at any rate, in Adams, Juneau and Jackson counties.

Part-time Farming. Part-time farming means that the operator spent 150 days or more off the farm in other than farm work or reported an occupation other than farmer, provided the value of products did not exceed \$750, according to Census definition. It is not significant for the state as a whole since it amounts to only four per cent of the total number of farms and 1.5 per cent of all farm acreage. Conditions appear to be such as to favor or make necessary part-time operations in northern counties, particularly, figure 12. In this area farming possibilities are limited and work opportunities in the forests, on the roads and at odd jobs have, until recently, been relatively plentiful in comparison with other sections of the state. Conditions are favorable also for this type of farming near Milwaukee because of urban and industrial influences.

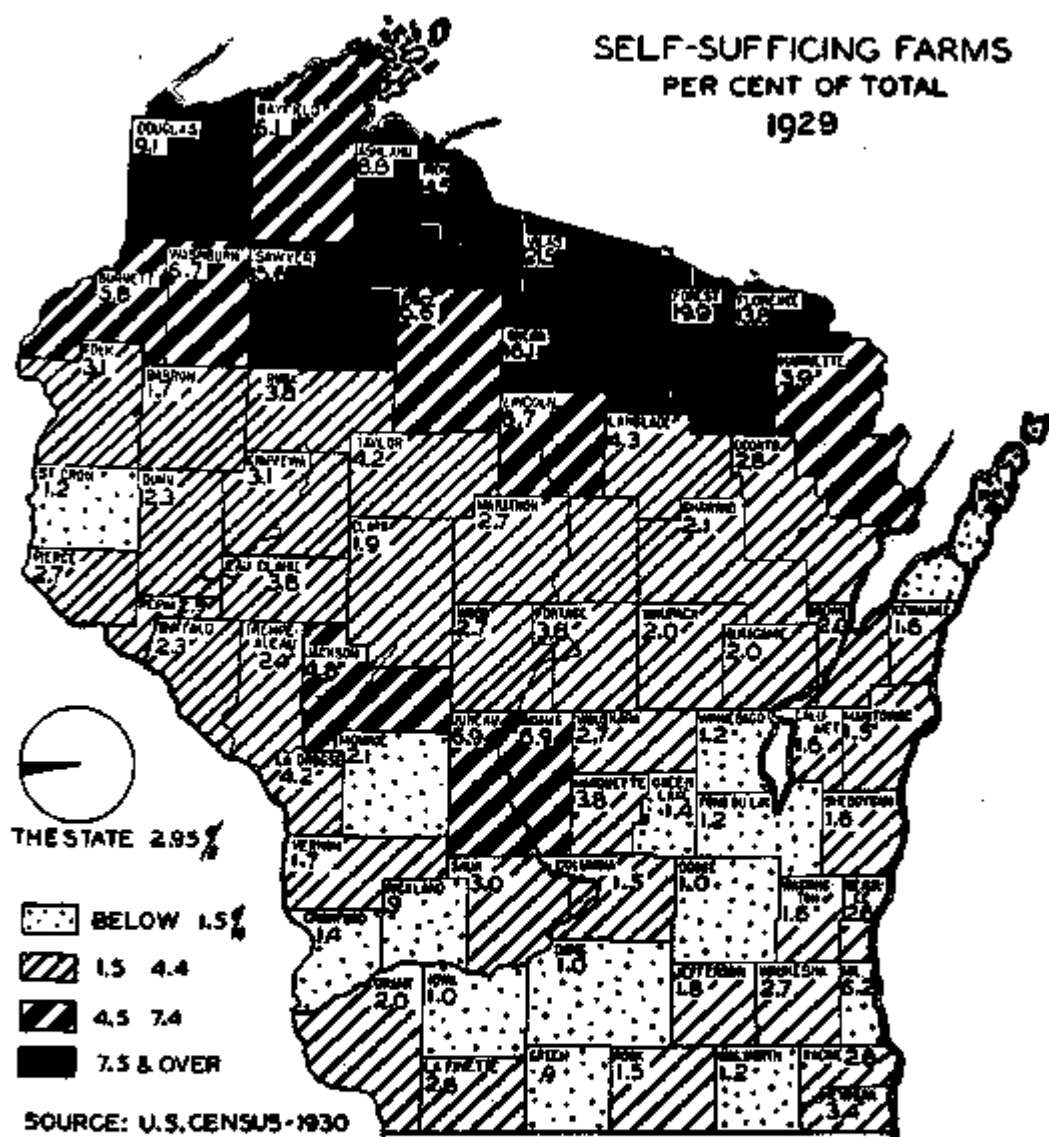


Figure 11. Self-sufficing farms constitute less than 5 per cent of the total in the state in 1980. They are most predominant in the northern or out-over area where all counties exceed 5 per cent and one ranges as high as 21 per cent.

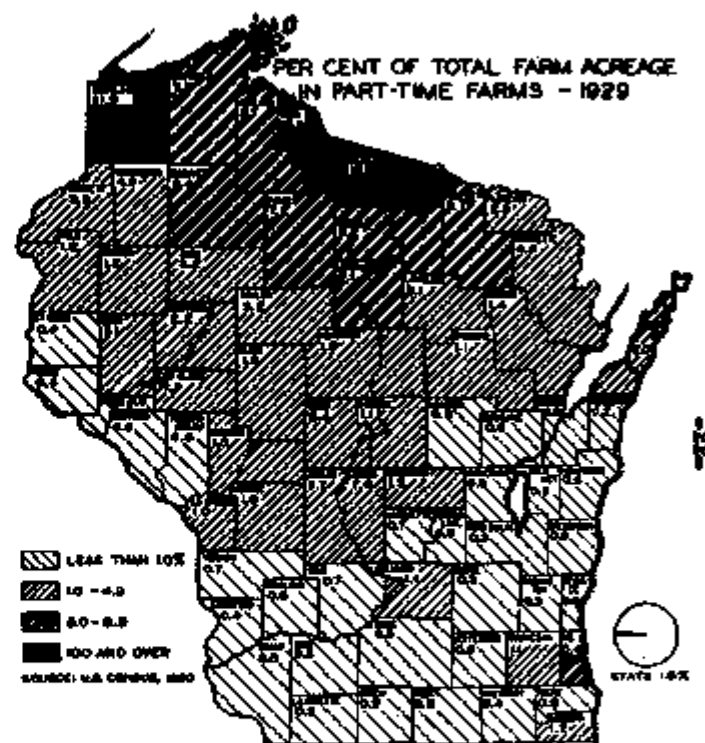
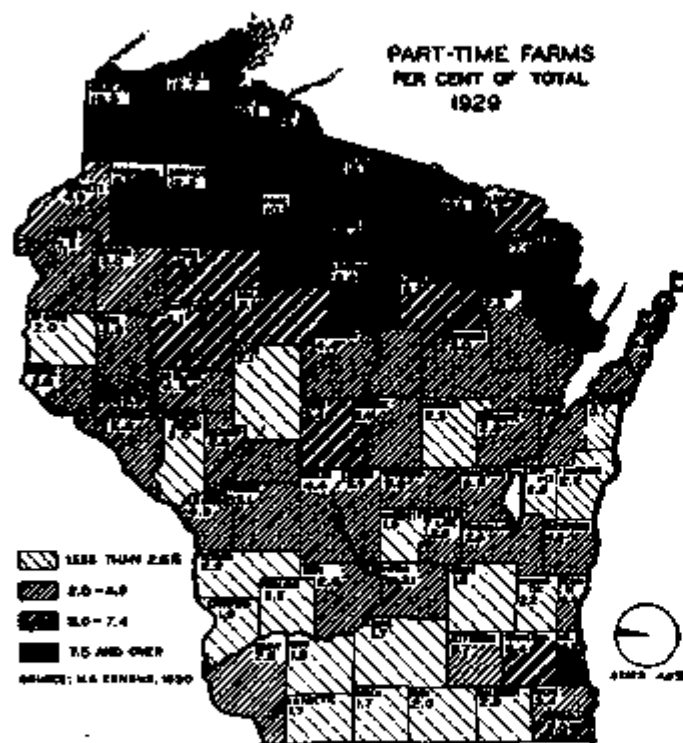


Figure 12. Part-time farms comprised only 4 per cent of the state's total in 1929. In terms of acreage they are even less significant but are most predominant in the northern or out-over counties due largely to necessity and opportunity for other types of work, to supplement the family income.

Relief and Other Public Aid

Until the present depression, aid had been given primarily by local agencies. With the increased need due to unemployment conditions, a broader set-up for the distribution of relief became essential. It was evident that sufficient funds for meeting the enlarged burden could not be raised locally so assistance was made possible under the Federal Emergency Relief Administration, organized in the summer of 1933. The program has been altered at various times to include direct aid, work relief and rehabilitation loans.

The problem of relief is widespread and federal-state aid has been extended to the major portion of Wisconsin. Information is available on per cent of the total population receiving aid, the amount granted per case, and per cent of the relief expenditures paid locally. These, of course, do not indicate the full intensity of the needs for the state since certain east and west central counties have not seen fit to qualify for federal-state funds, figure 13.⁵

Per Cent of Population Receiving Relief. Generally the per cent of total population receiving relief is indicative of the extent of needs for family living goods and services. In terms of the number of cases granted aid, the major relief problem is centered in the southeastern part. Seven

5. As of January 1935, to be qualified to receive federal-state relief funds, a county must fulfill certain specific rulings. A public agency with a director and all other personnel approved by the state administration handled the giving of relief in the local unit; it was necessary that they comply with the rulings sent out from the state; and the local unit had to contribute all possible toward the relief fund. Other local units such as townships or cities could qualify for federal-state aid provided the entire county did not care to, and are known as groups.

AREAS IN WISCONSIN QUALIFIED TO RECEIVE FEDERAL-STATE RELIEF FUNDS

JANUARY 1, 1935

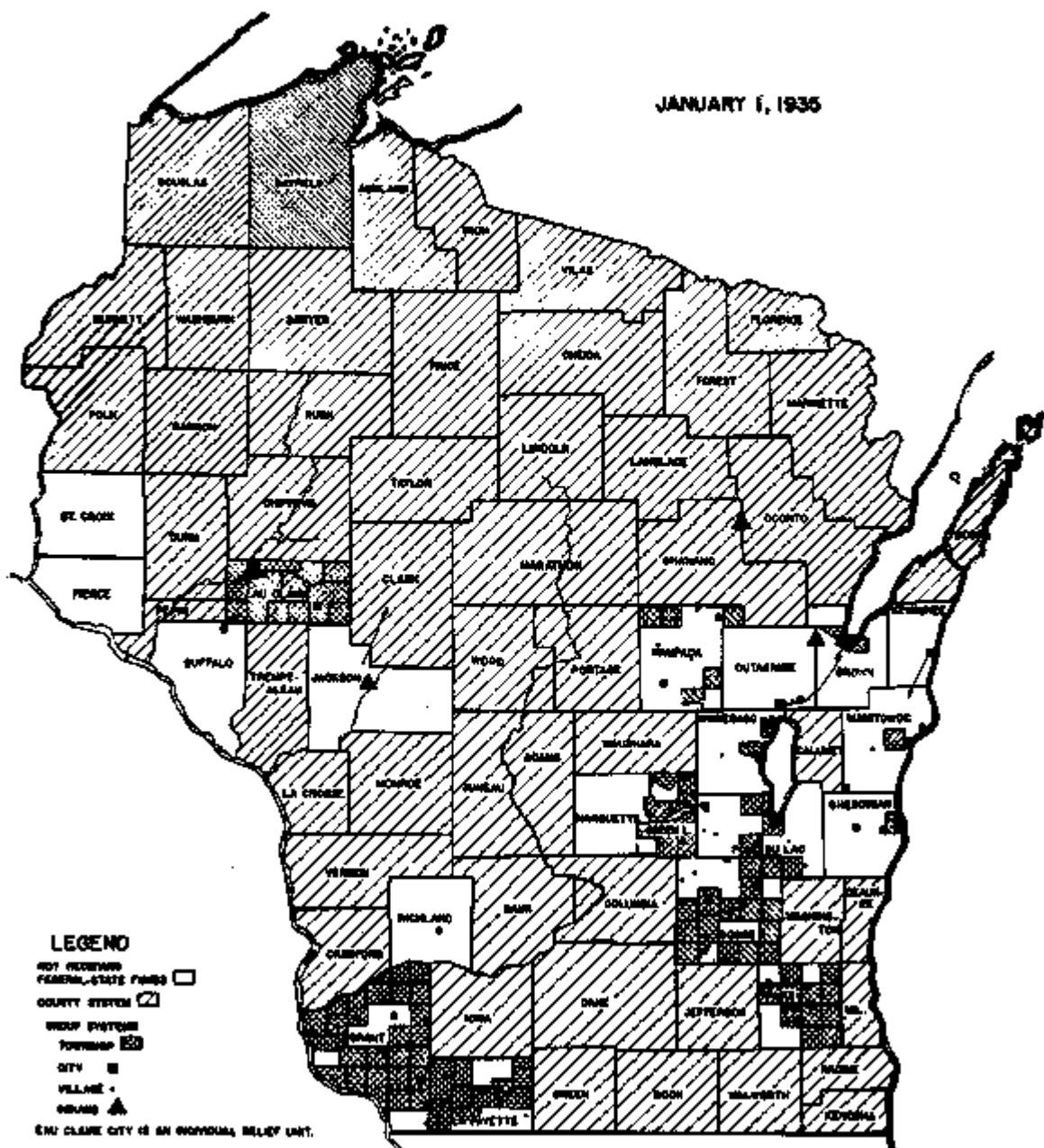


Figure 13. According to Wisconsin Statutes 49.15, a majority vote of the county board may make the county the unit of relief in preference to the town, village, or city which is under compulsion to supply needed aid to legal residents. Organization of counties to receive federal-state aid gained momentum with the Federal Emergency Relief Administration, 1933.

counties -- Kenosha, Racine, Milwaukee, Waukesha, Walworth, Rock and Dane -- carried over one-half the case load during December, 1934, while they comprised but 43.4 per cent of the total population in the relief areas.⁶ This does not imply that the load is more burdensome or more intense in these counties than in others, however, when the problem is viewed from the standpoint of the proportion of the total population receiving aid. The range is from low in the south central (except counties in the extreme corner) to high in the northern portion of the state. Practically all of the counties in the out-over range above the state average, 15.5 per cent.

Figures by counties for the one month are checked against similar data on a six months' basis, July to December, 1934, figure 14. Again the per cent on relief to total population tends to be high in the northernmost counties but with more exceptions than for the single month of December.

Aid Granted Per Case to Households on Relief. In terms of aid granted per case, relief needs are most outstanding in southeastern counties with a greater degree of urbanization and higher prevailing standards of living. Kenosha, Racine, Waukesha, Walworth, Rock, Dane, Sheboygan and Manitowoc top the list with more than \$33 per family per month, figure 15. Counties with low aid per family are scattered well over the western and northern portion of the state. They include Crawford, Adams, Pepin, Taylor, Vilas and Burnett.

6. According to the Wisconsin Relief Review for January, approximately 111,600 cases received aid from federal-state funds during December, 1934. Almost 90,000 of these were families and the others were non-attached persons making a total of nearly 450,000 persons or 15.5 per cent of the population. Less than one-fifth of the cases resided in open country, including settlements of less than 50 population.

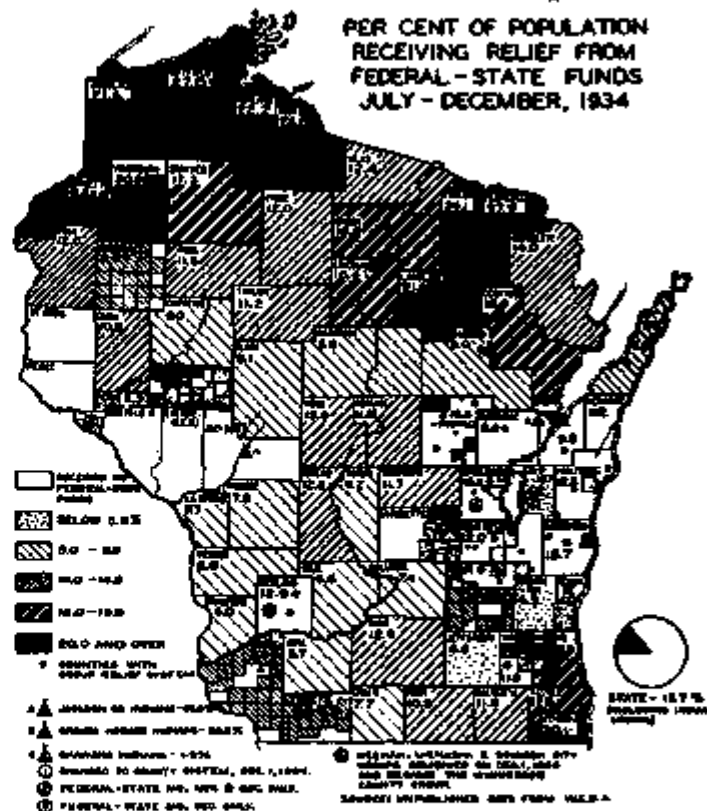
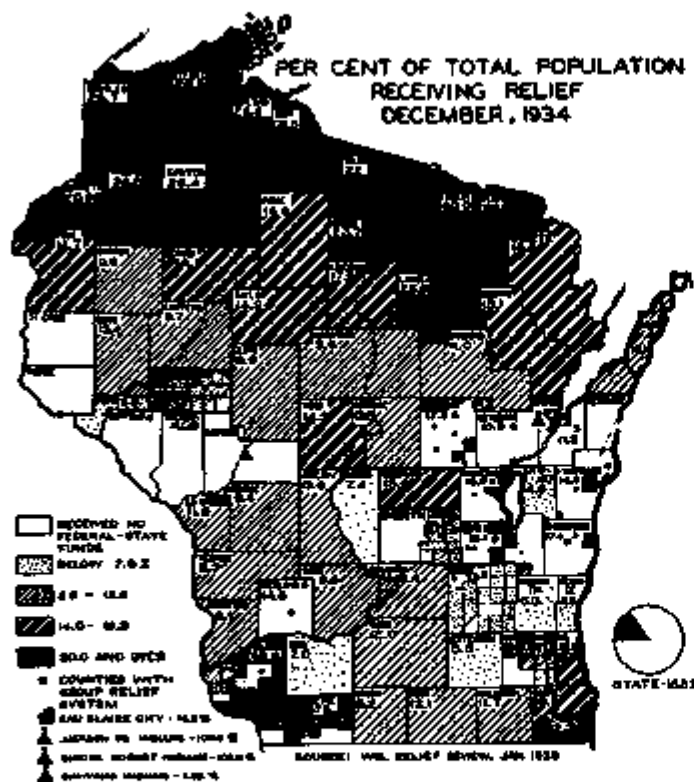


Figure 14. Per cent of the total population receiving relief from federal-state funds, December, as well as July-December, 1934, indicates that the heaviest relief load is in the northern or out-over region; the next heaviest is in the southeastern near Milwaukee, Racine, and Kenosha, where industry predominates. The percentage for July to December 1934 was obtained by dividing the total persons on the relief rolls during the specified number of months and basing this on the 1930 population. For areas qualified to receive relief see figure 13.

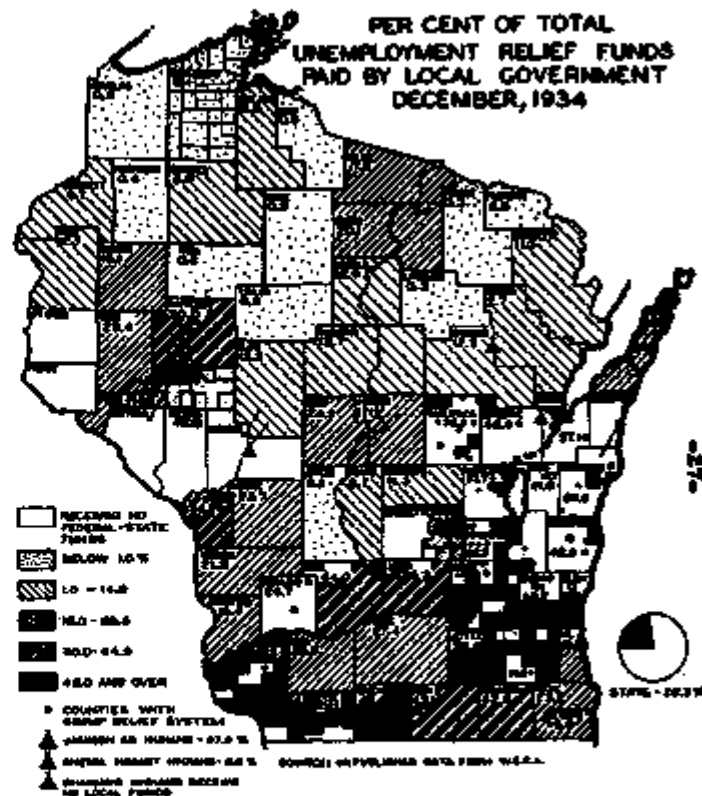
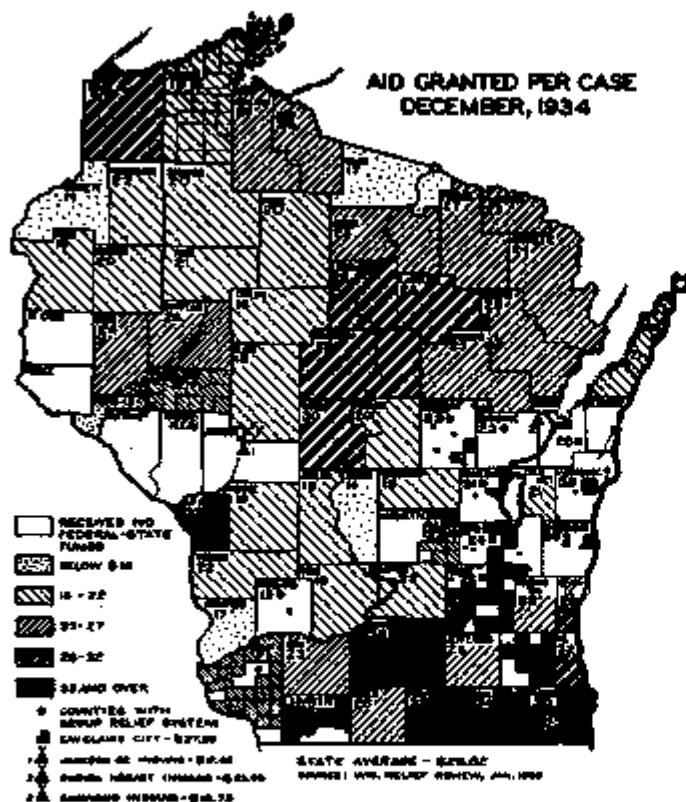


Figure 15. Aid granted per case and per cent of total unemployment relief funds paid by local governments are important factors in the relief situation. The amount of aid per case is noticeably high in urban counties and the per cent of relief funds paid locally is high in the southern portion of the state.

As with per cent of total population on relief, aid granted per family may vary, due to local administrative procedures and policies. Some counties are more lenient than others in accepting cases. Some are more concerned than others "to give adequate relief".

Reference has been made to cases residing in the open country, and it would be of interest to know the number and percentage of the rural farm and non-farm families on relief by counties. This information is not available, but a comparison of the relief situation with the population map for 1930, figure 20, indicates a possible association between intensity of relief and the degree of urbanization. In other words, relief problems seem to be more intense in distinctly rural or definitely urban areas.

Per Cent of Unemployment Relief Funds Paid Locally. Another aspect of the relief problem is the per cent of expenditures paid locally, figure 15. Aside from the counties pointed out as not qualified to receive federal-state funds and thus meeting all of their expenditures, those in the northern part of the state carry less of the total burden than in other parts, proportionately. Several exceptions, however, are noted in the northern section, namely Chippewa, Eau Claire, Pepin, Dunn and Oneida, where the proportion ranges between 20 and 30 per cent, compared to much less than 20 per cent in most of the northern counties.

The situation is somewhat different when consideration is given to an entire year's expenditures, figure 15. Burnett, Brown, Lincoln, and Vilas also fall in the group with a high proportion of funds paid locally, while Oneida has a lower proportion.

PER CENT OF UNEMPLOYMENT RELIEF EXPENDITURE PAID LOCALLY, YEAR ENDING SEPT. 1, 1934

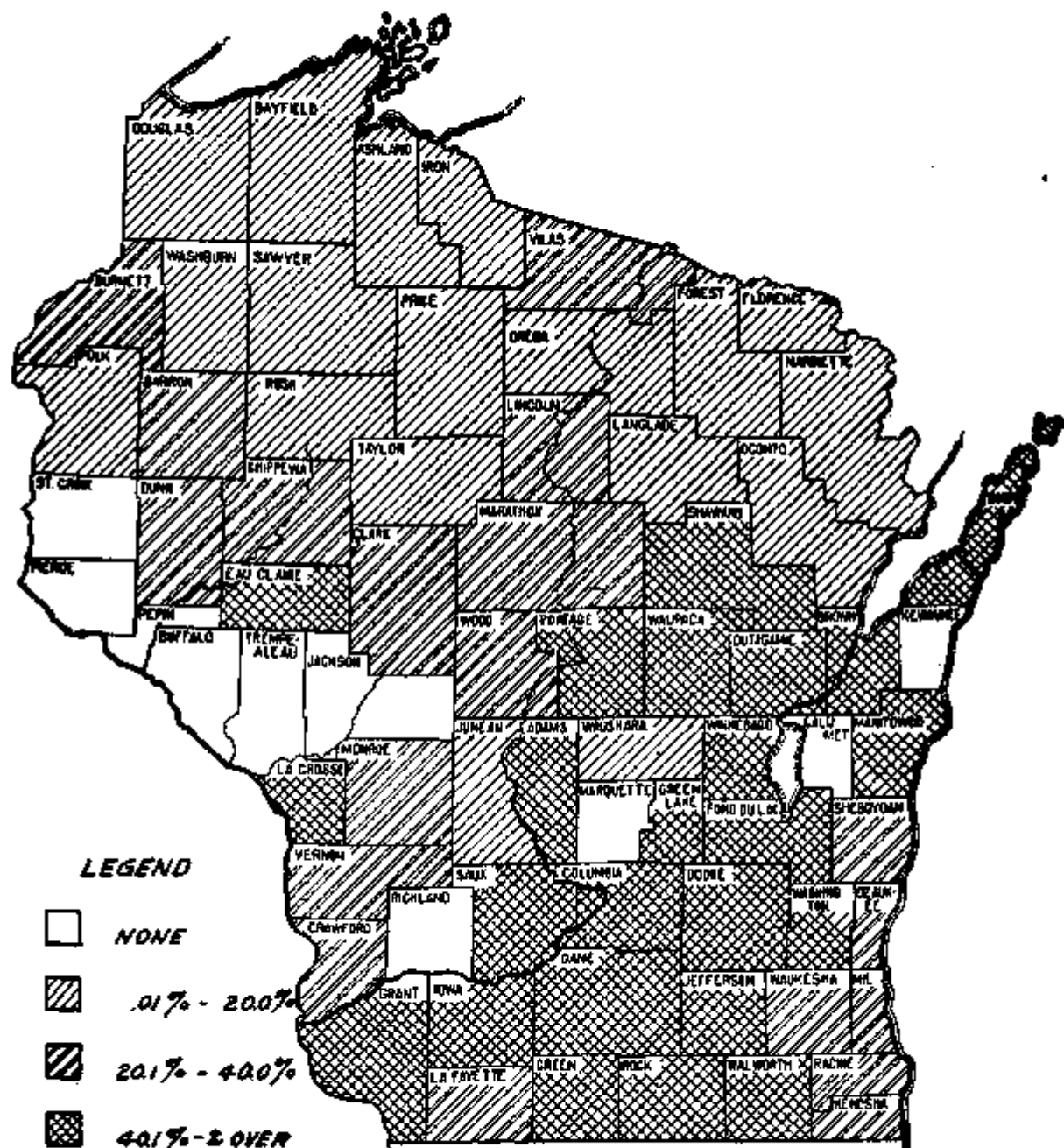


Figure 16. The proportion of unemployment relief expenditure paid locally for the year ending September 1934, is less than 20 per cent in the northern area except for Vilas, Lincoln, and Burnett counties. Southeastern counties seem able to carry locally a much larger share of their relief burdens.

The total expenditures of the Wisconsin Emergency Relief Administration and all its affiliated and local agencies for the year 1934 were \$37,500,000. These do not include the local costs for work relief materials, office rental, hospitalization, indoor relief, children's aid, soldiers' and sailors' relief, aid to the blind, or other similar welfare items. The federal government contributed 63.95 per cent, the state .89 per cent and the local units 15.75 per cent of the total expenditures.

State Aid for Schools. The extent of state aid for schools is suggestive of rehabilitation needs from the standpoint of community or group aspects primarily. Of course, funds may be granted to districts in rich agricultural areas provided they are made small enough. The extent of aid on a per teacher basis for the school year 1930-31 is evident from figure 17.

According to the Common School Equalization Law, usually known as the Callahan Law, two hundred and fifty dollars per elementary teacher or a pro-rate of the funds available are provided each year. Additional support also is given to those districts in which the equalization valuation is less than \$200,000.⁸ Therefore the poorer towns receive additional aid, more than three times the usual \$250 in many instances.

7. Wisconsin Relief Review, Wisconsin Emergency Relief Administration, (mimeograph) January 1935, pp. 1-2.

8. This equalized valuation of the district is obtained as follows: The ratio of the assessed to the true valuation for the township is obtained from the Tax Commission. If this is less than 90%, 10% is added; if it is between 90 and 110%, the ratio used is 100%. If it is over 110%, 10% is deducted. The assessed valuation for the district obtained from the Tax Commission is then divided by these adjusted percentages and the quotient is the equalized valuation of the district. See the Wisconsin Regional Plan Report, Wisconsin Regional Planning Committee, 1934, p. 122, for additional information.

STATE AID PER TEACHER
BY CIVIL TOWNS 1930 - 1931.

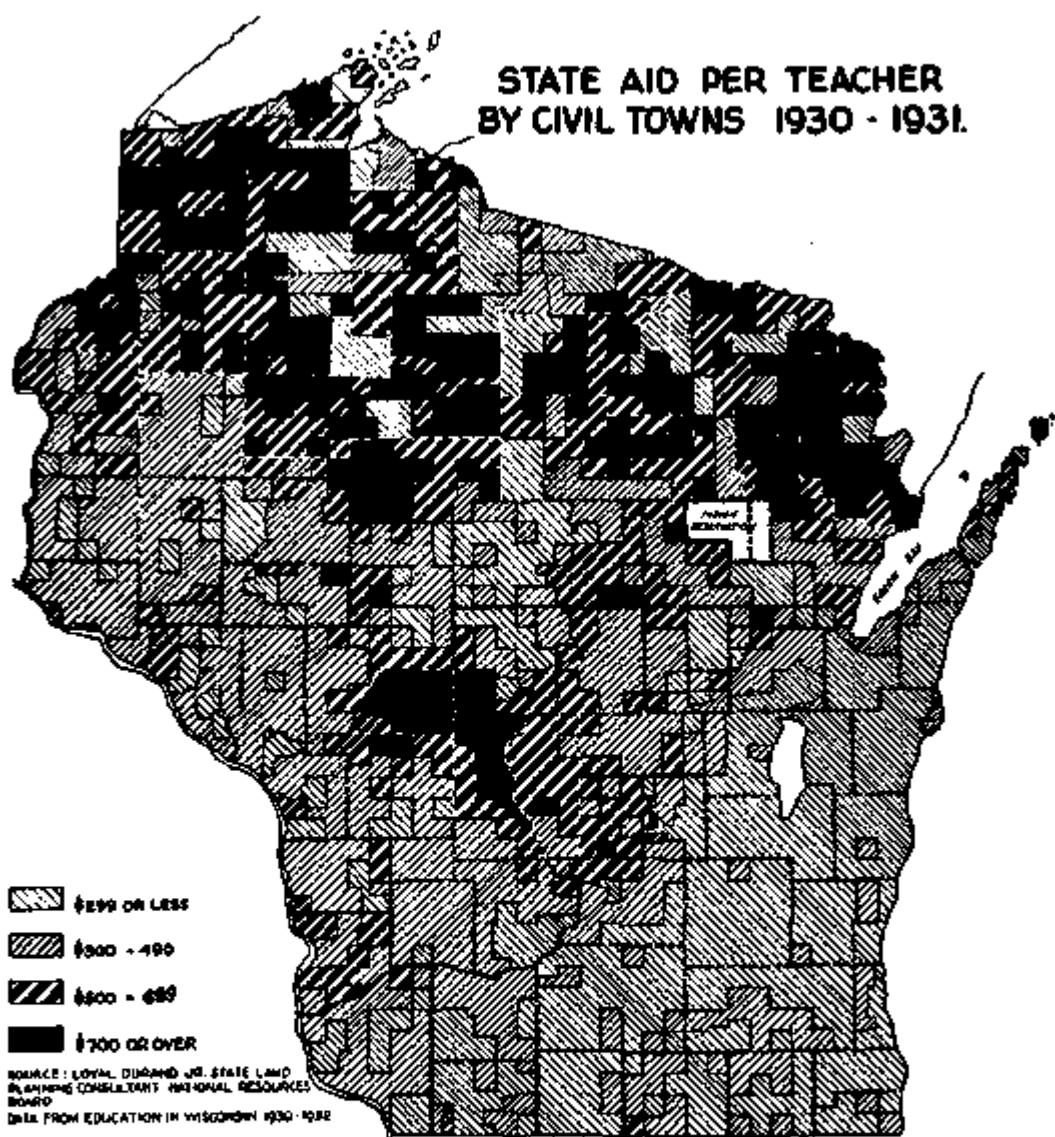


Figure 17. State aid to rural schools is allotted each year on the basis of \$250 per elementary teacher and for the lower-evaluated districts additional sums are given to the extent that many receive more than \$700 per year.

The amount of aid varied from lowest in the southeastern to highest in the central and northern sections. In other words while towns in southeastern counties received the normal allotment generally, many of those in certain central and northern counties obtained \$500-\$800 with some exceeding the latter amount. For the central area, many towns in Adams, Junata, Jackson and Wood counties received grants ranging from \$500 to \$700 or more.

In the northern section the majority of towns received more than \$500 in state aid per teacher, many received allotments in excess of \$700. These include 7 in Douglas county, 4 in Burnett, 5 in Washburn, 7 in Bayfield, 4 in Ashland, 8 in Sawyer, 15 in Birk, 8 in Price, 13 in Taylor, 2 in Lincoln, 9 in Oneida, 2 in Vilas, 6 in Langlade, 4 in Forest, 6 in Florence, 4 in Oconto and 13 in Marinette. This distribution of aid in such widespread way throughout the north is indicative of a need for attention to community as well as family aspects of rehabilitation.

Other Forms of Aid. Assistance granted by local agencies for the incapacitated and unfortunate, even prior to the present depression, include old age, blind and mothers' pensions, children's aid, soldiers' and sailors' relief and other charitable donations. These are provided for and administered by state, county and local governmental and other units. Due to lack of information by towns or counties, graphic portrayal of these different charities is not shown in this study.

Relative Financial Condition of Counties

To determine the portion each county should pay of the unemployment relief costs as a basis for the allotment of federal-state funds during 1935 an index showing the relative financial conditions was prepared, figure 18.

RELATIVE FINANCIAL CONDITION OF WISCONSIN COUNTIES, BASED ON COMPOSITE INDEX, 1934

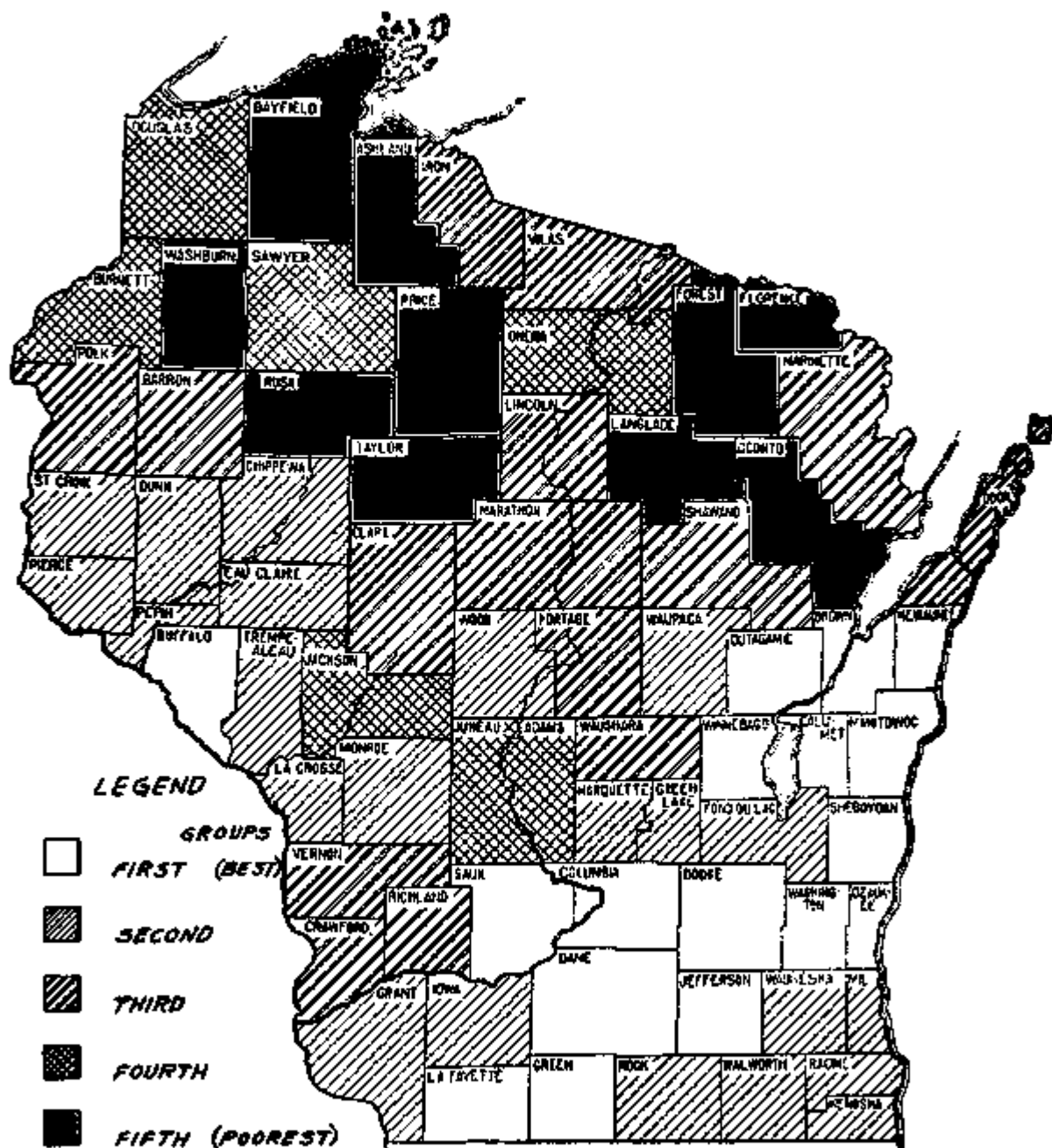


Figure 18. Relative financial condition of Wisconsin counties is based on assessed valuation and net taxable income per capita, gross farm income, condition of school district, number of motor vehicles, extent of tax delinquency, and certain other selected factors. The best counties (most able to pay) have the lowest composite index numbers, ranging from 352-600. Those in the mid group have numbers ranging from 952-1107 and those least able to pay from 1267-1616.

This includes a dozen factors, some of which have already been considered separately.⁹

According to this composite index there are variations from the best financial condition in the southeastern to poorest in the northern part of the state. As with many of the individual factors, such as the proportion of tax levy delinquent, extent of state aid per teacher, amount of gross farm income, per cent of farm income spent on real estate taxes, per capita wealth based on assessed value of property and the relief situation, this index suggests differences by regions. Although these areas cannot be defined exactly by county or even town boundary lines, due to varying conditions with respect to special factors, they do fall into the southeastern, southwestern, central, north central, and northern portions of the state.

9. The factors with the relative weights assigned to each are:

	Weight
Per capita assessed valuation, 1933 (as equalized)	16
Per capita net taxable incomes, 1933	4
Estimated gross farm income, 1931	4
Per cent of average farm crops forecasted, 1934	8
Per cent of school districts in good condition, September, 1934	8
Retiated per capita to spendable money income, 1932	4
Motor vehicle registrations per 1000 population, January 1 to September 1, 1934	4
New motor vehicle registrations per 1000 population, January 1 to September 1, 1934	4
Per cent of county debt to assessed valuations, January 1, 1934	8
Per capita county debt, exclusive of highway funds to be retired by state funds, January 1, 1934	8
Per cent of county levy (due in 1934) to assessed valuation	16
Per cent of real estate tax delinquency, all levies, 1933	16
Total financial status	100

The figure for each factor was obtained for the different counties in the state, and then ranked in numerical order from the highest position to the lowest for each county. The rank order of each factor was then multiplied by the number of points that factor carried; the result gave the composite index number for each factor. By adding the twelve numbers, each county index was obtained. These were placed in rank order for the seventy-one counties. The county carrying the highest proportionate financial ability has the smallest, while the county with the lowest financial ability has the largest composite index.

Financial Summary of Wisconsin Counties, Wisconsin Emergency Relief Administration, (mimeographed) April 15, 1935.

The southeastern has more wealth per capita in terms of assessed valuation, needs less state funds for rural elementary teachers, claims a smaller portion of tax levy delinquent, has the highest farm income, uses less of its income for real estate taxes, has proportionately fewer on relief and provides more of the needed funds than any other section. Even though the ratio of debt to value on mortgaged farms and real estate taxes are highest in this area, it appears to be more able than others to meet its needs satisfactorily.

The southwestern section includes the counties bordering on the Mississippi as far north as St. Croix or Polk. In most respects it ranks next to the southeastern portion of the state. This is particularly noticeable in lack of self-sufficient farms, amount of gross income, extent of tax delinquency and limited state aid per teacher.

The north central area embodies all or part of Outagamie, Shawano, Waupaca, Portage, Wood, Marathon, Taylor, Clark, Chippewa, Dunn and Barron counties. It has the characteristics of both southern and northern Wisconsin but ranks above the southwestern area in most respects with regard to rehabilitation needs. Debts are heavy and in some counties seem to be out of line with ability to pay. The situation may be even more difficult due to dependence on the dairy enterprise for the main source of income, thus involving large purchases of feed for livestock.

The central section includes all or part of Juneau, Monroe, Jackson, Eau Claire, Clark, Wood, Portage, Waupaca, Waushara, Marquette and Adams counties. Although general relief needs are not outstanding, compared to some other areas of the state, certain factors such as tax delinquency, low farm income, self-sufficient farms and state aid per teacher indicate that conditions are difficult

and the provision for adequate social institutions and agencies is perhaps a burden.

The cut-over area embodying the fifteen or twenty most northern counties in the state is a region of outstanding self-sufficient and part-time farms. It is further characterized by low gross farm income, large proportion of income spent for real estate taxes, high tax delinquency, maximum state aid for schools, and heavy relief burdens largely met from federal-state funds due to lack of local financial ability.

FACTORS WHICH HELP EXPLAIN OUR PRESENT CIRCUMSTANCES

There are many factors which help explain present circumstances. Some are immediate while others are more remote in their influence but all are more or less associated with each other in their relation to the present situations. Chief among those considered here are population patterns, geographic features, agricultural aspects, industrial phases, social institutions and agencies and standards of living.

Population Patterns

The growth, movements and characteristics of population constitute one of the basic considerations in social planning. Population patterns depend to a large extent on the status of physical and human resources within given areas. They are vital to all phases of group and community life.

Population factors, while markedly significant, are extremely difficult to analyze. Different areas are experiencing constant changes in the quantity and quality of population. The changes are dependent upon the extent and possible uses of physical resources, (land, forests, mineral deposits,

water supply) as well as communication facilities and occupational opportunities. They are reflected in the economic and social institutions, including highways, trade and service centers, schools, and other public enterprises or community agencies.

While many different population characteristics might be considered, attention is given to those regarded most closely associated with rural relief and rehabilitation. These include rate of growth of total population, age and sex distribution, percentage rural, density, and prevalence of different nationalities.

Development. The peopling of Wisconsin began with the termination of Indian disturbances by the Black Hawk war in 1832. By 1840, 31,000 persons were enumerated and according to the Regional Planning Committee of the National Resources Board "in the ensuing one hundred years this will have increased one hundred fold".¹⁰

It is worth while to note the areas of growth. By 1860, the southeastern portion of the state, as defined by a line from the tip of Green Bay to the mouth of the Wisconsin river, was fairly well peopled, figure 19. Ten years later the fringe of settlement had pushed beyond this line, and along the Mississippi river particularly. By 1880, the territory drained by the Mississippi was well settled and a wave of people extended westward from the Ford du Lac-Green Bay area to join that along the Mississippi.

By 1880, the distribution pattern of population was well set, with a

10. Wisconsin Regional Plan Report, Wisconsin Regional Planning Committee, 1934, p. 21.

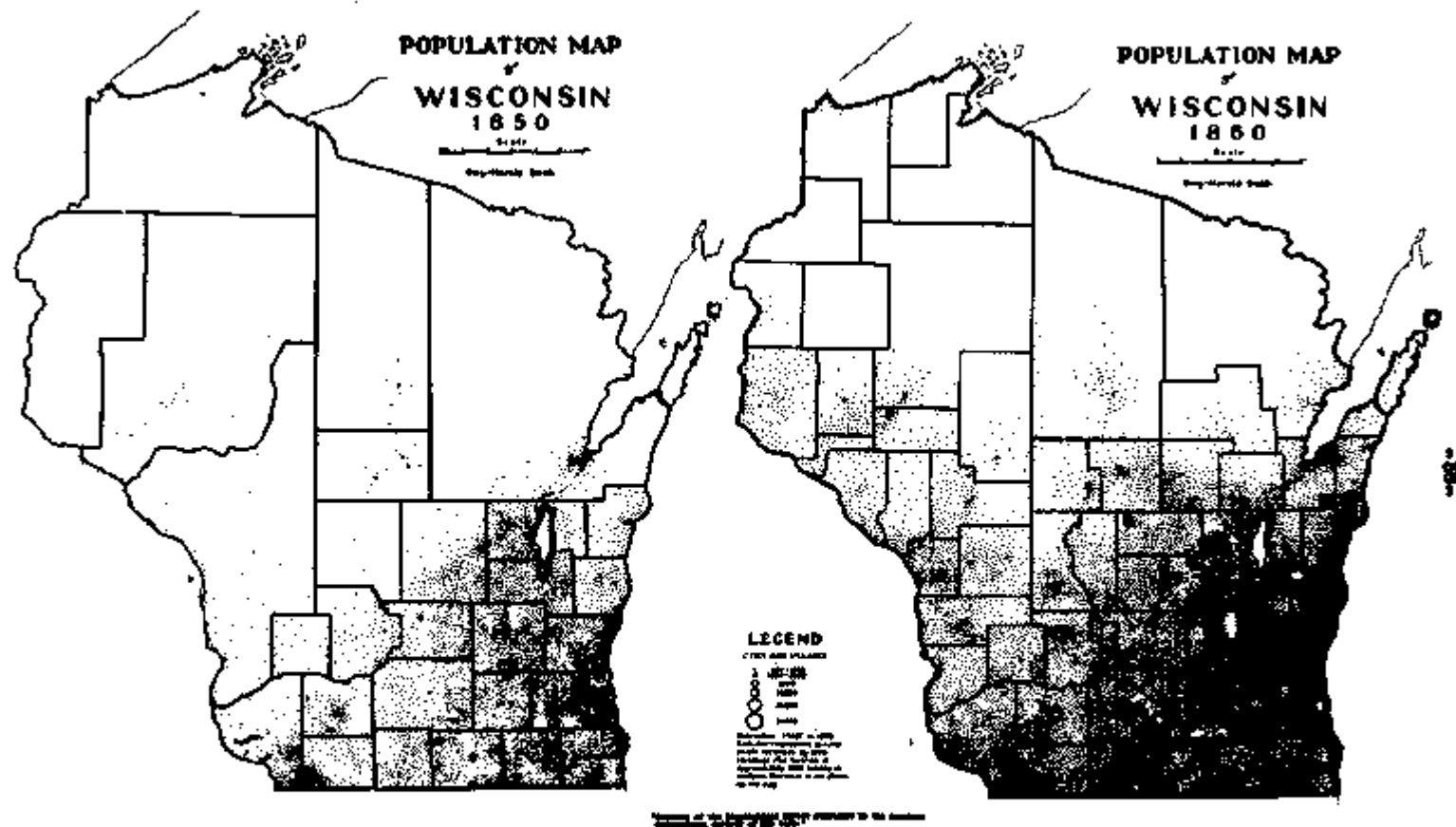


Figure 19. Density and distribution of population in 1850 and 1860 indicate that people began settling in the southeastern section of the state and continued westward; thus by 1860 the southern half of the state was well dotted with settlement.

fairly even spread from the east and south, over more than one-half of the state, except for the southwest central portion where soils poorly suited for agricultural use were somewhat avoided, figure 20.

Prior to this time the population moved gradually across the state but with the coming of the railroads which preceded agricultural development it moved in finger-like projections northward. Expansion during the 50 year period resulted in the use of land poorly suited for agriculture. Farming followed lumbering and nearness to market or railroad facilities, rather than quality of soil. By 1930, Wisconsin had 2,929,000 people or approximately 52 per square mile.

Rural and Urban Distribution. A glance at the population map for 1930 gives an indication of the areas of high urbanization. The southeastern part of the state is first with Kenosha, Racine, Milwaukee and other lake shore centers predominant. The Fond du Lac-Green Bay region is next, followed by the southern, southwestern and north central regions.

The extent of urbanization by decades from 1900 to 1930 is shown in figures 21 and 22. For the state, 38 per cent of the population was urban in 1900. This proportion had increased to 43 per cent in 1910, 47 in 1920, and 53 in 1930. Thus, the per cent of rural to total population decreased from 62 in 1900 to 47 in 1930.

By counties, between 1900 and 1910, only Shawano, Washington, Bayfield and Richland had centers that passed the 2500 population mark, designating them as urban. In the main, the southwest central area and the cut-over, except the extreme northwest and southeast portions, had no population centers with as many as 2500 people.

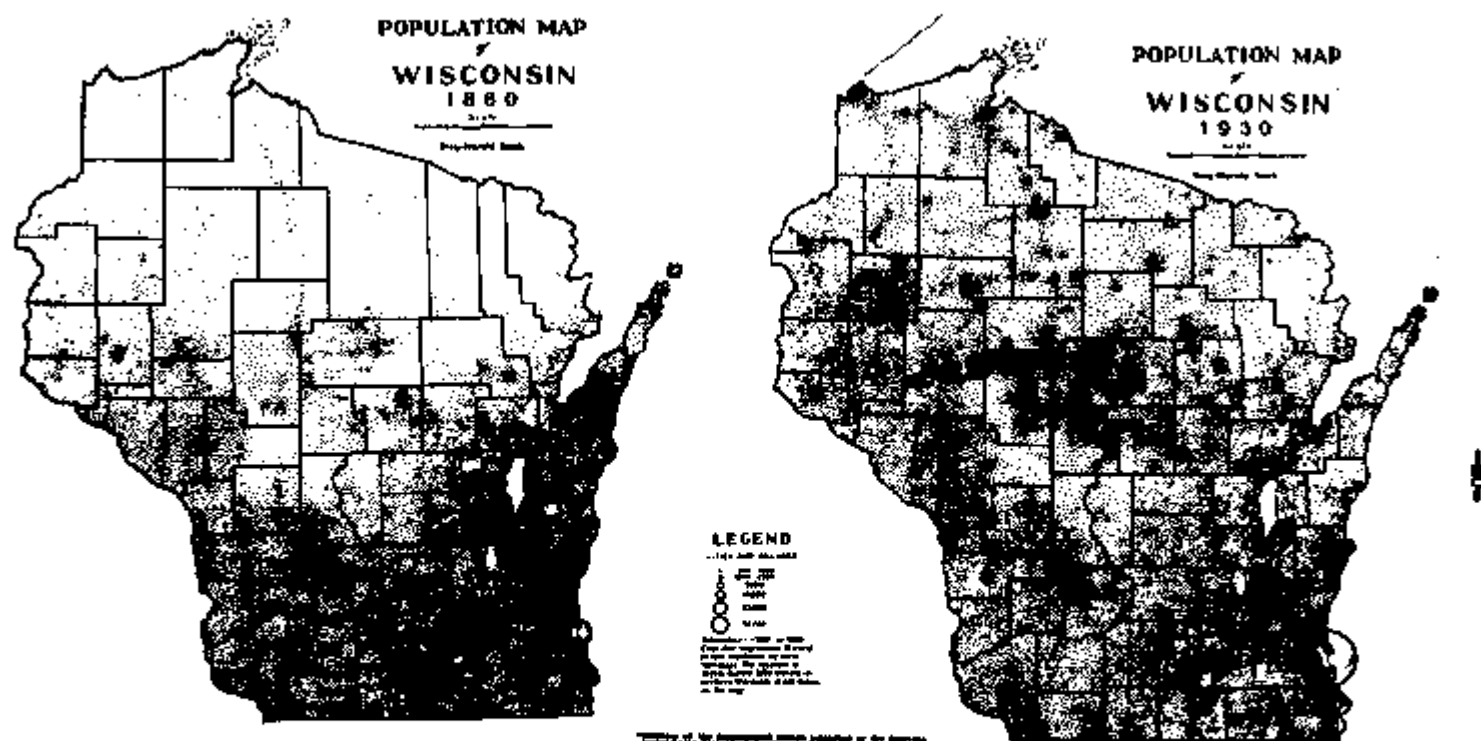


Figure 20. Density and distribution of population in 1880 and 1930 show that people continued to move northward until by 1930 there were nearly 3,000,000 within the state. The southeastern shore line has the greatest concentration in contrast to the northern cut-over and the central sand regions which are sparsely settled.

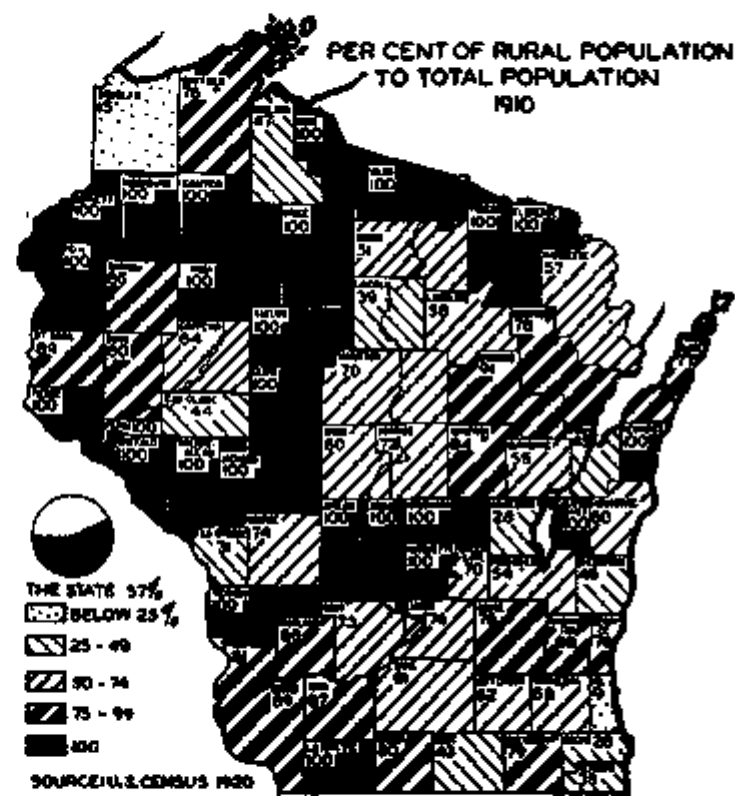
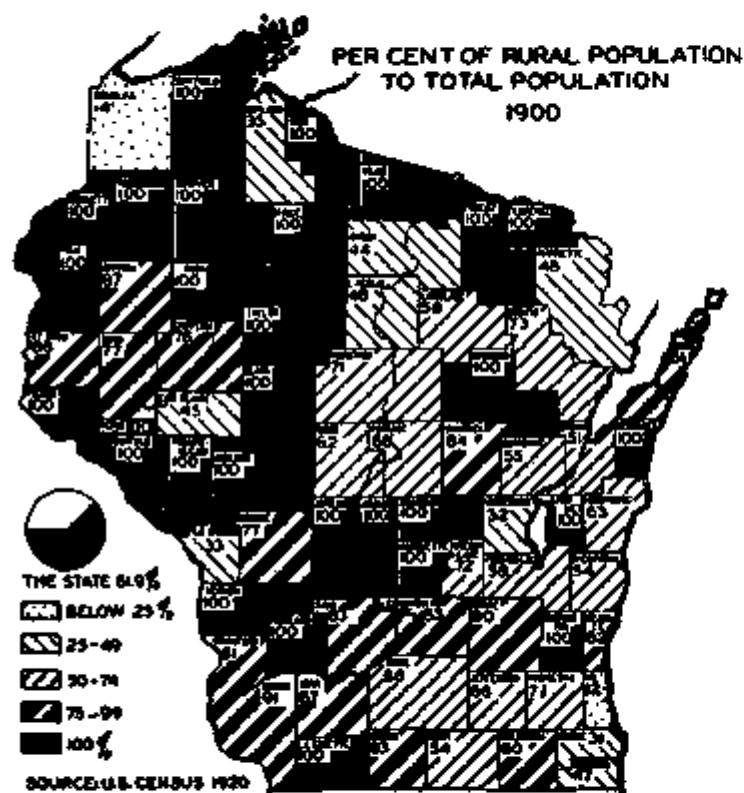


Figure 21. Per cent of rural to total population decreased 5 per cent from 1900 to 1910. Four counties, Bayfield, Shawano, Washington, and Richland shifted from completely rural to partly urban.

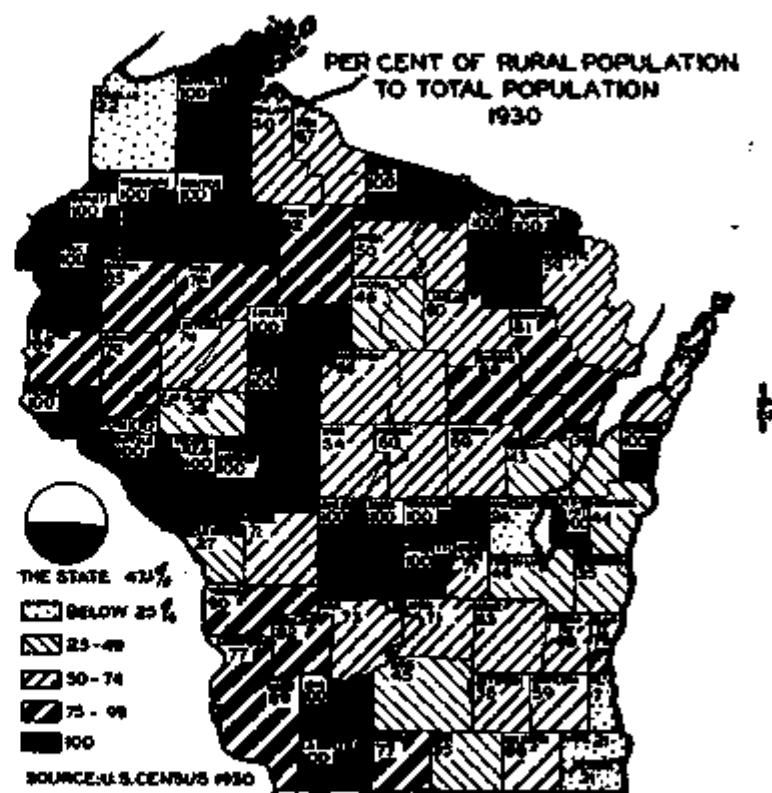
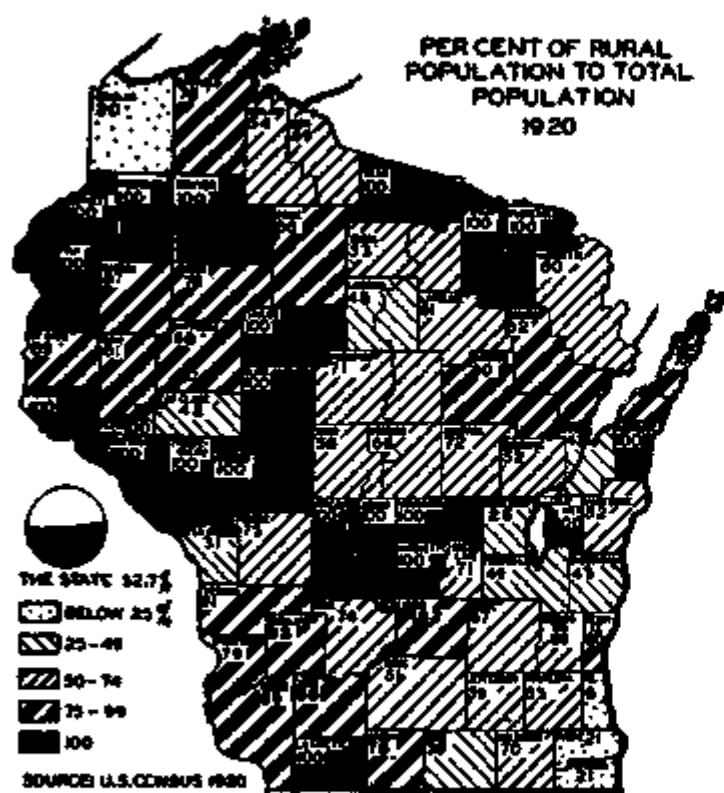


Figure 22. Per cent of rural to total population 1920 to 1930 shows urbanisation on the increase with nearly 63 per cent of the total in 1930. The central and northwestern portions of the state are still predominantly rural.

During the next decade Vernon, Rusk, Iowa, and Price counties gained urban centers, but between 1920 and 1930 Iron and Bayfield fell back into the rural classification. It should be noted that many of the counties have no place with as many as 2500 people, 29 in 1900 and 25 in 1930 are wholly rural counties.

The rural population includes the farm and non-farm people. The latter consists of all people who live in centers of less than 2,500 persons and those residing in the open country, but not farming, figure 23. The rural non-farm population seems most concentrated in the southeastern portions of the state with the scattered open country phase most evident in the out-over area where incorporated centers are noticeably sparse.

The location of rural-farm corresponds closely to that of all population for 1930, figure 23. The two outstanding sparsely settled farm areas are in the central and the out-over sections. Again as with total population, northern Wisconsin farmers appear to have settled in irregular finger-like projections.

A clearer idea of the relative density of farm population per county is gained from figure 24. The area of greatest density includes those counties bordering on and adjacent to the eastern lake shore. Next is the group immediately adjoining them, in addition to seven in the western and two in the north central areas. The region of fewest people is in the north as well as in the central portion of the state.

Shifts in Farm Population. It would be of interest to know something of the movement of population from farm to village, town or city and vice versa. Limited information is available for the year 1929-1930, figure 25.

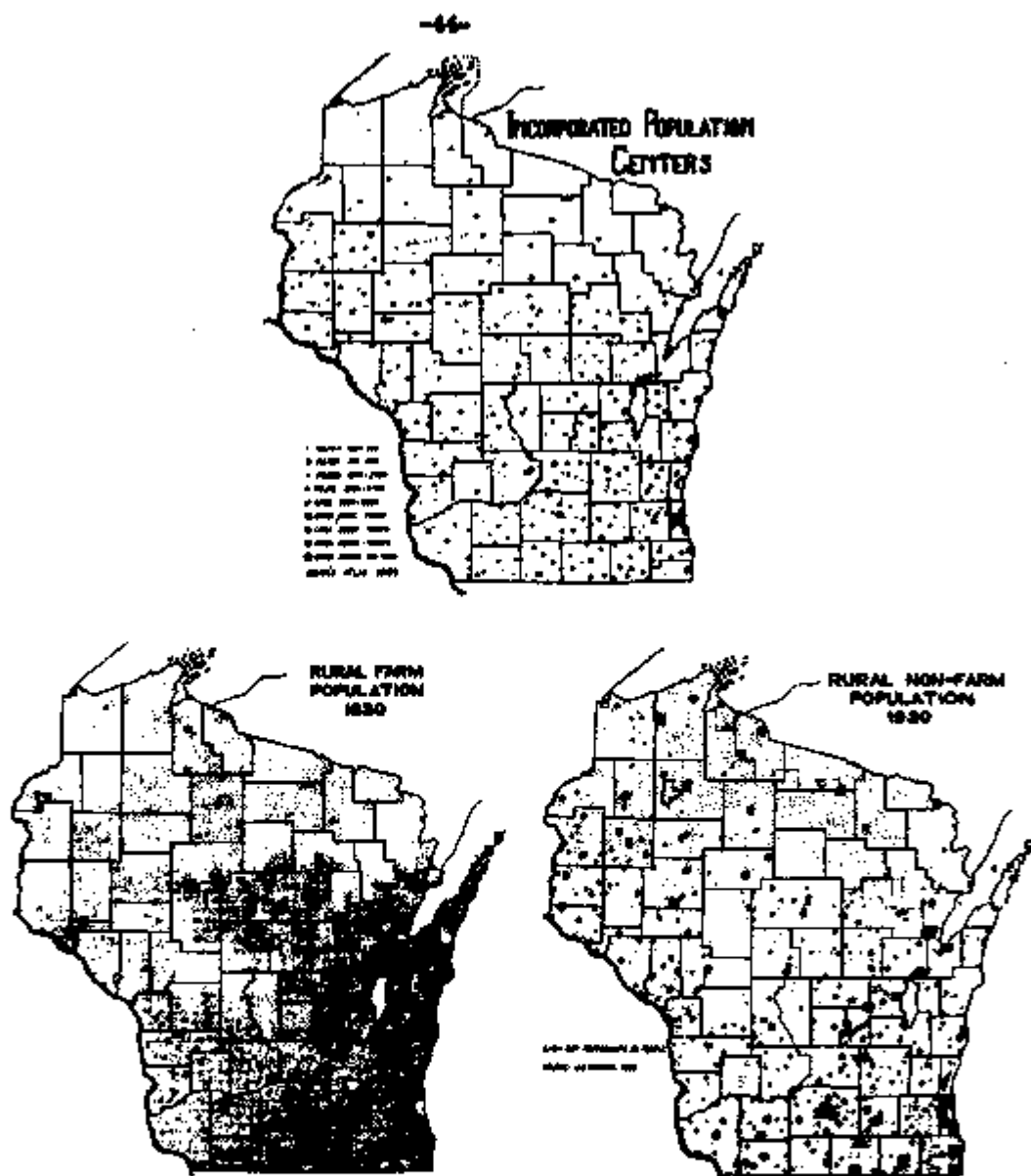


Figure 23. The distribution of population according to urban, rural farm and non-farm classifications shows a concentration in the southeastern compared to the sparsity of people in the northern and central portions of the state. Of the total population 52.9 per cent is urban, 29.7 per cent rural farm, and 17.4 per cent rural non-farm in 1930.

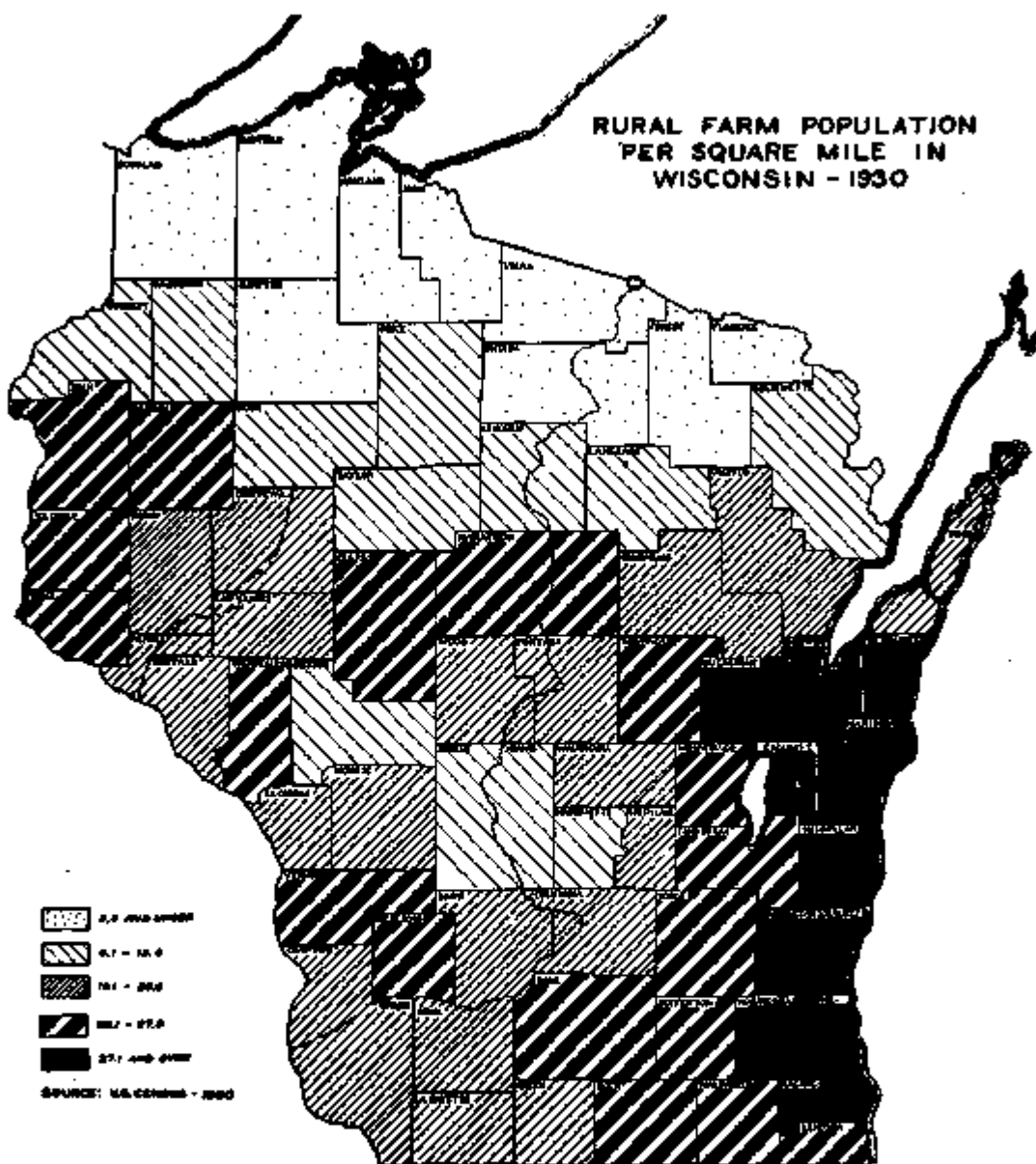


Figure 24. Rural farm population per square mile in 1930 was obtained by dividing the farm population by the total land area. The southeastern counties have the highest farm population density.

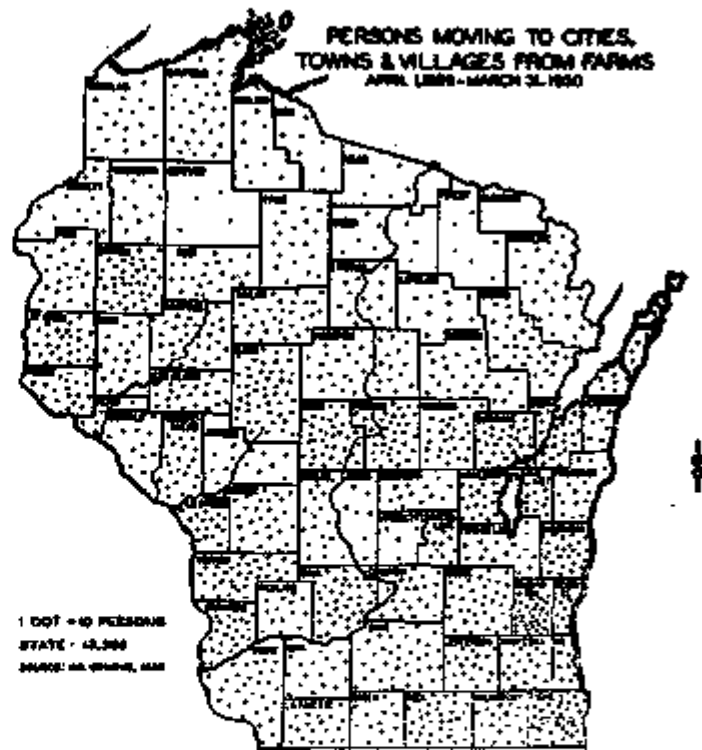
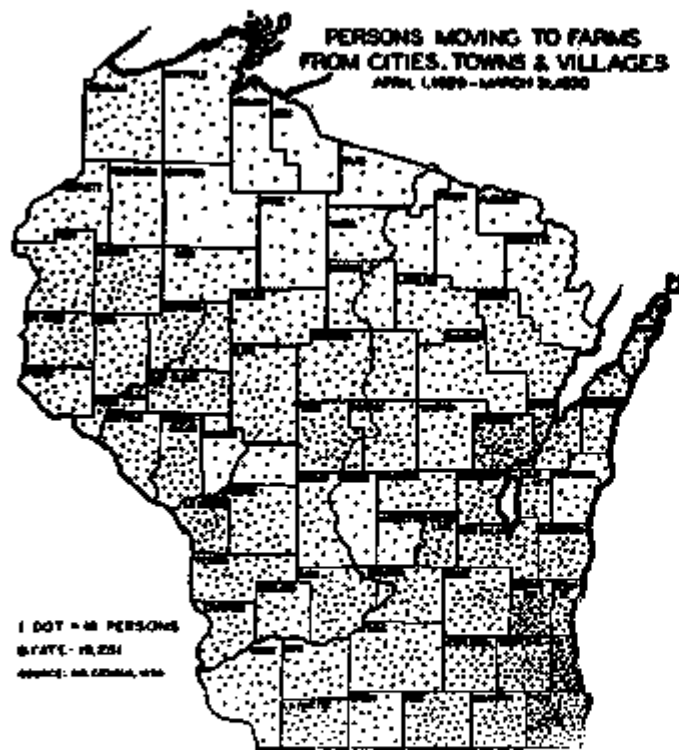


Figure 25. Movement of population to and from farms for the year 1929-30 shows that approximately 6,000 more people went to open country areas than to urban and village centers. This movement includes migration within the state as well as between Wisconsin and other states.

There were approximately 19,000 persons moved to farms compared to 13,000 who went in the opposite direction. The shift to farms is most noticeable in the southeastern portion of the state near the larger urban centers. The cut-over area shows a decidedly greater movement of people to farms than to cities.

Foreign Born. There is a marked decrease in the percentages of foreign born in the total population from 1890 to 1930, figures 26 and 27. In 1890, almost one-third of the total was classed foreign born. Areas to the northwest and northeast and along the eastern lakeshore had the highest proportions, more than 30 per cent in many counties. Southwestern counties had the lowest, less than 25 per cent generally.

By 1910, the foreign born composed only 22 per cent of the state's population. At this period only seven counties, five northern cut-over and two lakeshore industrial, had more than 30 per cent of their population so classified, compared to 36 counties in 1890. The north central, central and southeastern counties, except Racine and Kenosha, showed a decrease in the proportion of foreign born, from more than 30 per cent to as low as 15 per cent in some of them. Richland, Grant, Crawford and Adams counties are noticeably low in 1890; likewise Grant and Richland are lowest in 1910.

By 1930, only 13 per cent of the state's population fell in this classification, with Iron, Douglas, Bayfield, Ashland, Price, Florence and Kenosha counties having as high as 20 per cent or more. The southwestern, east central, and upper and lower Fox River Valley counties constitute the principal areas that have less than 10 per cent of the population foreign born.

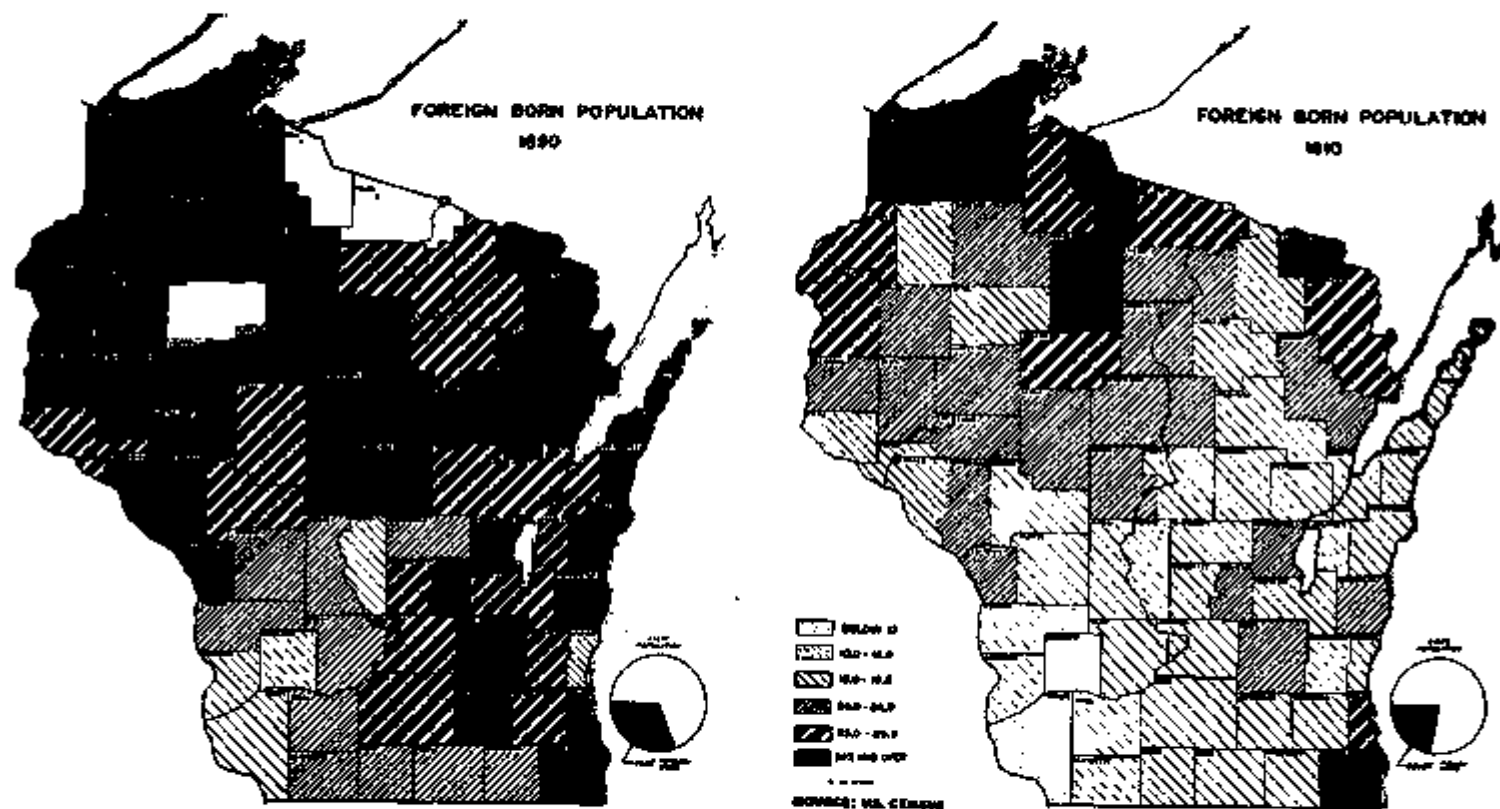


Figure 25. The proportion of foreign born in the total population decreased from 30 per cent in 1890 to 22 per cent in 1910. This decrease is least noticeable in the extreme northern and southeastern portions of the state.

FOREIGN BORN POPULATION 1930

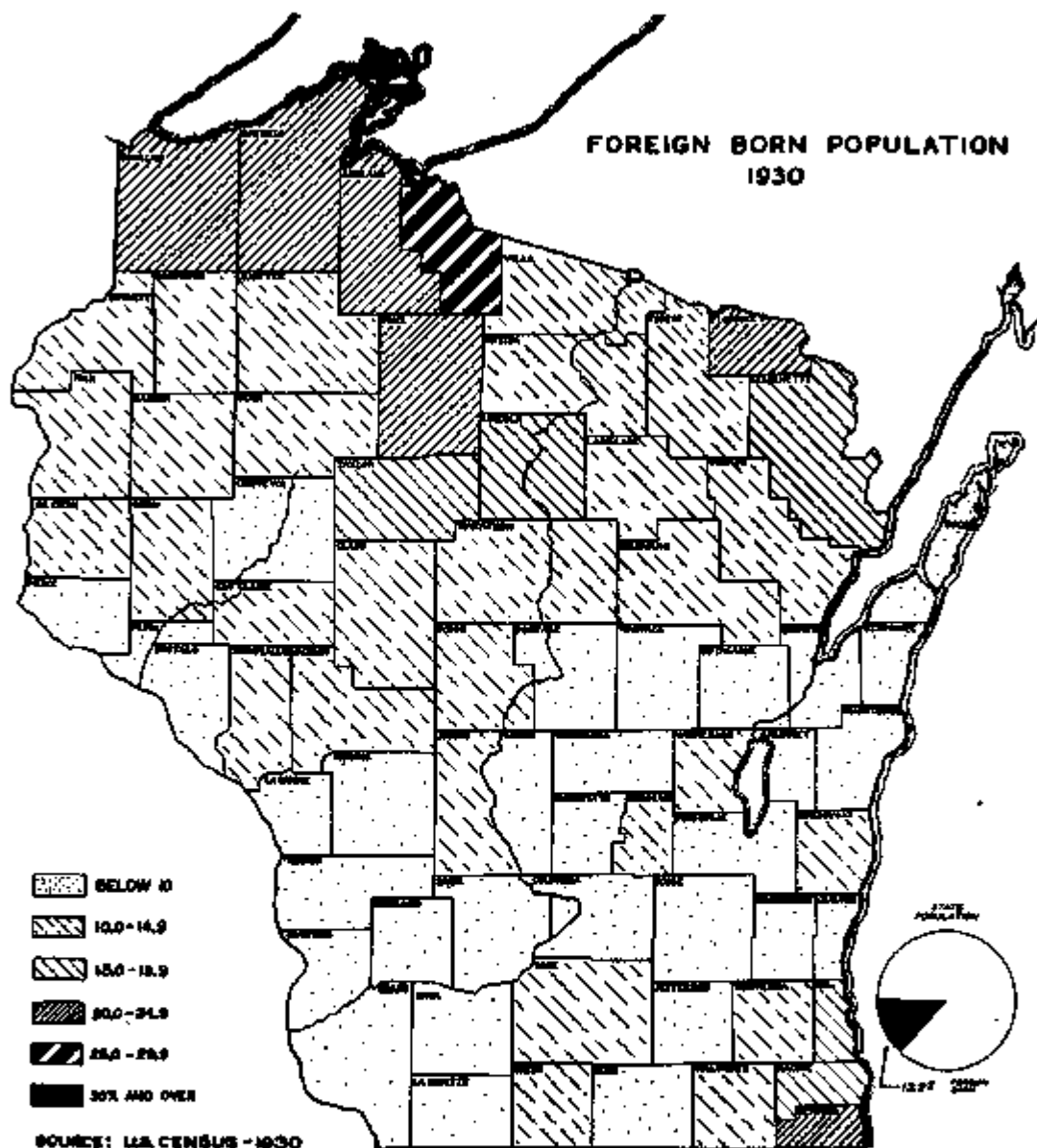


Figure 27. The proportion of foreign born to total population continued to decrease from 22 per cent in 1910 to 18.2 per cent in 1930. The extreme northern and southeastern counties still have the highest percentages.

Nationality. Even though there was a decrease of foreign born in the total population from 1890 to 1930, it is of interest to note the prevalence of different nationalities, figures 28 and 29. The three periods show a preponderance of foreign born Germans in the state with over half of the counties having more than any other nationality. In 1890 Canadians were evident as a foreign element in a number of out-er counties. Scandinavians were centered largely in the northwestern part of the state. By 1910, the Germans gained predominance in a few more counties adjacent to those in which they were the most prevalent foreign group in 1890. The Canadians dropped out as a leading nationality in any county by 1910, and the Scandinavians gained among several southwestern and western counties. By 1930, the Polish and Czechoslovakians replaced the Germans as the leading group in Buck, Price, Forest, Portage, and Kewaunee counties.

Age and Sex Distribution. The distribution of population according to sex and age shows the pyramid for the entire state is fairly regular for both classifications, figure 30. This is not necessarily the case with the different counties. Even those which are adjacent often show outstanding irregularities as, for example, Douglas versus Bayfield or Menominee versus Clark. Douglas and Menominee show greater regularity while Bayfield and Clark indicate a decided sparsity in the 20 and 30 year age groups. It should be recalled that the former have urban centers while the latter are classified as rural. Additional factors which help explain the differences are natural available resources, work opportunities and nationality characteristics.

Natural Increase of Population. The reproduction rate in population is one of the important factors determining the distribution by sex and age. This is expressed in the ratio of children under 5 years per 1000 females

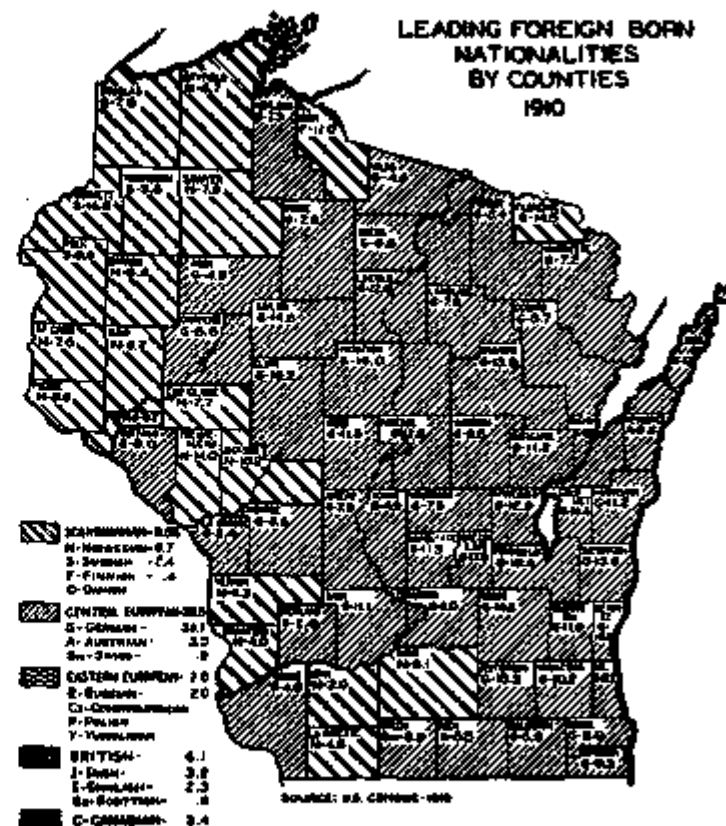
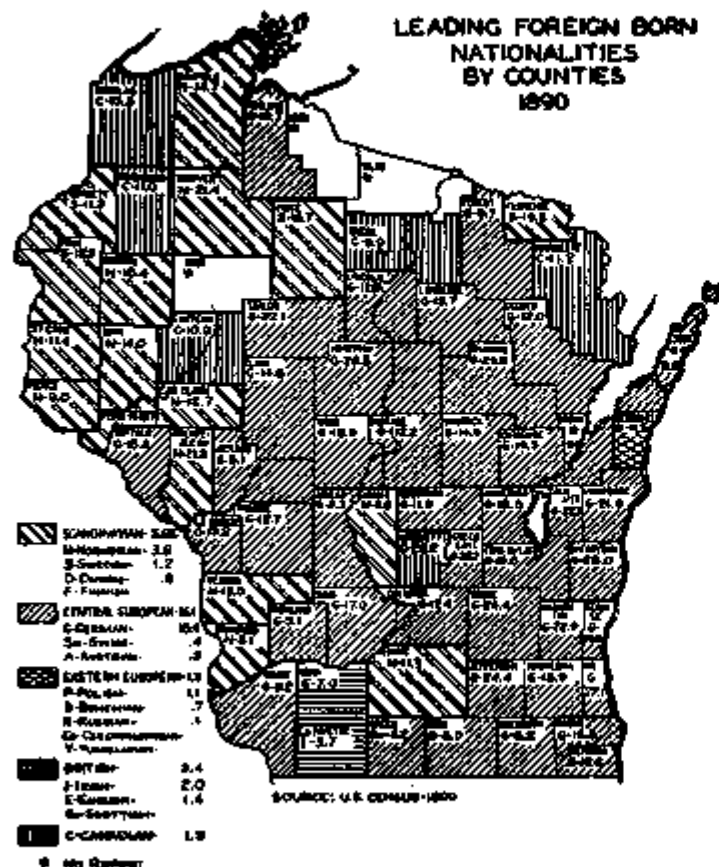
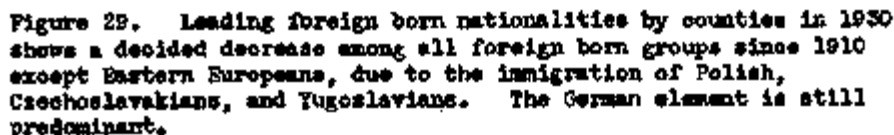


Figure 28. Leading foreign born nationalities by counties, 1890 and 1910 show German as the predominant element. The letters and figures on the maps indicate the predominant nationality and the per cent which it constitutes of the county's total population. The cross-hatching shows a combination of foreign-born nationalities by location of original habitat.



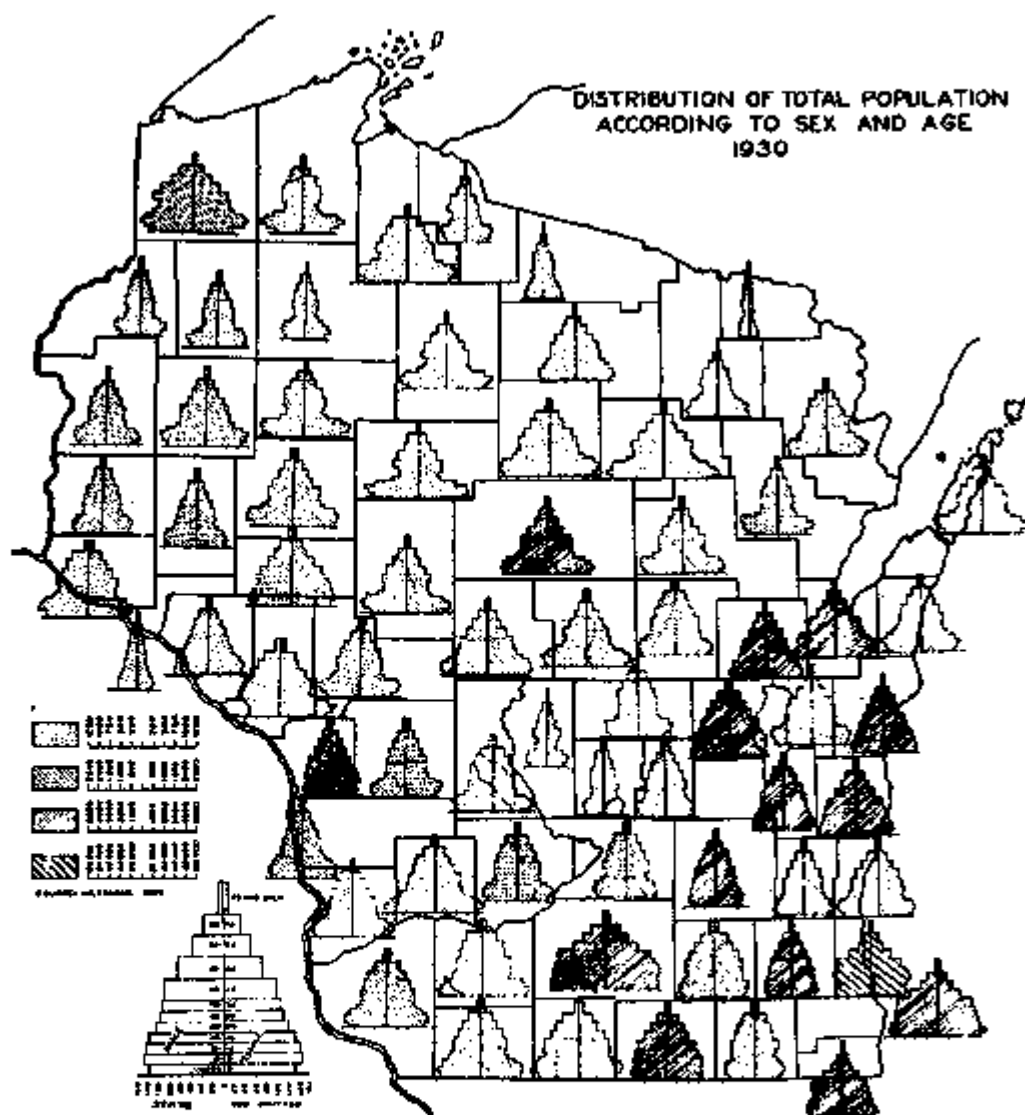


Figure 30. The distribution of total population according to sex and age per county (1930) is portrayed by pyramids. The four keys in the legend make possible the comparison of size of population per county in the separate classifications. The number of years represented by the steps in the pyramid are evident from the state figure.

15 to 44 years of age, figure 31. The southeastern section has the lowest ratio in contrast to the rest of the state except for La Crosse, Eau Claire, and Douglas counties which contain fairly large urban centers. It must be recognized, of course, that this is only one of the contributing factors to total population. Much depends on the death rate, as well as immigration and emigration.

Size of Family. The average size of all families for the state is 4.1 and of farm families 4.6 persons, figure 32. The southern portion of the state falls below average with few exceptions in both instances. Although farm families are larger in most counties, the northern section shows proportionately higher for all families than for farm.

Trends and Probable Density. Generally population has increased in the northern portion of the state. By 1930, however, there is evidence of a change in this trend and for the decade 1920-30, 36 of the 71 counties actually lost population, figure 33. Vilas, Oneida, and Forest continued to gain, more than 13 per cent, and a few others gained slightly.

In contrast to the decrease in the northern and western portion of the state the southeastern area increased noticeably during the last decade. This applies particularly to counties with large industrial centers.

It is difficult to predict future trends in the population. There are and of necessity must be continuing shifts and readjustments in accordance with the development, use, and degrees of exhaustion of physical resources, the migration, birth and death rate, and the provision for social institutions and facilities. The Wisconsin Planning Committee made certain predictions which are presented for consideration, figure 34.

NUMBER OF CHILDREN UNDER FIVE
PER 1000 FEMALES 15 TO 44 YEARS
OF AGE.

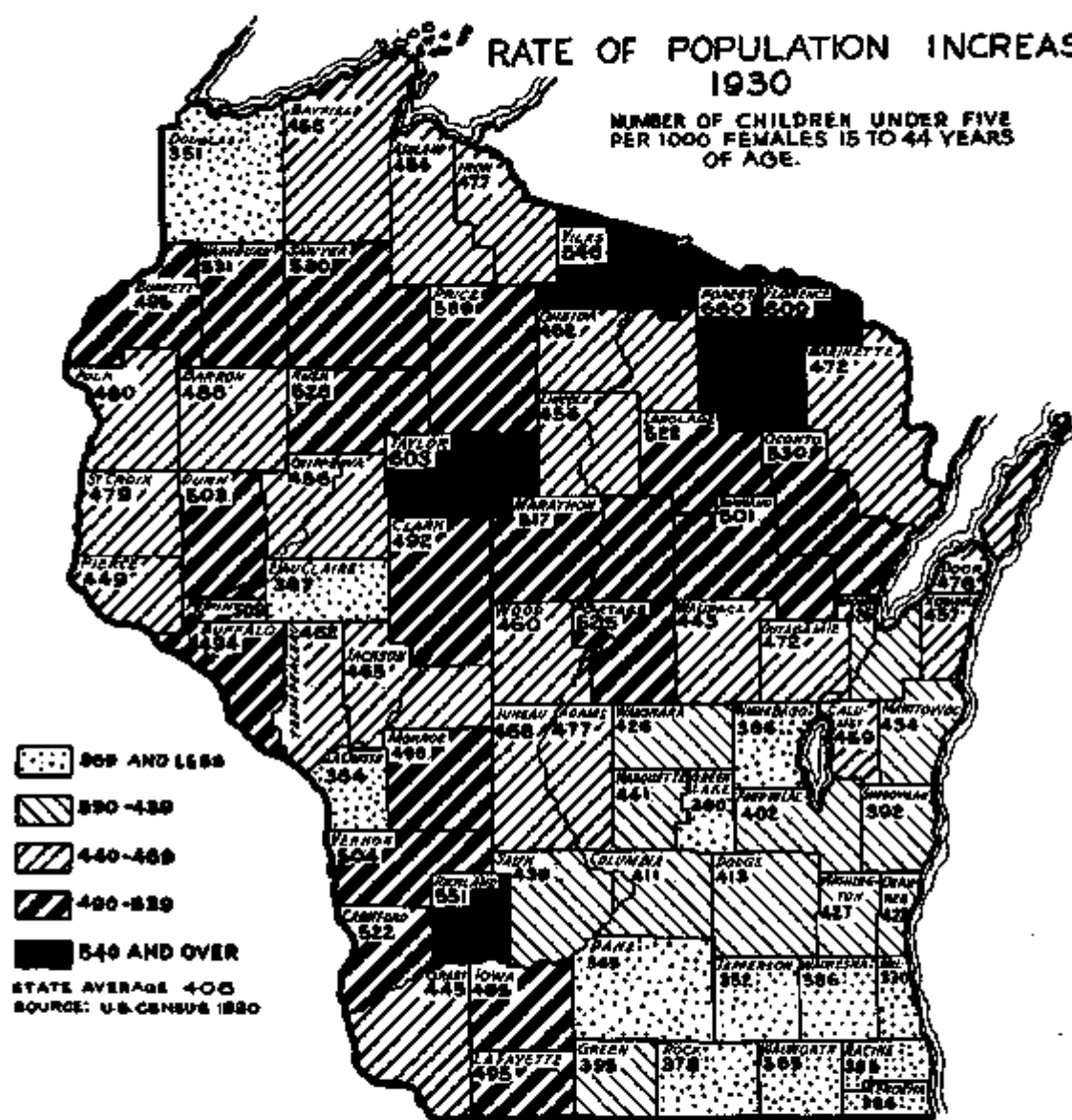


Figure 31. Rate of population increase, 1980, is portrayed by the number of children under five per 1000 females 15 to 44 years of age. This factor is regarded indicative of reproduction of population since it is less affected by age and sex composition than the crude birthrate.

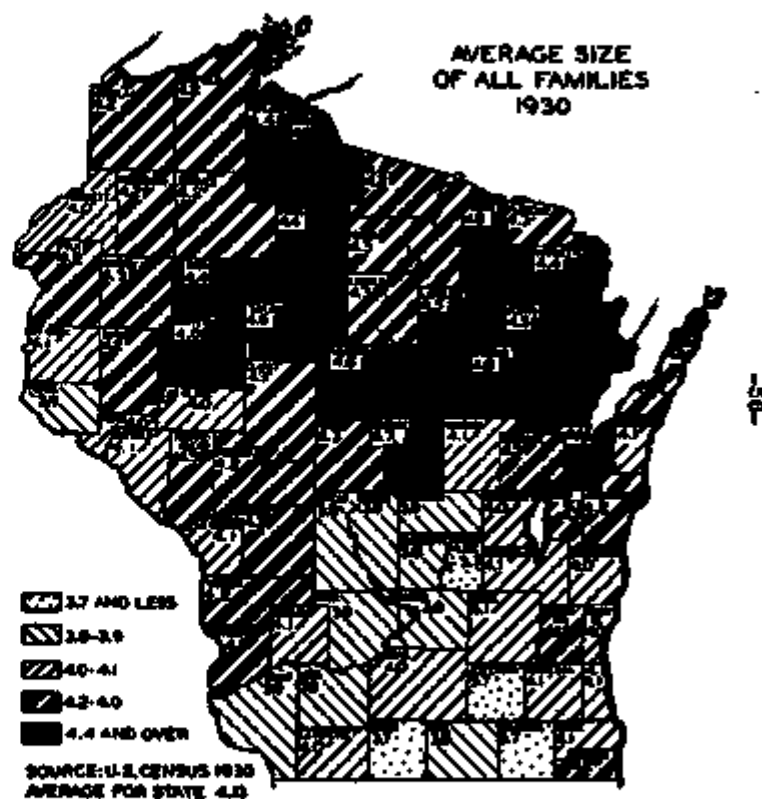
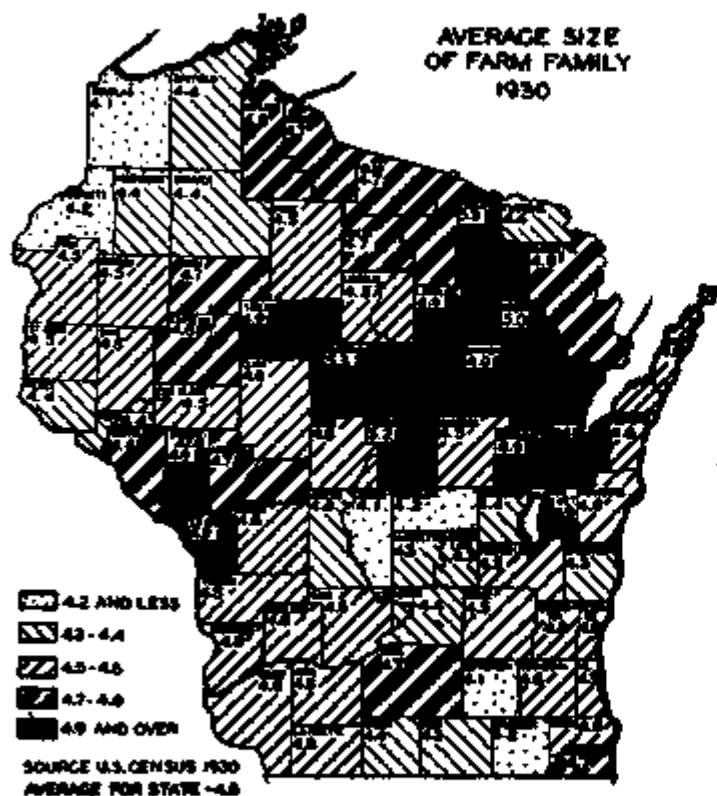


Figure 32. The average size of farm families is 4.5 while the average for all is 4.1. It is noteworthy that larger families are more frequent in the northern section of the state. This applies to all families particularly.

POPULATION DENSITY

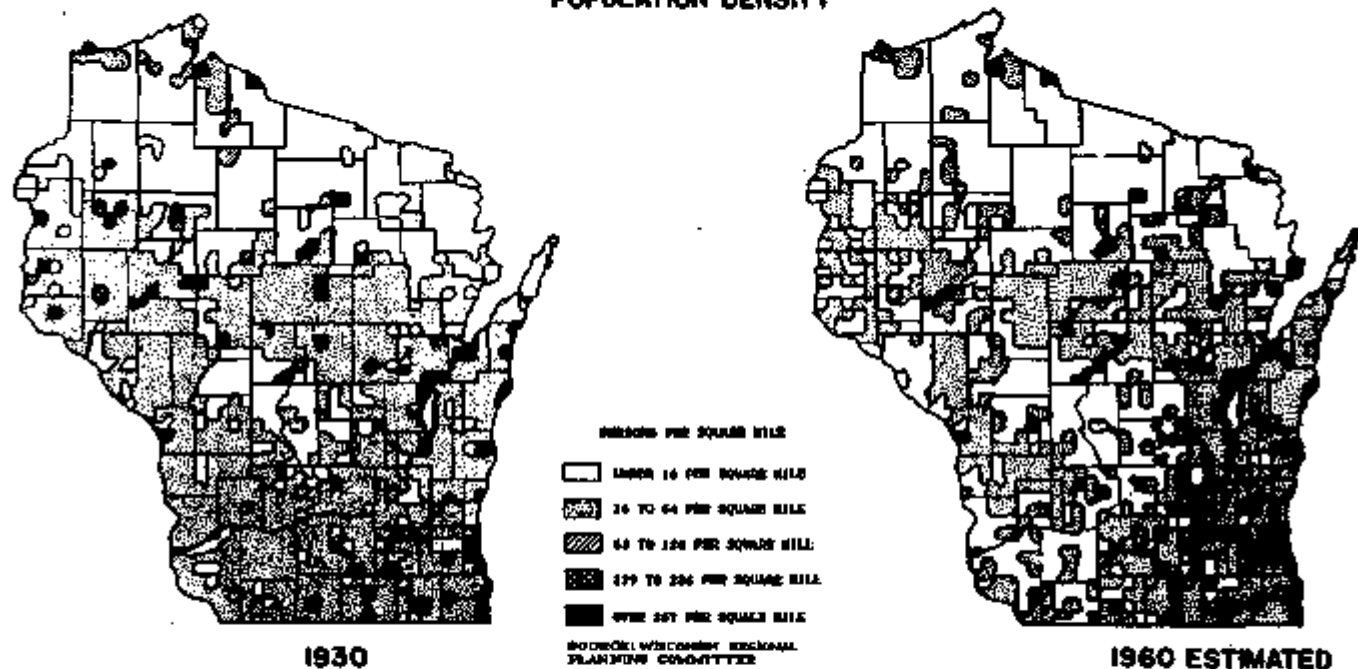


Figure 34. Population density for 1930 and estimated increase for 1960 indicate heaviest gains near urban centers. Note the predicted changes in the different principal regions; that is, southeast, southwest, central, and northern.

These provide for an increase by natural growth, a continued urbanization and concentration and an enlarged proportion of aged people to total population.

According to this estimate the total population will increase by natural growth at least to 1950. By 1940, it is expected to have increased 8.2 per cent over 1930, by 1950, 8.1 per cent over 1940, and by 1960, 8 per cent over 1950. After 1960 it may still continue to increase at a less rapid rate.

Urbanization and centralization may persist in spite of the movement of people to the rural areas during the present depression. "This has been more of a return for subsistence pending an expected return to normal conditions than a turn to the land, in most cases, and has not occurred widely enough to substantiate any trend."

Continued urbanization of the Milwaukee area is expected. "By 1960, centralization expanding westward and northward from the metropolitan area will cover a strip along the lake coast as far north as Manitowac and broadening westward and northwestward toward Madison and the Fox River Valley, respectively."

"Population will continue to grow older. This is indicated by the relative decline of the under 10 year age group from approximately 30 per cent of the total population in 1860 to 20 per cent in 1930. This is due chiefly to a decline in the birth rate and to improved medical services."¹¹

The assumption that the total population will increase, although at a decreasing rate, even under a more stringent immigration policy is expected.

11. Adapted from Wisconsin Regional Plan Report, Wisconsin Regional Planning Committee, 1934, pp. 33-42.

This is in view of some interchange of people between states, the continuation of science to lengthen the expectation of life and a not too pronounced decrease in birth rate.

As to the distribution of population within the state, it is doubtful whether urbanization will develop disproportionately, especially when it is realized that we may not return to what is commonly called "normal conditions" and when future attention is given to further social planning. More and more, people will insist on adequate standards of living. If these are available in rural as well as urban areas, is there any reason for country people to move cityward to crowded living conditions? Of course, nearness to employment and suitable trade and service opportunities are assets, but will not improved transportation and communication facilities make possible adequate family and community living in the rural areas?

A study of industry in 1933 showed no apparent trend of decentralization, but is that sufficient reason for omitting the possibility from future plans for development? Part-time farming with opportunity for cash income from other sources is desirable for security both in times of prosperity and depression. Industry can and doubtless should supplement farming to make possible satisfactory standards of living.

Geographic Features

Population patterns with their concomitant social and economic counterparts are not altogether haphazard in growth or development. They depend to a considerable degree on the geographic conditions characteristic of different sections. The most important of these, climate, topography and soil, are here considered briefly as factors which help explain the present situation.

Climate. The bearing of the two principal factors of climate, moisture and temperature, with respect to agricultural, and to a lesser degree, industrial production is suggested from figure 35. "The distribution of rainfall, light and temperature during the summer season is extremely favorable to the growth of staple crops in this latitude."¹² The average annual precipitation varies throughout the state, the ranges being from 34 inches for a limited area in the southwest to 27 inches in the extreme northwest. The amount of rainfall during the growing season is more important than annual precipitation to agriculture. Over 80 per cent usually comes during the eight months from April to October with the larger amounts in May, June and July. The normal rainfall is therefore sufficient to produce abundant crops excepting in years of extreme drought such as occurred from 1931 to 1934.

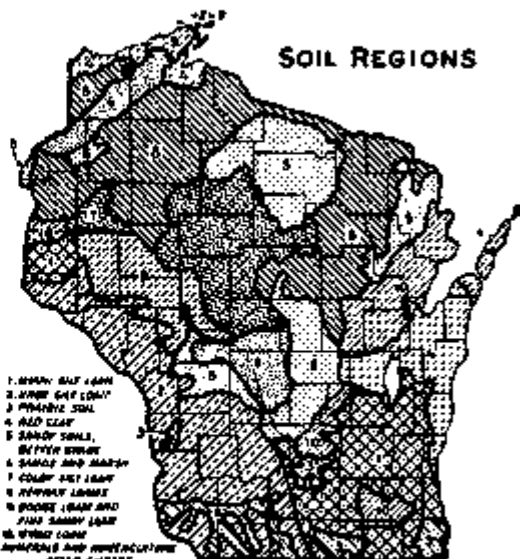
Seasonal temperatures and length of the growing season do, however, impose limits on the production of many kinds of crops (see figure 35 for average length of growing season). Temperatures vary considerably in different parts of the state, the northern and northeastern sections being cooler than the southern and southwestern since both altitude and latitude affect the range. The growing season is very much longer in southern than in most of northern Wisconsin. In the region of Vilas county it is sometimes as short as 75 days, whereas in the southern counties the average usually exceeds 170 days.¹³

12. The Climate of Wisconsin and Its Relation to Agriculture, Whitson, A. E. and Baker, O. E., University of Wisconsin Agric. Exp. Sta. Bulletin 223, 1912, p. 11.

13. Adapted from Wisconsin Agriculture, Wisconsin Crop and Livestock Reporting Service, Bulletin No. 140, 1932, p. 26.

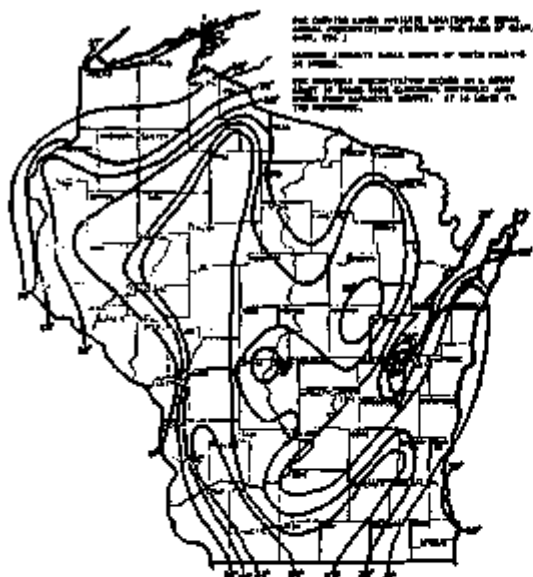


SOURCE: U.S. BUREAU OF AGRIC. ECON.
ADAPTED FROM: WISCONSIN GEOLOGICAL SURVEY - CONRINE, 1900
AND PHYSICAL GEOGRAPHY IN WISCONSIN - MARTIN, 1906



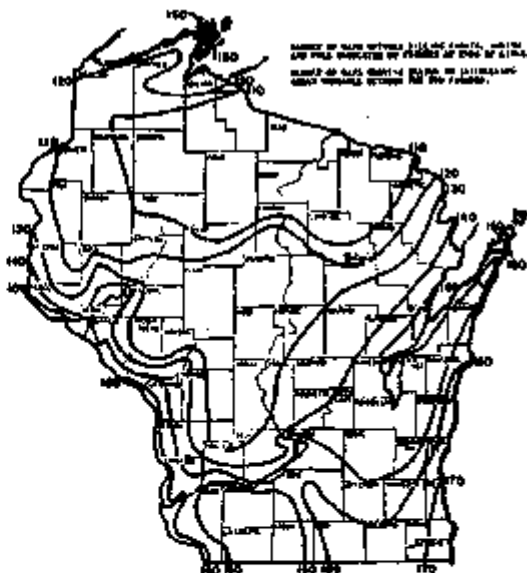
DANCE ON SEVERAL SOIL MAP OF WISCONSIN BY A. S. WHITMAN, 1922

AVERAGE ANNUAL PRECIPITATION 1897-1927



SOURCE: THE CLIMATE OF WISCONSIN -
WHITMAN AND BAKER, AGRIC. EXT. STA.
BULLETIN 223, 1908.

LENGTH OF GROWING SEASON IN WISCONSIN



SOURCE: SOILS OF WISCONSIN - WHITMAN
STATE BULLETIN 60, 1927.

Figure 35. Topography, soils, and climate are of great significance to the people of Wisconsin whether they be in rural or urban areas.

Topography. Most of Wisconsin lies within the glaciated portion of the United States. Glacial action resulted in the formation of several fairly definite geographic regions. These are briefly described because they are basic to an understanding of Wisconsin's land problems.

The glaciated region of the east and southeast, designated "Eastern Ridges and Lowlands", has a gently rolling terrain. Local hills, moraines, and drumlins make the surface irregular, but on the whole a level to gently undulating land surface is characteristic. This is the most thickly settled and highly developed agricultural and industrial portion of the state.

The hill and valley region of the southwest and west (Western Upland) comprises practically the unglaciated portion of the state. This rugged district, known as the Driftless Area, was at one time surrounded by the continental glacier, but never covered by it. It also includes some of the rougher glaciated lands adjacent, such as the Baraboo range and part of Price and St. Croix counties. The surface has been formed by nature stream erosion, and the ridges and valleys, though seemingly in confusion, are arranged in an orderly dendritic pattern.

The "Central Plains", a single broad region, embodying the sandy middle portion of the state may be divided into two sub-regions with sharply contrasting physical environments; one is glaciated sand country and lies on the eastern side of the terminal moraine of the continental glacier; the other lies west of the moraine and occupies a broad sand and marsh flat between the glaciated sand and western hill and valley region. The projection of the plain to the northwest is similar in many respects to the "Eastern Ridges and Lowlands".

The "Northern Highlands" is composed of the north central and most of the out-over regions, and is a part of the large Laurentian Upland. The north central region lies between the sandy and the northern out-over portions

of the state. Geologically it has many attributes of the north, while agriculturally and from other standpoints it has characteristics of the south.

The out-over region lies partly on the northern highland portion of the state and partly within the Lake Superior lowland. It is characterized by the presence of partially cleared land, with farms that have been but relatively recently developed.¹⁴

Soil Regions. The soils of the state have been classified into ten major divisions, figure 35. A brief summary for each follows:¹⁵

1. Miami Silt Loam Region is largely in the southeast with a minor area in St. Croix and Pierce counties. It comprises nearly 11 per cent of the total land area of the state. The surface is underlain by a silty clay loam, and further by sandy and gravelly material, a large part of which is limestone. The sub-soil provides good under-drainage and only on the more level areas or where portions of clay are unusually large is under-drainage inadequate.

2. Knox Silt Loam Region is located in the southwest or Driftless Area. It has over 15 per cent of all land and compares favorably with the Miami silt loam in fertility. The soils here were formed by weathering of limestone rocks, together with loess carried by winds. They are generally underlain by limestone with a silicate form of lime left on the surface.

14. The Problem Regions of Wisconsin, Durand, Loyal, Jr., unpublished report to the Regional Planning Committee, 1934.

15. For more detailed information see Wisconsin Agriculture, Wisconsin Crop and Livestock Reporting Service Bulletin No. 140, 1932, pp. 31-35.

3. **Prairie Soils**, scattered in small tracts in the southern part of the state, are distinct from the other soil regions in being originally free from timber. They constitute only 4 per cent of the total area but are productive agriculturally being made up largely of Marshall and Dodgeville silt loams with considerable organic matter. They have a high water-holding capacity and are of good depth.

4. **Red Clay Region** is divided into two parts; one in the east known as the Lake Winnebago-Fox River Valley and Lake Michigan section and the other on the shore of Lake Superior. Accounting for about 5 per cent of the state's area, it contains few stones although some boulders and small rocks interfere with clearing. Tile drainage is often necessary in the more level portions.

5. **Sandy Soils of Better Grade** are found in three major divisions; one in the north central part of the state including most of Vilas and parts of Oneida, Florence and Iron counties, another in the northeast taking in Marinette and Oconto counties particularly; and the third in the central part primarily in Washburn, Portage, Marquette, Wausau and Monroe counties. This type represents almost 12 per cent of the state's land.

6. **The Sands and Marsh Region**, the poorest in the state, is found largely in two sections; central, consisting of most of Adams and part of Portage, Wood and Jackson counties, and the northwestern extending in a long narrow strip from the middle of Burnett northeast through Washburn, Douglas and Bayfield counties. These two areas, making up 6 per cent of the total land, are composed of sands derived largely from Cambrian or Potsdam sandstone and heavier soils carried by the last glacier from the Green Bay and Fox River area. On the whole, the soil is light with considerable marsh and peat.

7. **Colby Silt Loam Region** is of comparatively recent agricultural development.

It lies principally north and west of the central sands with another smaller area in Barron county. It contains nearly 10 per cent of the total land area of the state and is characterized by a surface of smooth silt loam, averaging ten inches in depth. The subsoil is heavy often requiring drainage on the level surfaces.

8. Kennan Loam Region, with 23 per cent of the land area, is made up of two major belts running southwest to northeast in both the northwestern and northeastern parts of the state. This region is relatively undeveloped agriculturally. For the most part the soils are brown to reddish and fine sandy loam with a limited amount of organic matter. There are frequent marsh strips along the shallow streams and some broad peat marshes. Stumps and stones form the two chief difficulties to agriculture.

9. Boone Loam and Fine Sandy Loam Region is confined for the most part to an irregular strip from Jackson northwest to Dunn county. It contains over 5 per cent of the land. The predominating surface is fine sandy loam, heavy enough to be relatively high in agricultural value even though it has comparatively low lime content.

10. Miami Loam Region stretches from Columbia county northeast to Green Bay and Michigan Lake shores, with smaller scattered areas in St. Croix and Jefferson and Waukegan counties particularly. Over 8 per cent of the total land area is found in this region where the soils are usually associated with the moranic belt of rougher country and the marsh borders. The surface of fine sandy loam contains a moderate amount of organic matter and is underlaid by a subsoil of heavy fine sand or clay loam mixed with gravel. Knolls are common and these soils carry a good grass covering.

Land Classification. In the classification of land with respect to its agricultural uses, attention must be given to geographic factors including topography.

soils and climate. The state has been divided into regions according to grades of land by A. E. Whitson, Department of Soils, University of Wisconsin, figure 26. The best loams are assumed as having 100 per cent value or A rating; then all the land is grouped into four grades down the scale, on the basis of use for general farming with consideration given to slope, drainage, smoothness of surface, amount of organic matter, present state of fertility, stoniness and frost-free growing season.¹⁶

Grade A has a range of 75 to 100 per cent of the assumed highest value and includes land not stony nor having a slope of over 10 per cent in types mapped as silt or clay loams. These soils occur in the limestone area of the state and in the portion having from 120 to 170 days between killing frosts.

Grade B ranges from 40 to 75 per cent with a frost-free season of over 110 days. It includes soils of silt or clay loam texture mentioned in Grade A, with drainage outlets but which are not stony and do not have slopes above 15 per cent.

Grade C has a range from 10 to 40 per cent of value. It embodies the better portions of the sands and fine sands occurring in small patches adjacent to better land and also peat in the central part of the state which is well decomposed and has some lime derived from glacial deposits.

Grade D is designated as non-agricultural but has variable value for forestry and other uses.

A further classification divides the state into three predominant regions. The southeastern section with a small counterpart in the extreme west has at least one-third grade A land. Another comprising principally the southwest and

16. Adapted from Wisconsin Regional Plan Report. Wisconsin Regional Planning Committee, 1934, pp. 202-205.

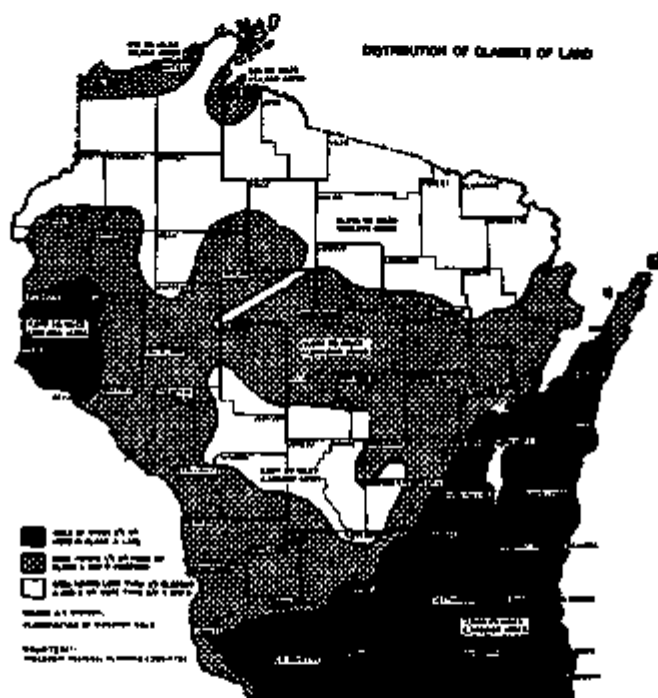


Figure 56. Distribution of classes of land for agricultural purposes indicates that St. Croix and Pierce counties are similar to the southeastern area of the best or grade A. The central and northern areas are poorly adapted to farming for the most part.

north central portion has at least one third grade A and B land. The third division, located in the central and northern part of the state, is composed of more than two-thirds C and D grade land.

Agricultural Aspects

Wisconsin's farming situation may be rightly regarded as the result of geographic conditions and certain economic forces which are closely associated with them. The important differences in kinds or types of farming are reflected in a number of measurable factors. Some of the most significant deal with the extent and utilization of farm land, kinds of crops grown and size and value of farms.

Per Cent of Total Land Area in Farms. The proportion of all land devoted to farming is one index of the development of agriculture. This shown, in terms of the per cent of the total land area in farms, figure 37.

Land is far more widely used for agricultural purposes in the southern than in any other part of the state. A glance at the map for 1930 indicates five fairly well marked regions; the southeastern, southwestern, central, north central, and northern. The proportion of all land devoted to farming varies from 90 per cent or more in the two southern sections to less than 30 per cent in the northern. The central area falls midway, with 50-59 per cent of the land in farms.

For the decade 1920-1930 there is a slight decrease in the proportion for the state. This centers especially in the urban and near urban counties in the southeast along the lakeshore. Preliminary figures from the 1936 U. S. Census of Agriculture show a reversal of this decrease, amounting to 4.4 per cent for the state as a whole. No counties declined in the proportion and Adams, Wood, Taylor, Waukegan and Marinette had gains of 8 per cent or more.

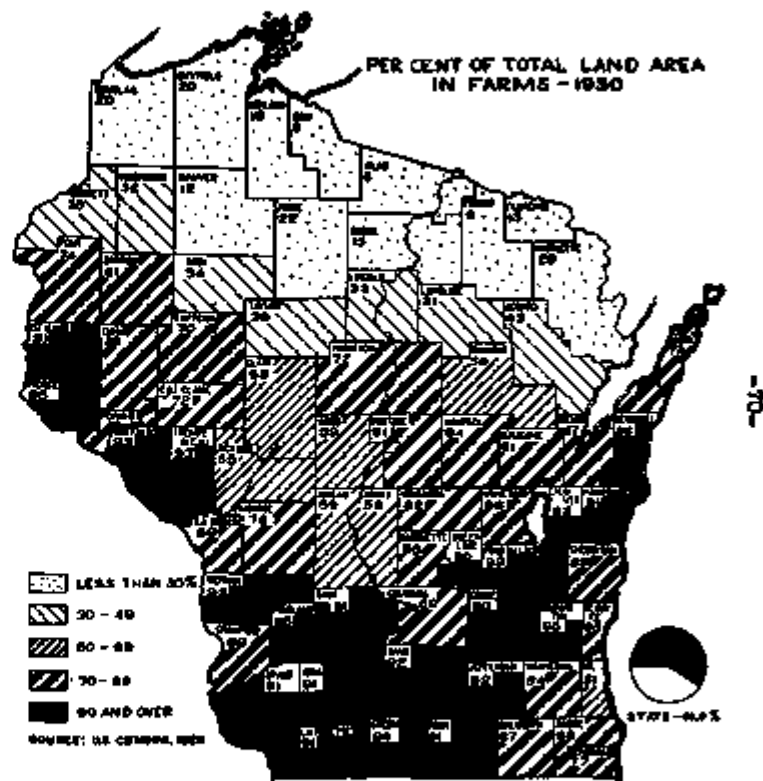
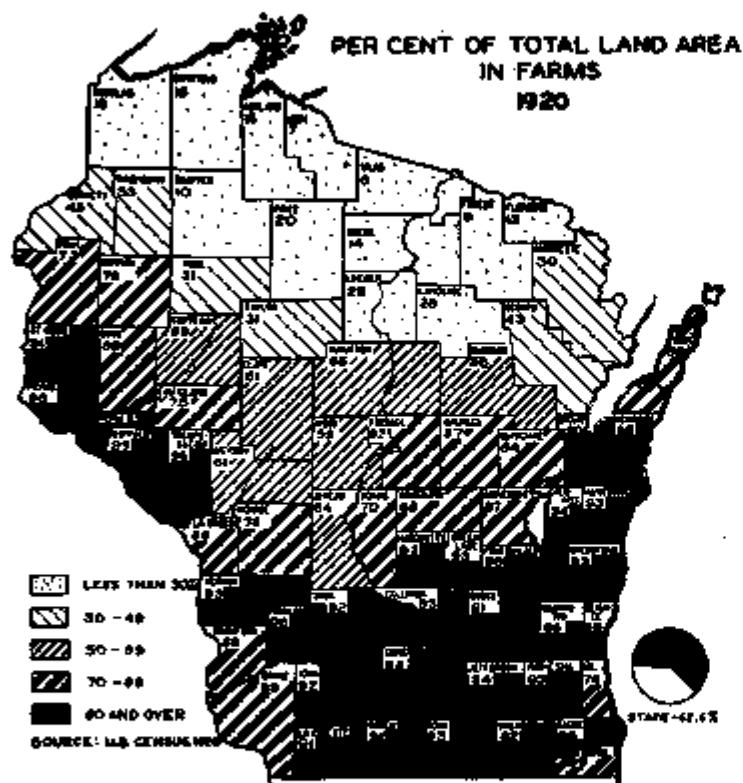


Figure 37. The per cent of total land area in farms decreased slightly in the decade 1920 to 1930. This is particularly evident in the southeastern section of the state. Most of the northern counties have increased in proportion of land area in farms.

Number of Farms. The number of farms affords another indication of the extent of agricultural development throughout the state. At least three regions are evident, the southeastern along the lakeshore, the central, and the northern, figure 38. There is only a slight suggestion of variation in the density of farms (number per given area) for the rest of the state; that is, the southwest varies little if any from the western and north central portions.

Change in the Number of Farms. Increase or decrease in the number of farms is sometimes used to indicate the progress of agriculture. Whether this is a reliable index depends upon several variable factors including alternative opportunities in other localities and industries, population pressure and the ease of obtaining land in different locations.

The percentage change in the number of farms, 1920-1930, shows an increase in the northern section where resources are relatively undeveloped, while around the larger urban centers there has been a decided decrease in the number of farms prior to 1930, figure 39. The central or sandy region also shows a decrease.

As with all land devoted to farming, the number of farms shows a pronounced decrease from 1930 to 1935, approximately 10 per cent for the state. This varies by counties from a very slight change in Jefferson and Sheboygan to 30 per cent or more in 9 counties, primarily in the cut-over region.

Size of Farm. The agricultural situation is not adequately portrayed by number of farms unless their size is given due consideration. For the state as a whole, the average total acres per farm for 1930 according to the U.S. Census, is 120, which is considerably below the average for the entire country (157 acres).

The smallest Wisconsin farms are reported in Milwaukee county where the average size was only 44 acres in 1930, figure 40. In general, more small farms are

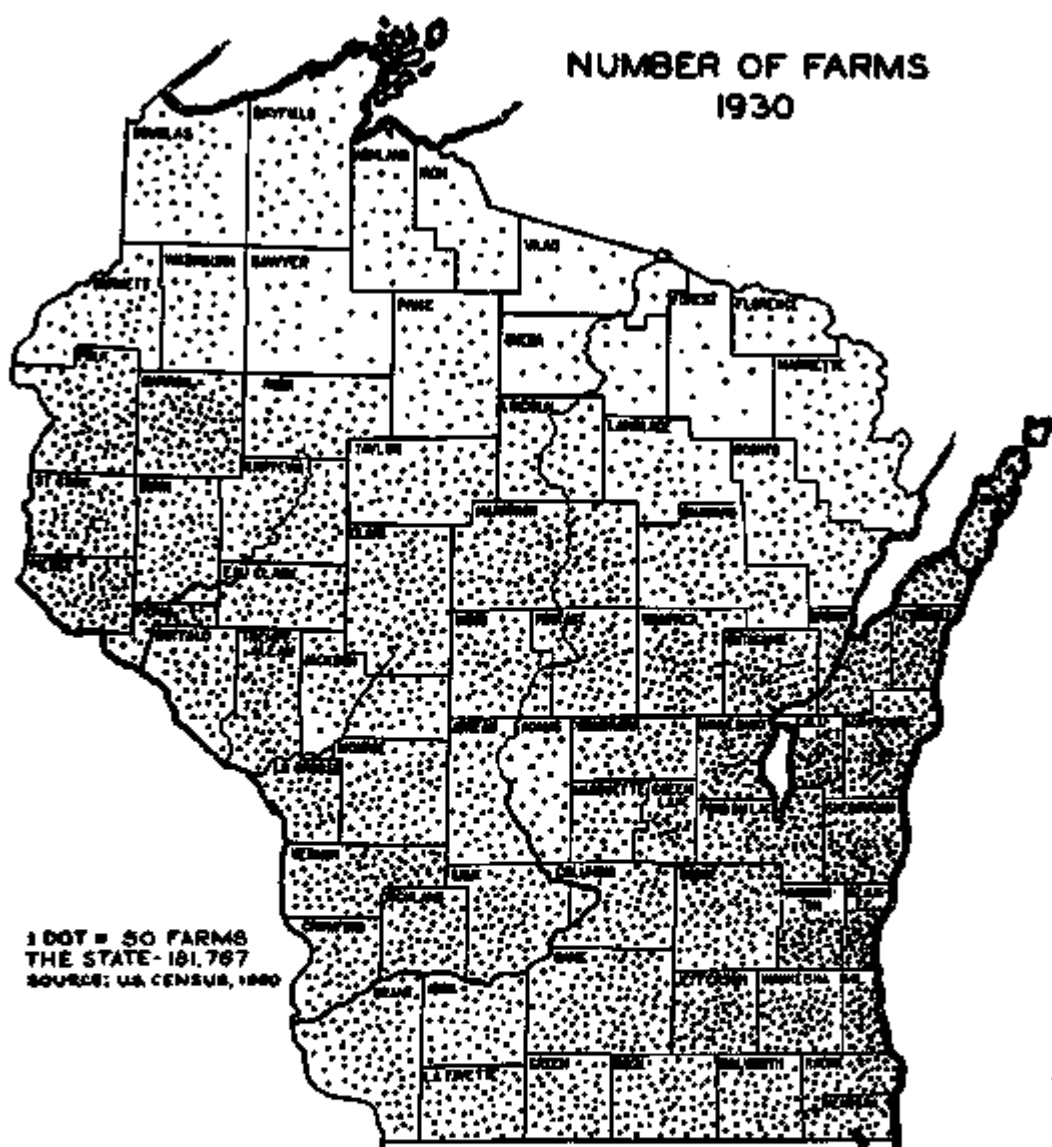


Figure 38. Number of farms in 1930 amounted to nearly 182,000. The northern cut-over and the central regions show the fewest farms per given area, compared to most in the southeast.

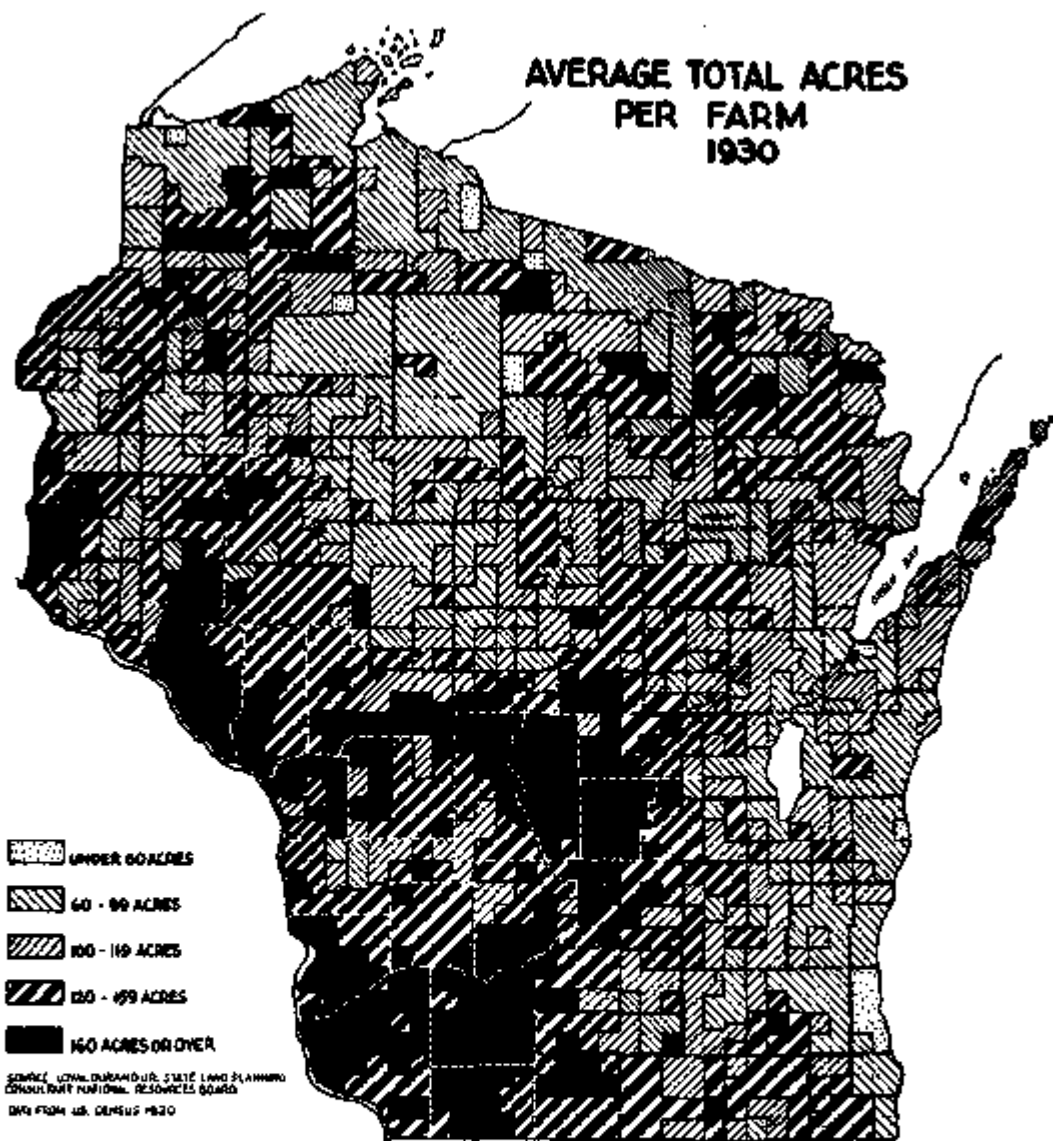


Figure 40. The average Wisconsin farm in 1930 contained 120 acres, a slight increase over 1920. Both the number of farms under 20 and those over 500 acres decreased considerably.

found in the older agricultural areas, although there are a few northern counties, such as Douglas, Iron and Vilas, where the average is also under 90 acres. The largest ones are found in the central portion of the state where soil is sandy and in the southwest where a type of agriculture resembling corn-belt farming prevails.¹⁷

Although corresponding information is not available on a township basis, Agricultural Census figures show a decrease of 2.9 acres or 2.4 per cent in the average size of farm for the state, 1930-1935. This is most pronounced in the northern portion except Iron, Buck, Barron, and Marinette counties which had slight gains. As with the percentage of the total land area in farms, some allowance may need to be made for a more complete enumeration of small units in 1935 than in 1930.

Per Cent of Farm Land in Crops. Even though size of farm has a bearing on the extent of development in agriculture, the per cent of farm land in crops is more indicative, figure 41. Southeastern Wisconsin has the highest proportion of all land in harvested crops, 50 per cent or more in 1929; and the proportion ranges down to less than 20 per cent for the central and northern regions. This is due in part to more recent settlement in the north where farms are often quite underdeveloped and clearings are small.

Proportion of Farm Land Not Used. The proportion of farm land not used for crops, pasture or woodland may be regarded as a counterpart of that devoted to crops. As indicated in figure 41, the northern and central sections stand out predominantly as of secondary use for agricultural purposes, in comparison with the rest of the state.

17. Wisconsin Agriculture, Wisconsin Crop and Livestock Reporting Service Bulletin No. 140, p. 26.

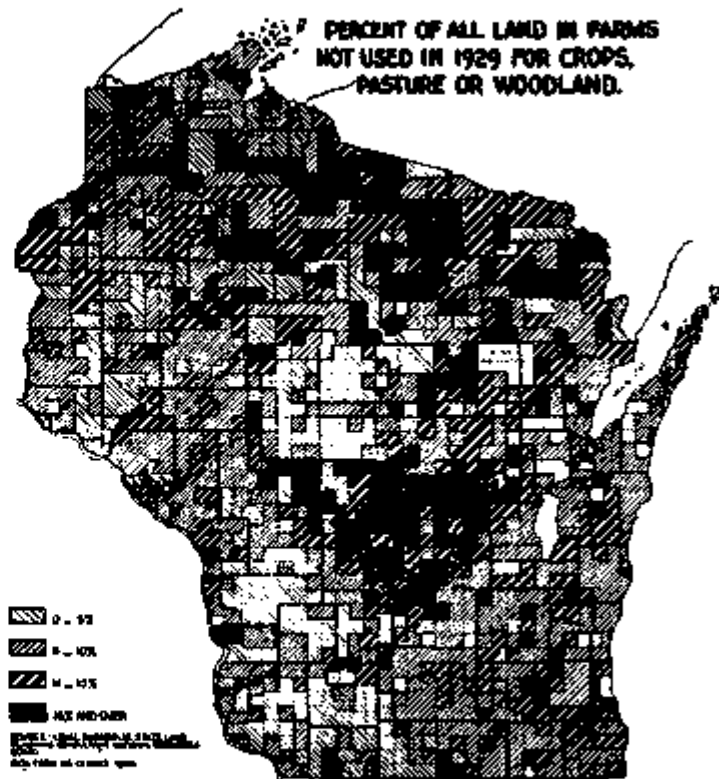
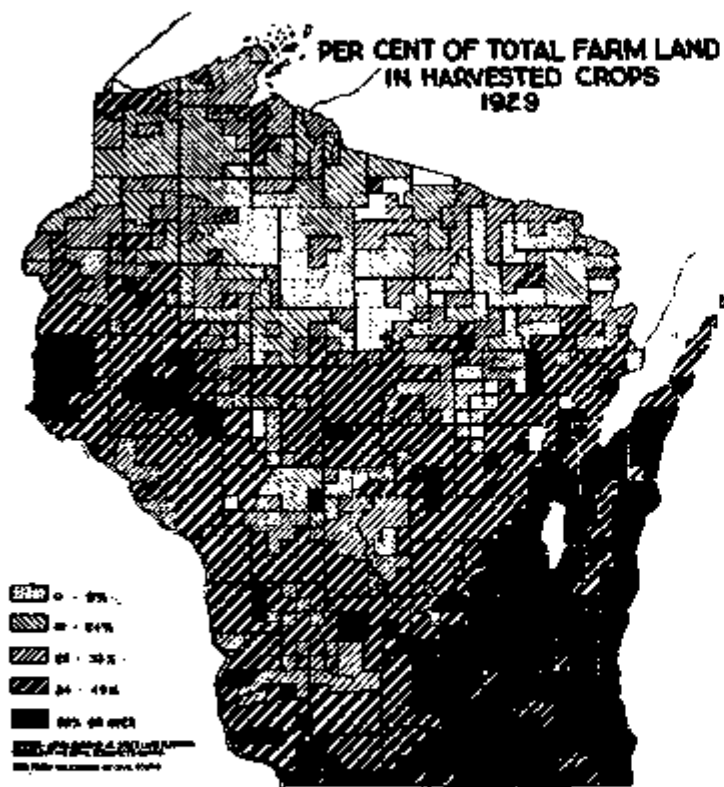


Figure 41. The per cent of total farm land in harvested crops and the opposite (not used for crops, pasture or woodland) in 1929 show well developed agriculture in the southeast versus poorer in the central and northern sections. Only 42 per cent of Wisconsin farm land was in harvested crops in 1929.

Value of Farm Land and Buildings. The value of farm land and buildings is also suggestive of the degree of development of the state's agricultural resources, figure 42. There is a wide variation in the value per acre reported by different portions of the state; the highest is found in Milwaukee and other counties of good soil with population centers which furnish satisfactory markets. In general, the southeastern and eastern sections tend to run higher than the western part of the state and the central and northern are lower.

Principal Farming Areas. It is evident that the geographic features including topography, soils, rainfall and length of the growing season, delineate the state into different regions. Likewise the factors which are suggestive of the agricultural situation indicate several divisions. To a large extent the geographic and the agricultural aspects determine the principal farming areas, which are modified somewhat, of course, by market facilities and inclinations or abilities of individual farmers. The five most outstanding farming areas are¹⁸ indicated in figure 43.

The eastern dairy area comprises 36 per cent of all farms, but only 31 per cent of the agricultural land in the state. Dairying is general here with approximately three-fourths of the farm income from it. The growing season is long enough for most hays and grains and the cropping system consists mainly of corn followed by oats or barley which is seeded with clover and timothy. Truck and canning crops, potatoes, fruits, and tobacco supplement the dairy enterprise in different locations, which are situated near enough to urban centers to afford satisfactory markets for the disposal of perishable food products.

18. Information pertaining to the areas adapted in part from Forces Affecting Wisconsin Agriculture With Resulting Types of Farming, McCall, P. E., and Roth, W. J., University of Wisconsin Agric. Expt. Sta. Res. Bulletin 131, 1936.

VALUE OF FARM LAND AND BUILDINGS PER ACRE 1930

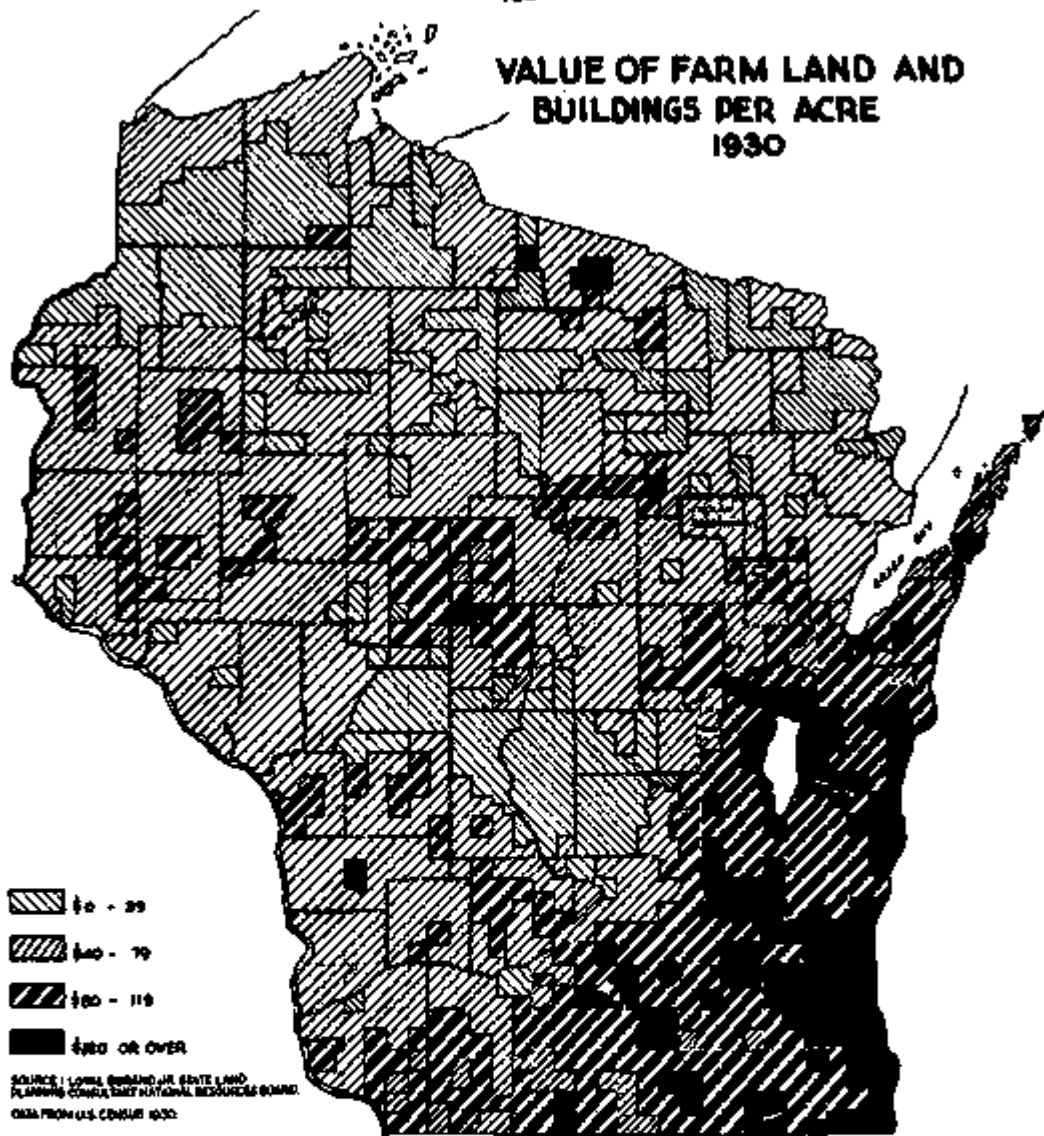


Figure 42. The average value of the land and buildings per acre decreased from approximately \$89 to \$76 and values per farm from \$11,600 to \$9,600 for the decade 1920 to 1930.

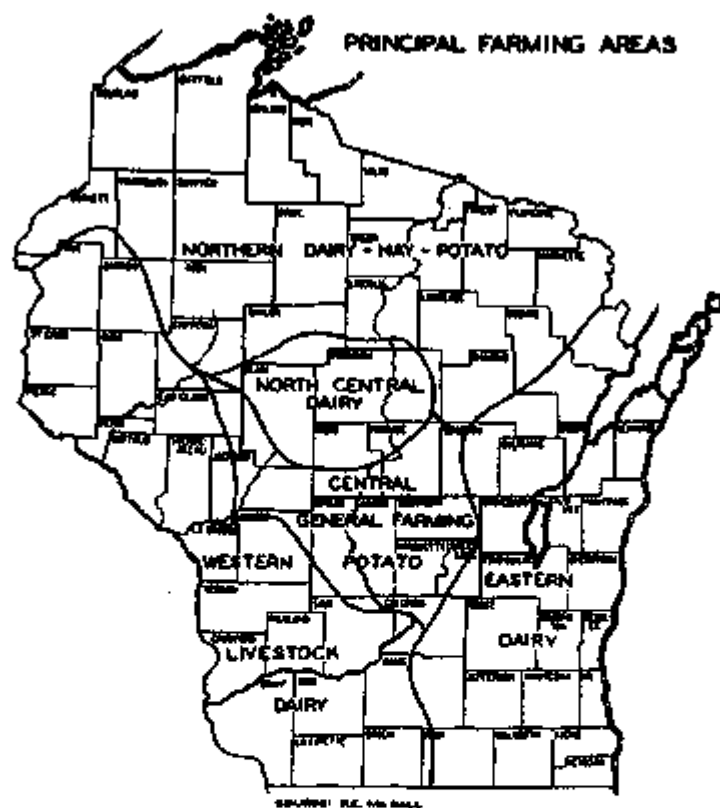


Figure 48. Principal farming areas are delineated by physiographic features and certain agricultural factors. Broadly they correspond to the different classes or grades of land.

The western livestock and dairy area which is made up of all or parts of twenty-three counties in the southwestern and western portion of the state has 33 per cent of the farms and 38 per cent of land; thus larger holdings than in the eastern region. Dairy farming is paramount with butter-making in the north and cheese manufacturing in the extreme south, as predominant market outlets. Hogs are an important source of income and some beef cattle and sheep are raised, especially in the central portion where topography is rougher and a higher proportion of the farm land is in pasture. The cropping plan is characterized by "more grain and less hay" compared to other areas. In Crawford and Vernon county tobacco is an important cash crop.

The central general farming area contains 9 per cent of the holdings and 11 per cent of the farm land. It is similar to the western area in per cent of the gross income from dairying but has fewer hogs, sheep and beef cattle. Crops raised include corn, small grains, potatoes and hay. In the northeastern portion potatoes are raised in relatively large quantities, furnishing from 13 to 20 per cent of the farm income. It is in this area that the old Wisconsin Lake was located. Its bed drained slowly leaving a few ponds which later filled with decaying vegetation and became peat marshes where the commercial cranberry industry has now developed.

The north central dairy area lying just north of the sandy region has 8 per cent of the farms and 7 per cent of the agricultural land. Dairying is paramount with a limited number of hogs and sheep. The principal crops are corn for silage, small grains, and hay. Rotation of grains and grasses is prevalent and the area is considered as "one of the best grass and hay regions of the state".

The northern dairy, hog and potato area which covers approximately one third of the state has only 14 per cent of the holdings and 12.5 per cent of the land in farms. The landscape is characterized by some forest woodland, much cut-over

and pastures or hay. The farms are scattered, with only a small proportion of the land cleared. Dairying and potato raising are the chief enterprises with a sprinkling of truck crops particularly near the larger lake shore towns.

Industrial Phases

The development and status of industry have a definite bearing on economic and social problems. For the most part Wisconsin's industrial development has tended to center at convenient points with respect to transportation, available power, labor supply and resources.

Many of the state's industries use iron and steel as basic raw materials and are easily accessible by water and rail transportation. A portion of them use wood products and are or were originally located in the neighborhood of the forests. Another portion, of no less importance, use farm produce and these are situated for the most part where such produce is available. The leading agricultural industries, together with iron, steel and applied products, account for 30-45 per cent of the total industrial production of the state.

Since this report is intended primarily as a survey of the rural areas and interests, little attention is given to the urban or strictly industrial situation. It is realized that agriculture and the rural people dependent upon it are interrelated with the urban population and their enterprises, but emphasis here is placed on only those industries which affect the farm people particularly. For convenience, the materials are considered from the standpoint of the prevalence of resources, extent of activity, and concentration of wealth.

Mineral Resources. Although Wisconsin is not a large mineral producing state the most important resources in order of their commercial production value, are building stone, crushed stone, gravel, mineral water, clay products, iron, zinc,

sand and lime. In addition the state yields lesser amounts of lead, cement rock, talc, pyrite and barite. Of all the minerals, however, the non-metallic group embracing the stone, gravel, sand and clay, is most valuable to the state. The reserves of these are large and well distributed, figure 44. The mining of the metallic ores (iron, zinc and lead) is confined to certain localities in contrast with the general distribution of most of the non-metallic. Iron ores are found in Ashland, Iron, Florence, Dodge, Sauk, Columbia and Jackson counties. At present, only the mines of Iron county are active. Lead and zinc deposits are confined to three counties in the southwest, Grant, Lafayette and Iowa. Both lead and zinc ore mining are in a quiescent state at present.

The location of all these resources has most significance when considered in connection with other important factors including density and character of population, development of agriculture and prevalence of family and community living facilities.

Timber Resources. The growth and decline of the lumber and pulp industry is closely linked with timber resources. Forests once covered practically six-sevenths of the state. Today almost the last vestiges of virgin timber have been removed and more than one-half of the land area has been taken from a forest land classification.¹⁹ The rest of the area is largely the out-over remains of an unexcelled growth which once covered that portion of the state and lies west and north from Sheboygan.

19. Adapted from Wisconsin Regional Plan Report, Wisconsin Regional Planning Committee, 1934, p. 190.

20. Ibid., p. 221. See also Forest Land Use in Wisconsin, Report of Committee on Land Use and Forestry, April 1932, p. 18, for definition of this classification which includes lands bearing merchantable forest, all lands supporting second growth, some devastated out-over land and many swamps only sparsely timbered. Forest land now occupies 16,200,000 acres or 45.3 per cent of the state's total.

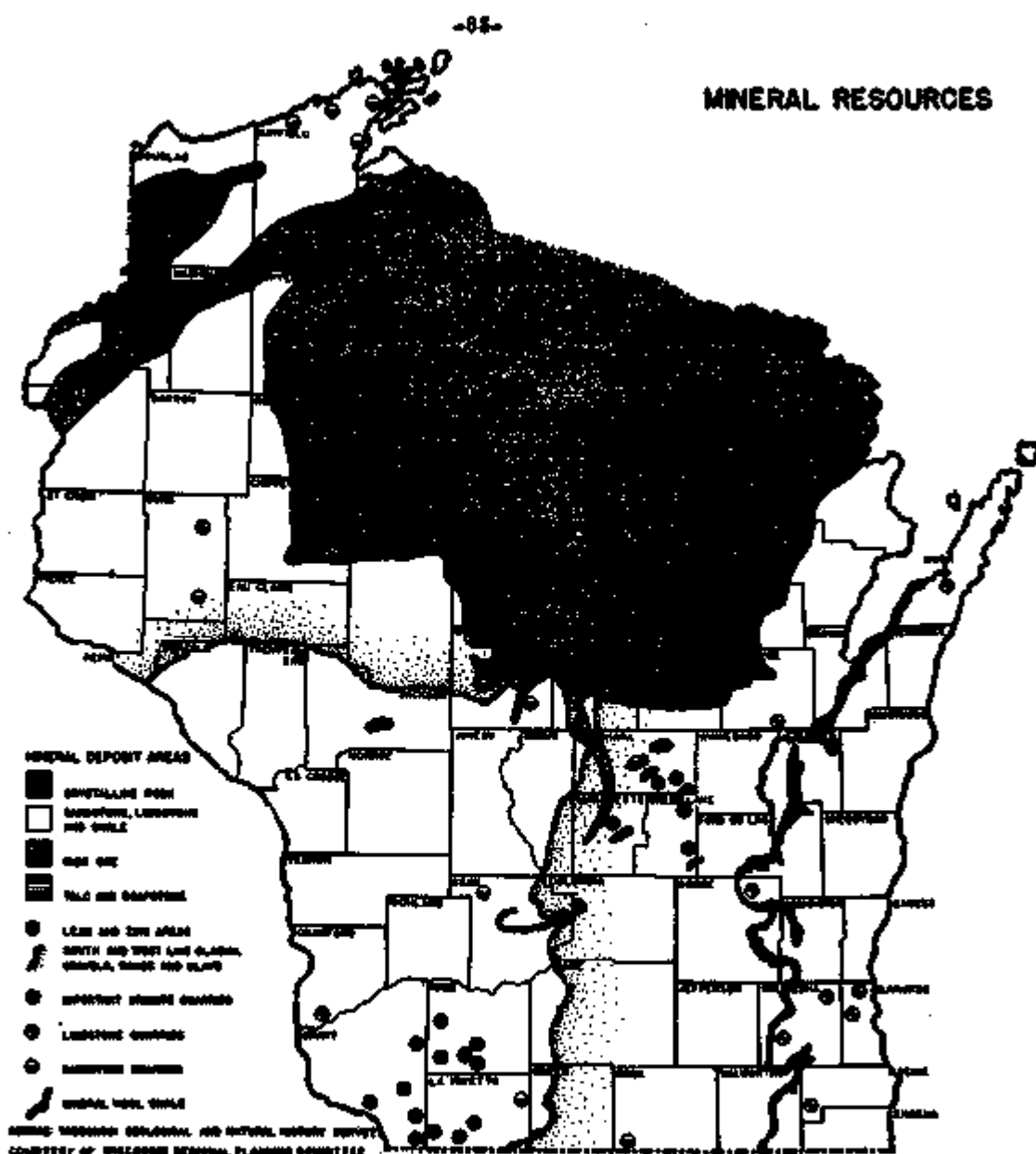


Figure 44. The mineral resources for the state average approximately \$20,000,000 annually. Wisconsin ranks thirty-first in the nation with respect to mineral production.

The principal kinds of timber found in the state are indicated in figure 45. The varieties as well as the areas have changed noticeably with the second and third growth during the fifty year period from 1882 to 1932.

Wood Product Plants. The approximate location of plants manufacturing wood products, as of 1932, shows most of the sawmills located well to the north in the timber area, figure 46. It should be pointed out, however, that the number of mills decreased from more than 1000 in 1899 to 123 in 1932.

Pulp and paper mills are situated primarily along the Fox, Wisconsin (northern part) and Men Claire rivers. This is due to the need of water for power, transportation and other uses in these industries.

Many minor lumber industries are not included in those shown in figure 46. Among them are mine timbers, railroad ties, poles, excelsior bolts and fuel wood, from the cut-over lands and farm wood lots. Generally, the state benefits materially from the forest-linked industries which rank high among the taxable resources. At the present time, there are approximately 470 such industrial establishments in the state.

"The future in manufacturing wood products is inherently bound up with the costs of raw materials, conversion and transportation, all in relation to similar costs of competing species and regions and to the location of future markets of consumption. An adequate, readily obtainable raw supply is imperative."²¹ The offsetting of the timber decline, will depend to a large extent upon the degree of restoration of productive forest lands.

21. Wisconsin Regional Plan Report. Wisconsin Regional Planning Committee, 1934, p. 226

PLANTS MANUFACTURING WOOD PRODUCTS 1932

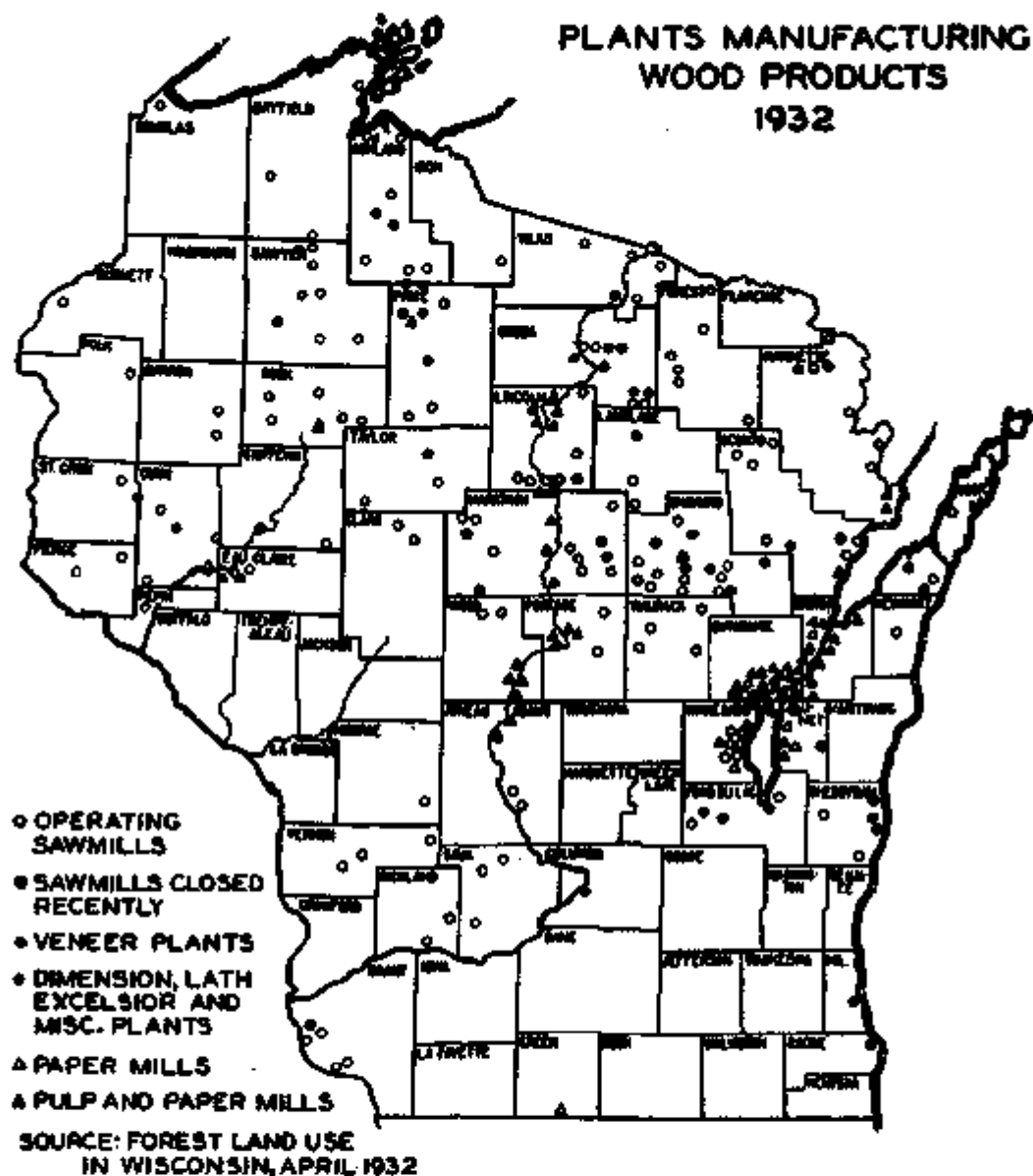


Figure 46. Plants manufacturing wood products are the hub around which commercial activity of some towns revolves. At the present time Wisconsin ranks second only to Maine in the amount of wood used in the manufacture of wood-pulp and paper.

Agricultural Industries. In 1880, eleven of the 20 major industries were farm-linked, compared to only 5 in 1931. However, the manufacture of dairy products is chief among them since it ranked first in value and number of establishments, ninth in wages and thirteenth in number of employees in 1931. Meat packing, food preparation, canning, flour milling, tanning and leather making, tobacco manufacturing and matting are also important industries dependent on agriculture. Many of these are situated in urban centers where power, labor and market facilities are readily accessible. Owing to their direct connection with the farm, the dairy manufacture and canning industries, are given special consideration.

Cheese factories, creameries and condenseries are grouped largely by kind or type of product throughout the state, figure 47. According to estimates of the United States Department of Agriculture, in 1933, Wisconsin manufactured 95 per cent of the nation's brick, 73 per cent of its Swiss, and 56 per cent of its American cheeses.

For a long time cheese has been one of the important market outlets for commercial milk. The manufacture of the American type which is most predominant, centers in three major areas: southwest, east central and north central, although a scattering of plants occurs in other sections. Factories producing the foreign types are distributed in two major areas. In the region of Green, Lafayette, Dane, Iowa and Rock counties, Swiss or brick cheese is manufactured in the majority of plants; brick is predominant in Dodge and neighboring counties with munster, limburger, Swiss and Italian of less significance.

Creameries, which form another important outlet for milk, are widespread. In all counties there is at least some butter produced, but the outstanding areas are western, southwestern and north central.

The growth and distribution of condenseries has become very pronounced in

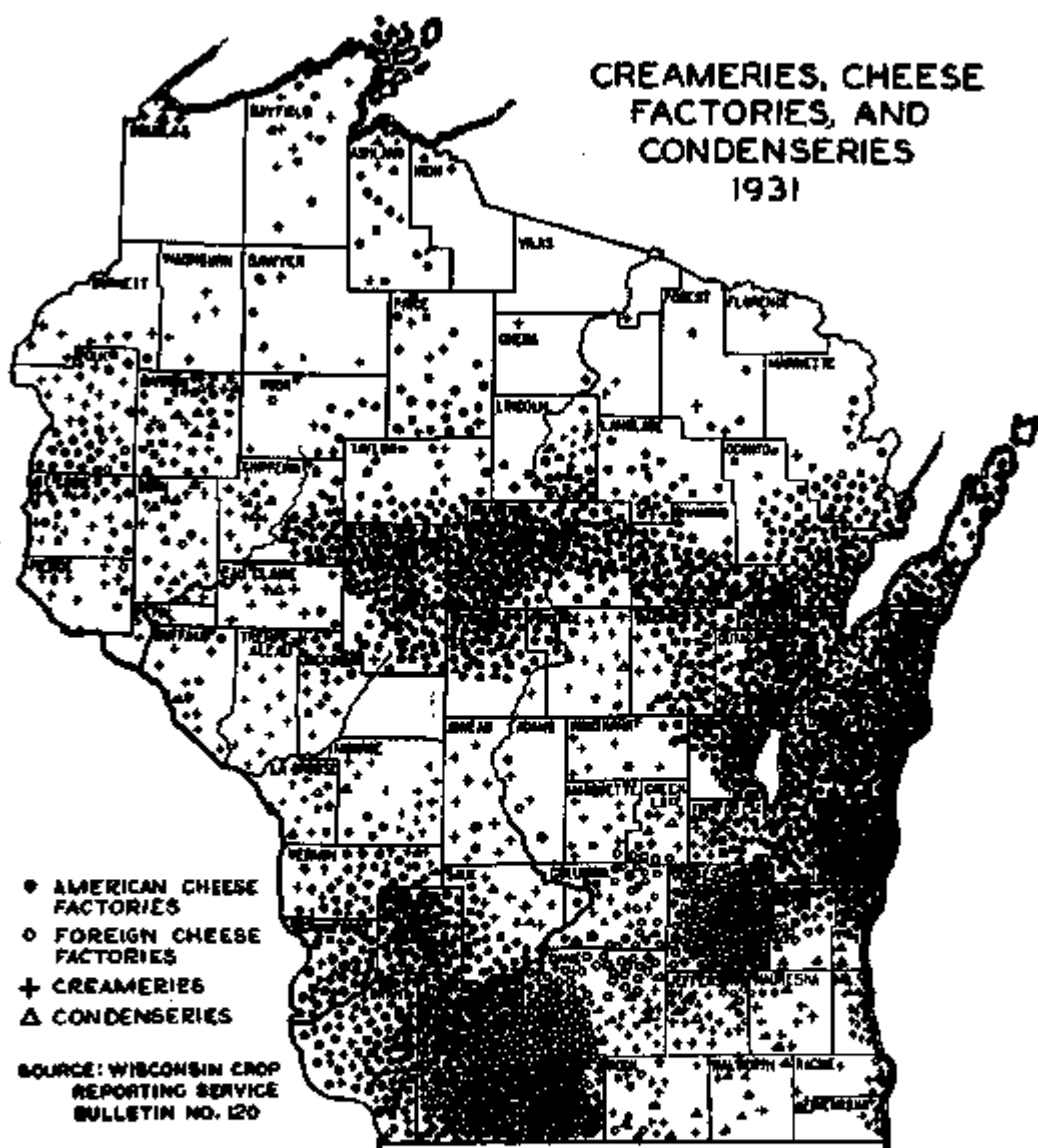


Figure 47. Creameries, cheese factories, and condenseries are indicative of the state's leading industry. Wisconsin produces more cheese and condensary products than any other state in the Union.

recent years. Wisconsin with more plants than any other state leads in the manufacture of condenser products. In 1931 about one-third of the nation's total output came from the state.²²

Allowance needs to be made for the noted absence of most dairy manufacturing plants in certain sections of the state where milk is produced for urban use. The extreme southeastern counties in the Chicago, Milwaukee and Madison market milk areas are noticeably lacking in plants.

Canning factories. Canning ranks well among the agricultural industries. Peas, beets, corn, tomatoes and cherries are among the principal products which are processed. The location of factories handling these and other similar goods is evident from figure 48. This industry shows a tendency to centralize in the southeastern, north central and to a lesser extent southwestern section. Wisconsin leads all other states in canning of peas, beets, and cherries, and ranks high in corn.

Value of All Industrial Products. The value of products is perhaps as good an index as can be found of the distribution and intensity of industrial activity within the state. It is not regarded complete, however, because only a part of the value is actually created by the industrial process. Another part, often a larger one, is in the materials used. This is shown in figure 49 on a one-thousand-population basis for the year 1930. Two major regions are noticeable, the eastern along the lakeshore and in the Fox river vicinity and the north central on the Wisconsin river. Marinette and Jan Claire counties seem to be outstanding exceptions in a region of low industrial activity. Thus it seems that Wisconsin's industries tend to center adjacent to transportation and power facilities and near

22. Adapted from Wisconsin Dairying. Wisconsin Crop and Livestock Reporting Service, Bulletin No. 120, 1931, pp. 64-66.

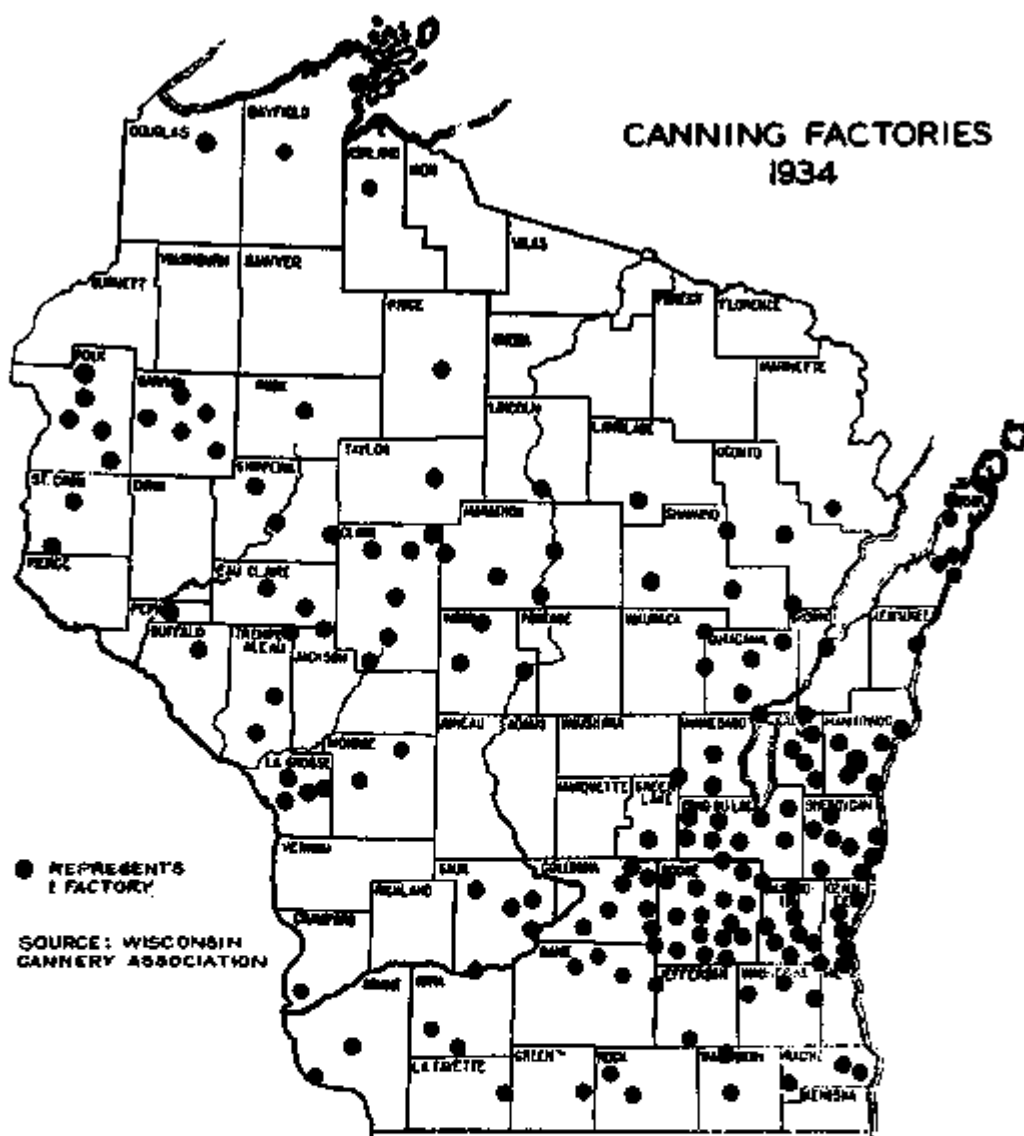


Figure 48. Canning factories supply an outlet for certain special cash crops including peas, beets, corn and tomatoes. They afford seasonal employment for many rural workers.

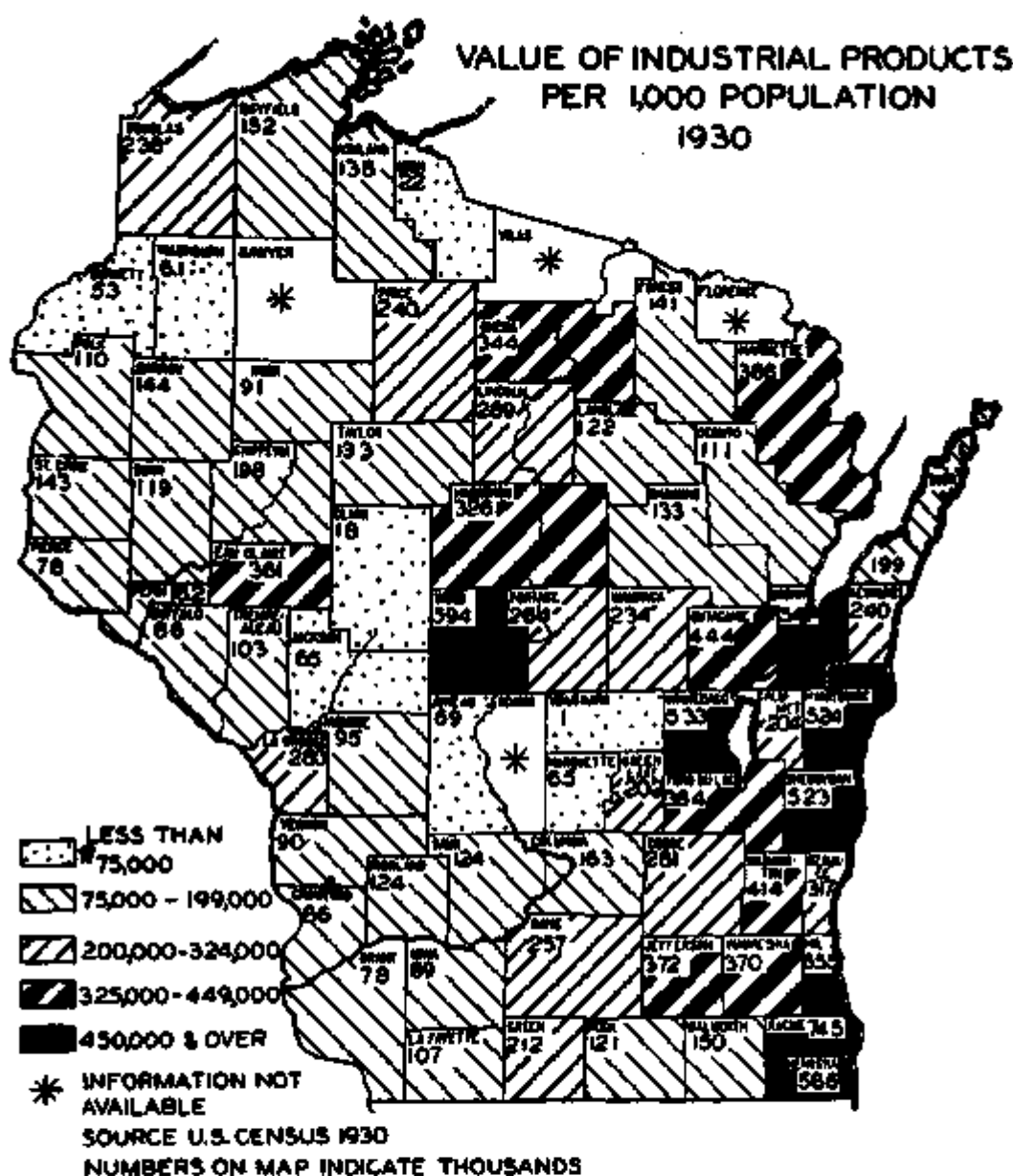


Figure 49. Value of all industrial products per 1000 population varied widely by counties in 1930 due partially to the concentration of industry in urban centers. Wisconsin's industrial development was steady and constant from 1899 to 1929.

raw materials. In some instances, however, their establishment seems to have been based on chance such as the home of an inventor or promoter, the influence from local service groups or the prevalence of satisfactory living conditions.

Predominant Industry. Exclusive of agriculture, building absorbs a larger number of workers in more counties than does any other industry, figure 50. Iron and steel fabricating plants are predominant in the southeastern region, paper and pulp in the Fox and Wisconsin River valleys and Marinette county, and forestry as well as saw and planing mills in the northern portion of the state. The processing of food is outstanding in southwestern Wisconsin, where cheese and butter making are common. Although furniture factories and automobile shops are prevalent in many places, they lead in only one county each.

Concentration of Population and Property. The concentration of wealth in comparison with the distribution of population is regarded as having direct association with industry, figure 51. The Milwaukee area serves as a starting point since it contains one-third of the state's population. In total number of establishments, in predominance of workers, wages paid, value added by manufacture, and worth of final products, it is also the center of the state's industrial activity.

It is significant that in 1930 two-fifths of the state's wealth and one-third of the population were located in the southeastern corner centering around Milwaukee, Racine and Kenosha. For the same year two-thirds of the wealth and one-half of the population was contained in this territory and an additional tier of counties to the north and west.

21. Adapted from Wisconsin Regional Plan Report, Wisconsin Regional Planning Committee, 1934, p. 315.

LEADING INDUSTRY (AS INDICATED BY LARGEST NUMBER OF GAINFUL WORKERS PER COUNTY) 1930

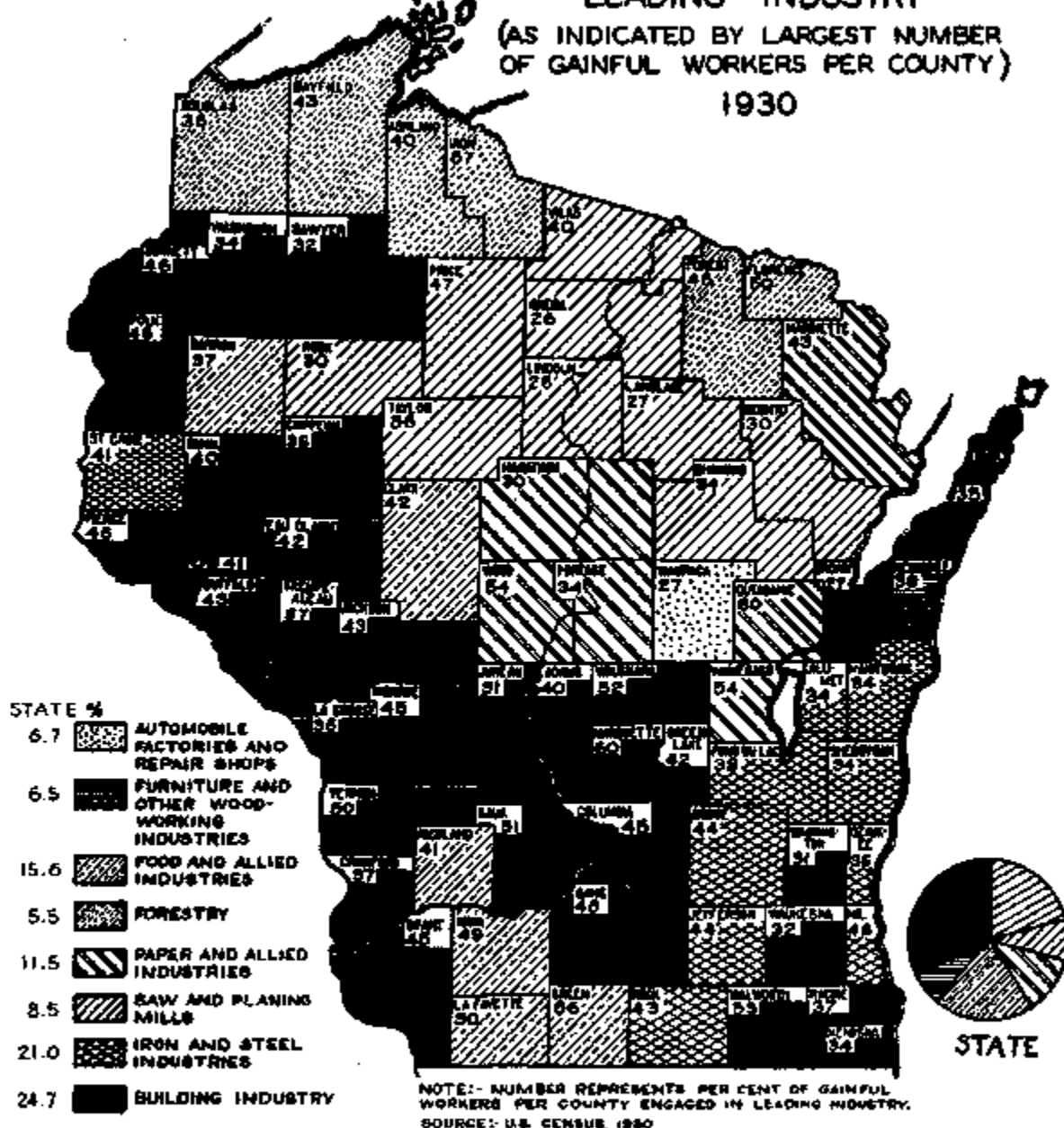


Figure 50. The leading industry exclusive of agriculture as indicated by the largest number of gainful workers per county in 1930, was building. This includes construction work with minerals (granite, gravels, etc.) metals, and wood.

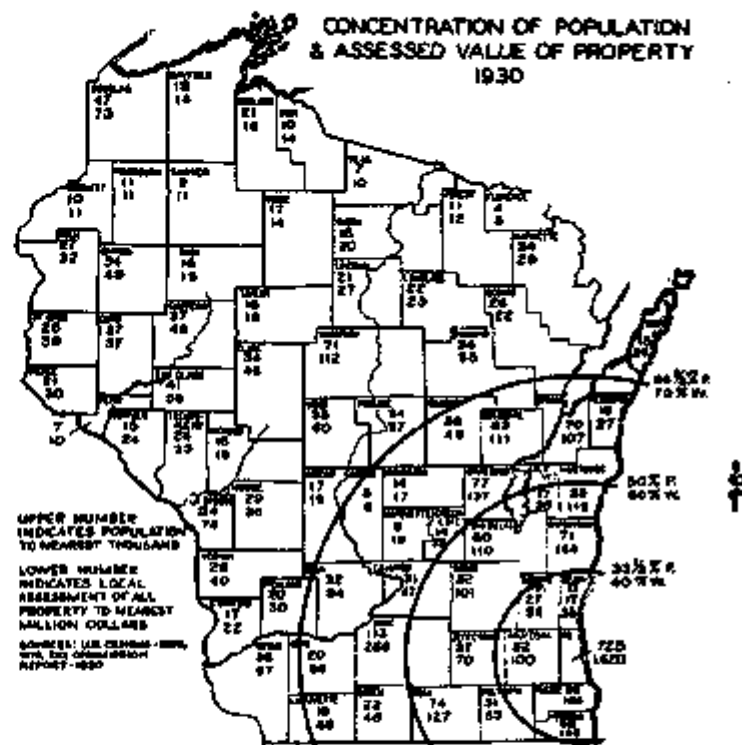
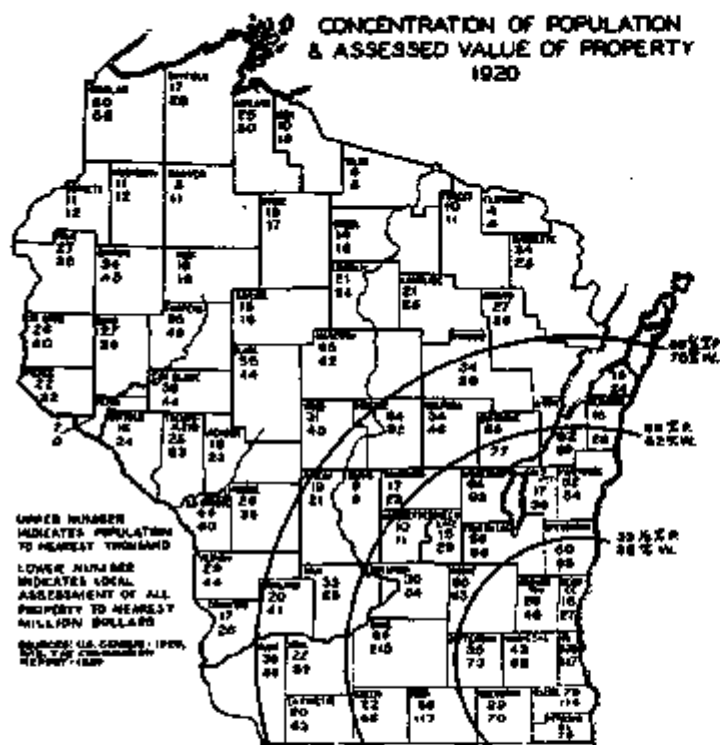


Figure 51. Concentration of population and assessed value of property became more pronounced between 1920 and 1930 as the southern portion of the state gained more people. The area represent one-third, one-half and two-thirds of the total population, i.e., if more than half of the county fell within the circle, the figures for the entire county were included; for example, in 1930 Osaueke, Washington, Waukesha, Milwaukee, Racine and Kenosha have one-third of the total population, and two-fifths of the wealth, in terms of assessed valuation of property reported by the Tax Commission.

The concentration of population and the increase in centralization of wealth toward Milwaukee county from 1920 to 1930 are significant. At the former date the major portion of three tiers of counties out from Milwaukee contained one-third of the population and 36 per cent of the assessed valuation of property. Adding another tier of counties, the area included one-half of the population and 62 per cent of the assessed valuation.

Reference is made to the distribution of wealth on the per capita basis. (See figure 1.) On this basis the concentration toward the southeastern portion of the state appears less intense, although it is noticeably heavy in the territory formed by a line from the tip of Green Bay to the mouth of the Wisconsin River, with minor exceptions in the western and northern parts of the state. In 1920, the territory of concentration extended beyond this line and there were more significant exceptions.

Social Institutions and Agencies

Institutions and agencies are closely associated with standards of living as important factors in further economic and social development in different parts of the state. Many of these deserve consideration but satisfactory information is limited in most respects to trade and service centers, health maintenance, schools, churches, organizations, recreation centers, and transportation.

Trade and Service Centers. The location and size of trade and service centers have a significant bearing on rural living standards. To visualize the possible opportunities of farm people throughout the state varying areas are assumed for the different size centers; a 20-mile radius for places of 5,000 or more population and a 10-mile radius for those of 1,000 to 5,000, figure 32.

LOCATION OF POPULATION CENTERS WITH ASSUMED TRADE AND SERVICE AREAS FOR PRINCIPAL TOWNS AND CITIES

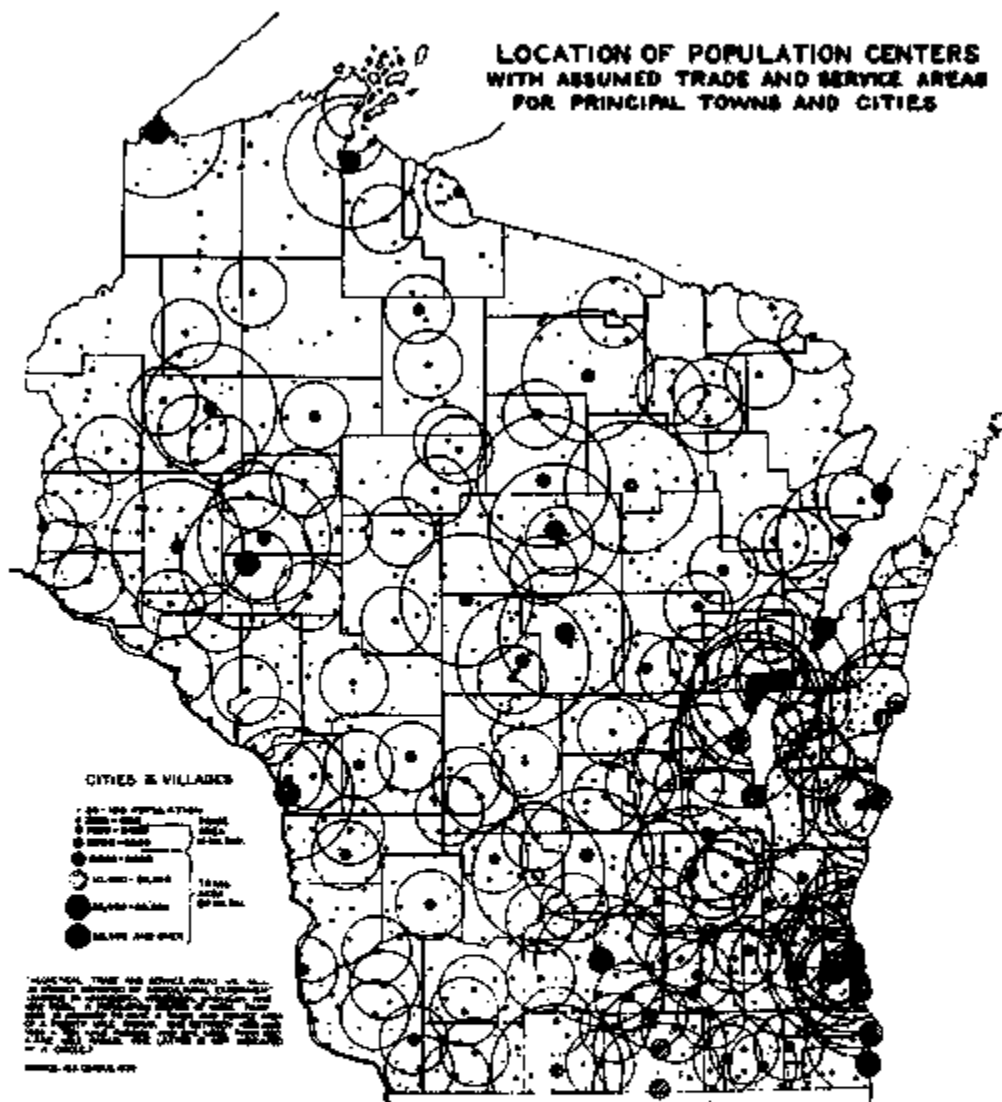


Figure 52. Location of population centers with assumed trade and service areas for the principal towns and cities shows that rural people in the north and west central areas are poorly provided with opportunities compared to the rest of the state.

It is realized, however, that these areas depend on kind of trade and transportation facilities almost as much as on size of center. The farmer is no longer bound to any single town but purchases some commodities, such as groceries and work clothes in the "home town", goes farther for some of the things he needs less frequently, such as ready-to-wear and furniture, because the matter of variety, selection and quality are considered and then, perhaps goes even longer distances to fulfill his cultural tastes.

It is clearly evident that the southeastern corner of the state is most extensively provided with trade and service centers. The assumed areas show many overlappings which would be even more noticeable if the boundaries of the larger centers such as Madison, Milwaukee, Racine and Kenosha, for certain services at least, were extended to include the actual territories which they serve.

Next in order, with respect to accessibility of trade and service centers, is the Fox River Valley section. The northern and west central portions are most void of trade opportunities; the former, to the extent that further agricultural development probably must be directed toward localities which have larger towns or even cities. Trade and service centers must be of sufficient size to furnish the fundamental elements of family and community living; the economic, including merchandising, marketing and financing; educational; religious or spiritual; communication and transportation; and social including organizations and recreation.

The relative inaccessibility of certain localities to the larger service centers is evident also from figure 53, which outlines boundaries of the 33 major trading areas.²⁴ It is significant that many communities in central and northern

24. The outlined areas should not be interpreted strictly as the degree of intensity of trade activities. Moreover, mapped by daily newspaper interests, they may be indicative of advertising possibilities, primarily.

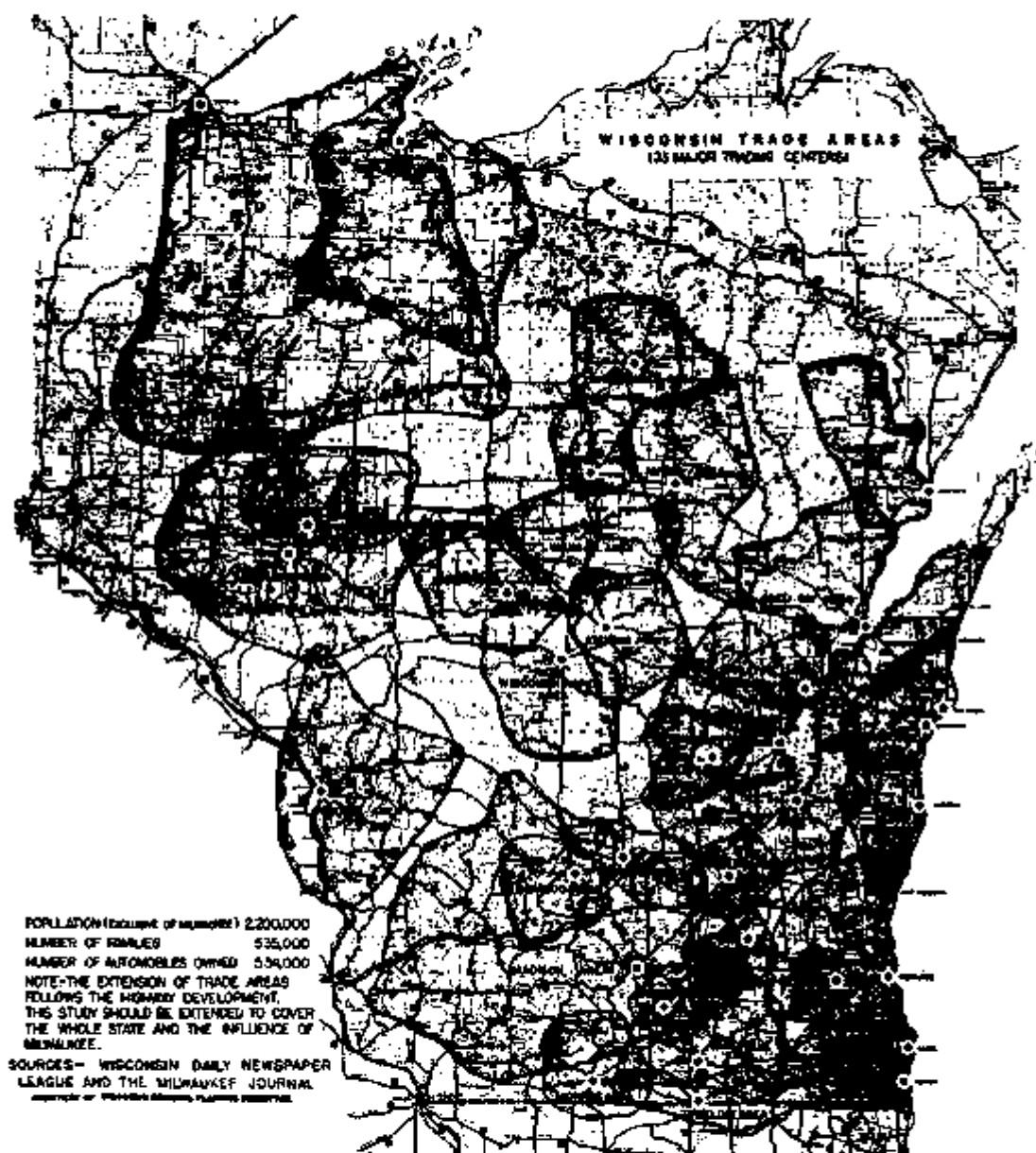


Figure 53. The thirty-three major Wisconsin trade centers show most overlapping in regions of concentrated population. There are certain tracts which are entirely outside of major trade areas.

Wisconsin are less accessible to trade facilities than are others. Although the sizes of certain areas, for instance Superior and Ashland, are authentic, intensity of trade activities within the areas cannot be truly realized from the shading.

Retail Stores. The number of retail stores, based on population, does not coincide with the trade and service centers to any noticeable extent, figure 54. The distribution of stores ranges from 12 to 24 per thousand people in the different counties. The high number in Vilas, Iron and Oneida is due in part to the demand made by summer tourists. The actual number of retail stores is of little consequence unless consideration is given to size of establishment, amount and kind of services rendered or extent of business. In this respect the average net sales per store is noticeably higher in the areas with larger trading centers.

Number of farmers per general country-store gives another indication of local opportunities for rural people. This classification includes farmers' supply and country general stores dealing in groceries, fertilizers, harness, seed and other agricultural supplies. There is little indication of outstanding regions or sections but noticeable variations occur between counties.

Health Facilities and Services. If the health of people is to be properly safeguarded, readily available medical, dental, nursing and hospital care at reasonable costs are essential. The actual number and location of hospitals is suggestive of the concentration of health maintenance facilities and services in the more populous sections of the state, figure 55. In 1934, Wisconsin had 128 general hospitals and only 12 counties were without such facilities. In addition to this type, there were 21 tubercular, 54 mental and a number of other specialized hospitals.

The health service index which is based on the number of registered nurses,

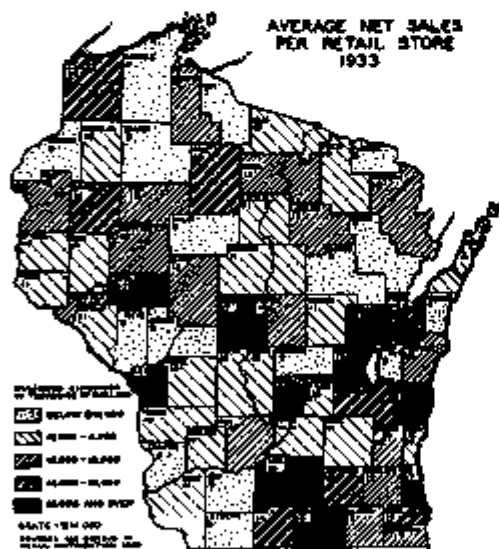
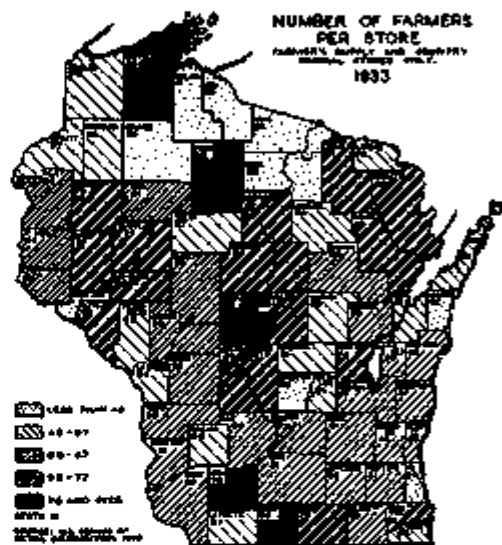
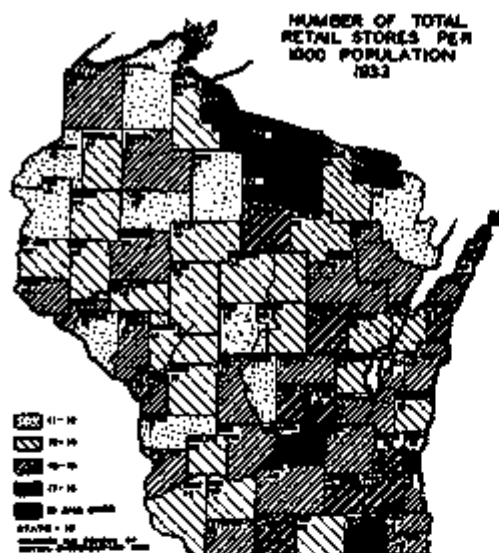


Figure 54. Number of total retail stores per 1000 population, average net sales per store and number of farmers per store suggest the rural trade possibilities by counties for 1933. They portray no definite areas due to the wide variety of establishments included among them.

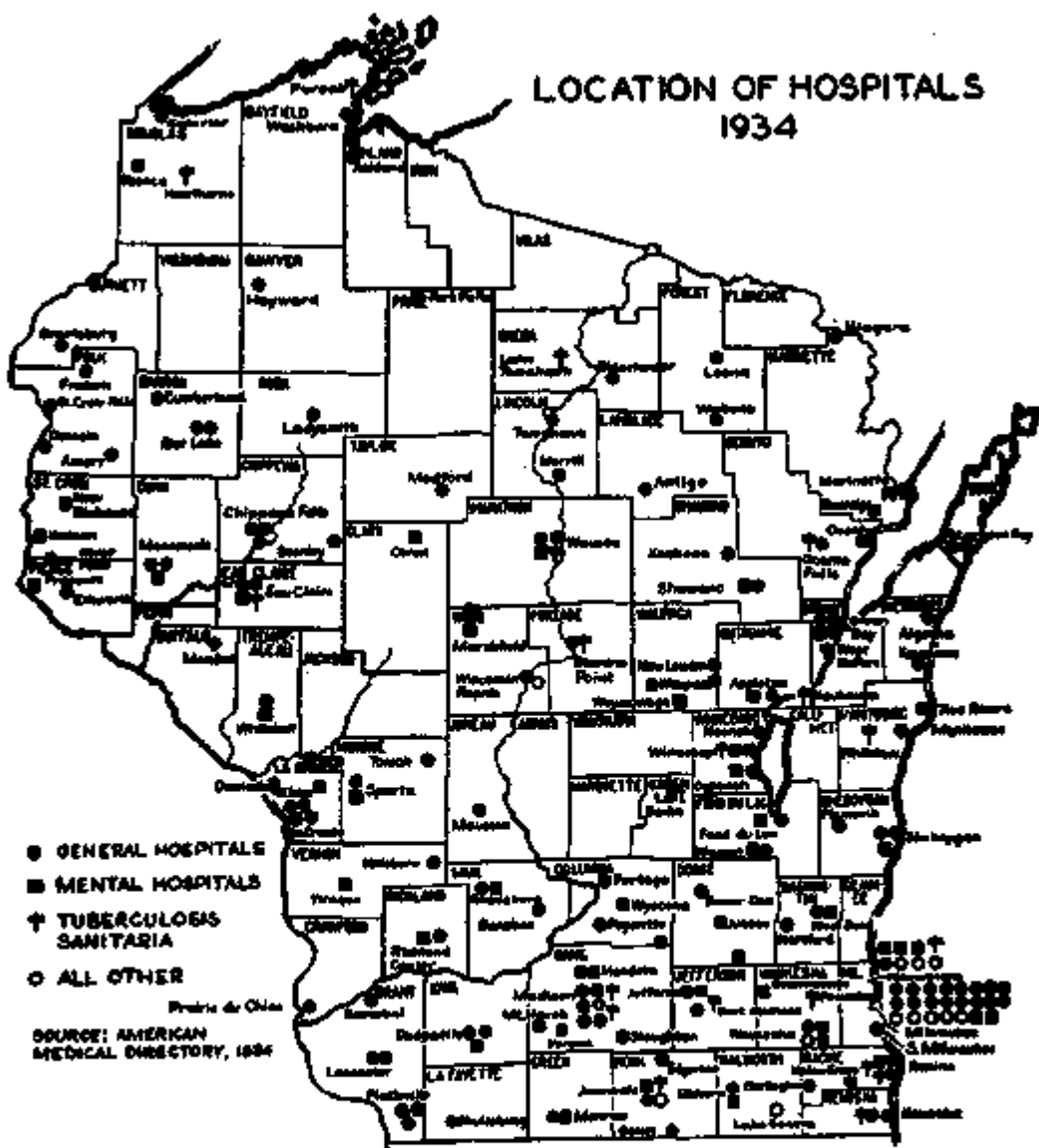


Figure 55. The location of hospitals shows a predominance in or near large centers of population, with the result that some portions of the state are poorly provided for or not served at all. This is especially true for the north and the southwest central part where some localities are as much as 50 miles from a general hospital.

dentists, and physicians per 1000 population is also indicative of the present situation, figure 36.²⁵ It does not portray any distinctly outlined areas but shows that the southeastern section is best supplied with health services; there are more positive than negative indexes there in contrast to the northern out-
over section which has a predominant number of counties with negative classifications. This haphazard picture is caused to some extent by the location of hospital facilities without respect to the density of population and to the failure of rural areas to keep pace with urban in the realization of health programs.

Attention is called to the fact that some communities depend on services in near-by counties where satisfactory facilities are already available. For example, most localities in Wood and Winnebago counties are easily accessible over good roads to Wisconsin Rapids or Stevens Point. In other words, improved transportation and communication facilities may mean that every county does not need a complete health maintenance unit.

Schools and Education. The presence or absence in any community of adequate educational opportunities is a matter of far reaching social and economic significance. In 1930, 98 per cent of all children between 7 and 13 years of age were reported as attending school, 86 per cent of those 14 and 15, 63 per cent 16 to 20. These percentages were all higher than for the entire United States, except

25. The health service index was devised on the assumption that it would portray the situation more effectively than any single factor. It was obtained by combining on a county basis the number of registered nurses, dentists and physicians, per 1000 population. To make the combination, the mean and standard deviation were calculated for each factor. The formula, $\frac{\text{number} - \text{mean}}{\text{standard deviation}}$ was then applied to each factor and an average taken of the resulting quotients. For the different factors as well as for the combined index, the average of the state is expressed as zero. Some of the counties fall below the average and, therefore, have negative rankings; others range above and have positive numbers.

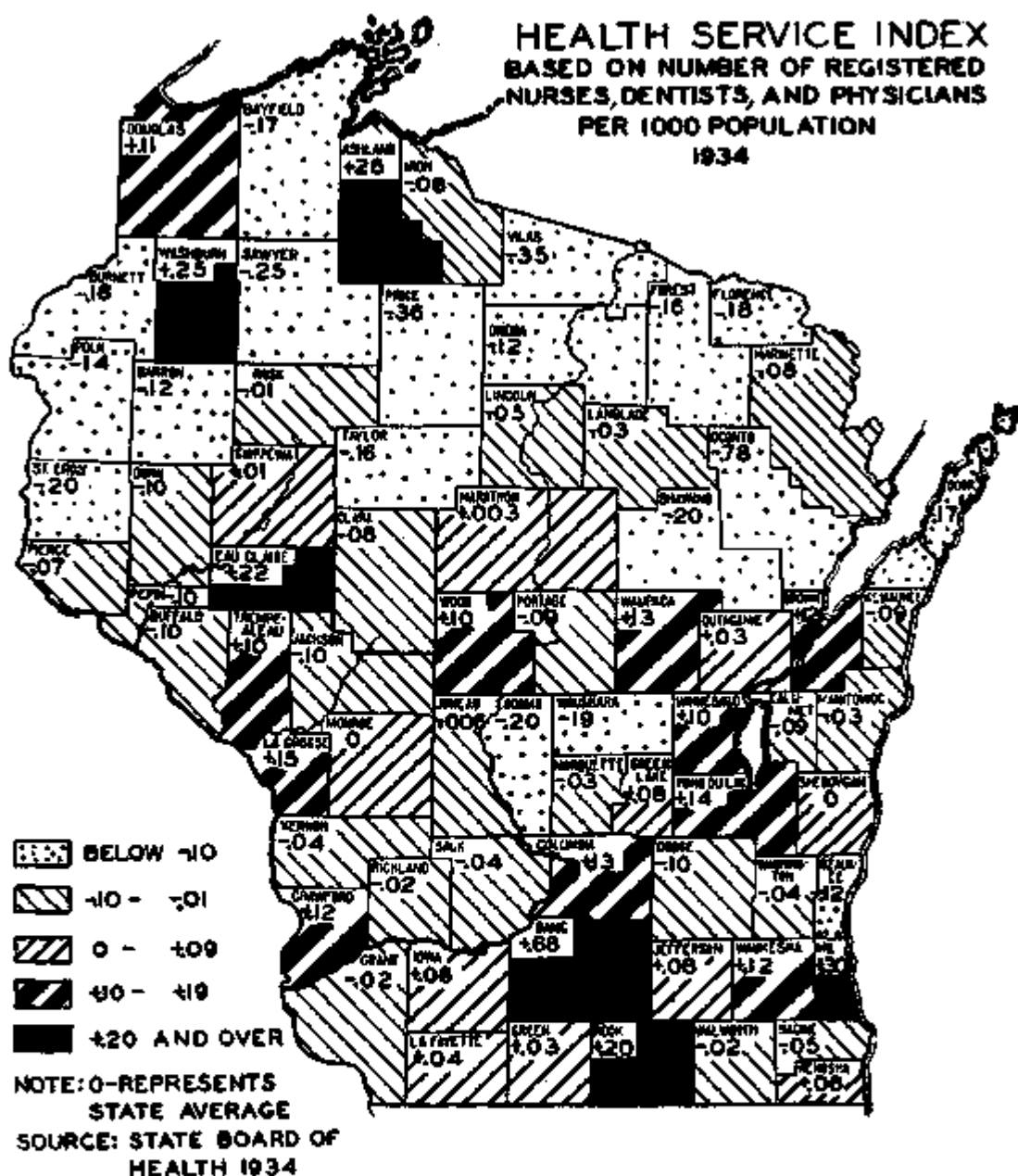


Figure 56. The health service index was obtained by combining statistically the number of registered nurses, dentists and physicians per 1000 population by counties according to footnote 28. It suggests a sparsity of these services throughout the northern part of the state except Ashland, Douglas, and Eschborn counties.

the 14 and 16 year group. For the state as a whole the percentages of rural children in school compared to urban were lower in all instances.²⁶ Although this cannot be attributed wholly to greater advantages in the urban school system, it is worthwhile to consider briefly educational facilities and opportunities for rural young people. In the main, these are provided through the rural district, state graded, and high schools.

Rural district schools. In a recent analysis made for the year 1933-34, there were 6,248 districts designated rural. (This excludes the closed and transport schools.) Only one of the rural districts has a three-room, three-teacher institution, 26 have two teachers and the remainder have one. There is a wide variation in the size of the one-teacher schools, as indicated by the analysis; 69 have more than 50 pupils while 69 have 5 or less. Therefore, "there is as great a problem of education in the too large as there is in the too small rural school in the state".²⁷

The average size of school per county in terms of the number of pupils per teacher shows considerable variation throughout the state, figure 57. In the school year 1933-34 there were 176 schools with 46 or more pupils enrolled and the majority of these were taught by one person. They are located primarily in a strip across the north central part of the state from Polk and Pepin counties east to Kewaunee.

In recent years several counties have materially reduced their number of

26. Data taken from School Attendance, 1930 U. S. Census, Vol. II, Chapter 12, p. 1104.

27. Our Small Enrollment Rural School, Wisconsin Teacher's Association, Madison, 1935, p. 6

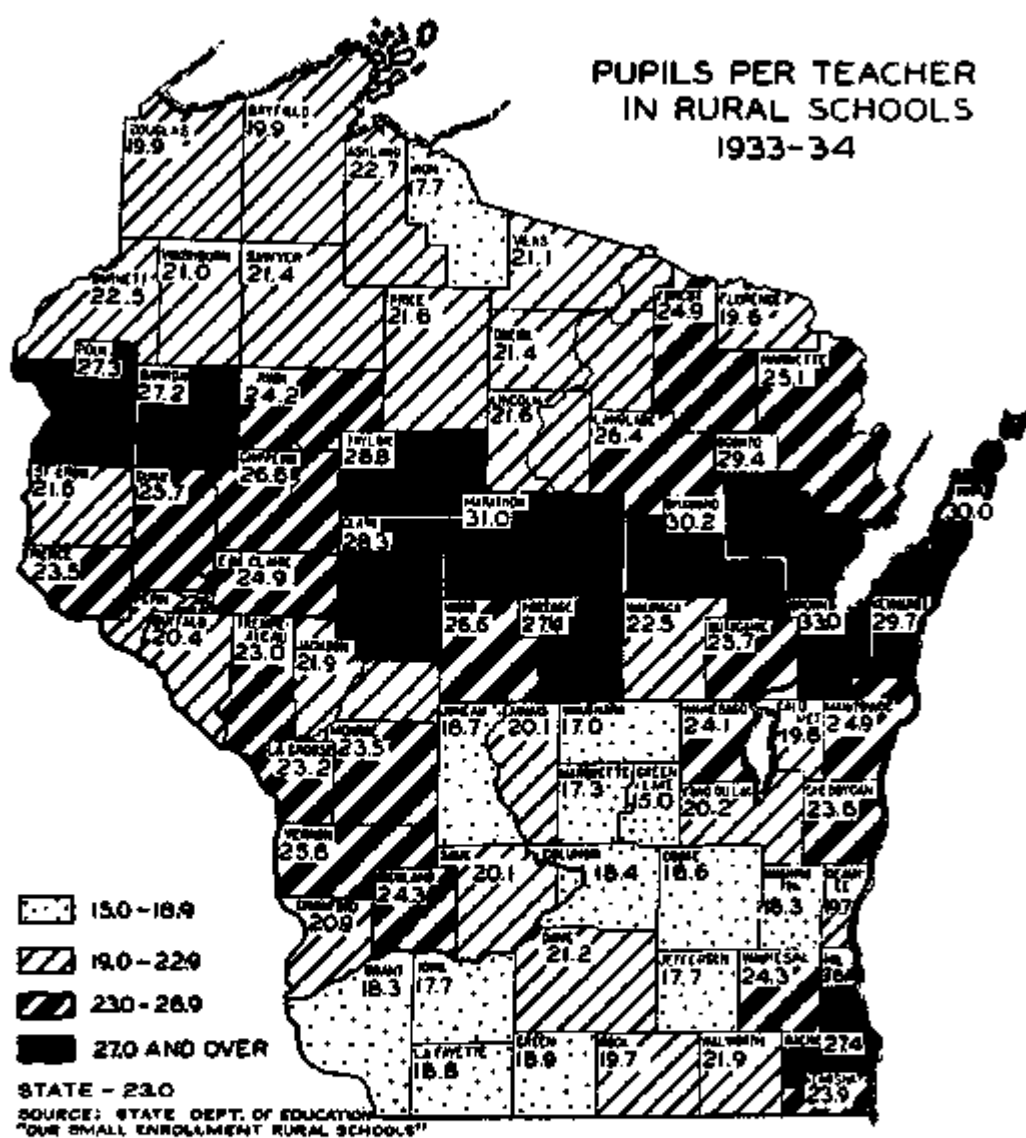


Figure 57. Pupils per teacher in rural schools, 1933-34, show significant variations throughout the state. The north central area has a noticeable lack of teachers compared to other regions except the extreme southeastern corner, with this factor used as a measure.

schools, figure 58. Only two regions show an increase or no change during the period between 1926 and 1932, the east central and southwestern. The southern and central portions of the state show only a slight decrease while the north indicates the most pronounced decline, more than ten per cent.

According to the study already referred to, the totals (representing the state as a whole) show that the number of schools with 5 or less pupils enrolled decreased from 96 to 69 for the period 1929 to 1934. This is a percentage drop of more than 28. Every year shows a decline in the number of rural schools in the state. This is not a happenstance but is the result of hard work and a persistent fight against local opposition made by county superintendents and others interested in education.²⁸

State graded schools. There are approximately 700 state graded schools regulated by the Department of Public Instruction. The specifications under which they operate include definite qualifications of teachers, requirements for equipment and maintenance of buildings, maximum average daily attendance, inspections by the department and use of a course of study prepared by the state superintendent. These schools are divided into two classes. The first has 3 or more teachers and offers eight grades or may provide ninth and tenth if five or more are employed, and the second has two teachers and offers the first eight grades only.

State graded schools have had a growing emphasis in recent years, standing out significantly in certain localities, figure 59. This applies particularly to the southeast, around Milwaukee, Kenosha and Racine, the east central near Green Bay and the west north central portion of the state in close proximity to St. Paul.

High schools. There are three types of high schools in the state; namely,

28. Adapted from Our Small Enrollment Rural Schools, Wisconsin Teacher's Association, Madison, 1935, p. 8-9.

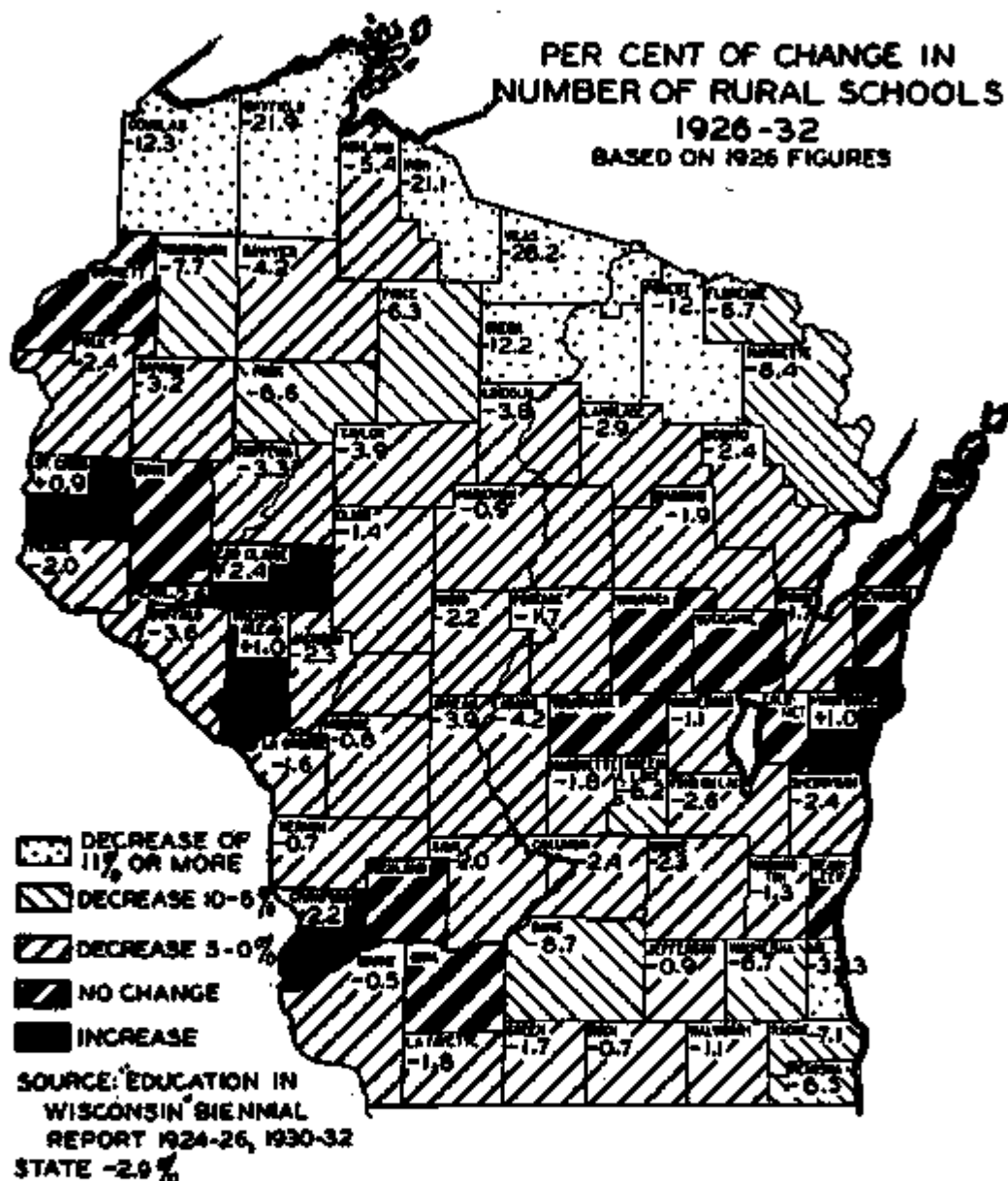


Figure 58. Per cent of difference in number of rural schools, 1926-32, indicates a decrease of 2.9 for the state. This trend is most noticeable in the northern and southeastern parts; the opposite applies to the western and east central portions.

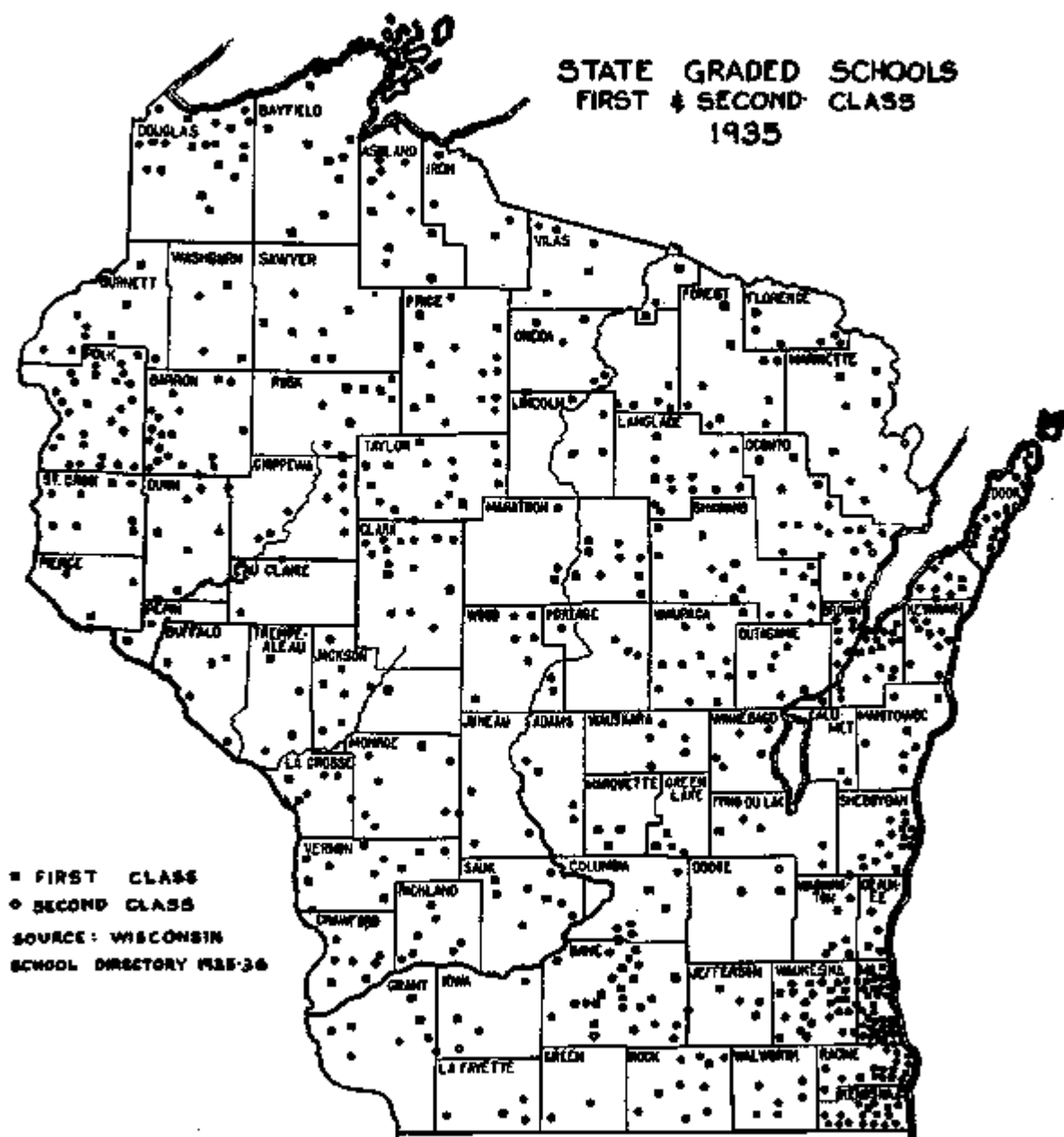


Figure 59. State graded schools of the first and second class show a preponderance in the eastern portion of the state near Milwaukee, Racine and Kenosha and the Green Bay areas as well as Dane county in the southern and Polk and Barron in extreme western portions. Schools of the first class which have 3 or more teachers and offer 8 grades or may provide 9 and 10 grades if more than 6 teachers are employed, do not out-number those of the second class (having two teachers and offering 8 grades only) in any given locality.

District, Union Free and Consolidated. According to definition any common school district having an assessed valuation of \$1,250,000 or more may establish a District High School; two or more such districts having the same valuation may be a Consolidated unit and a school may be established in any contiguous compact territory, outside of cities, having an area of not less than 36 nor more than 72 square miles, with at least the assessed valuation indicated above, to be known as a Union Free High School.²⁹ In 1934-35 there were approximately 427 districts operating 442 high schools; 63 were classified as Union Free; 9 as Consolidated and the rest as District. The location of the schools and their tax supporting areas are shown in figure 60.³⁰ No apparent regions are evident other than the northern part of the state where a large portion of the territory is within districts. It is significant, however, that more than 80 per cent of Wisconsin is outside of any district. In other words, high schools are limited to cities and towns primarily while most rural areas have none they can call their own.

Institutions of higher learning. To a large extent the status of rural schools depends upon the training provided by institutions of higher learning within the state. These include the endowed colleges, the university, Stout Institute, state teachers colleges, county normals, high school training schools and county schools of agriculture and domestic economy. Their location is indicated in figure 61. It is evident that there is concentration of the endowed colleges in the southeastern portion of the state. The teachers colleges are well distributed except for the northern section which has only one, Superior. The county normals and training schools are widely scattered throughout the state.

29. Adapted from Wisconsin Regional Plan Report. Wisconsin Regional Planning Committee, 1934, pp. 114-115.

30. Extent of high school districts is taken from the map in the Biennial Report 1934-35, State Department of Public Instruction. The location of high schools was checked against the Annual Directory for 1934-35.

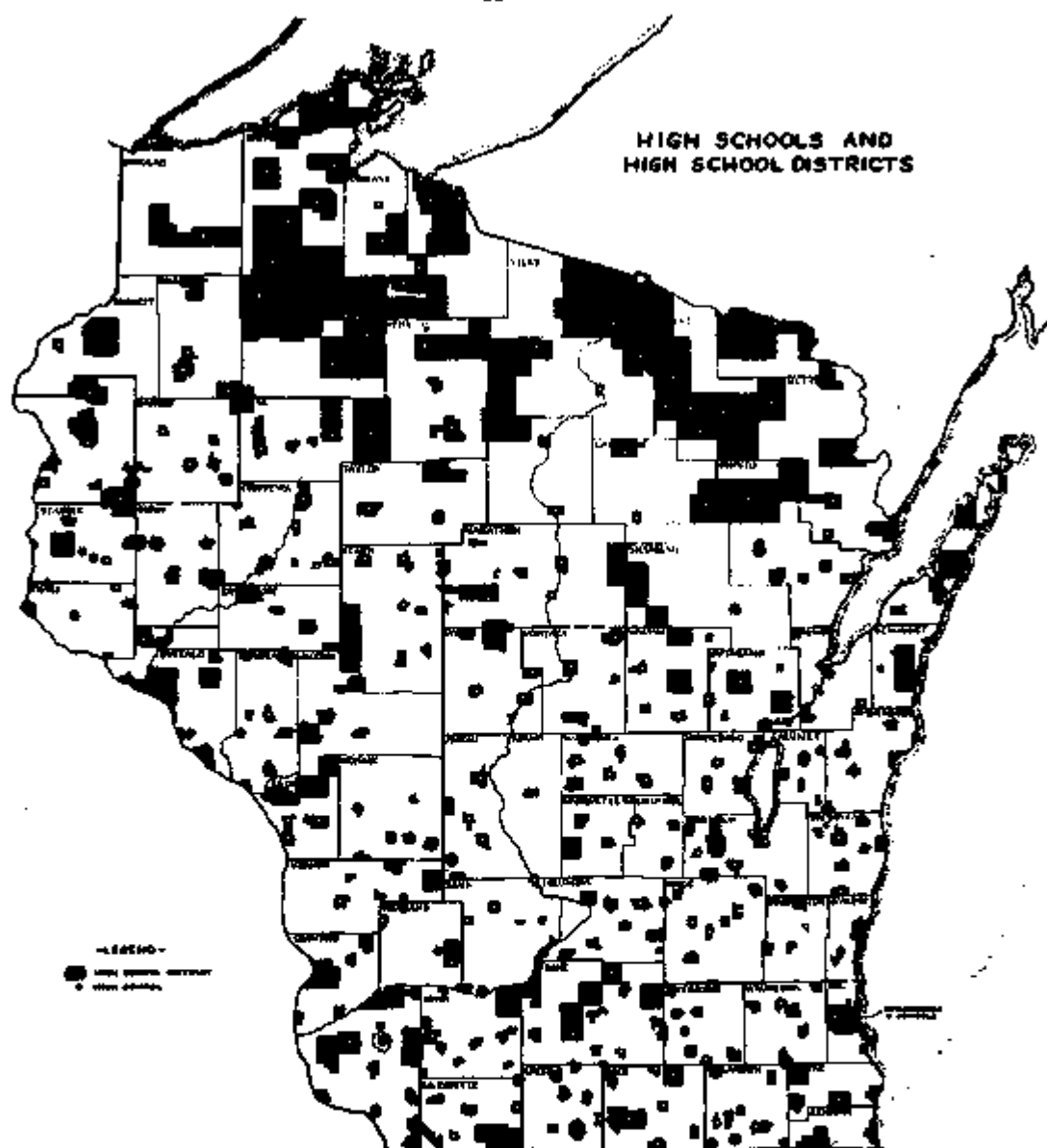


Figure 80. High schools and their districts exhibit a distinct contrast between the southeastern and northern portions of the state; the former with more institutions and the latter with proportionately more territory in the districts. Eighty per cent of the state's area is without a high school of its own. Therefore, rural children are tuition pupils in city or town districts but their parents have no part in formulating policies.

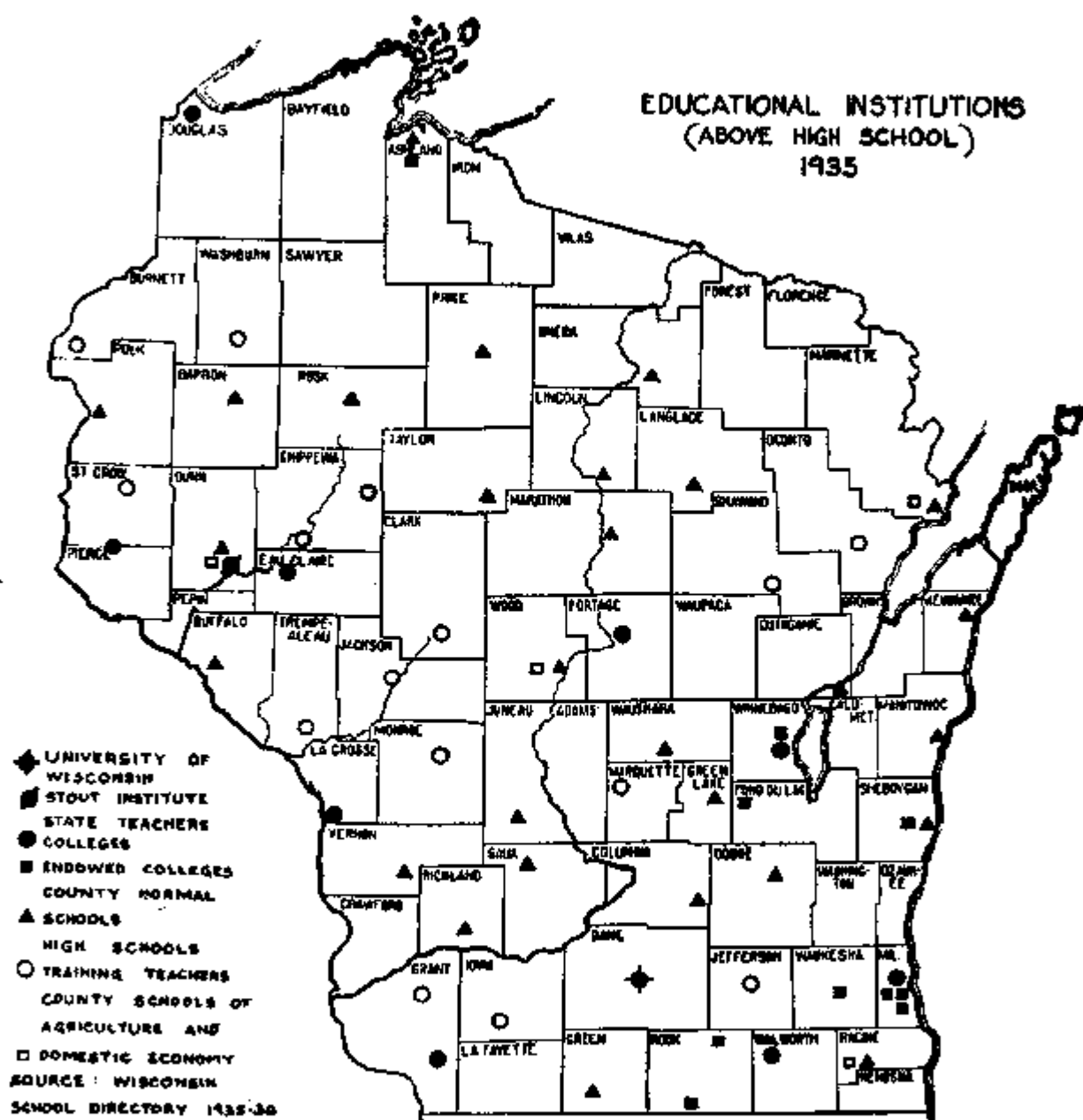


Figure 61. Educational institutions above high school show a concentration of non-state supported colleges in the southeastern section. The eight state teachers colleges are well distributed in the southern half of the state with the ninth in the extreme north at Superior. The county normals and training schools are fairly widely distributed.

Without doubt there are enough institutions for the training of teachers. The question may well be raised, then, as to whether some of the present institutions cannot place more emphasis on an education for satisfactory living regardless of whether the student plans to teach, farm or pursue some other occupation. There is a growing need for informal educational programs which stress the economic and social aspects of farming and rural living.

Illiteracy. Although the proportion of illiterates in the total population is low, less than 2 per cent in 1930, it should be expected to reflect the presence or absence of educational advantages, figure 62. It must be borne in mind, however, that the bare ability to read and write is an extremely low measure of school accomplishment and, according to the Census, an illiterate is "any person 10 years of age or over, who is not able to read or write, either in English or some other language".

Wisconsin's rate of illiteracy is lower than any state east of the Mississippi, except Indiana, and much lower than the entire United States which was 4.3 per cent in 1930. Over half of the illiterates were foreign born people and the majority of them in advanced age.

Free Libraries. The location of libraries and the number of available volumes in them for public use are suggestive of the opportunities for educational development of all people whether connected with school or not. There is a decided correlation between centers of population and size and location of libraries; far more per given area in the southeastern than in any other portion of the state, figure 63. The next highest number is in the southwestern and western section and the lowest in the central and northern portions of the state, although these areas of distribution are not as definitely marked, as with many other factors.

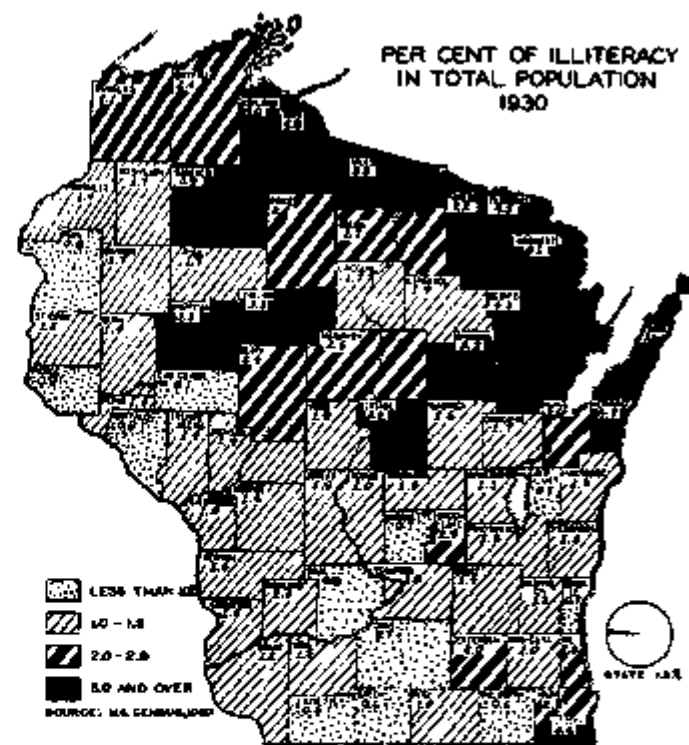
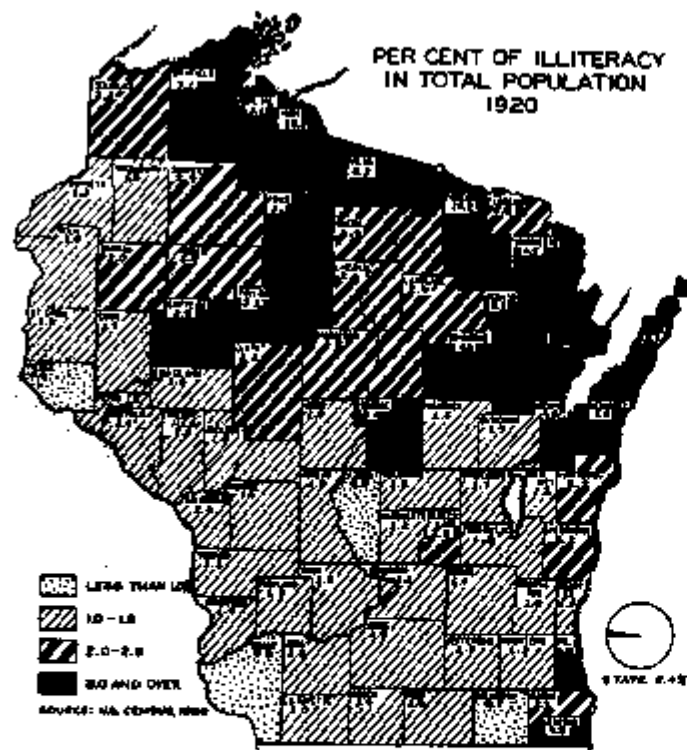


Figure 62. Per cent of illiteracy is lower for Wisconsin than any other state east of the Mississippi, except Indiana, and much lower than the entire United States which was 4.5 per cent in 1930. There has been a commendable reduction since 1920.

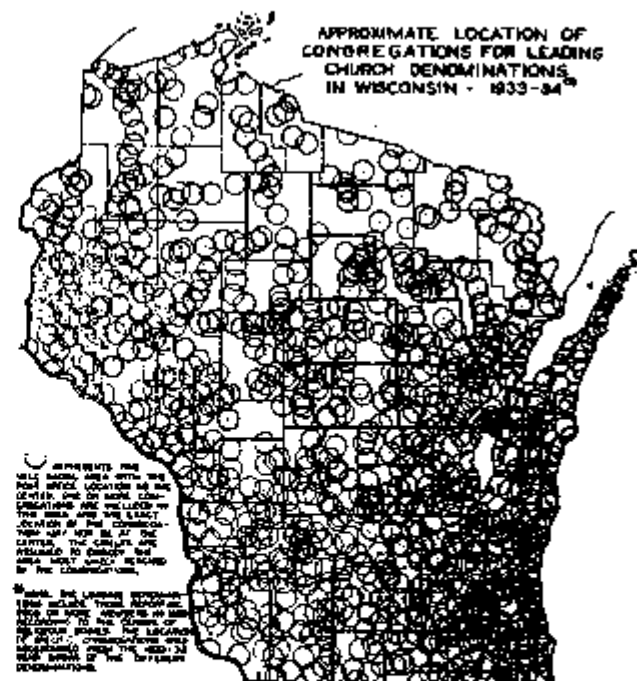
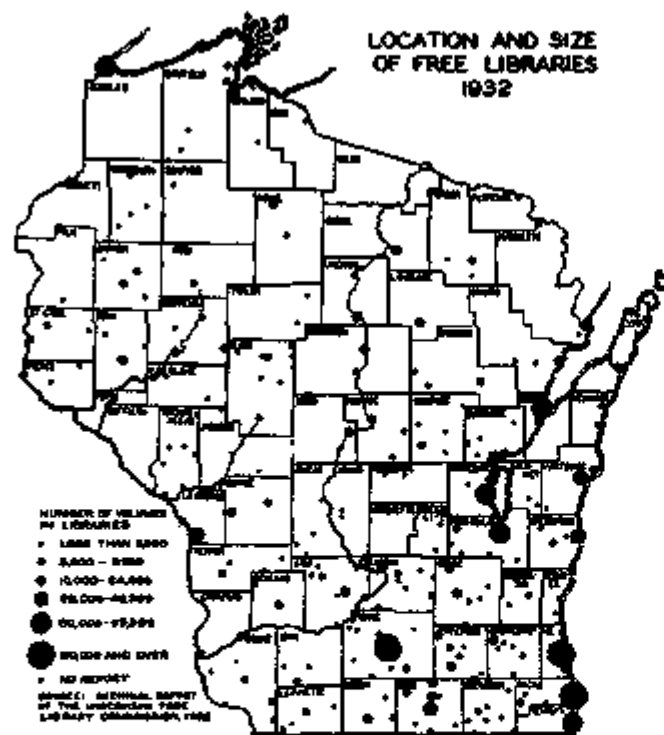


Figure 53. Location and size of free libraries, 1932, and approximate location of congregations for leading church denominations in Wisconsin in 1933-34 follow closely density and centers of population.

Even though libraries are designated as free, there is an increasing number since the depression that charge a fee to borrowers who live outside the area supporting them. According to the 1924 yearly reports there are 30 institutions which designated such a sum required (usually \$1 per year) for the use of books. Rural people are more fortunate in many localities, however, since facilities are available to them either free or because the county or township has made an appropriation to the city or village. There are 22 libraries receiving contributions from county funds and approximately the same number which get some aid from surrounding townships. These appear to have no association with definite sections of the state. In two counties (Burnett and Vilas) there are no public library facilities whatever.

Churches. The state as a whole had 4,883 churches with approximately 1,500,000 members at the time the census of Religious Bodies was taken in 1926. Nearly two-thirds were designated as rural. Even though there were fewer urban churches, they had a higher average membership than those in rural areas, 874 compared to 184.

The approximate location of churches as represented by congregations of the leading denominations is similar to the distribution of population as well as trade centers, figure 64. Outstanding sections with respect to churches are southeastern with greatest density, southwestern and north central with mid-density and central and out-over with relatively few congregations. It is noteworthy that church groups tend to follow transportation facilities, fingerlike fashion, in the northern part of the state.

An indication of the different denominations found in each county and the proportion of the population belonging to church is shown in figure 64. A region of high membership extends from the east central portion of the state westward beyond the center which indicates that the number of members does not necessarily depend on the density of congregations.

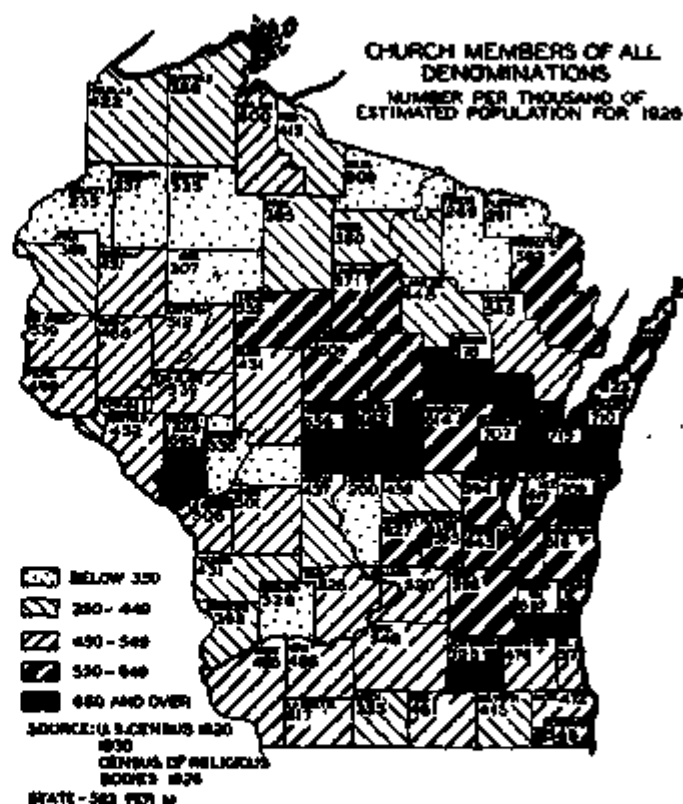
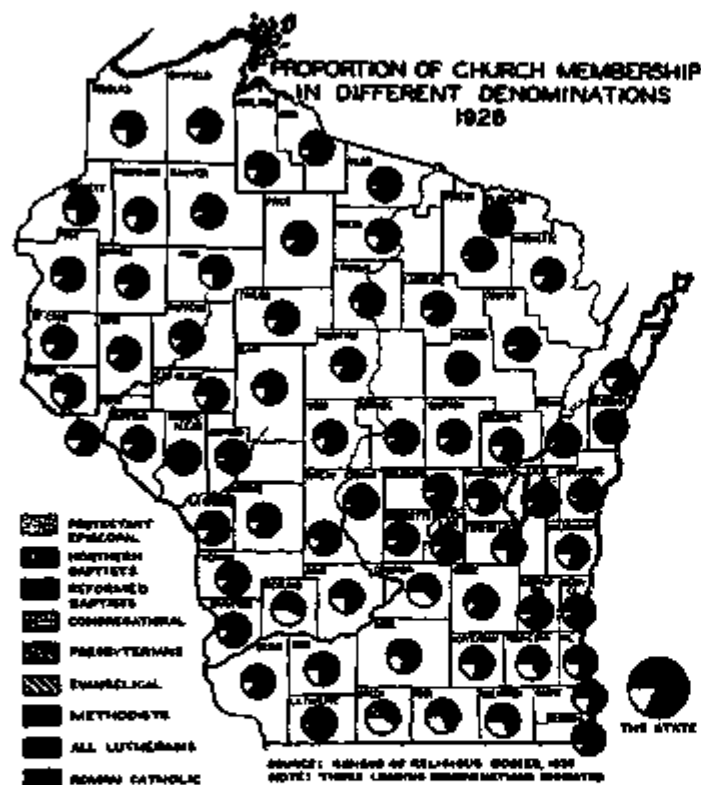


Figure 84. Church membership and proportion of same in different denominations show wide variations by counties. The three leading groups are Roman Catholic, Lutheran and Methodist. Membership is highest in the north central and eastern sections and lowest in the northern part of the state.

There is a predominance of Catholics and Lutherans throughout most of the counties and for the state as a whole. From the 1926 census of Religious Bodies, the latest comparable data available, Roman Catholic leads the state in both number of churches and total membership. The Methodists have the next largest number of churches but Lutherans (Synods of Wisconsin and Missouri) ranked higher for members. In only one county, Green, does any denomination other than Catholic or Lutheran take the lead in membership.

Local Organizations. The social life of separate communities is not fully portrayed by trade and service facilities, formal educational opportunities and church membership. Therefore, the different local organizations of an economic and a socio-civic nature also need to be considered. Those closely associated with the development and general welfare of rural families include cooperative enterprises, community clubs, and special interest groups which foster social and educational programs, whether or not they are affiliated with state or national organizations.

Farm cooperatives. There are approximately 1600 active farmers' cooperative associations in the state including butter, cheese, milk, livestock shipping, petroleum, warehouse, general stores and others such as tobacco pool, cherry growers' union and cranberry exchange, figure 55. The distribution of these shows a preponderance from the east central portion of the state southwestward to Grant county, and also through the north central dairy area to Barron, Polk and St. Croix counties. In southeastern Wisconsin, except for several counties along the lake shore, fully as high if not a higher proportion of farmers are members in associations which serve larger areas. They are noticeably sparser in the southwest central and northern sections of the state where farming is often supplemented with outside work opportunities.

FARM COOPERATIVE ORGANIZATIONS

1936

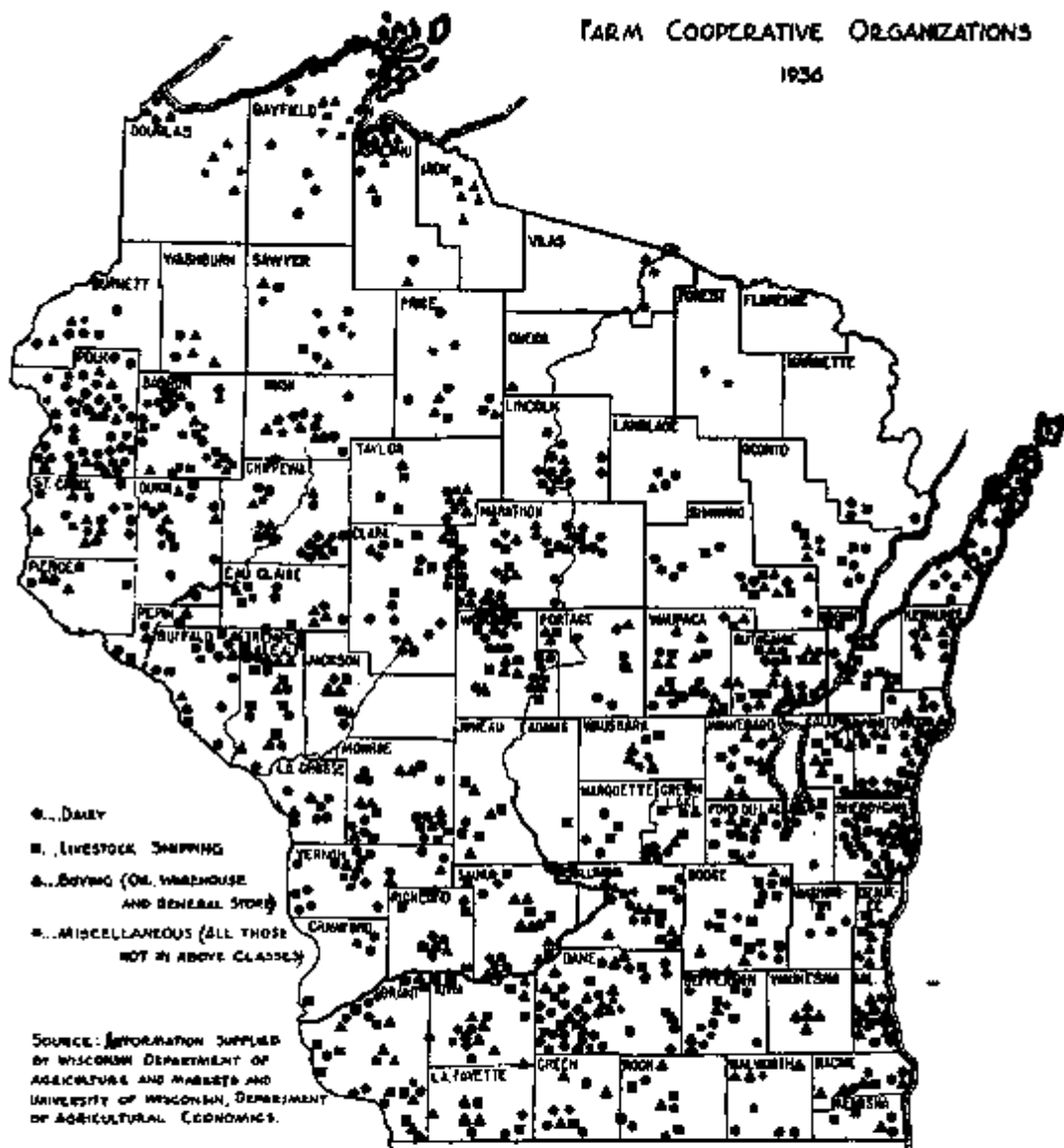


Figure 85. Farm cooperative organizations are designed, primarily, to aid rural people in their selling and buying activities. The dairy classification includes cheese factory, creamery, and market milk groups. The shipping associations are concerned for the most part with livestock. In the buying class are those handling feed, seed, twine, gasoline, oil, hardware, and general merchandise. Most numerous among the miscellaneous are those concerned with more than one type of enterprise, the breeders' associations, and groups selling specialized crops.

Rural social organizations. The local organizations with state or national affiliation include parent-teacher associations, granges, women's clubs, equity unions, farm bureaus, progressive farmers and milk pools, figure 66. In most instances they sponsor programs which are fostered by the state or national agency of which they are a part.

The P. T. A., made up of parents and teachers in local school districts, has for its primary objective the improvement of conditions in home, school, and community through educational and recreational activities. The Grange, a fraternal organization for farm families, carries on a social program, usually on a township basis. The Women's Clubs, centering in towns and villages, have as their objective the "study of human relations and the promotion of culture". Even though the Farmer's Equity Union, Farm Bureau, Progressive Farmers of America and Milk Pools are interested primarily in improving the economic situation of farmers through cooperative buying and selling, they usually promote social and educational meetings in addition.³¹

With respect to all affiliated clubs, areas of concentration are noticeable in the southeastern, near the east central, across the west central, and in the extreme northwestern portions of the state. It is significant that parent teacher groups are predominant in Kenosha and Racine counties as well as Douglas. Equally significant is the preponderance of Farmer's Union groups in west central counties, Granges in Walworth-Rock and west Green Bay areas and Milk Pools in Marinette County. Affiliated Women's Clubs are scattered fairly well throughout the state, mainly in the vicinities of towns or fairly large villages.

31. These social organizations which have cooperative business undertakings as a part of their program may be listed also on the Farmers Cooperative Map, Figure 65.

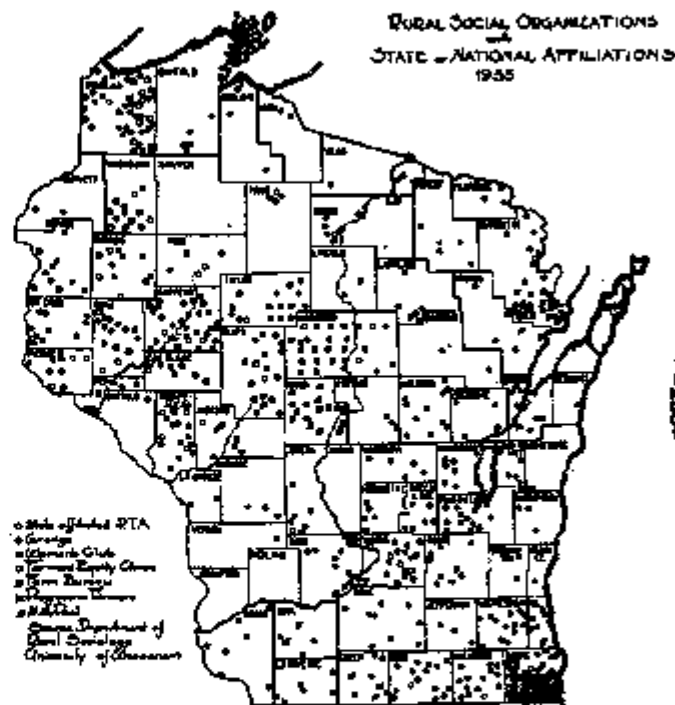
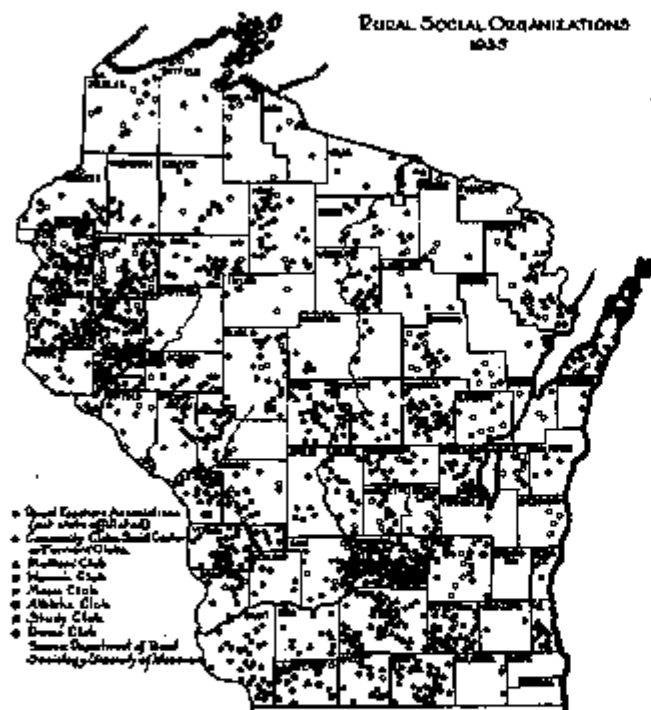


Figure 66. Rural social organizations are of many types whether or not they are affiliated with county, state, or national associations. The local club tends to vary in size and activity according to interests and needs in the community as well as to available leadership. It is apparent that some parts of the state are well supplied with these educational and social groups while others show a sparsity.

The non-affiliated local groups include parent teacher associations, and community, farmers', mothers', women's, study, music, drama, or athletic clubs. In objectives and programs, these parent teachers groups are similar to those which are affiliated, with perhaps a greater emphasis on actual close-at-hand problems; in fact some of them may have been connected with county, state or national associations at one time or other.

Community and Farmers' Clubs are family type organizations for sociability, entertainment and local improvement purposes. Occasionally they sponsor other groups interested in drama, music or discussion. Unaffiliated Women's, as well as Mothers' Clubs are concerned with betterment of the immediate neighborhood or community while drama, music and athletic groups pursue the different special interests which their name indicates, for the pleasure and advancement of members which compose them.

Distribution of the unaffiliated groups shows concentrations from the south central portion of the state north and westward, connecting with another region of prominence from Dunn, St. Croix, Polk and Barran counties northeastward. Still another region of concentration extends from Grant county along the river to Dunn and St. Croix.

It is significant that unaffiliated Parent Teacher Associations are noticeably prominent in the central western, extreme northwestern, and south central portions of the state; in the last of these regions they tend to group themselves around the Community and Mothers' Clubs. Community Clubs are predominant in the south and north central and southwestern portions of the state.

Adjuncts to educational set-ups. Other local clubs, more or less closely associated with educational programs include the Future Farmers of America connected

with agricultural departments in high schools and Homemakers' and 4-H Clubs fostered by the Agricultural Extension Service, figures 67 and 68. The activities of their local units are primarily vocational with an increasing emphasis on the social aspects, in F. F. A. and 4-H groups particularly.

Although the Future Farmer Chapters, designed for boys taking work in agriculture, are widely scattered throughout the state there is a predominance in the extreme western portion along the river, south and then across to the Green Bay section. It is noteworthy that there are still possibilities for chapters in some of the southern and east central schools. However, only twenty per cent of all the departments are without organized local chapters at the present time.

The Homemakers' Clubs consisting of rural women who meet to study various phases of homemaking, are usually under the direction of the County Home Agent or State Extension Specialist. Members serve as local leaders to relay the demonstrations given at established centers to their home neighborhood or community. Several counties have no organized homemaker groups since home economics extension work is relatively new and many have no demonstration agents. (see figure 67)

As with homemaker clubs, the distribution of 4-H groups varies according to social-mindedness of the people and aggressiveness of the extension workers. They are more widely scattered, however, due undoubtedly to their being advocated and promoted for a much longer period. The separate units appear to be fairly evenly distributed throughout the state with slight indications of a sparsity in the west central and northern portions, besides more noticeable exceptions in separate counties. The relative frequency of clubs is substantiated, to some extent at least, by the distribution of members, on a county basis.

There were 1000 4-H Clubs functioning in the state in 1934, representing a

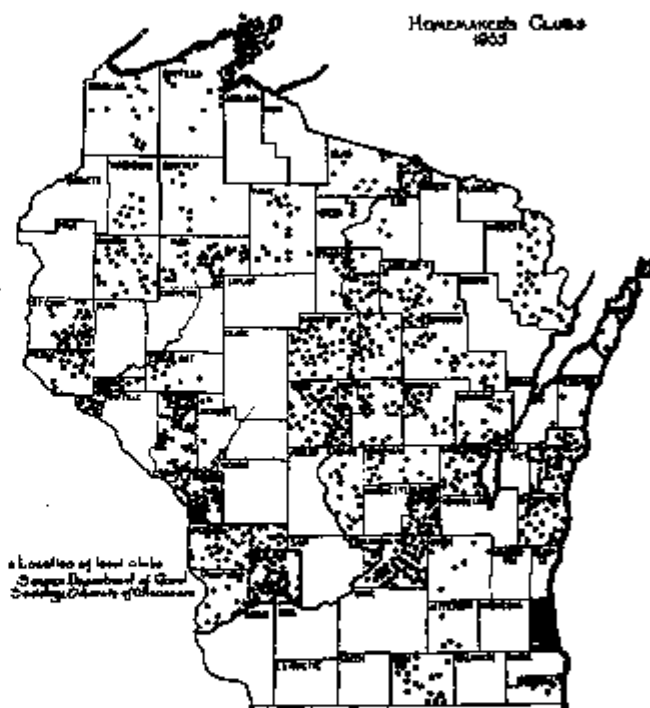
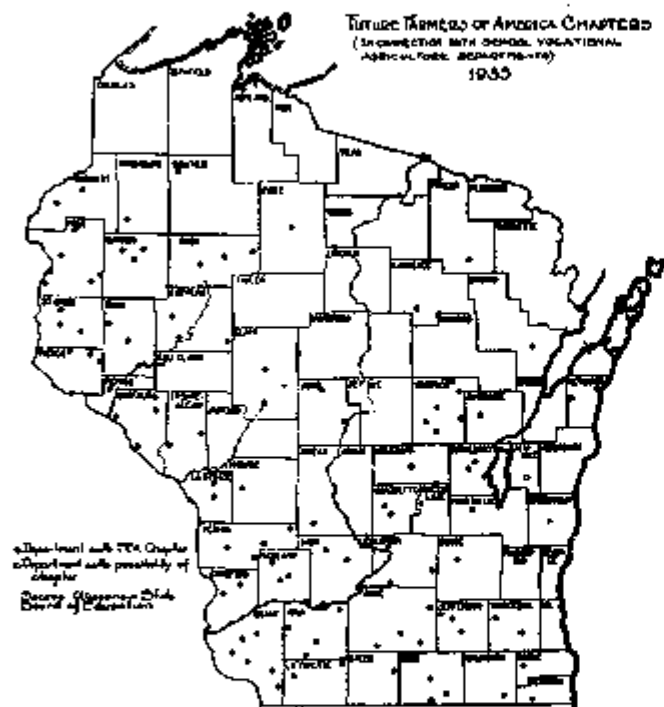


Figure 57. Future Farmers of America are composed of boys who are or have been enrolled in high school departments of vocational agriculture. The groups are widely scattered in approximately 80 per cent of the schools. Homemaker's Clubs consist of rural women who serve as leaders to relay information from the Extension Specialist to their neighbors. Since the home economics extension work is comparatively new the formation of local clubs has not reached all counties.

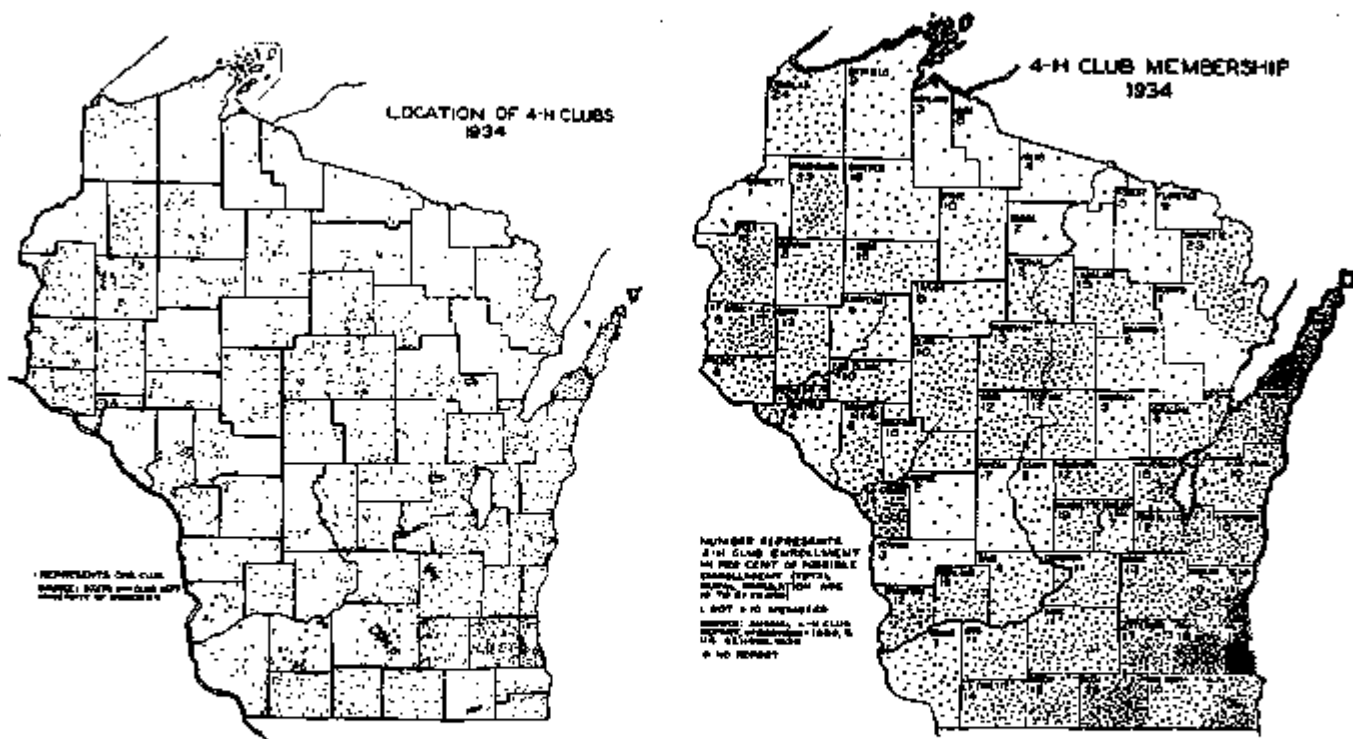


Figure 69. The location of 4-H Clubs and extent of membership indicate that the program reaches all sections of the state, with greater activity in some counties than in others. The movement which is sponsored on a national basis is social and educational with emphasis on the individual project method of learning, for rural boys and girls, 10-20 years of age. In 1934 nearly 31,000 or 5.5 per cent of those eligible in Wisconsin were reached by club activities.

total of almost 21,000 rural boys and girls, ages 10-20 years. Slightly more than half of these members were girls. In many counties, only a small percentage of rural boys and girls participate in 4-H activities.

Other rural groups. It is recognized that there are other social groupings with which rural people are associated. Many farm families are connected with fraternal orders, church organizations, and informal neighborhood groups. Frequently farm boys and girls belong to Scouts, Y.M.C.A. or Y.W.C.A. and other clubs which serve their interests. All of these, which bear directly or indirectly on family and community life, are essential to the development of rural people.

Recreation. With the increased emphasis on leisure time available for recreation there is a greater demand for facilities and opportunities to accommodate the people. "The wealth of natural features with which Wisconsin is endowed makes it an ideal region for recreational development. Only parts of Minnesota, Ontario and Finland can claim as many lakes per square mile as occur in the highland district of Northern Wisconsin. Thousands of miles of streams and thousands of square miles of lakes offer excellent opportunity for fishing and winter sports. Vast areas of forest lands harbor wild game of many kinds. Hundreds of miles of shore line and a forested terrain offer a constantly changing panorama. Many parts of the state abound in Indian lore and a rich historical background is an added attraction. Opportunities for out-of-door recreation cannot be excelled."³² Up to this time the development of the recreation industry has been left largely to the initiative of owners of commercial resort and shore properties.

32. Forest Land Use in Wisconsin. Report of the Committee on Land Use and Forestry, Madison, 1932, p. 65.

The location of both public and private recreation facilities including camp grounds maintained by village or city, privately owned tourist camps, recreational camps, state parks, and fish hatcheries shows a preponderance in the extreme southeast, extending into the central and northern portion of the state, figure 69. The different facilities, with respect to their location, are not suggestive of recreational regions which coincide with those indicated by other social and economic factors in the state.

The free tourist parks maintained by city and village funds are well scattered over the state whereas privately owned camps are concentrated around river or lake districts and scattered along the main traveled highways. The recreational camps are situated primarily in the Lake Geneva and Oconomowoc-Waukesha Lake District and "Land of Lakes" area in Vilas, Oneida and Lincoln counties. There are fourteen State Parks, developed since 1900, which mark historical points or outstanding beauty spots of state wide significance. Eight of these were acquired as gifts; all comprise a total land area of 11,000 acres. The state forests while they may possess scenic, historic and recreational significance are primarily intended to produce timber.

Highways. Roads are of primary importance to rural life. Those which can be traveled in all kinds of weather are an outstanding adjunct to social development. Wisconsin has made rapid progress in highway construction particularly in the eastern glaciated area where gravel is plentiful. Here, the program has proceeded more rapidly than in the unglaciated region of the southwest where construction is difficult due to the lack of materials and to the hilly topography. Other factors such as density of population, degree of industrial development and availability of funds have, of course, been influential.

The proportion of the total number of farm homes situated on improved roads

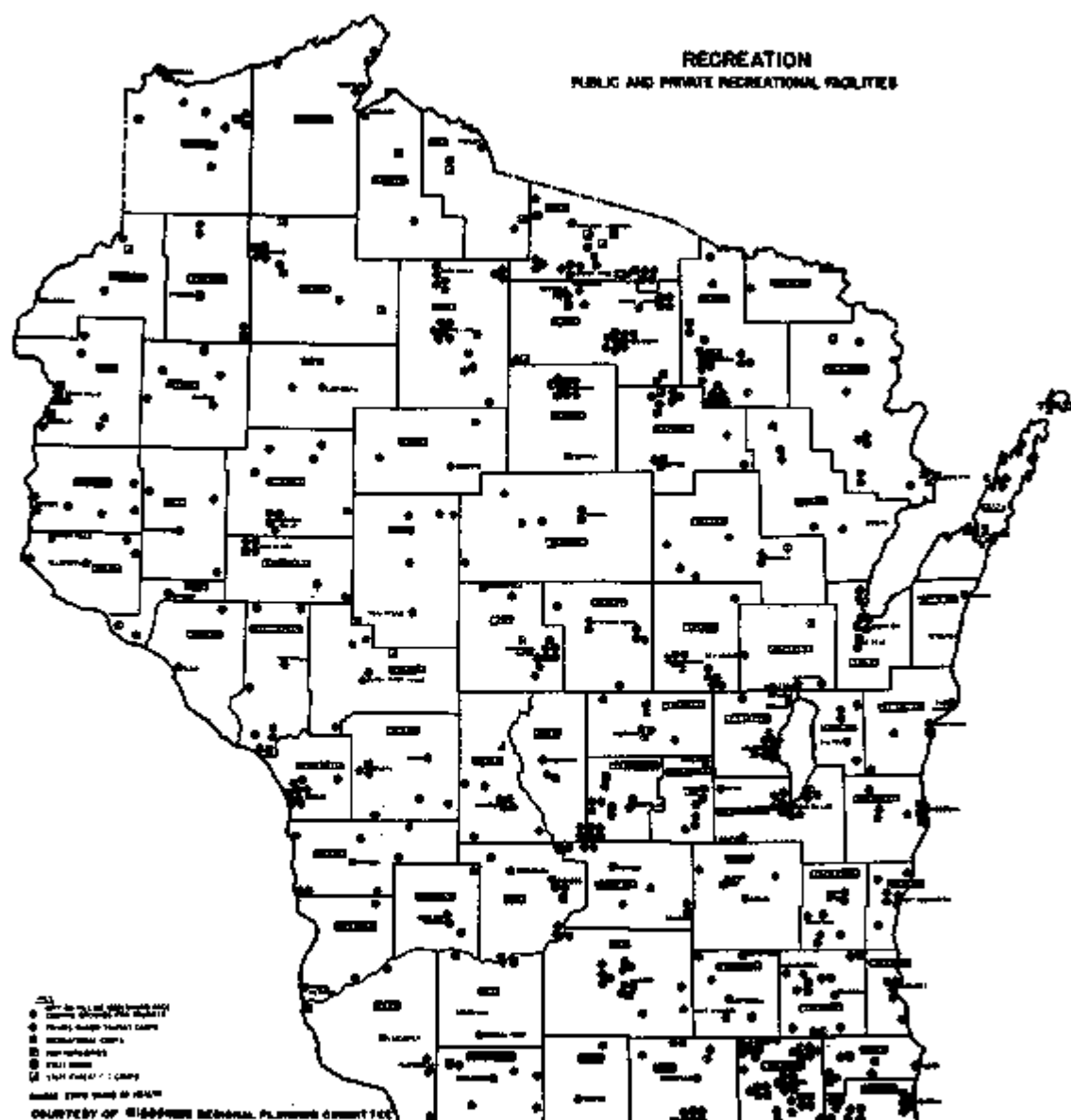


Figure 69. Recreation has been suggested as a partial solution of our marginal land use problems. It is noteworthy, however, that recreational facilities are characteristic of the southeastern as well as the northern part of the state.

is noticeably higher in the southeastern portion than elsewhere, figure 70.³³
Next is the north central section, from Green Bay westward to the state line.
With respect to concrete alone, Wisconsin ranks fifth among all states in the
proportion of farm homes located on them; a total of 11,000 for the state in 1930.

In Recapitulation. In regard to social institutions and agencies, trade centers appear to have a direct association with many geographic and economic factors. In other words, regions with basic agricultural and other resources are better supplied with trade centers and facilities than are the poorer sections. Likewise, those social institutions and agencies which have depended on population density and cohesion for their support appear to be associated to some degree with the development of physical and human resources.

Standards of Living

The satisfactions that come from farm life depend to a very large extent on the prevailing standards of living which embody the uses of food, clothing and shelter as well as communication and advancement facilities. Ordinarily the standard is measured by the cost or value of the goods and services which compose it.

Certain factors such as farm products used by the family, modern equipment in the home, communication facilities, and value of farm dwellings are indicative, at least to some extent, of progress in rural living. They are here presented as a background for more specific data on standards of living for selected groups of families in localities chosen to represent the principal type of farming areas.

Use of Farm Products for Family Living. The use of farm products for home consumption is a significant element in the standard of living. In regions where money income is very small, the goods raised for use is of supreme importance to

33. Improved roads include those with gravel, black top or paved surface. They do not include graded roads which are not surfaced for all-weather travel.

PER CENT OF FARM HOMES ON IMPROVED ROADS 1930

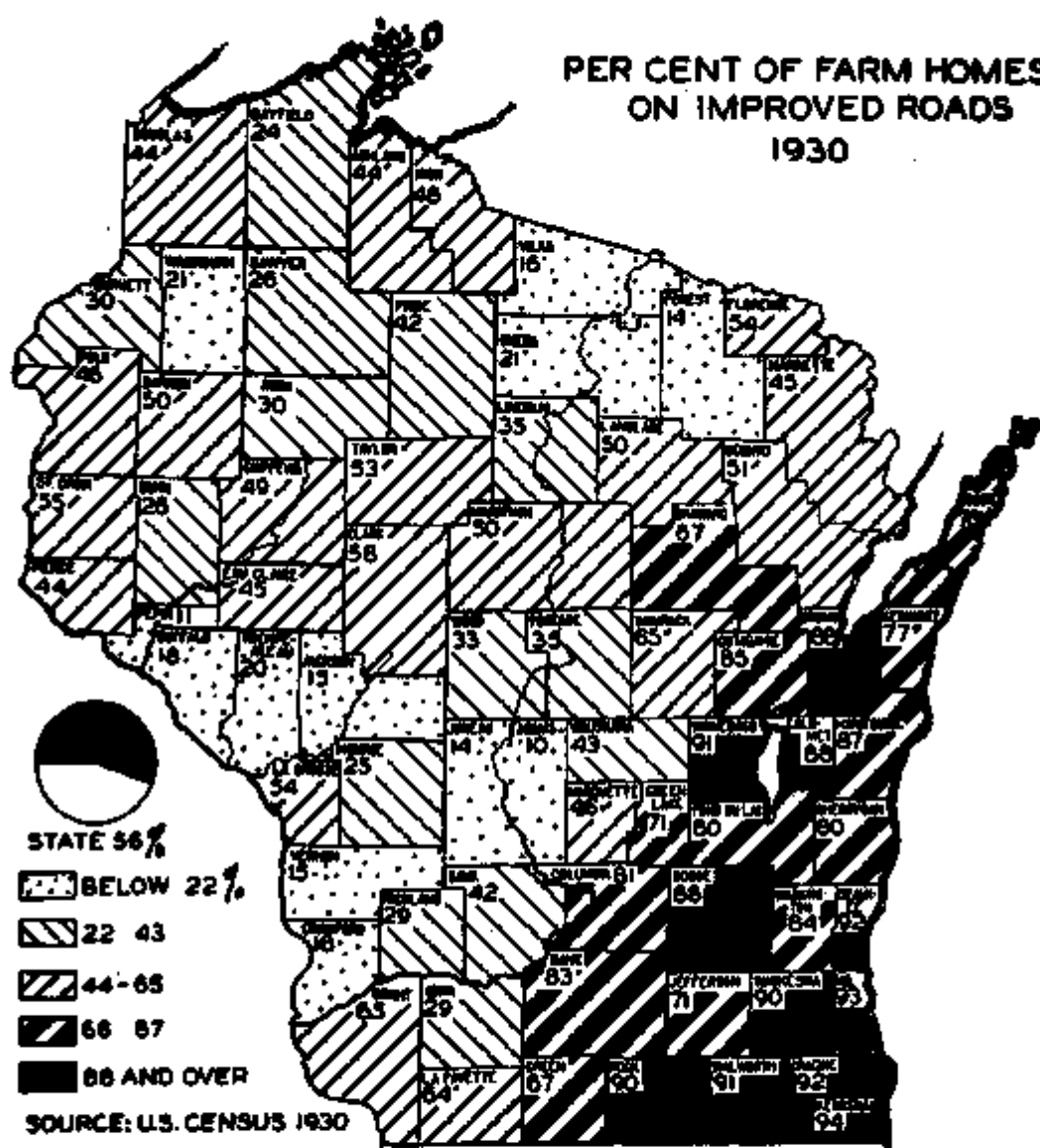


Figure 70. The per cent of farm homes on improved roads indicates a pre-dominance of good highways in the southeastern portion of the state. Undoubtedly the scarcity of modern roads in the southwest is due to lack of local materials, while in the central and northern areas the scant population and limited economic resources have been outstanding factors.

the family's well-being. Proportion of the total value of all produce devoted to home use is an effective means of comparing standards, evident in figure 71.

The region of lowest proportionate use of farm products by the family centers in the southeastern part of the state, particularly along the southern border, and that of highest, in the northern or out-over portion. The latter condition may be influenced slightly by the preponderance of summer resorts where the demand for home-grown produce is extensive and also to the prevalence of subsistence farming.

Farm Power Facilities. Certain items of power equipment have a close association with standards of living, from the standpoint of their aid to farm production and contribution toward increased income. Outstanding among these are milking machines, trucks and electricity which for convenience in presentation are combined statistically into a farm power index, figure 72.

34

It is evident that the combination of these items accentuates the southeastern portion as being better provided than the rest of the state with mechanical devices while the northern area is least well supplied. The index is checked roughly by each of the three factors which contribute to its make-up, figure 73. Milking machines and electric power coincide most closely except for the greater prevalence of the former in the north central area where dairying is prominent.

Household Equipment. The extent of equipment commonly referred to as modern conveniences for the home is best portrayed by the frequency of electric lights, furnace heat, and bath tubs. A combined index based on the percentage of farm

34. On the assumption that it would portray the situation more effectively than a single factor, the index was obtained from combining the percentages of all farms having milking machines, trucks and electric power, by the method described in footnote 25.

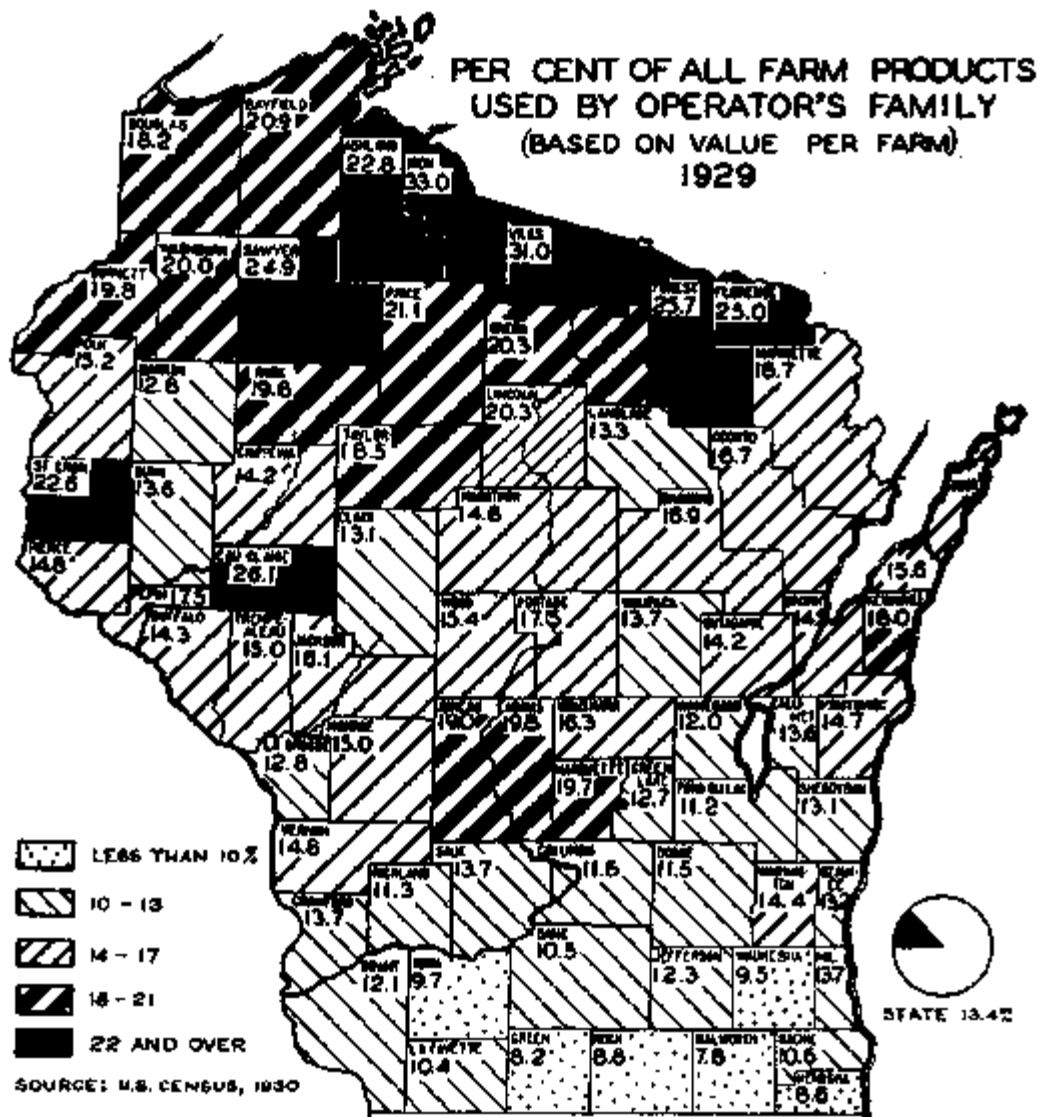


Figure 71. The per cent of all farm products used by the operator's family is indicative of the farmer's standard of living since they may be regarded as a substitute for expenditures. Relatively more are consumed in the northern and central than any other portions of the state.

INDEX OF FARM POWER BASED ON PER CENT OF FARMS WITH MILKING MACHINE ELECTRIC POWER AND TRUCK 1931

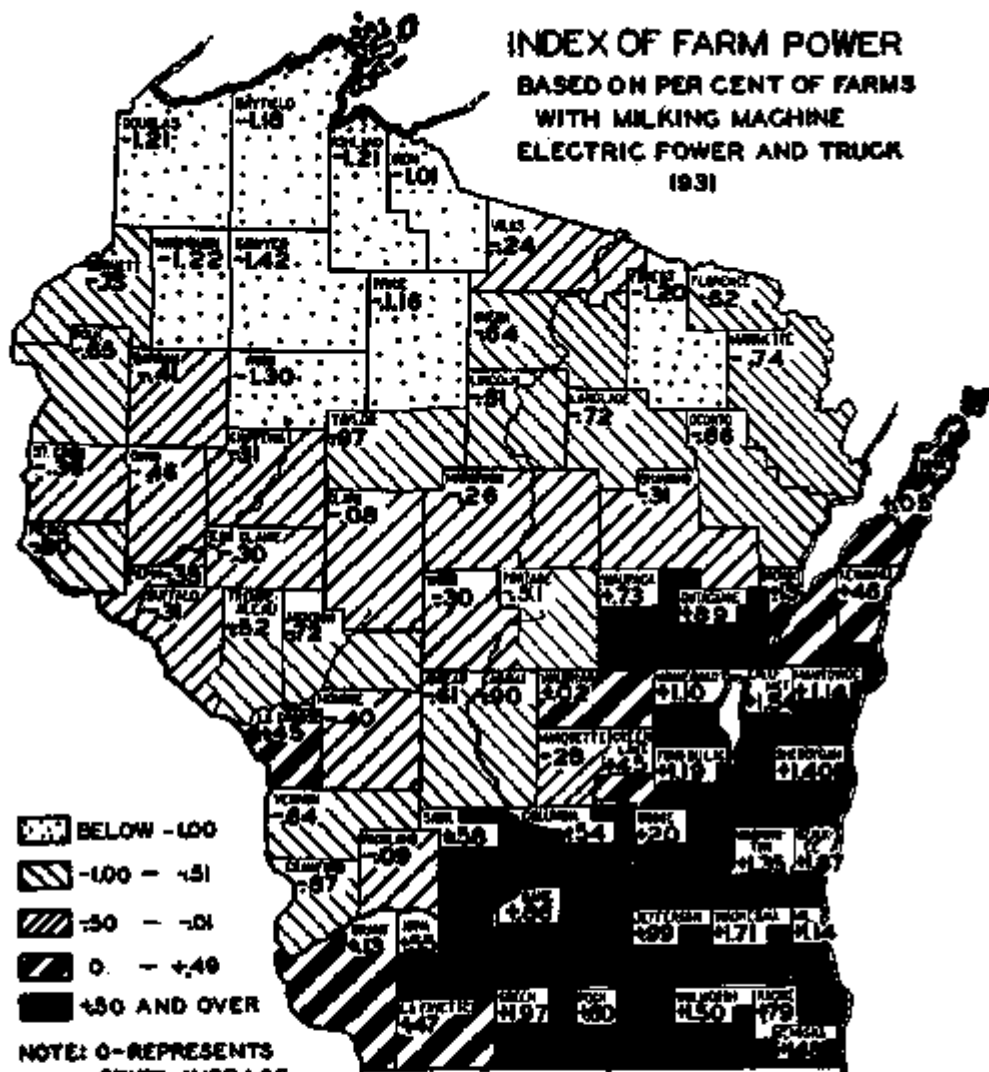


Figure 72. The index of farm power based on per cent of farms with milking machine, electric power and truck for 1931 is a statistical combination to indicate the extent to which the operator relies on mechanical devices. The southeastern region has more equipment than does any other portion of the state.

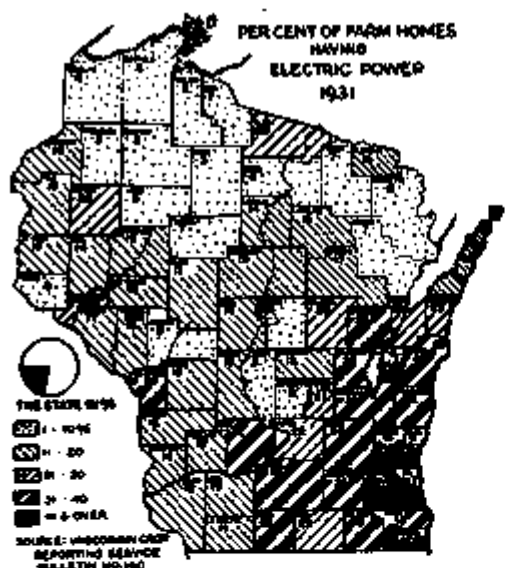
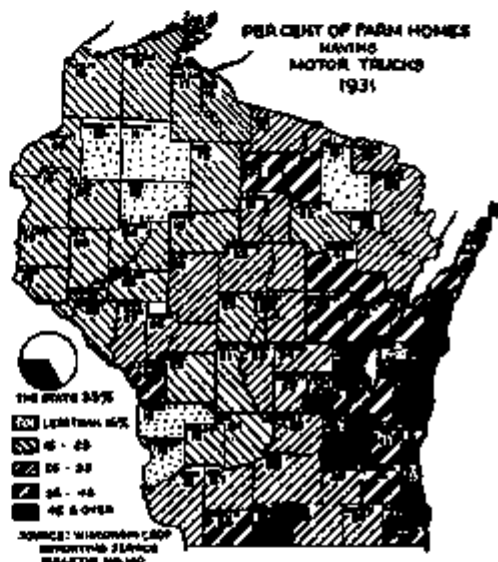
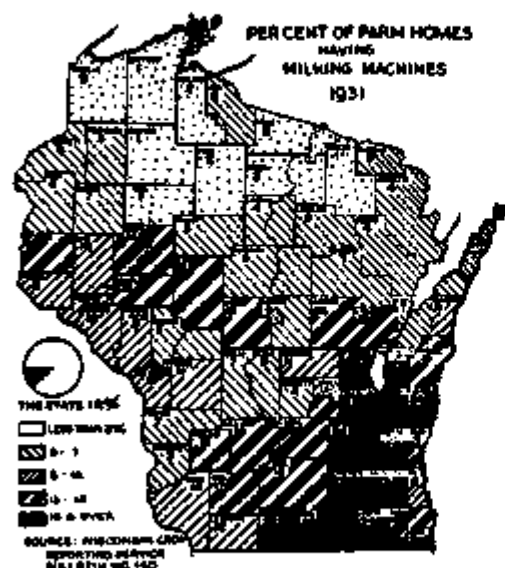


Figure 75. Per cent of farm homes having milking machine, electric power, and motor truck is 12, 21 and 33 respectively for the state. The first two of these facilities are least available in the northern and central areas while the percentages for trucks are low in two of the western and some of the northern counties.

homes having each of these items portrays four or five regions indicating different standards of living as shown by this combination, figure 74.³⁵ The suggested regions are substantiated by the separate factors which compose the index, figure 75. The southeastern portion of the state is nearest to urban influence and has the highest proportion of farm homes with modern conveniences. The western and north central sections are nearly the same as the state averages which are 26 per cent for electric lights, 26 per cent for furnaces, and 13 per cent for bath tubs. The homes in the northern and central areas are least equipped with these improvements.

Communication Facilities. Three important communication facilities were combined statistically into an additional standard of living index; they are per cent of all farms per county with automobiles, radios and telephones.³⁶ This combination suggests at least four areas, ranging from highest in the southeastern to lowest in the northern or out-over portion of the state, figure 76. The central section is not clearly delineated by this index as is the case with most other factors.

The contributions of the different factors, automobile, radio and telephone, are indicated in figure 77. Roughly the sections of the state outlined by each item correspond in general with the result from combining the three.

Daily Newspapers. The accessibility of newspapers is regarded as having a direct bearing on the standard of living. Almost two-thirds of the farmers take

35. This index was calculated by the method described in footnote 25 using the percentages of farm homes having electric lights, furnace heat and bath tubs as basic factors.

36. This figure was also calculated by the method described in footnote 25; that is, the percentages of all farms per county with automobiles, radios, and telephones were used as a basis.

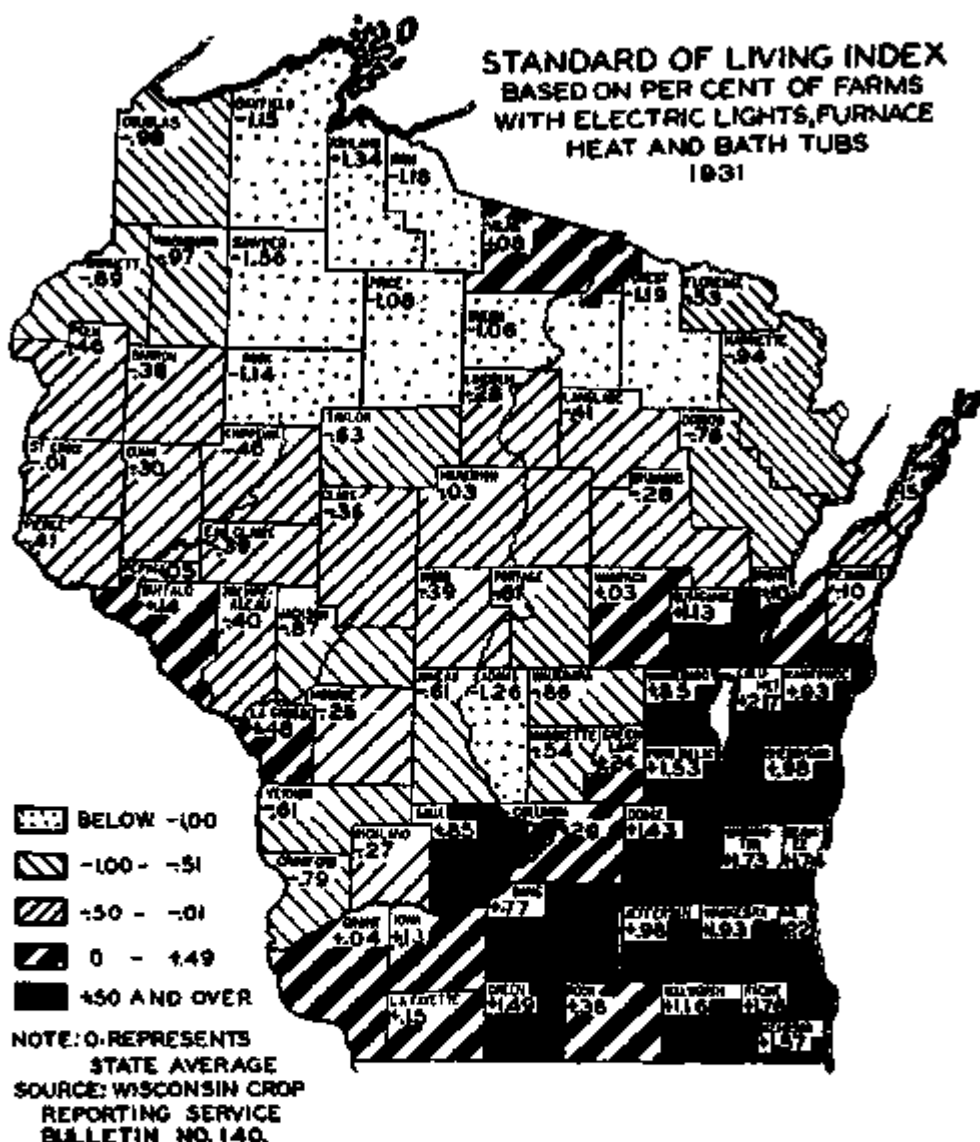


Figure 74. A standard of living index based on farms with electric lights, furnace heat and bath tubs in 1931 was obtained by combining the percentages for each factor in a statistical measure to indicate a relative picture of the state with regard to home conveniences. It is evident that homes in the southeastern portion of the state are most well supplied with modern equipment while those of the north are least well supplied except for Vilas County.

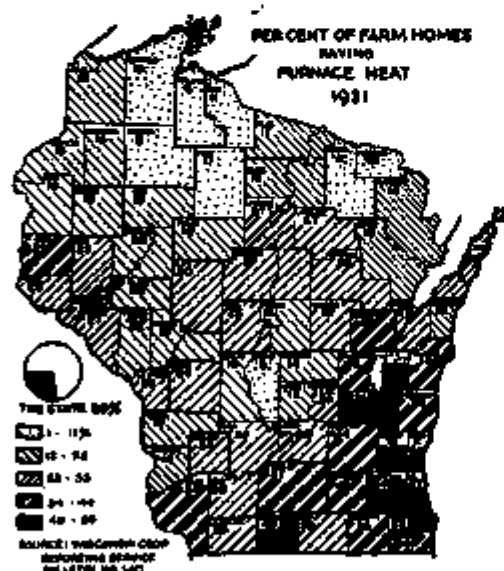
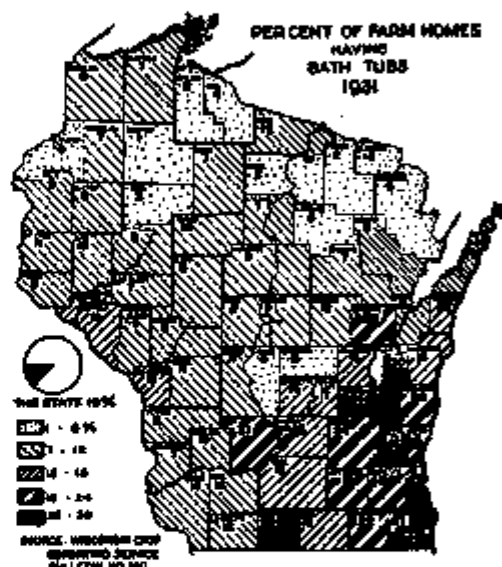
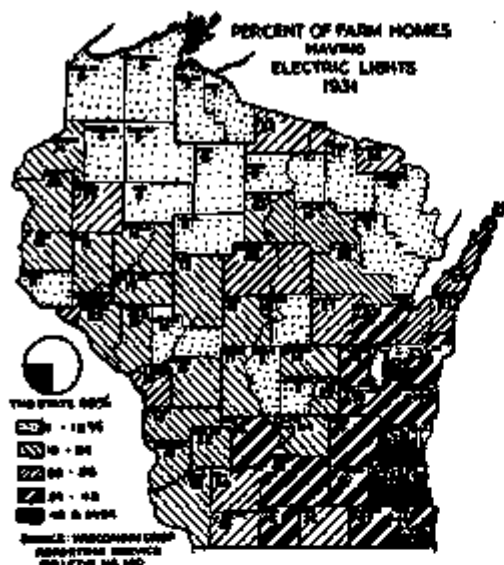


Figure 75. Per cent of farm homes having electric lights, furnace heat and bath tubs, 1931, show relative similarities in the different sections. For the state as a whole 35 out of every 100 farm families enjoyed electric lights, 28 furnace heat, and 18 bath tubs. Conveniences in the home add much to the satisfactions of rural life.

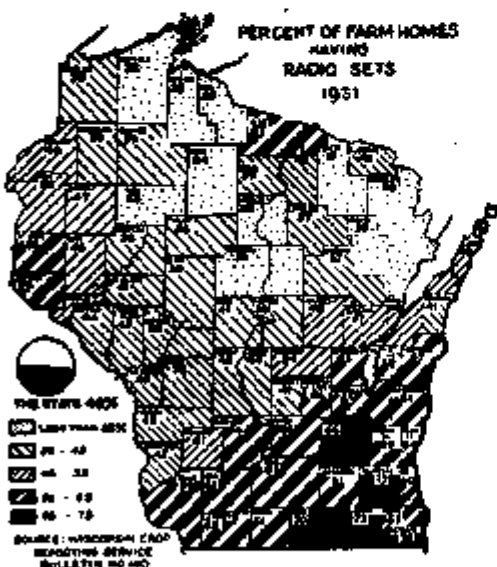
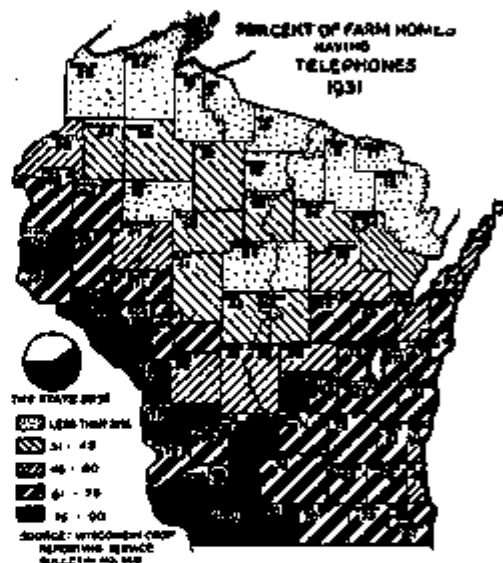


Figure 77. The per cent of farm homes having automobiles, radios and telephones gives an indication of the farm family's possibilities to contact outside influences. Due largely to these modern conveniences rural people are broadening their knowledge and tending to raise their standards of living.

a daily paper and the proportion of the total doing so varies from over 80 per cent in eight southeastern and two north central counties to less than 43 per cent in several central and northern counties, figure 78. There are only slight indications of newspaper regions for the state since publication is limited primarily to urban centers.

Farmer's Dwelling. The farm home should reflect more truly, perhaps, than anything else actual development in farming and rural living. Since the dwelling is indicative of prevailing standards, attention is called to figure 79 where average value on a township basis is evident for the year 1930. For the state this average is \$1897, compared to \$1207 for the United States as a whole. The southeastern and portions of the western section rank above the state average while the central and northern are lower with a difference of almost \$2000.

Farm Family Living. The several standard of living elements exhibit noticeable variations throughout the state, due undoubtedly to the influence of many factors embodied in geographic features, agricultural development, population phases and cultural backgrounds. Generally the differences among the factors considered coincide fairly well by region of the state. These include southeastern, southwestern, north central, northern and central. For the separate regions, living standards are portrayed more clearly by specific information from studies in selected localities.³⁷ This includes data on the amount and distribution

37. Information was obtained by the survey method for the year 1930 from practically all farm families in contiguous localities, usually one to three townships in size. See Rural Standards of Living in Walworth, Dunn, Dane and Green, and Portage, Langlade and Sawyer counties, (stencil bulletins 104, 105, 106 and 108) and Farm Family Living in Wisconsin (Research Bulletin 114), University of Wisconsin, Agric. Expt. Sta. 1933. Additional suggestions on the housing situation were taken from unpublished data of the Farm Housing Survey, U. S. Dept. of Agric., under the Federal Civil Works Administration, 1934, and Home Regions of Wisconsin, Durand, Loyal, Jr., and Bradbury, Leavison, M., New York, 1933.

AVERAGE VALUE OF FARMERS' DWELLING
PER FARM
1930

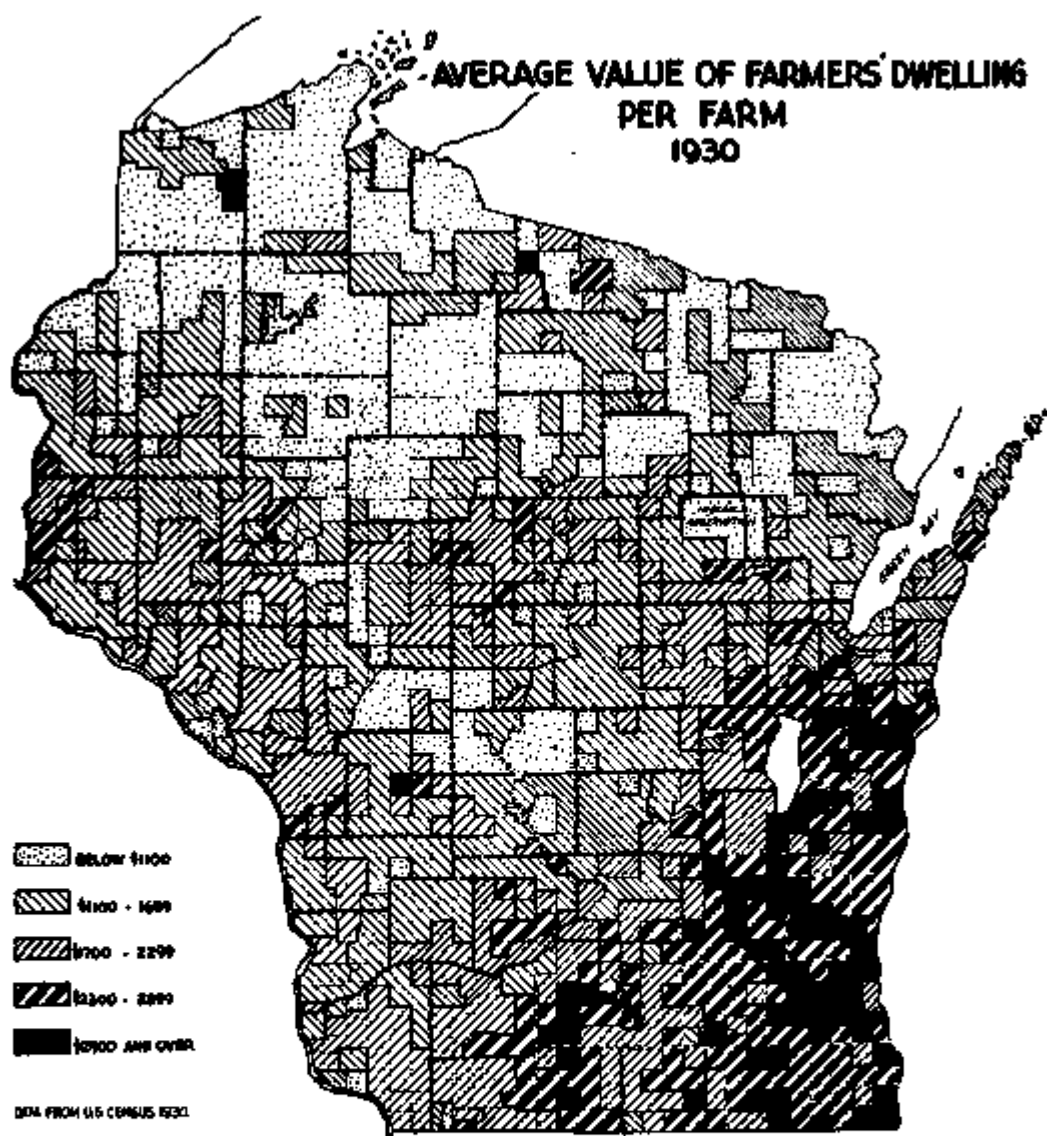


Figure 79. The average value of Wisconsin's farm dwellings in 1930 was \$1887, compared to \$1126 for the United States. Ordinarily this increases as the value of the farm real estate rises.

of expenditures for the principal kinds of goods and services, extent of participation in certain home and community activities, and descriptions of typical farm homes.

Living standards in the southeastern portion of the state are typified by 150 Dane county families which were interviewed in 1930. On an average, these families consumed \$1630 worth of goods and services annually thirty per cent of which was furnished from the farm while the rest, \$1130 worth, was purchased. Food absorbed the largest portion of the total expenditures, 31.7 per cent, clothing took 15 per cent, house rent 17.2, furnishings 4.1, fuel 6.2, auto (use for family purposes only) 6.0, advancement 6.6, and all other 12.5.

Participation in home and community activities, a significant aspect of standards of living, is implicative of advancement expenditures which make it possible. One phase of this pertains to reading and listening to radio programs, with the average person ten or more years of age in this area spending three-fourths of an hour per day at the former and one hour at the latter. Another phase includes attendance at local organization meetings and church services, 8 and 19 times per person during the year.

The Dane county figures are closely checked by similar ones for 118 Walworth families which indicate a slightly higher cost of living distributed in about the same proportions among the principal goods and facilities. Persons in these families devoted a little more leisure time to reading, but the same to radio auditing; they attended the same number of organization meetings and almost as many church services.

For the entire region the typical farm house is about sixty years old, but since it has been remodeled or at least kept in good repair and painted, its

value is high compared to other regions of the state. The story and a half frame dwelling, built in the shape of an "L", contains seven rooms, only six of which are regularly used. For the average family of four or five persons there is ample space, with a kitchen, dining room, living room and three bedrooms. Outwardly, the house is improved by tall trees and a well kept lawn with shrubs and flowers.

The southern region is fairly well represented by Dunn county in which 120 families were visited. The total cost of living is approximately \$100 less than in Dane and the distribution differs somewhat; proportionately more goes for food and use of the auto, and less for clothing, rent and fuel. The families spend about the same amount of time reading but less in radio auditing, since there is a smaller percentage of farm homes with receiving sets. They attend fewer organization meetings but the same number of church services.

This information is substantiated by additional data for 145 Green county families which have slightly higher expenditures distributed to indicate a more efficient standard; relatively less went for food and more for rent, fuel and advancement, compared to the Dunn county families.³⁸ The group in Green spent more time reading and listening to radio programs and attended the same number of church services but fewer organization meetings.

The homesteads in this rolling section are nestled in the valley for protection from the winds or situated on the sloping surface of the ridges. In the latter position, the house is next with a well-kept lawn enclosed by a fence.

38. It should be noted that Green county families represent the best conditions in the western area. Situated adjacent to the southern region, they may be regarded as practically typical of those families with respect to living standards.

It is a spacious frame building of two stories and an attic with both sections of the "L" or "T" the same height, which makes it look even more towering. The valley home, usually off the road and accessible by a lane, appears less spacious than that on the ridge. Since water often comes from a natural spring, windmills as well as rows of evergreens usually typical of the ridge, are lacking.

Figures for 105 Langlade county families characterize the living standards in the north central area. A total expenditure of \$1280 has 57 per cent furnished by the farm and 43 per cent purchased. For the principal items in the living, food takes 39 per cent of the total, clothing 14, rent 12, furnishings 3.2, fuel 7.4, auto for family use 6.5, and advancement 4.7. These families compare favorably with the southeastern and southwestern groups in time they spend reading, but are noticeably low in listening to radio programs and attending local club meetings and church services.

The standard indicated by the Langlade group is in accord with that for 159 families in the northeastern portion of Portage county. In the latter instance, 37 per cent of all goods and facilities valued at \$1812 was furnished and the rest, \$850 worth, purchased. The distribution of the total cost among the principal items was also similar. The two localities are situated on the northern and southern edges of the region which is typified by them.

Because of more recent development in the north central area compared to the southern part of the state, several different types of houses are evident, including the "L", "T", square, modern bungalow, and variations of all of these. Most predominant, however, is a modification of the southeastern "L", with a broader main part and both wing and body two stories high. Next in preference is the

bungalow, usually with seven rooms and having a long sloping roof broken by a central dormer. Even though the chief characteristic is newness or hewn-out-of-the-forest appearance, the buildings are often in need of paint and repair.

The northern section is well portrayed by the situation of 106 Sawyer county families who report only \$924 for all family living. More than two-fifths was furnished and the rest, \$529 worth, provided by purchase. As implied by the total, expenditures are noticeably low for all goods and facilities; however, this applies less noticeably to food and fuel than to other items. Respecting participation in different activities, this group of families fares about the same as those in Langlade, except for radio auditing in which they excel.

The standard indicated by comparable data is equally low among 106 Forest county households for the year ending March, 1935. With the latter group, a smaller proportion of the total living amounting to \$809 was furnished from the farm. Distribution among the chief items shows a high percentage for food, and low for rent, furnishings and advancement, suggesting a subsistence or marginal standard of living, generally.

Dwellings in this region often resemble shacks and typify rural slum conditions since they are covered with tar paper or mass of logs. The rectangular shaped building usually contains about four rooms, so the kitchen serves as an eating place as well as a living room. The house has only a step porch in front of the door and the windows are half-sashes. Although situated in a region of many second growth trees, the homesteads show no special care given to trimming or preserving them or to planting shrubbery.

Data similar to that given on family living are not available for the central area but information reported in studies on resources and adaptability of rural

households for rehabilitation in this and the northern section suggest the prevailing standards to be at practically the same level. Fewer of the central region families are capable of continuing or becoming again self-sufficing on their own resources, 3 in 10 compared to 2 in 5; more need replenishment of capital for a new attempt at self-support, 2 in 5 and 1 in 4; and about the same proportion of the total is incapacitated. Fewer of the total number of households included in the studies were on relief in the central area and less aid was granted to them in 1934, \$100 compared to \$153 per family.³⁹ With respect to reasons for being on relief, relatively fewer of the central group were unable to find employment and fewer had jobs with sufficient income for family living purposes. Noticeably more were farming on poor land and the same proportions were "poor managers".

Most of the houses in the central region resemble the type prominent in the southeastern portion of the state. The main part of the frame structure is a story and a half, and the wing one story, with a porch filling in the corner. An outstanding difference, however, is in the upkeep and surroundings. With poorer farming in this area, it is more difficult, if at all possible, to keep the buildings painted and repaired.

In recapitulation, standards of living vary from a fairly high level in the southeastern and southwestern to a minimum in the out-over and central regions. Although they differ by counties and even by localities as indicated from the indexes, they are too low generally in the northern and central areas for effective farming and efficient home and community living. In these two regions many families are at a plane below which they can not well continue without placing on the typical

39. The lower proportion in the former instance may be due in part to the handling of relief giving locally rather than on the county or unit basis in several of the counties. This applies also to other factors in the relief situation. Further information pertaining to the families referred to in the comparison can be obtained from Resettlement and Rehabilitation in the Central Wisconsin Nesting Area and Resettlement and Rehabilitation in the Crandon Land Purchase Area, Wisconsin Rural Rehabilitation Division, Resettlement Administration, mimeographs, 1935.

TYPICAL FARM HOUSES

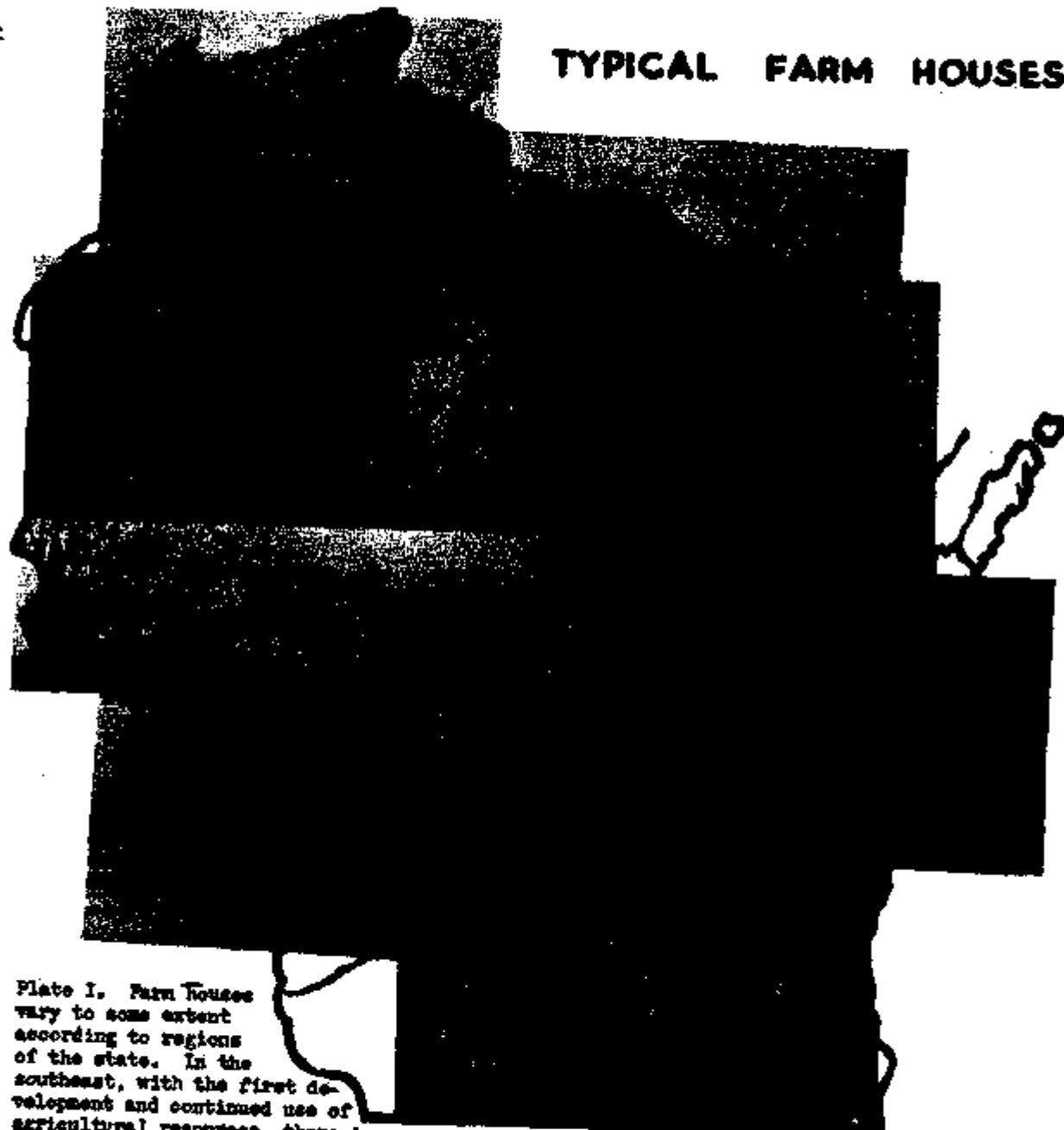


Plate 1. Farm Houses vary to some extent according to regions of the state. In the southeast, with the first development and continued use of agricultural resources, there is evidence of well established homes (1). The southeastern dwellings (2), newer in construction, are more spacious and usually in good repair indicating this area also well developed agriculturally. In the north-central region, there is indication of more recent development, from the combination of a newer type house (3) with log outbuildings. The extreme north is characterized by small temporary houses (4) of a pioneer type. In central Wisconsin, the houses (5) are practically a duplication of those in the northeast, although they suggest less stable rural development.

rural community too great a burden in public welfare. It is recognized, of course, that there are many single families and even some community or locality groups at minimum levels of living in the more prosperous regions. These deserve consideration for the alleviation of distress as well as unfavorable circumstances. In many instances the problems attendant to them will continue to be solved locally, while in others, state and even federal support must be resorted to. In all such situations as well as for the entire minimum family living areas, greater emphasis must be directed toward amelioration of the conditions or the removal of families from them to locations with more favorable opportunities rather than to bolstering up minimum standards by direct relief.

FACTORS OFFERING POSSIBLE WAYS OF IMPROVEMENT

As with factors which help explain present circumstances there are many points worthy of attention in connection with possible ways of improvement. These might be treated in detail if time would permit and if definitely outlined plans with clearly stated objectives and procedures were available. While such detailed treatment might outline specific steps to be taken by separate groups and agencies, however, they could easily overshadow the broader objective of all - the best possible uses of available resources for the permanent raising and stabilization of family and community standards of living.

Consideration of the factors which help explain our circumstances (indicated in preceding pages) as well as experiences of the past few years show clearly that different agencies and separate groups working on their own behalf cannot meet the needs adequately. "Disappointing experience has demonstrated that one group of citizens (or one agency) cannot make its own plans, carry out its own program and secure prosperity on an independent basis."⁴⁰ It seems pertinent, therefore, to

40. Will A Back-To-The-Land Movement Help the Present Economic Situation? Clark, Noble, University of Wisconsin, in an address before the Annual Meeting National Association Community Chests and Councils, Dearborn, Michigan, June, 1933, p. 1.

treat possible ways of improvement on a cross-section basis, better to portray the avenues of coordination and to encourage greater cooperation for a state-wide objective. Briefly, this section is intended to suggest how the people (population) of the state through possible wiser uses of the physical resources can provide more efficient and more nearly adequate institutions and agencies to facilitate higher levels of living.

Population

Attention has been called to population growth, movements and characteristics. The premises that the total population of the state will increase, although at a noticeably declining rate at least until 1960, and that it will continue to grow older can be accepted without doubt. The additional premise that urbanization will continue in spite of the movement of people to the rural areas during the present depression brings to the fore a major consideration with respect to practically all other factors. The question of the ultimate welfare of all people in their respective locations is paramount.

At this time, because of the growing emphasis on the proper development of available resources for lasting social uses, people can and must be guided to areas which are best adapted to their interests and to the well being of all. If "salesmanship" of the past has any commendable features for the future, families can be encouraged by either sufficient returns from farming or other work opportunities to avoid or at least ameliorate congestion in urban areas as well as sparsity and isolation in rural areas. On this assumption at any rate, attention is turned to a further consideration and possible coordination of uses of land, distribution of industry, provision of social institutions and agencies, attainment of adequate standards of living and finally to the idea of social planning as a technique for improvement.

Uses of Land

As with many other states, Wisconsin has a large number of families living on land so poor that it will not produce enough to afford decent standards of living. This is due to mistaken policies of land settlement, exploitation and exhaustion of forests, and overfarming to the extent of serious soil losses through wind or water erosion.⁴¹ To correct these evils and provide for the effective utilization of available resources, the local and state governmental agencies have enacted zoning ordinances and programs for directing land uses while the federal government has begun to acquire certain tracts to be taken out of agriculture and devoted to forests or wild life refuges.

At the present time more than three-fifths of the state's thirty-six million acres is in farms. Almost one-half of this area is crop land, more than one-fourth woods, less than one-fourth pasture, and less than one-tenth other. Considerably more than one-half of the land not in farms is "out-over" and "idle" and 1,000,000 acres is classified as "waste". In order to use all land to the best advantage of the people, increased attention must be directed to the future of agriculture, forestry and recreation in their proper relationships.

Agriculture. The agricultural situation is constantly changing. The total land area in farms decreased slightly and the number of holdings dropped more than 3.5 per cent between 1920 and 1930. Almost 350,000 acres of farm land were cleared between 1920 and 1925 with every county reporting some, although those in the north showed more than the others. Clearing has continued, so that between 1925 and 1930 eighteen northern counties gained 24,000 acres of crop land and plowable pasture even though they lost nearly twice as much farm land.⁴²

41. Adapted from The Resettlement Administration, Washington, D. C. September, 1936, p. 2. (pamphlet)

42. "Use of Land for Agriculture", Wehrwein, George S., in Forest Land Use in Wisconsin, April, 1932, p. 33.

Due to these changes, and notwithstanding adverse farming opportunities, it is important to continue improvement of conditions in satisfactory areas, to search out communities which are suited for further agricultural development, and to encourage more intensive use of soils which are suited for farming. It is equally important to devote non-farm land to the most effective uses. Methods of accomplishing all these objectives include soil conservation, production control, land zoning, and rehabilitation of families either in their present or more suitable locations.

Soil conservation. Emphasis should and will continue on the maintenance and improvement of soil fertility. This means a more extensive use of lime materials, chemical plant foods for certain crops and the growing of legumes for an increased supply of humus. In addition, there must be more concern for the control and prevention of water and wind erosion. Some indication of the extent of Wisconsin land which needs careful consideration due to erosion is evident from the map on tentative problem regions with respect to agricultural use, figure 80.

An outstanding example of attention to needs and possible contribution through cooperation is found in the erosion control project at the Coon Creek Water Shed near La Crosse. In this area of "peculiar hill and valley structure" where roads do not follow rectangular survey lines but rather hills and coulees, farmers and public agencies are cooperating to prevent the further mismanagement, neglect and final loss of soil. The farmer's part of the agreement is to discontinue cultivating fields which slope more than 20 per cent, refrain from pasturing those which slope more than 40 per cent and follow a five year crop rotation under the approval of government experts. Without sacrificing the principle that the land owner has the chief responsibility in protecting his farm, it is recognized that erosion on a given holding affects the interests of individuals

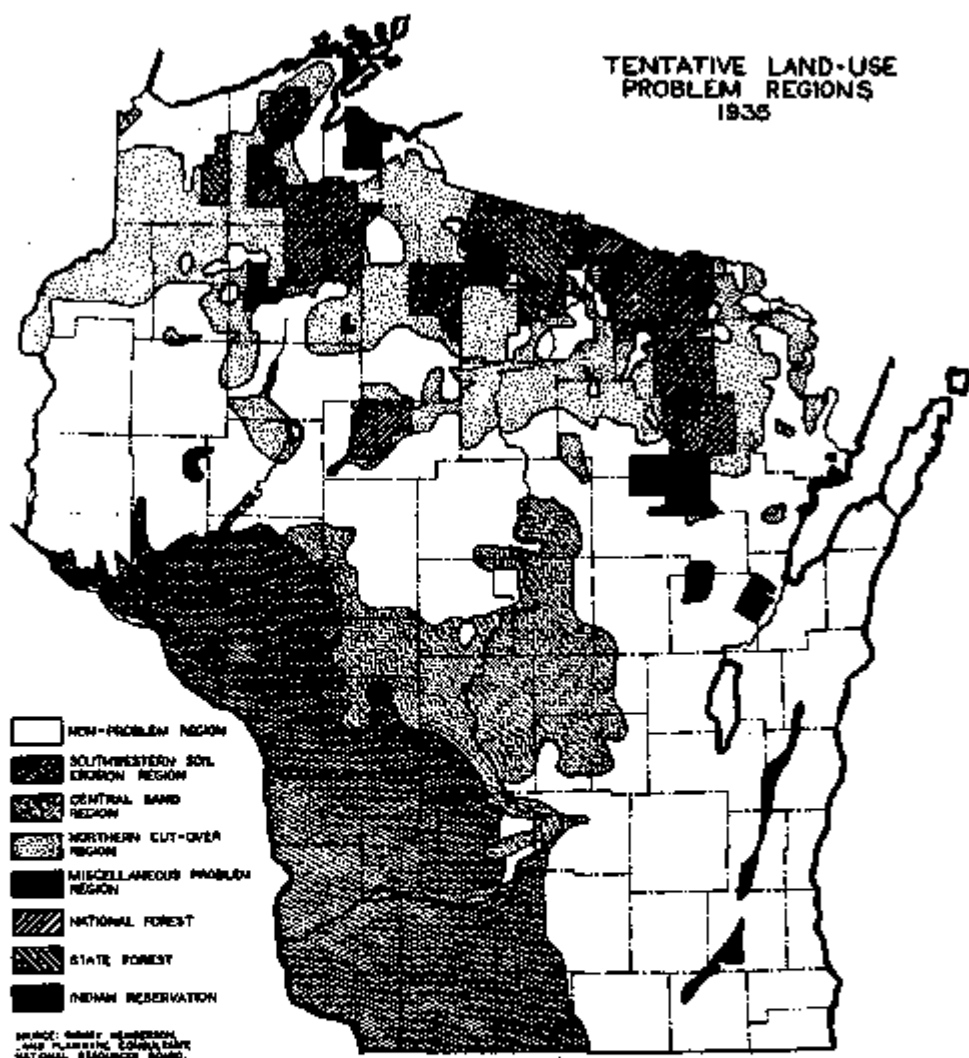


Figure 80. Tentative land-use problem regions, 1935, have been delineated by the state land planning division of the National Resources Board, looking forward to a long time program for agriculture, forestry and recreation. Recognition of these problem areas is the basis for permanent improvement. Conservation of soils in the western erosion region has already been started and the withdrawal of land from agriculture in the central and northern parts of the state offers a promising outlook for effective land-uses.

and governments from township up to national. It is being demonstrated that the silting of rivers can be prevented and that clearing roads of earth and rocks, and replacing culverts and bridges following destructive floods can be avoided. For the individual farmer, soil resources are being rebuilt and the cost of tillage reduced.

Strip cropping and terracing are used to prevent run-off water from gathering enough momentum to erode the fields. The strips vary in width from 50 feet on a 20 per cent to 100 feet on a 10 per cent slope. Terraces are shallow ditches which conduct the water slowly along the contour instead of allowing it to rush down the hillside. The drop is never more than 6 inches in 100 feet and the terrace is shallow enough to offer no obstacle in cultivation, which follows the contour.

Production control. While one may doubt if reduced production can remedy the sickest rural situations, emphasis on balancing the output with the need for food and fibre will continue. Perhaps the objective will take into consideration the best possible use of land, which is quite a different matter from the curtailment of acreage without due consideration to quality or adaptability. ⁴⁴ Although a number of factors will aid in the solution of our present farm surpluses, improved distribution technique will be regarded necessary to help in the development of a more stabilized agricultural policy. There is no justification for the continued cultivation of poorly adapted soil or for the attempted opening of new areas to agriculture if they are not suited to it. The ultimate objective must be the right use of land on a long time basis.

43. Adapted from "Erosion and Land Utilization in the Driftless Area of Wisconsin", Cohen, Melville E. Journal of Land and Public Utility Economics, August, 1934, p. 11.

44. Adapted from Wider Markets or Decreased Production, Hobson, Asher, University of Wisconsin, Ext. Ser. Radio Circular, February, 1933, p. 9.

Local farmers and the groups representing them can take the initiative and assume the responsibility for working out effective longtime adjustments. They have first-hand knowledge of crops and methods which will conserve soil resources and pay out most profitably under normal conditions. When this is supplemented with a better understanding of social and economic consequences of increasing or decreasing acreages devoted to specific enterprises, farmers will have the basis for effective agricultural adjustment regardless of where they are situated.

Zoning. Zoning is a form of public control over the use of property in the interest of general welfare.⁴⁵ Its aims are to protect property values particularly when certain ones are incorporated aesthetically into the community plan and to direct land development so that maximum usage is made of existing public services before others are inaugurated.⁴⁶ Thus the program means in addition to minor and perhaps more immediate objectives the designation of land to future agricultural development, forest management and recreational uses, including non-commodity forests.

Rural zoning in Wisconsin grew out of necessity. The ordinance making it possible is authorized by state law which provides for home rule by requiring approval of each town board concerned before it becomes effective.⁴⁷ In view of mounting tax delinquency preceding and during the early years of the depression, the Agricultural Experiment Station and Extension Service made sufficient studies to indicate clearly that in addition to subsistence from the soil,

45. Making the Best Use of Wisconsin Land Through Zoning. University of Wisconsin, Agric. Ext. Ser., Special Circular, 1934, p. 3.

46. Adapted from County Zoning in Wisconsin, Rowlands, Walter A., University of Wisconsin, Agric. Ext. Ser., Stenoff Circular 164, 1934, p. 6.

47. Wisconsin Farming Under Adjustment, University of Wisconsin, Agric. Ext. Ser. Circular 269, 1934, p. 11.

the settlers need roads, schools, organizations, and other facilities which make satisfactory home and community living possible, and in some localities families could not provide them. Thus, there is need for at least partial control of future settlement or development and the attendant classification of land according to its best economic and social uses. These preclude even the extension of clearing and the cessation of long time residence in "use districts" where continued settlement means an exorbitant tax burden to other citizens.

Although the zoning movement is less than three years old, on July 15, 1935, it was functioning in the seventeen northernmost and three central counties, figure 81. This means the closing of almost 5,000,000 acres of land to agricultural development, which will be devoted to other purposes. A good share is land to which the different counties have already taken tax title. Zoning is the first step with respect to a permanent land use program in Wisconsin. "Much more remains to be done and much more can be done".⁴⁸

Resettlement. In an attempt to correct some of the mistakes of the past, which zoning is intended to prevent in the future, the Resettlement Administration is at work. It aims to create new opportunities in rural areas, on either the individual family basis or through the establishment and development of new agricultural communities. On the former plan the families will integrate themselves into existing localities. On the latter, members of the community are selected to form a cooperative organization where cash income from farming usually must be supplemented by work opportunities and factories are encouraged to process products.

48. Making the Best Use of Wisconsin Land Through Zoning, Foreword by Chris L. Christensen, University of Wisconsin, Agricultural Extension Service, Special Circular, 1934, p. 2.

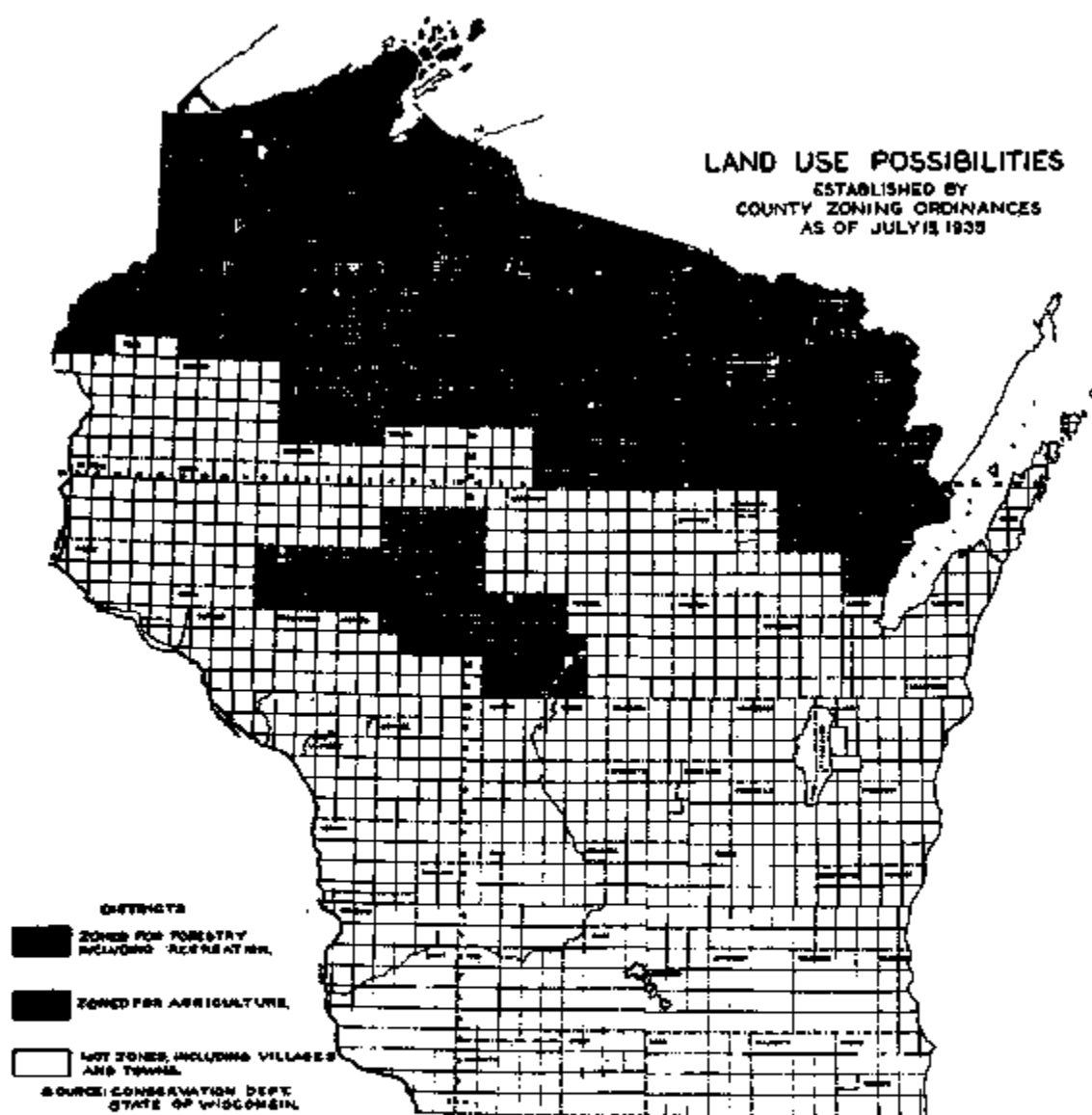


Figure 81. Land use possibilities in northern and central counties are suggested from the status of the county zoning program as of July, 1935. Zoning is the first step with respect to a permanent land program since it delineates areas for agriculture, forestry and other purposes.

The chief objective in resettlement is to enable those families on poor land to relocate in situations where they can derive decent standards of living. This often necessitates granting loans to help them finance the purchase of farm lands, livestock, sufficient equipment, and even subsistence goods for limited periods of time.

Careful estimates indicate that more than 2,000 isolated families on non-agricultural land in the some areas of the state alone are in need of new locations. Doubtless this number will increase as zoning is extended. A start has been made by the Administration in the relocation of families which have already been displaced by the submarginal land purchase program. Further consideration is being given to those which occupy poor land or are in distressed circumstances. Some may be victims of retrenched farming activities and others have lost opportunities to earn part of their living from non-agricultural pursuits, such as lumbering and mining.

In cases where the land is good, but where families have been unfortunate and lack enough production facilities, including livestock, machinery, fertilizer, seed and feed, to enable them to obtain an adequate standard of living, help is given through rehabilitation which is a part of the resettlement program. The whole plan is predicated on the theory that it is better to provide the worthy family with means of encouragement and guidance to help itself, than to perpetuate an unsatisfactory condition through administering direct aid for temporary subsistence. Briefly, the rehabilitation phase of the program is granting a loan based on a farm management plan that will provide sufficient income to support the family and amortize the loan over a given period of years.

Resettlement for Wisconsin offers economic stability and more adequate standards of living to the typical rural community. This is assuming, of course,

a possible integration of agriculture with industry at least in certain locations favorably situated with respect to raw materials or special skills of the people. The combination of the two lines of endeavor can be made to provide the necessary income to support adequate living standards. Thus, present remedial measures of relief and subsidy will give way to creative production and recover some of the elements of self-containment in community living.

Distribution of Industry

A permanent revival of industry and commerce needs to be associated with possible further development of rural areas. This involves carrying on wealth producing activities and providing employment opportunities at points convenient both to resources and workers; more specifically the decentralization idea may be made an effective means of integrating agriculture with industry through manufacturing of many kinds of articles including food products, textiles, clothing, furniture, paper, printed materials and pottery. Can not this plan lead to high productivity through mass production and specialization, and also to the greater security which is inherent in diversity and self-containment?⁴⁹

Compared to other states Wisconsin is said to have a favorable balance between industry and agriculture with about one-third of the gainfully employed working in factories and one-fourth in agriculture.⁵⁰ Manufacturing operations are responsible for far more of the state's annual income, however, since value added by them was more than twice as great as the worth of all farm products in 1929.

49. Adapted from "If We Want Security", Ferris, John P., Survey Graphic, September and December 1935, pp. 426 and 612.

50. Industrial Trends in Wisconsin, Fitch, Edwin M. and Curtis, Ruth L., University of Wisconsin, Bulletin Serial 1890, Series 1674, February 1933, p. 14.

Respecting the size of present industrial units, the greatest number of wage earners are found in a very small group of factories employing one thousand or more workers each; while the greatest number of establishments are contained in the group employing one to five people. Undoubtedly, these smaller plants include the creameries and cheese factories.

In the past, Wisconsin's industry has followed the general pattern, namely, the goal of maximum production at the lowest cost, on the supposition that this would yield the highest possible standard of living. The newer emphasis, which can and should be accepted in Wisconsin, perhaps in advance of most other states, is the highest possible "income in terms of goods, services, and security". This may be most readily attained by "contriving wealth producing activities wherever considerable numbers of people must live." Is it not possible for industry to take the lead in bringing about a suitable geographic distribution of income by encouraging the establishment of factories at convenient points where people have access to small plots of land, along with at least part-time employment in industrial activity?

Some of the more important objectives of an industrial program which can be considered, with respect to further possible development of resources, are outlined in a recent issue of the Survey Graphic as follows: ⁵¹

1. Encourage the local processing of food or other manufacturing for home consumption wherever this is feasible.
2. Discover ways of carrying on mass production in small units suited to operate in impoverished rural communities.

51. "If We Want Security", Ferris, John P., Survey Graphic, December 1935, p. 616

3. Help rural areas retain the income from local industry to purchase such goods as are best produced in urban centers and thus to raise standards of living.
4. Device methods of providing part-time employment for families on farms too small to afford a satisfactory living from agriculture.
5. Plan for the continued production of necessary raw materials. Manufacturing should be permanently in harmony with the larger program of land utilization. For example, forests can not be devastated at a rate exceeding their annual yield.
6. Assist in establishing workers' security and independence through as great a diversity as possible. The typical "mill village" is not yet a satisfactory model for an agricultural-industrial community.

To embark on a program with these or similar objectives should mean eventually the possible provision of satisfactory social institutions and agencies. Participants in the local development would be stimulated to the most advantageous use of their resources. They would soon acquire a pride in providing their own community living facilities rather than depending on public funds for schools, libraries, health maintenance centers, and other service agencies.

It is not assumed here that existing factories can be dismantled and moved to other locations. Furthermore, the establishment of new units while many existing plants are running below capacity may be questionable. Time is at hand, however, for serious consideration of the matter. Local and state governments should begin to give definite attention to the most important "framework" factors such as the credit, taxation, and unemployment, the available communication,

transportation and power facilities, and the agricultural, forestry and mineral production possibilities.

Provision of Social Institutions and Agencies.

If the integration of industry and agriculture which includes the relocation of isolated families were realized, a satisfactory start would be made in the solution of many problems pertaining to social institutions and agencies. Rural people would retain or develop an active relationship to their community as well as to the land on which they live. They would achieve an effective scheme of social integration and collective action, being concerned with a common welfare and the attainment of a definite goal for their community. Until this relation of industry and agriculture is established, however, and thereafter to a considerable degree, increased attention must be directed to the provision of adequate rural social institutions and agencies.

Trade Opportunities. Rural families should have access to efficient trade and service centers for the realization of adequate standards of living. Not only must there be satisfactory stores and sound banks, but also the closest co-operation between buyers and sellers in marketing produce and between the town and its trade area in providing opportunities for purchasing family living goods and services.

Although places of less than 2,500 population are the principal trading towns for the great majority of rural people, larger centers are needed at convenient points for the provision of some of the most essential elements of family and community living. At the present time, health facilities, libraries, art museums and theaters are usually limited to the larger places but the small trade centers play an important part in rural social organization.

It must be realized that rural villages are in competition with hamlets on the one hand and cities on the other. It has been a traditional practice for stores in rural trade centers to offer as wide a variety of goods as possible because previous to the use of automobiles, it was difficult for farmers to go farther than to a nearby town. Now conditions are different. The farmer may make purchases in a larger town or city, as he often does, when specialized goods or services are needed. But, he still patronizes the small nearby center for goods which are frequently and regularly demanded. Eventually, a certain degree of specialization in trade and service centers will develop. Instead of every town trying to offer all kinds of services, each will be obliged to limit its variety to those stores which the population of the center and its rural trade area may reasonably be expected to support.⁵²

It is impossible to suggest the most satisfactory size for trade and service centers in rural Wisconsin. However, consideration can be given to possible growth in the direction of probable future needs and opportunities. More and more, villages and towns must adapt themselves to, and play a major part in a planned program for the proper use of local agricultural, industrial and human resources. As this is done they will assume a more prominent role in connection with the schools, libraries, health facilities, and social agencies of their trade and service areas.

Health and Social Welfare. Adequate rural health maintenance facilities should be provided notwithstanding all claims for advantages of living in the

52. Adapted from Changes in the Retail and Service Facilities of Rural Trade Centers in Michigan, 1900 and 1930, Hoffer, C. E., Michigan State College, Agricultural Experimental Station, Special Bulletin 261, September, 1935, p. 9.

open country - fresh air, sunshine, and wholesome foods. Consideration must be given to better health organizations, trained health officers, sufficient doctors and nurses, adequately equipped hospitals, and perhaps eventually in some communities socialized services. Modern hospitals and clinics with elaborate programs and an adequate staff can be placed only in centers which are large enough to support them, but a full-time health officer and nurse, with inspections, examinations, and continuous education are the minimum essentials for any rural county unit.

It is sometimes possible to accomplish satisfactory arrangements by establishing clinics and diagnostic centers in smaller local communities, and then associating them with larger centers or even with counties which can meet the minimum unit required for a good hospital. Then, if the channels of service can be opened to state laboratories, hospitals with specialized medical and surgical staffs, the hope of better service for rural areas will be more fully realized.⁵³

Out of our recent experiences, social welfare will cause a heavier drain on local resources, especially after the withdrawal of federal-state aid for unemployment relief purposes. As commonly recognized this deals with problems arising out of sickness, delinquency, disability, desertion, death, and unemployment and is administered in different forms including poor relief, children's aid, and mother's and old age pensions. Social insurance will assume a more prominent role in the extension of aid to underprivileged and unemployed people in the future.

53. Adapted from A Study of Rural Society, Kolb, J. H. and Brunner, Edmund ed., Cambridge, 1936, p. 566.

Educational Institutions. The educational system of the state should have careful study with respect to possible closer adaptation to needs in rural areas. The rural child's educational handicaps are well known. Too small as well as extremely large open country schools need special consideration. The absence of high school districts in over 80 per cent of the state is challenging. The lack of effective vocational and informal training for young persons as well as opportunities for their parents to continue learning calls for an enlarged program of adult education.

All of these aspects need coordination with respect to each other and adaptation to the rural trade and service area. Gradually the village high school will become the center of rural community organization and social activities. Possible combination of certain districts can be resorted to for effective high schools as well as for satisfactory open country units. The one-room one-teacher school is no longer meeting the educational needs. Since state aid is sometimes considered detrimental to consolidation there is question as to how long it should continue without a genuine effort to combine some of the smaller schools into larger operating units by changing its stipulations.

More adequate library services are necessary so that all people both rural and urban can have access to further educational development. The county unit system for public libraries, which is a tax supported institution, is favored in some instances. It has even been proposed to have aid granted from state and federal funds. If the county plan could be coordinated with the state traveling library to distribute books (perhaps at the local schools), much progress would be made. Thus, if the distribution of books was connected with the schools, particularly the high schools, a growing and continual interest would be created

in the educational activities which could be directed toward a more extensive adult education program.

The time will soon be propitious for a careful scrutiny of possible new opportunities for higher educational institutions. Whether normal schools and other teacher training institutions should continue the present emphasis on educating for teaching, in view of the over-crowded field along with a growing concern in the preparation for vocations as well as for increased interest and participation in the affairs of local community, state and nation, is open to question. At any rate, further attention needs to be given to some possible adjustment of the state's educational program to enable the people to make the most effective and fullest use of physical and human resources.

Church Relations. Although not supported from public funds the rural church program is deserving of attention. Steps can be taken to integrate it as an institution with the other service agencies of the community. As with the school and hospital, to meet present needs effectively the church calls for a sufficiently large group, that is, one which can provide adequate services and facilities. To be a vital force in the community the different groups will need to coordinate their efforts and broaden their goals and programs with better directed uses of local resources. The federated unit, the larger parish and even the community church offer possible ways out.

Organizations. There are still many unrealized opportunities for improving local organizational situations. More and better cooperative groups are the best assurance for efficient sale of crops and livestock products, as well as economical purchase of farm supplies. With approximately 1,600 farmers' cooperative units functioning in the state at the present time, continued vigilance is necessary to maintain and extend "the spiritual driving force" so essential to successful

endeavor. The number of groups can well be increased in some localities, particularly where special enterprises prevail. But, with all which are organized, additional attention must be given to a broadened interest and greater participation among the members, as well as additional training and foresight on the part of their managers.

In most rural communities, the existing social organizations can be extended and vitalized. Every locality should be able to profit by at least one active local organization whether or not it is affiliated with a state or national association or agency. Of course, there are some neighborhoods which are over loaded with clubs, but far too often their programs fail to meet the educational and socio-civic interests of the people. Where this is the case, there is need for cooperation on the part of all the clubs in meeting the outstanding needs of the community. Recent studies on a limited scale in the state suggest that usually those which strive to meet the local needs rather than be concerned with carrying out a program unit for an overhead agency are the more challenging and valuable to the local people.

Finally, greater emphasis must be directed toward the realization of a common objective by the different local organizations. This may have to do with health and welfare, adult or informal education or wholesome recreation on a community or county wide basis. The accomplishment of maximum results locally will depend on closer coordination of the different clubs which are attempting to function in a given territory. Perhaps a federation on a county or a trade and service area basis would provide an effective means of extending the present clubs to additional clientele and contribute much to the raising of standards of living in the typical rural community.

Recreation and Highways. Increased attention will be given to recreation. "Wisconsin has her forests, streams, and lakes unsurpassed in natural beauty and calmness which appeal to the city dweller who is looking for a spot to build a summer home where he can rest and recreate himself."⁵⁴ There is as yet no saturation point so far as land suitable for recreation is concerned and attention should be directed toward plans for increased public as well as private enterprises.

Calculations made by the State Highway Commission in 1928 indicated that one-fifth of Wisconsin's 4,700,000 tourists that year gave scenery as a reason for coming. Scenery is connected with land in the form of lakes, forests, and farms and it is important, therefore, that all of these be kept in proper development and good condition to realize the most satisfactory recreational plan for the state.

Attainment of a definite program depends to a large extent on the state's highway system. None of the regions can expect to attract and hold tourists if main traveled highways and side roads are not in good condition. Fortunately, we have made a first-rate showing in state, county, and in many instances town highways, so that most of the lakes, valleys, and hills are easily accessible. Good roads lead to practically all the state parks and recreation centers. As additional land is devoted to public recreational uses new roads must be laid out and improved.

Apart from the recreational aspects, adequate highways are essential to satisfactory standards of living. Since the possession of an automobile is essential to efficient farming and adequate family living, the importance of good

54. A Balanced Use of Land. Wehrwein, George E., University of Wisconsin, Agricultural Extension Service, Radio Circular, 1931, p. 19.

roads can not be overlooked. Thus through the federal, state, and local highway systems, provision can well be made to reach a much larger proportion of farm homes with improved or all-weather roads. Due to the availability of materials in the state, the greatest improvement generally will come from gravelling. The condition of all rural roads should make possible the all year-round use of automobiles by farm as well as other families.

Local Government and Tax Situation. The public institutions and programs considered above account for the major portion of the state's annual tax burden. In fact, schools and roads absorb more than two-thirds of the public expenditures. Since these facilities must be maintained at their present or perhaps higher level than formerly, the best possible solution of the tax problem lies in improvement of the educational system or the highway program, or through adjustment in the method of taxation. It seems well, therefore, to mention briefly possible ways of raising the needed revenues on more equitable bases than the general property tax. In other words, it is advisable to increase the proportion to be obtained from non-property sources.

The principal alternative to property as a source of levy is income. Every person who has an income should pay some direct tax. It has been suggested that a one per cent levy would not be too burdensome and this might apply to all who at present are exempt from the state tax rolls.

55. Adapted from What Changes Should be Made in Wisconsin's Taxation System?
Report of a Demonstration in Public Discussion assembled by A. F.
Wilsden, Rural Sociology Department, College of Agriculture, University
of Wisconsin, 1933, p. 9.

There is further hope in the inheritance tax, from the larger bequests particularly. These are unearned and could well be assessed to the extent that levies on them do not cut into adequate standards of living for the heirs who receive them. For those estates in non-liquid form, however, the requirement can be extended forward to avoid having to sell at a loss merely to meet a tax payment.

Still another possibility lies in an extension or increase of the sales tax on certain articles. One of these might be motor vehicles and perhaps gasoline to the extent that they maintain completely the roads, including the local highways. Additional levies from all these sources on property holders would, of course, be more than offset by reductions in property assessments.

Notwithstanding the fact that general governmental costs absorb less than two-thirds of the public expenditures, it is pertinent to consider briefly the matter of possible reductions through change in the local system. The growing multiplicity of governmental units is regarded as the cause of waste in public expenditures by many, particularly those who hold ^{that} the areas of most rural counties and town were established during the horse-and-buggy age and are now too small⁵⁶. This waste in expenditures also applies to schools and other agencies.

Through changes in the present system considerable savings could be expected. They might include adoption of county school unit plan, transfer of

56. Possible Tax Reduction Through Changes in Local Government, Wehrwein, George S. and Allin, Bushrod W., University of Wisconsin, Agricultural Experimental Station, Special Bulletin, March, 1933, p. 1.

town road administration to the county highway department, consolidation of towns, and enlargement of individual counties to include all or parts of neighboring counties. Any program of this nature would demand careful study and planning as well as cooperation of all the existing units.

The savings derived from such changes are only one of the principal considerations in the possible governmental alterations. Betterment in facilities and services is equally important and it is quite probable that local people will not favor greater centralization unless the benefits are enhanced. "Respecting the county unit, services would likely be more satisfactory from enlargement than consolidation." The merging of counties with their existing boundaries would be less desirable than the obliteration of present borders and the creation of a new county based on natural conditions and trade areas of the region.

The idea that boundaries of governmental units correspond to trade and service areas as well as to natural conditions should mean greater efficiency in both public and private uses of the available physical and human resources. More and more this is being recognized by groups who are interested in social planning, including experts in special fields concerned with both immediate and permanent improvement. The adjustment of governmental unit boundaries will facilitate the integration of land, social institutions or agencies, and population groups, effect savings in governmental costs and stimulate interest and participation in the solution of our most acute local economic and social problems.

Need for Local Planning

It is hoped that consideration of the factors suggesting ways of improvement has pointed to some of the possible achievements which can be anticipated from

proper social planning. There has been a growing emphasis during the past few years on means of effecting a more systematic and permanent use of our physical and human resources. This is intensified by "the spectacle of a nation with abundant natural wealth in which the population is unable to enjoy decent housing and the common utilities, in which useful inventions must be suppressed, in which waste is widespread but income curtailed, and in which a large percentage of the people are deprived of the privilege of laboring for their own support."⁵⁷

Briefly, social planning means looking forward toward the realization of satisfactory conditions for all the people. It involves the formation and intelligent consideration of policies, followed by the adoption of those which are acceptable and the selection of leaders to carry them out. To be most contributive the programs must deal with long time plans as well as emergency measures.

The idea of social planning seems to have started at the top, that is, at the head of our central government and extended down and outward. Fortunately, it has reached the different states, most of which now have planning boards or committees composed chiefly of representatives from governmental departments and agencies as well as citizens. These committees are setting forth past experiences and present conditions in a manner which should bring about a more orderly, effective, permanent and satisfactory use of resources.

To contribute most to the welfare of the nation and the state, the framework of general planning must be articulated with programs in the county,

57. Social Planning for Agriculture and its Relation to all Society, Lively, C. E., Paper read before Annual Conference of Agricultural Extension Workers, Ohio State University, October 15-18, 1935, Mimeograph, p. 2.

township and even locality. Therefore, the objectives and possible contributions of larger group planning can be enhanced through greater attention to local situations. Plans for improvement of agriculture, recreation and industry must be carried into the group life and social institutions of the community. It will be through forethought, cooperation and coordination that the activities, efforts, and relationships in typical rural areas can be made to yield tangible results.

Thus, successful community planning must be attained through local leaders in cooperation with their neighbors, while the chief task of the larger agencies and organizations is to encourage, assist and guide them. Two immediate needs are uppermost, the dissemination of information to portray the local situation in its internal and external group relationships, and the formulation of certain principles of procedure. The following are offered as suggestive for guidance:⁵⁸

1. Formulate a broad philosophy for community development, expressed in terms of objectives to be obtained.
2. Frequently verify and revise the objectives in the light of changing conditions and new information.
3. Adopt a democratic way of striving for improvement through education.
4. Recognize that the process takes time and that the heaven may be working although outward evidences are lacking.

58. Adapted from Social Planning for Agriculture and Its Relation to All Society, Lively, C. E. Paper read before Annual Conference of Agricultural Extension Workers, Ohio State University, October 16-18, 1935, Mimeograph, P. 6.

5. Maintain a balance of judgment as to when a given community should be stimulated and when left alone.

Social planning is feasible for Wisconsin. It will vary for different regions according to the local needs and the degree of development in agriculture, industry, and public institutions and agencies. Policies for rehabilitation and social security of the under privileged and unfortunate must be coordinated in future plans for effective uses of available resources.

In southeastern Wisconsin, rural people may expect to continue their chief dependence on farming for adequate standards of living, due to their location on good soils and to the relative nearness of urban centers which afford satisfactory markets. Those in the southwestern portion of the state will remain dependent primarily on agriculture for the essentials of home and community living, provided proper emphasis and attention is given to soil conservation and methods of marketing. Residents of north central Wisconsin, in a strip of counties from Shawano westward to Polk, may be unable to become firmly established agriculturally without more serious attention to possible changes in farm operation to secure greater diversification. This may necessitate adjustment of debts, extension of land clearing, and improvements in market facilities. Perchance some families may have to depend on industry, or recreation or even public works for supplementary income to make possible decent standards of living. Northern Wisconsin, as evident from present zoning activities, is faced with an outstanding need for readjustment, involving the resettlement of many rural people, and even the reshaping of trade and service facilities as well as public institutions and agencies for satisfactory living; many distress areas need to be depopulated and devoted to public uses. In the central area many families can no longer count on satisfactory living from agriculture alone. As in the cut-over some



can be aided through wiser use of local resources such as limited industrial, recreational and other employment opportunities. Others will need to look for new locations in order to secure adequate home and community living, since much of the area not suited to farming will be turned back to a wild game refuge. Thus, each region or area has its own particular situations and needs which must be considered in planning for the best possible use of available resources in order to realize desirable levels of family and community living.

For effective long time results, local people must contribute to the solution of the problem of wiser uses of resources in the interest of social welfare. Appreciating this, several counties including one in which the federal government is retiring submarginal land from agriculture, have asked for assistance and direction in the development of an orderly scheme for advancement. Other counties, and finally natural service areas will follow their example. The Planning and control of community affairs and the charting of local destinies will serve as "grass roots" of a democracy in which state and federal governments, integrating and aiding the interest of these communities, will continue to function.