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S U M M A R Y   R E P O R T  
O F   T H E  
M I N N E S O T A   D E P A R T M E N T   O F   T A X A T I O N  
T O   T H E  
E Q U A L I Z A T I O N   A I D   R E V I E W   C O M M I T T E E

Dean M. Schweickhard, Chairman  
Commissioner of Education

Arthur Naftalin  
Commissioner of Administration

G. Howard Spaeth  
Commissioner of Taxation

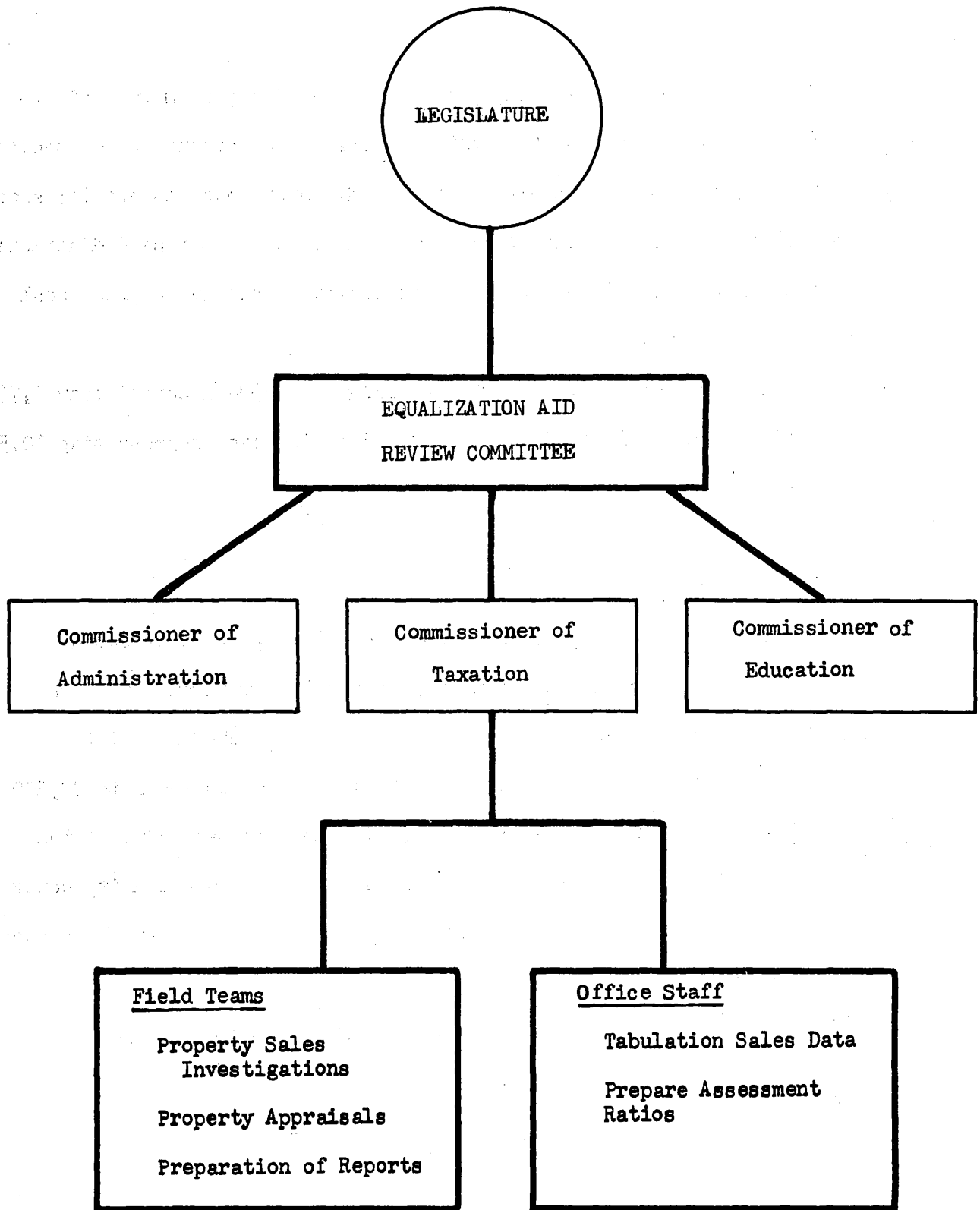
March, 1955

S.D.  
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Mn 6655  
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## LEGAL AUTHORIZATION

" There is hereby constituted an equalization aid review committee, consisting of the commissioner of education, the commissioner of administration, and the commissioner of taxation. The duty of this committee shall be to review the assessed valuation of school districts receiving equalization aid. When such reviews disclose reasonable evidence that the assessed valuation of any school district furnished by any county auditor, as aforesaid, is not the true valuation of taxable property in such school districts, then said committee shall call upon the department of taxation to ascertain the true value of such property. The department of taxation shall take such steps as it may consider necessary in the performance of that duty and may incur such expense as is necessary therefor. When so ascertained, but not later than March 1, 1955, the department of taxation shall submit its report to said committee for approval or rejection and, if approved, such report shall be filed with the commissioner of education and shall replace the valuation figure for the calculation of equalization aids and gross earnings aid under Minnesota Statutes 1949, Section 128.22, for the school year 1955-56 and thereafter provided by any county auditor, as aforesaid. A copy of this report shall be sent to the clerk of the school district involved and to the county auditor and county assessor or supervisor of assessments of the county or counties in which such school district is located."

- Minnesota Statutes 1953,  
Section 128.082, Subd. 1 (b)



FUNCTIONAL ORGANIZATION OF EQUALIZATION AID REVIEW COMMITTEE

## INTRODUCTION

The ability to finance governmental services varies widely from one unit to another. In education an effort has been made to equalize opportunities by making payments to school districts through equalization aid. Such payments are designed to bring need and ability-to-pay together to help financially distressed districts meet their obligations. Under this program, some districts receive a great deal of help and others receive none.

Equalization aid was introduced in 1947. During the 1953-54 school year 1,736 districts received approximately \$7,250,000 in equalization aid, representing 10.5 percent of all state educational aid.

## BASIS FOR DISTRIBUTION OF EQUALIZATION AID

Equalization aid in Minnesota, as in a number of states, is distributed entirely on the basis of assessed valuation of property per pupil unit in each school district. According to the existing equalization aid schedule, if the assessed value of property per pupil unit in a school district is equal to \$2,300 or more, that district receives no equalization aid. If the assessed value of the property in that district were to decline to less than \$100 per pupil unit, however, the district would receive \$83.95 equalization aid per pupil unit under the present equalization aid schedule.

The existing equalization aid schedule is shown on the opposite page.

EQUALIZATION AID SCHEDULE  
1953-54 School Year

| Assessed Value of<br>District Per Resident<br>Pupil Unit in Average<br>Daily Attendance | Equalization Aid<br>Per Resident Pupil<br>Unit in Average<br>Daily Attendance |
|---|---|
| \$2,300 or over . . . . .   | \$ 00.00  |
| 2,200 to 2,300 . . . . .  | 3.65  |
| 2,100 to 2,200 . . . . .  | 7.30  |
| 2,000 to 2,100 . . . . .  | 10.95   |
| 1,900 to 2,000 . . . . .  | 14.60   |
| 1,800 to 1,900 . . . . .  | 18.25   |
| 1,700 to 1,800 . . . . .  | 21.90   |
| 1,600 to 1,700 . . . . .  | 25.55   |
| 1,500 to 1,600 . . . . .  | 29.20   |
| 1,400 to 1,500 . . . . .  | 32.85   |
| 1,300 to 1,400 . . . . .  | 36.50   |
| 1,200 to 1,300 . . . . .  | 40.15   |
| 1,100 to 1,200 . . . . .  | 43.80   |
| 1,000 to 1,100 . . . . .  | 47.45   |
| 900 to 1,000 . . . . .  | 51.10   |
| 800 to 900 . . . . .  | 54.75   |
| 700 to 800 . . . . .  | 58.40   |
| 600 to 700 . . . . .  | 62.05   |
| 500 to 600 . . . . .  | 65.70   |
| 400 to 500 . . . . .  | 69.35   |
| 300 to 400 . . . . .  | 73.00   |
| 200 to 300 . . . . .  | 76.65   |
| 100 to 200 . . . . .  | 80.30   |
| Less than \$100 . . . . .   | 83.95   |

## CREATION OF THE EQUALIZATION AID REVIEW COMMITTEE

Since equalization aid is distributed according to the assessed value per pupil unit in each school district, a district receives more than its share of aid when its property is undervalued in relationship to the property in other school districts. To help correct this deficiency the 1951 Legislature created an equalization aid review committee composed of the commissioners of education, administration, and taxation. (Laws 1951, Chapter 705).

This committee was charged with the responsibility for reviewing assessed values used in connection with the distribution of equalization school aids.

The law provided that the committee should call upon the Department of Taxation to ascertain the true valuation of school districts receiving equalization aid. However, the committee concluded that in order to get a true picture of assessment standards in the state it was necessary to conduct a survey in all of the school districts.

The Department of Taxation began its assignment in the spring of 1952. By the time the 1953 Legislature met, surveys had been completed in nine counties. At that time a report was submitted to the 1953 Legislature and the committee was continued according to the provisions of Minnesota Statutes, 1953, Section 128.082, Subdivision 1 (b), quoted at the beginning of this report.

The Department of Taxation has now examined assessment standards in all school districts and this summary report is based upon those surveys.

The chart on the opposite page is a graphic presentation of the distribution of equalization aid for the 1953-54 school year. It can be seen there that 3,451 districts, representing 66.5 percent of all school districts in the state, had assessed valuations in excess of \$2,300 per pupil unit and thus received no aid, while seven districts at the other extreme had assessed valuations of less than \$100 per pupil unit and thus received equalization aid amounting to \$83.95 per pupil unit.

**ASSESSED VALUATION PER PUPIL UNIT**  
**\$2,300 AND OVER**  
 2,200  
 2,100  
 2,000  
 1,900  
 1,800  
 1,700  
 1,600  
 1,500  
 1,400  
 1,300  
 1,200  
 1,100  
 1,000  
 900  
 800  
 700  
 699 AND UNDER

**NUMBER OF DISTRICTS**

35      70      105      140

3,000      3,500

|                            |  |
|----------------------------|--|
| No Aid (3451 DISTRICTS)    |  |
| \$3.65 AID PER PUPIL ( 98) |  |
| 7.30 ( 101)                |  |
| 10.95 ( 104)               |  |
| 14.60 ( 91)                |  |
| 18.25 ( 97)                |  |
| 21.90 ( 111)               |  |
| 25.55 ( 101)               |  |
| 29.20 ( 104)               |  |
| 32.85 ( 93)                |  |
| 36.50 ( 107)               |  |
| 40.15 ( 101)               |  |
| 43.80 ( 100)               |  |
| 47.45 ( 109)               |  |
| 51.10 ( 110)               |  |
| 54.75 ( 87)                |  |
| 58.40 ( 81)                |  |
| 62.05 TO 83.95 ( 141)      |  |



**SCHOOL YEAR  
1953 - 1954**

## THE CONDUCT OF THE SURVEY

The committee soon realized that distribution of equalization aid in keeping with the equalization principle depended upon the use of the same standard, or unit of measurement, for assessed valuation in all school districts of the state. To determine what unit of measure was being used in the various school districts, an extensive sales-ratio study on a sample basis was made for the entire state by the Department of Taxation.

Since the purpose of the study was to determine the level of assessment, or the relationship of the assessor's true and full value to current value, in the different school districts, representative samples of various classes of real property such as farm, residential, commercial, industrial, etc., were selected for study. The analysis was done by comparing the true and full value of property as determined by the assessor with estimated current value. In determining current value, preference was given to recent bona fide sales. In the absence of a sufficient number of such sales, the sample was supplemented by appraisals at prevailing market prices.

Beginning with the initial compilation and organization of the data, every effort was made to secure as high a degree of accuracy as possible. All available techniques were utilized to keep the margin of error to a minimum. The methods used in collecting, organizing, and analyzing the data were those commonly used by recognized authorities. These procedures were designed to minimize the effect of any faulty sales or appraisal data which may have been inadvertently included in the sample.

Every sale included in the analysis was investigated personally by a staff member from the Department of Taxation, who attempted to contact the owner of the property for first-hand information regarding the sale of the property in question. That step was taken to insure that only bona fide sales were included in the analysis.



The staff representative who conducted the field investigation attempted to secure the following information relative to all the sales he investigated:

1. Determination of the full amount of the consideration paid for the property.
2. Determination of the exact amount of property included in the sale and the elimination of the value of any personal property which might have been included in the transaction.
3. Determination of the date of the sale.
4. Discovery of any relationship or association between buyer and seller that would invalidate the sales price as being representative of full market value.
5. Determination of the value of any physical changes made in the property such as new construction, repair, or removal of structure during the period between the date of sale and the date of the last assessment.

Since sales of commercial, industrial, and public utility property are relatively rare, it was necessary to make appraisals, or to establish ratios on the basis of some data other than sales, in the case of those classes of property.

Public utility ratios were calculated from the book values reported by the various utility companies to the Commissioner of Taxation. Samples of commercial and industrial sales were supplemented by appraisals. Unmined iron ore was excluded from the survey.

Since time and money limitations precluded the use of detailed professional appraisals, an alternative procedure was developed for estimating the present value of selected commercial and industrial property. This procedure utilized all available economic data, including information on rentals, insurance valuations, and informed local opinion. Drawing upon these items of information and upon his own fund of experience, the staff member responsible for making these appraisals estimated the present value of the properties examined.

A total of slightly more than 50,000 individual properties was included in the survey, and detailed reports and supporting data were compiled for all counties in the state.

## IMPORTANCE OF SOUND ASSESSMENT PROCEDURES

One of the important criticisms leveled at the property tax over the years has been the low and non-uniform level of assessments.

It is important that maximum uniformity be attained, not only between property owners but also between taxing districts, if a reasonable degree of equity is to be achieved.

The property tax is the largest single source of state and local tax revenue in Minnesota. More than half of the total state and local tax dollar is derived from property levies.

Since it occupies such a key place in the Minnesota tax structure and since property valuations also serve as the basis for distributing various state aids, sound assessment procedures are of great importance. That need has been recognized for many years.

Disregard for the statutory requirement that real property be assessed at its full and true value is an old story in Minnesota and in many other states. As early as 1902, the Minnesota Tax Commission referred to real property assessment in the state as "a startling example of the disregard of law by those to whom its administration is entrusted." The Tax Commission found that "the constitutional mandate requiring property to be assessed at its 'true value in money' has been more honored in the breach than in the observance in the assessment of real property."

The 1902 Commission proceeded to make certain legislative recommendations designed to improve the situation. No effective action was taken, however, and for more than a decade the legislature wrestled with the problem of obtaining equitable property valuations. This situation led the 1914 Tax Commission to make the following forceful observation:

"From the time of the adoption of our state constitution in 1858 until the year 1914, when the 'classified assessment law' went into effect, our laws explicitly provided that 'all property shall be assessed at its true and full value in money.' Notwithstanding the clear and mandatory character of this statute, it was never enforced or obeyed, but was wilfully and shamelessly violated by taxpayers and tax officials

everywhere from the very beginning. The universal practice prior to 1914 was to assess property at from 25 to 50 percent of actual value."

Fractional assessments and inequities between units of government are not peculiar to Minnesota. Assessment ratio studies have been conducted in several other states. The results in these states have been comparable to the Minnesota findings. A tabulation comparing Minnesota with eight other states which have recently conducted similar studies follows:

| State        | Highest<br>County<br>Ratio | Statewide<br>Ratio | Lowest<br>County<br>Ratio | Year<br>of<br>Study |
|--------------|----------------------------|--------------------|---------------------------|---------------------|
| Minnesota    | 52%                        | 36%                | 17%                       | 1955                |
| Illinois     | 100                        | 63                 | 13                        | 1953                |
| Kansas       | 48                         | 23                 | 13                        | 1953                |
| Kentucky     | 50                         | ..                 | 17                        | 1952                |
| Missouri     | 63                         | ..                 | 19                        | 1947                |
| Nebraska     | 64                         | 47                 | 18                        | 1953                |
| New Jersey   | 56                         | 34                 | 16                        | 1953                |
| Pennsylvania | 55                         | 40                 | 21                        | 1951                |
| Washington   | 39                         | 20                 | 13                        | 1954                |

## VARIATION IN ASSESSMENT STANDARDS AMONG COUNTIES

The data indicate that there is a considerable variation by counties in the composite (weighted average) assessment ratios for all classes of property. For example, the ranking of the counties in ratio order from low to high on the following page indicates that the composite county-wide ratio in the highest county, Red Lake, is more than three times greater than the composite assessment ratio in the lowest county, Koochiching.

Undesirable as such disparities may be, one should perhaps consider them in light of the tabulation on page 9. There it can be seen that approximately comparable disparities appear to exist in Kentucky, Missouri, Pennsylvania, and Washington, while even greater variations exist in Illinois, Kansas, Nebraska, and New Jersey.

These inequalities become magnified when a uniform state mill levy is applied to the non-uniform assessments.

The use of true and full values representing different percentages of market value also results in serious inequities when these values are used as a basis for distributing various state aids.

A summary table showing the assessment ratios by county and by major types of property is contained in Appendix I.

MINNESOTA COUNTIES CLASSIFIED BY ASSESSMENT RATIO  
RANKED FROM LOW TO HIGH

| <u>Order<br/>Number</u> | <u>County</u>     | <u>Ratio</u> | <u>Order<br/>Number</u> | <u>County</u>   | <u>Ratio</u> |
|-------------------------|-------------------|--------------|-------------------------|-----------------|--------------|
| 1                       | Koochiching       | 16.91%       | 45                      | Clay            | 38.09%       |
| 2                       | Itasca            | 17.38        | 46                      | Pine            | 38.38        |
| 3                       | Lake              | 20.44        | 47                      | Murray          | 38.42        |
| 4                       | Cass              | 22.45        | 48                      | Carver          | 38.50        |
| 5                       | Aitkin            | 22.73        | 49                      | Morrison        | 38.61        |
| 6                       | Crow Wing         | 25.15        | 50                      | Brown           | 38.68        |
| 7                       | St. Louis         | 25.76        | 51                      | Olmsted         | 38.74        |
| 8                       | Lake of the Woods | 27.28        | 52                      | Kittson         | 38.85        |
| 9                       | Anoka             | 27.37        | 53                      | Swift           | 39.09        |
| 10                      | Washington        | 30.14        | 54                      | Kanabec         | 39.19        |
| 11                      | Cook              | 30.17        | 55                      | Watonwan        | 39.25        |
| 12                      | Carlton           | 30.52        | 56                      | Clearwater      | 39.28        |
| 13                      | Dakota            | 30.75        | 57                      | Rice            | 39.37        |
| 14                      | Faribault         | 31.83        | 58                      | Lincoln         | 39.62        |
| 15                      | Hubbard           | 32.11        | 59                      | Winona          | 39.80        |
| 16                      | Beltrami          | 32.98        | 60                      | Yellow Medicine | 39.91        |
| 17                      | Roseau            | 33.86        | 61                      | Waseca          | 40.08        |
| 18                      | Nicollet          | 35.25        | 62                      | Todd            | 40.27        |
| 19                      | Cottonwood        | 35.31        | 63                      | Grant           | 40.44        |
| 20                      | Stearns           | 35.32        | 64                      | McLeod          | 41.12        |
| 21                      | Blue Earth        | 35.33        | 65                      | Renville        | 41.13        |
| 22                      | Pipestone         | 35.40        | 66                      | Houston         | 41.82        |
| 23                      | Hennepin          | 35.46        | 67                      | Kandiyohi       | 41.87        |
| 24                      | Rock              | 35.48        | 68                      | Marshall        | 42.05        |
| 25                      | Martin            | 35.59        | 69                      | Sibley          | 42.49        |
| 26                      | Nobles            | 35.72        | 70                      | Dodge           | 42.61        |
| 27                      | Mille Lacs        | 35.77        | 71                      | Douglas         | 42.62        |
| 28                      | Jackson           | 35.95        | 72                      | Wilkin          | 42.63        |
| 29                      | Ramsey            | 36.34        | 73                      | Chisago         | 42.87        |
| 30                      | Steele            | 36.42        | 74                      | Norman          | 43.31        |
| 31                      | Otter Tail        | 36.64        | 75                      | Goodhue         | 43.61        |
| 32                      | Freeborn          | 36.64        | 76                      | Traverse        | 44.08        |
| 33                      | Wadena            | 36.91        | 77                      | Isanti          | 44.17        |
| 34                      | Chippewa          | 37.13        | 78                      | Wabasha         | 45.12        |
| 35                      | Polk              | 37.14        | 79                      | Fillmore        | 45.21        |
| 36                      | Lyon              | 37.19        | 80                      | Meeker          | 45.46        |
| 37                      | Sherburne         | 37.21        | 81                      | Stevens         | 45.48        |
| 38                      | Mower             | 37.26        | 82                      | Big Stone       | 46.17        |
| 39                      | Scott             | 37.37        | 83                      | Lac Qui Parle   | 46.38        |
| 40                      | Benton            | 37.41        | 84                      | Pennington      | 47.49        |
| 41                      | Redwood           | 37.71        | 85                      | Pope            | 48.69        |
| 42                      | Le Sueur          | 37.90        | 86                      | Becker          | 49.89        |
| 43                      | Mahnomen          | 37.99        | 87                      | Red Lake        | 51.99        |
| 44                      | Wright            | 38.06        |                         |                 |              |

In spite of the variations found in the assessment standard among the various counties, many of them are assessed at a comparable level.

The chart on the following page shows that 43 of the state's 87 counties are assessed at standards ranging from 35 to 39.9 percent of current value. Only 17 counties, slightly less than 20 percent, of the counties in the state are assessed at a level lower than 35 percent of current value, while nearly one-third, 27, of them are assessed at 40 percent, or more, of estimated current value.

While there is about 200 percent spread between the weighted average ratio of the lowest county and that of the highest county perhaps one of the most significant aspects of the chart on the following page is that nearly one-half of the counties in Minnesota are assessed at nearly comparable levels, ranging only from 35 to 39.9 percent of current value.

NUMBER OF COUNTIES CLASSIFIED BY RATIO OF TRUE AND FULL VALUE  
TO CURRENT VALUE

Number of  
Counties

45

40

35

30

25

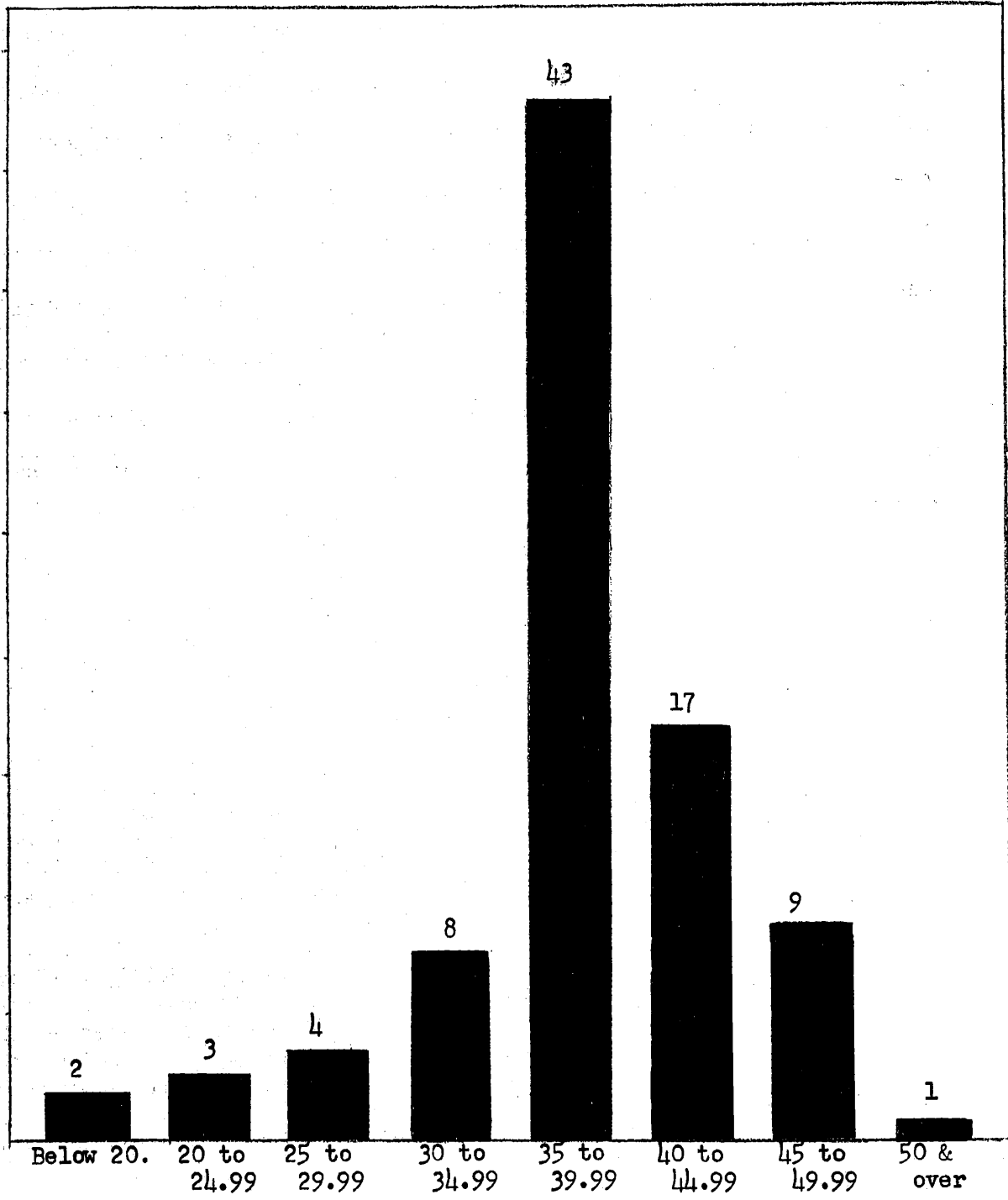
20

15

10

5

0



Ratio of Assessment Valuation to Current Value

## VARIATIONS WITHIN COUNTIES

Equality of assessment standards among counties is an important objective of sound assessment procedure. It is also important, however, that property units of the same class within a county be assessed at approximately the same standard.

A useful tool in measuring uniformity of assessments within counties is the coefficient of dispersion\*. When the assessment-sales ratios of most properties within a county are relatively uniform and are grouped closely together, the coefficient of dispersion will be low. A low coefficient of dispersion therefore indicates a well equalized assessment. On the other hand, wide variations in the ratio of true and full to current value will result in a high coefficient of dispersion. This suggests a lack of equality among individual assessments.

The following charts illustrate the coefficient of dispersion graphically by plotting it on target diagrams. Good assessment administration is seen as a concentration of "shots" around a "bull's eye".

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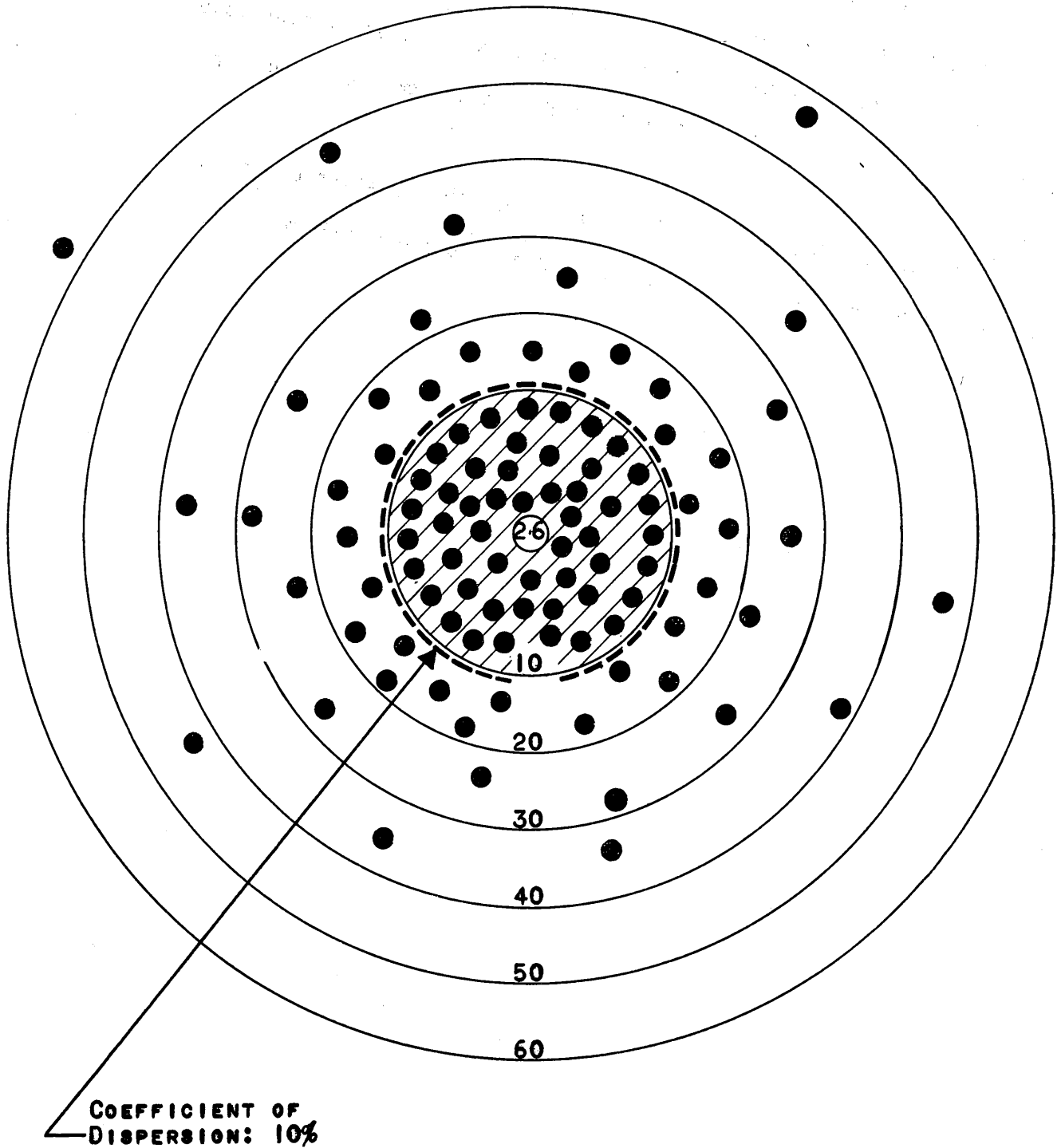
\* The coefficient of dispersion is a statistical measure which shows the distance on either side of the median ratio, expressed as a percentage of the median, within which 50 percent of all cases will fall. This distance is approximately equal to the average variation of individual sales ratios from the median ratio.

For example, Anoka County has a residential coefficient of dispersion of 10 percent and a residential median of 26.05 percent. This means that about half of Anoka County's residential dwellings are assessed at standards which exceed or fall short of the county-wide median by  $10\% \times 26.05\% = 2.61\%$ . That is, 50 percent of this property lies within the range 26.05% plus or minus 2.61%, or between 23.44% and 28.66%. The average amount by which assessments differ from the median in this county is 2.61% (10% of 26.05%).

The median referred to above is comparable to the average. Technically, the median is the middle item in a group of items ranked from high to low. Thus, in a group of five numbers---1,3,4,5,6---the median is the third number, or 4. Where there is an even number of items, the median lies midway between the two middle items.



COUNTY A  
RESIDENTIAL ASSESSMENTS



EACH DOT REPRESENTS ONE PERCENT OF TOTAL ASSESSMENTS

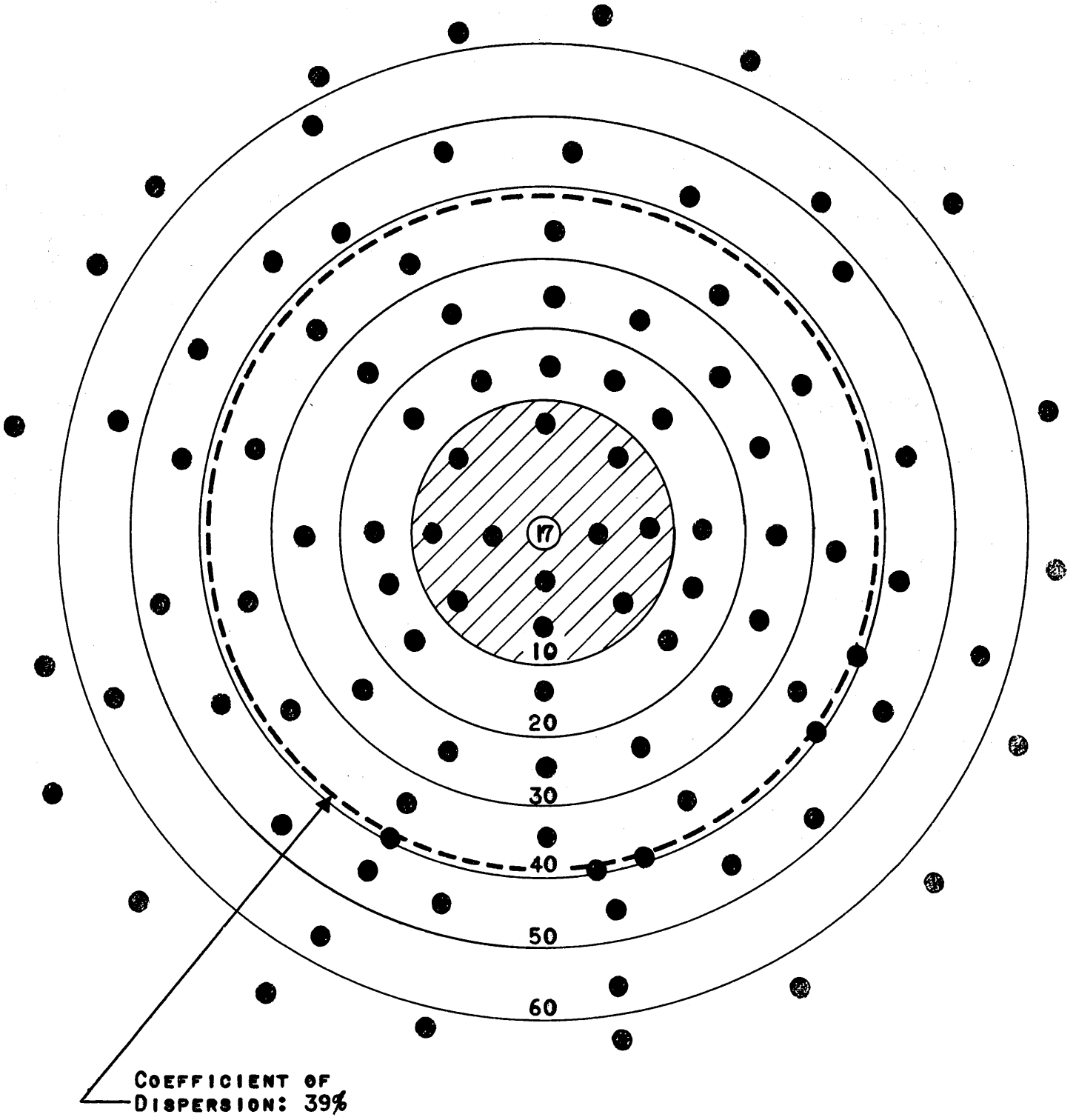
County A is a well equalized county, and county B a poorly equalized county. It can be seen that the concentration of ratios about the "bull's eye" is much greater in county A than in county B.

Two qualifications should be made with regard to the use of the coefficient of dispersion in comparing a number of counties. First, a large county-wide coefficient of dispersion may hide uniformity within individual assessment districts. Second, the assessment problem is likely to be more difficult in some counties than in others.

A summary table showing coefficients of dispersion and other statistical data for selected classes of property in each of the 87 counties is contained in Appendix II.

COUNTY B

RESIDENTIAL ASSESSMENTS



EACH DOT REPRESENTS ONE PERCENT OF TOTAL ASSESSMENTS

## VARIATION IN ASSESSMENT STANDARDS AMONG DIFFERENT CLASSES OF PROPERTY

The same general lack of uniformity that exists among counties is also evident when the assessment standard of one class of property is compared with that of another. The chart on the opposite page shows in graphic form the standard of assessment for the seven major classes of property included in this survey.

The chart indicates that public utility property is assessed at a value more nearly approaching current value than any other type of property included in the study. However, these ratios are based on book values reported to the Commissioner of Taxation, hence these ratios may tend to reflect a different cost basis than that reflected by the sales or appraisal data used in the case of other classes of property.

Apart from public utility property, farm real estate is assessed at a higher level than any other class of property.

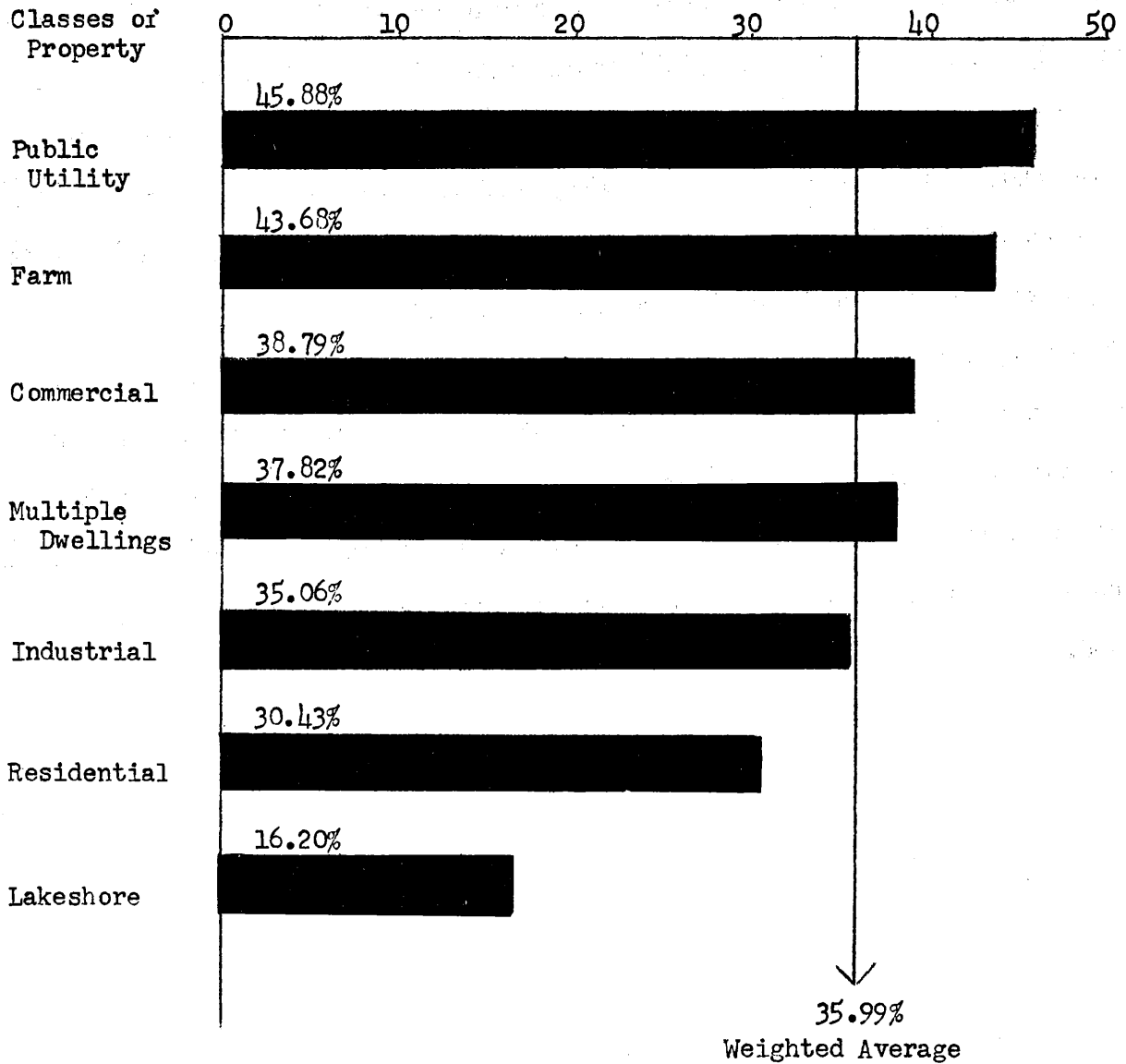
On the whole, lakeshore property is assessed at a lower standard than any other class of real property examined in this analysis.

No attempt is made here to analyze the cause of the assessment levels found to exist. Such an analysis is a large undertaking in itself. However, it should be borne in mind that the assessment level for any kind of real estate may be affected by a number of influences including geographic, economic, and social factors.

A summary analysis of the standard of assessment of various classes of real property included in the survey is contained in Appendix III.

LACK OF UNIFORMITY OF ASSESSMENTS BY SELECTED TYPES OF PROPERTY

Percent of True and Full Value to Current Value



## VARIATION IN ASSESSMENT STANDARDS AMONG SCHOOL DISTRICTS

Variation in assessment standards as found among counties also exists in assessment standards among school districts.

The chart on the following page is a graphic presentation of the differences in assessment standards among the 4,551 school districts in the state. These are the districts reported to be in existence on January 1, 1955, by the county auditors.

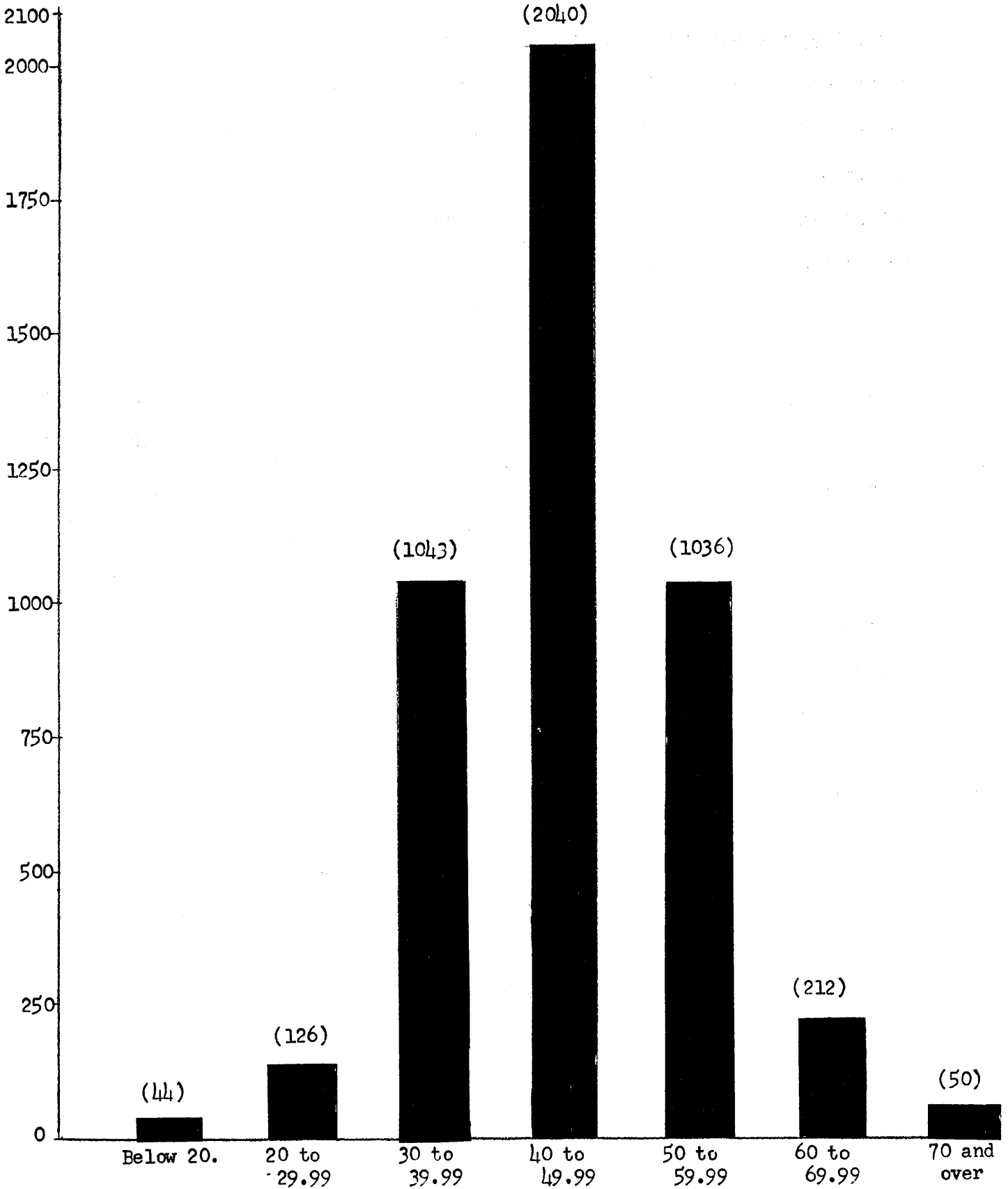
Although real property in nearly half, 2,040, of the school districts in the state is assessed at 40 to 50 percent of current value, there is a great variation in the assessment standards of the remaining districts.

The equalization principle is seriously violated when aid is distributed on the basis of values that range from below 20 to over 70 percent of current value.

If the true purpose of equalization aid is to be realized it is necessary to equalize assessment standards so that a comparable unit will be used to measure need in each school district. Only in this way can the real purpose of such aid be attained.

LACK OF UNIFORMITY OF ASSESSMENT RATIOS  
AMONG SCHOOL DISTRICTS

Number of  
Districts



Ratio of Assessment Valuation to Current Value

## NEED FOR CONTINUING STUDY

As long as property values change there is need for a continuing survey of this kind. Assessment standards do not remain constant for long periods of time. Consequently, the only way to determine the ratio of the assessors' true and full value to current value is to continue this type of analysis. If this is not done, comparison of the levels of assessment among the various taxing districts will be handicapped.

The need for the continuation of this kind of analysis was recognized by Governor Freeman when he recommended in his Budget Message, "the continuation of the study of assessment standards now being done by the Equalization Aid Review Committee."

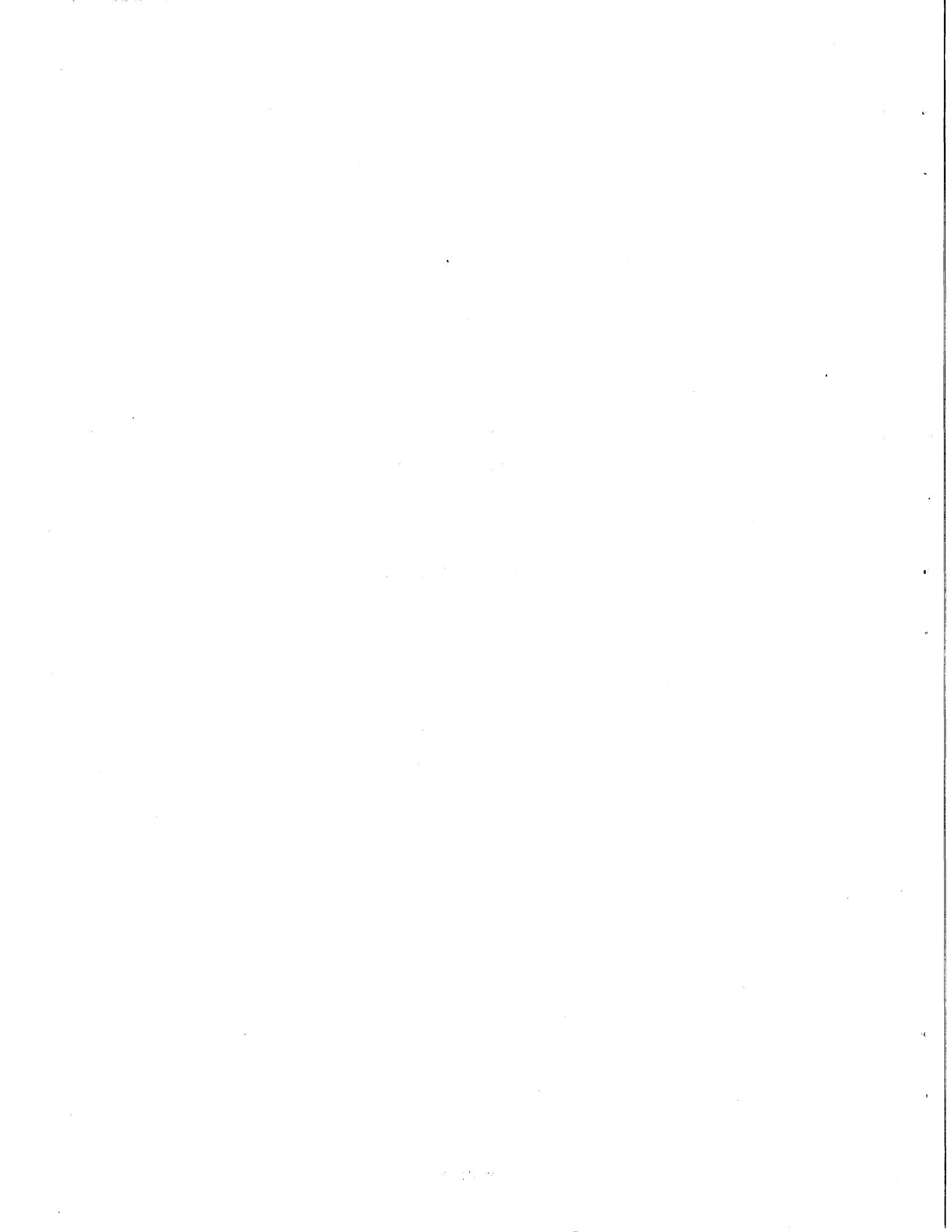
The Interim Tax Study Committee was also fully aware of the value of this type of survey when it recommended in its report that the "sales-ratio study survey be continued."

It is the feeling of this committee that an analysis of this nature is very helpful in providing the policy-makers of the state with objective guides as they work toward the achievement of a greater degree of equalization and uniformity among classes of property and taxing districts.

We, therefore, respectfully recommend that this work be continued on a permanent basis.



APPENDICES



APPENDIX I

ASSESSMENT RATIOS BY COUNTY AND TYPE OF PROPERTY

| COUNTY            | Residential | Commercial | Industrial | Public<br>Utility | Lake<br>Shore | Farm   | TOTAL  |
|-------------------|-------------|------------|------------|-------------------|---------------|--------|--------|
| AITKIN            | 17.48%      | 19.70%     | -----%     | 11.90%            | 8.35%         | 33.00% | 22.73% |
| ANCKA             | 26.05       | 29.24      | 28.90      | 43.96             | 18.55         | 30.96  | 27.37  |
| BECKER            | 40.76       | 37.94      | 38.85      | 48.88             | 31.03         | 63.91  | 49.89  |
| BELTRAMI          | 29.60       | 31.79      | 30.52      | 35.80             | 20.80         | 40.23  | 32.98  |
| BENTON            | 26.87       | 29.03      | 44.28      | 51.10             | 23.16         | 46.34  | 37.41  |
| BIG STONE         | 30.35       | 29.72      | 18.93      | 50.31             | 27.56         | 55.60  | 46.17  |
| BLUE EARTH        | 30.37       | 32.39      | 27.74      | 53.87             | -----         | 38.84  | 35.33  |
| BROWN             | 35.71       | 35.49      | 30.58      | 64.60             | -----         | 42.20  | 38.68  |
| CARLTON           | 23.44       | 24.88      | 29.29      | 43.23             | 11.15         | 33.79  | 30.52  |
| CARVER            | 29.41       | 30.86      | 26.48      | 48.17             | 14.99         | 45.27  | 38.50  |
| CASS              | 22.43       | 20.32      | 15.86      | 51.21             | 12.39         | 31.95  | 22.45  |
| CHIPPEWA          | 29.41       | 29.66      | 25.71      | 47.30             | -----         | 40.57  | 37.13  |
| CHISAGO           | 29.22       | 31.67      | 32.43      | 52.04             | 24.12         | 51.67  | 42.89  |
| CLAY              | 26.74       | 32.39      | 29.86      | 50.11             | -----         | 49.00  | 38.09  |
| CLEARWATER        | 33.37       | 39.16      | 26.63      | 46.71             | 13.77         | 41.79  | 39.28  |
| COOK              | 26.97       | 28.27      | -----      | 48.23             | 28.66         | 50.18  | 30.17  |
| COTTONWOOD        | 29.71       | 35.40      | 23.29      | 55.47             | -----         | 36.71  | 35.31  |
| CROW WING         | 22.00       | 30.64      | -----      | 32.66             | 15.45         | 38.67  | 25.15  |
| DAKOTA            | 25.18       | 28.86      | 28.20      | 28.78             | 16.45         | 46.63  | 30.75  |
| DODGE             | 33.56       | 32.24      | 29.70      | 49.14             | -----         | 45.77  | 42.61  |
| DOUGLAS           | 32.43       | 31.53      | 33.28      | 47.46             | 25.12         | 55.53  | 42.62  |
| FARIBAULT         | 29.55       | 32.64      | 26.47      | 46.33             | -----         | 32.40  | 31.83  |
| FILLMORE          | 33.49       | 31.49      | 30.87      | 36.19             | -----         | 51.46  | 45.21  |
| FREEBORN          | 31.10       | 31.75      | 29.30      | 45.86             | -----         | 41.02  | 36.64  |
| GOODHUE           | 31.97       | 31.89      | 26.57      | 47.23             | -----         | 58.87  | 43.61  |
| GRANT             | 27.27       | 30.24      | 23.80      | 50.39             | 14.75         | 45.33  | 40.44  |
| HENNEPIN          | 31.70       | 46.98      | 44.73      | 43.74             | -----         | 41.38  | 35.46  |
| HOUSTON           | 28.27       | 30.68      | 24.91      | 57.88             | -----         | 51.93  | 41.82  |
| HUBBARD           | 32.08       | 29.99      | 28.14      | 50.15             | 18.11         | 40.82  | 32.11  |
| ISANTI            | 24.74       | 26.57      | 25.70      | 50.59             | 14.11         | 56.88  | 44.17  |
| ITASCA            | 14.64       | 18.34      | 29.90      | 43.09             | 9.80          | 20.17  | 17.38  |
| JACKSON           | 30.65       | 30.05      | 28.56      | 41.08             | -----         | 37.22  | 35.95  |
| KANABEC           | 22.91       | 31.58      | 25.99      | 53.62             | 12.32         | 47.91  | 39.19  |
| KANDIYOHI         | 31.62       | 30.07      | 26.98      | 42.60             | 22.00         | 52.93  | 41.87  |
| KITTSON           | 25.45       | 27.09      | 23.48      | 49.42             | -----         | 42.88  | 38.85  |
| KOOCHICHING       | 12.37       | 20.84      | -----      | 20.83             | 7.50          | 24.00  | 16.91  |
| LAC QUI PARLE     | 38.40       | 37.68      | 34.78      | 62.29             | -----         | 48.76  | 46.38  |
| LAKE              | 19.13       | 21.01      | -----      | 46.50             | 12.38         | 23.02  | 20.44  |
| LAKE OF THE WOODS | 23.41       | 28.83      | 24.48      | 47.51             | 15.51         | 29.01  | 27.28  |
| LE SUEUR          | 29.12       | 32.29      | 17.70      | 48.46             | 19.00         | 44.73  | 37.90  |

ASSESSMENT RATIOS BY COUNTY AND TYPE OF PROPERTY

| COUNTY     | Residential | Commercial | Industrial | Public Utility | Lake Shore | Farm   | TOTAL  |
|------------|-------------|------------|------------|----------------|------------|--------|--------|
| LINCOLN    | 31.09%      | 32.35%     | 29.15%     | 50.05%         | -----%     | 41.81% | 39.62% |
| LYON       | 31.04       | 34.80      | 29.81      | 48.68          | -----      | 40.02  | 37.19  |
| MC LEOD    | 34.48       | 33.52      | 25.94      | 40.43          | -----      | 46.54  | 41.12  |
| MAHNOHEN   | 24.14       | 20.70      | -----      | 48.15          | 11.55      | 46.96  | 37.99  |
| MARSHALL   | 28.26       | 28.51      | 18.71      | 40.68          | -----      | 46.21  | 42.05  |
| MARTIN     | 28.86       | 31.10      | 31.68      | 52.85          | -----      | 37.85  | 35.59  |
| MEEKER     | 35.21       | 37.33      | 37.54      | 41.34          | 25.28      | 50.38  | 45.46  |
| MILLE LACS | 32.38       | 32.65      | 29.03      | 49.41          | 24.18      | 39.77  | 35.77  |
| MORRISON   | 28.82       | 27.78      | 23.41      | 50.93          | 14.14      | 45.61  | 38.61  |
| MOWER      | 31.93       | 33.03      | 31.16      | 47.02          | -----      | 45.61  | 37.26  |
| MURRAY     | 31.46       | 34.01      | -----      | 48.28          | -----      | 39.75  | 38.42  |
| NICOLLET   | 26.02       | 29.89      | 22.67      | 52.69          | -----      | 41.46  | 35.25  |
| NOBLES     | 34.37       | 34.29      | 33.17      | 38.86          | -----      | 36.32  | 35.72  |
| NORMAN     | 27.54       | 27.82      | 27.83      | 35.69          | -----      | 49.53  | 43.31  |
| OIMSTED    | 31.20       | 40.83      | 32.10      | 54.92          | 43.63      | 58.31  | 38.74  |
| OTTER TAIL | 28.68       | 31.49      | 28.39      | 45.82          | 15.67      | 45.79  | 36.64  |
| PENNINGTON | 37.61       | 40.66      | -----      | 52.69          | -----      | 62.40  | 47.49  |
| PINE       | 27.33       | 27.83      | 21.45      | 37.15          | 14.23      | 49.00  | 38.38  |
| PIPESTONE  | 28.90       | 30.55      | 26.66      | 62.18          | -----      | 37.93  | 35.40  |
| POLK       | 25.54       | 30.12      | 30.27      | 48.06          | -----      | 42.46  | 37.14  |
| POPE       | 32.38       | 31.95      | 24.81      | 49.83          | 19.50      | 58.25  | 48.69  |
| RAMSEY     | 33.48       | 43.44      | 41.04      | 46.75          | -----      | -----  | 36.34  |
| RED LAKE   | 37.85       | 36.23      | -----      | 48.74          | -----      | 59.12  | 51.99  |
| REDWOOD    | 31.45       | 30.85      | 36.26      | 47.86          | -----      | 39.80  | 37.71  |
| RENVILLE   | 34.78       | 31.85      | 31.21      | 52.50          | -----      | 43.42  | 41.13  |
| RICE       | 31.12       | 29.73      | 23.09      | 55.44          | -----      | 51.67  | 39.37  |
| ROCK       | 34.90       | 34.80      | 28.40      | 45.54          | -----      | 35.64  | 35.48  |
| ROSEAU     | 24.47       | 21.69      | 18.91      | 28.43          | -----      | 39.48  | 33.86  |
| ST. LOUIS  | 22.58       | 33.89      | 35.43      | 53.92          | 10.89      | 18.10  | 25.76  |
| SCOTT      | 25.09       | 24.28      | 30.55      | 51.97          | 15.37      | 51.14  | 37.37  |
| SHERBURNE  | 26.98       | 22.82      | 35.37      | 42.37          | 19.54      | 48.00  | 37.21  |
| SIBLEY     | 31.58       | 32.85      | 40.24      | 48.81          | -----      | 45.64  | 42.49  |
| STEARNS    | 27.37       | 26.67      | 19.53      | 53.61          | 20.00      | 49.95  | 35.32  |
| STEELE     | 30.00       | 31.46      | 23.80      | 47.99          | -----      | 43.36  | 36.42  |
| STEVENS    | 31.33       | 32.68      | 38.02      | 53.21          | -----      | 52.65  | 45.48  |
| SWIFT      | 31.80       | 33.19      | -----      | 46.71          | -----      | 42.26  | 39.09  |
| TODD       | 28.86       | 23.59      | 21.23      | 44.05          | 12.50      | 47.99  | 40.27  |
| TRAVERSE   | 24.71       | 32.01      | 21.89      | 43.29          | -----      | 49.82  | 44.08  |
| WABASHA    | 31.69       | 30.82      | 30.22      | 49.73          | -----      | 58.03  | 45.12  |
| WADENA     | 28.00       | 28.39      | 22.09      | 59.13          | -----      | 48.63  | 36.91  |

ASSESSMENT RATIOS BY COUNTY AND TYPE OF PROPERTY

| <u>COUNTY</u>   | <u>Residential</u> | <u>Commercial</u> | <u>Industrial</u> | <u>Public<br/>Utility</u> | <u>Lake<br/>Shore</u> | <u>Farm</u> | <u>TOTAL</u> |
|-----------------|--------------------|-------------------|-------------------|---------------------------|-----------------------|-------------|--------------|
| WASECA          | 30.47%             | 27.76%            | 22.15%            | 44.90%                    | 25.39%                | 46.77%      | 40.08%       |
| WASHINGTON      | 24.50              | 30.70             | 31.46             | 47.14                     | -----                 | 43.57       | 30.14        |
| WATONWAN        | 33.38              | 32.70             | 33.35             | 49.29                     | -----                 | 41.84       | 39.25        |
| WILKIN          | 27.04              | 33.16             | 38.78             | 57.41                     | -----                 | 47.15       | 42.63        |
| WINONA          | 34.40              | 34.72             | 25.50             | 42.94                     | -----                 | 58.63       | 39.80        |
| WRIGHT          | 30.70              | 29.15             | 30.00             | 51.35                     | 17.14                 | 44.48       | 38.06        |
| YELLOW MEDICINE | 34.11              | 38.12             | 29.67             | 45.67                     | -----                 | 41.18       | 39.91        |

## APPENDIX II

## STATE OF MINNESOTA

## COUNTY-WIDE MEASURES OF DISPERSION FOR SELECTED CLASSES OF PROPERTY

|                   | MED-<br>IAN | COEF.<br>of<br>DISP-<br>ERSION | QUARTILE |        | DECILE |        | RANGE  | NO.<br>CASES |
|-------------------|-------------|--------------------------------|----------|--------|--------|--------|--------|--------------|
|                   |             |                                | 1st      | 3rd    | 1st    | 9th    |        |              |
| <b>AITKIN</b>     |             |                                |          |        |        |        |        |              |
| Residential       | 17.48%      | 39%                            | 12.26%   | 25.85% | 8.88%  | 34.55% | 54.50% | 67           |
| Commercial        | 19.70       | 41                             | 12.44    | 28.74  | 8.37   | 40.90  | 64.29  | 35           |
| Farm              | 33.00       | 34                             | 21.88    | 44.62  | 16.06  | 69.50  | 138.33 | 123          |
| <b>ANCKA</b>      |             |                                |          |        |        |        |        |              |
| Residential       | 26.05%      | 10%                            | 23.97%   | 29.23% | 21.22% | 32.58% | 47.10% | 505          |
| Commercial        | 29.24       | 10                             | 26.05    | 31.62  | 20.96  | 35.03  | 25.02  | 62           |
| Farm              | 30.96       | 27                             | 23.97    | 40.80  | 18.48  | 59.08  | 75.14  | 82           |
| <b>BECKER</b>     |             |                                |          |        |        |        |        |              |
| Residential       | 40.76%      | 18%                            | 33.40%   | 47.84% | 25.47% | 60.03% | 78.25% | 123          |
| Commercial        | 37.94       | 26                             | 31.59    | 51.30  | 24.43  | 64.07  | 97.50  | 53           |
| Farm              | 63.91       | 23                             | 49.16    | 78.91  | 38.33  | 97.86  | 147.50 | 169          |
| <b>BELTRAMI</b>   |             |                                |          |        |        |        |        |              |
| Residential       | 29.60%      | 22%                            | 24.06%   | 37.10% | 19.15% | 43.47% | 47.63% | 253          |
| Commercial        | 31.79       | 18                             | 24.53    | 36.25  | 18.11  | 42.71  | 83.25  | 72           |
| Farm              | 40.23       | 29                             | 30.53    | 53.69  | 25.00  | 69.38  | 126.60 | 142          |
| <b>BENTON</b>     |             |                                |          |        |        |        |        |              |
| Residential       | 26.87%      | 16%                            | 23.24%   | 32.00% | 19.64% | 34.66% | 38.96% | 131          |
| Commercial        | 29.03       | 25                             | 23.15    | 37.80  | 16.87  | 54.35  | 57.79  | 60           |
| Farm              | 46.34       | 16                             | 38.98    | 54.23  | 32.52  | 63.17  | 97.91  | 104          |
| <b>BIG STONE</b>  |             |                                |          |        |        |        |        |              |
| Residential       | 30.35%      | 14%                            | 26.79%   | 35.00% | 23.55% | 42.00% | 35.00% | 87           |
| Commercial        | 29.72       | 18                             | 23.75    | 34.23  | 20.30  | 45.17  | 48.33  | 68           |
| Farm              | 55.60       | 16                             | 48.50    | 66.39  | 40.17  | 78.00  | 57.50  | 61           |
| <b>BLUE EARTH</b> |             |                                |          |        |        |        |        |              |
| Residential       | 30.37%      | 20%                            | 25.23%   | 37.08% | 19.36% | 46.41% | 75.00% | 338          |
| Commercial        | 32.39       | 24                             | 26.04    | 41.33  | 21.53  | 49.14  | 58.75  | 111          |
| Farm              | 38.84       | 19                             | 32.15    | 47.03  | 27.07  | 56.50  | 67.50  | 98           |
| <b>BROWN</b>      |             |                                |          |        |        |        |        |              |
| Residential       | 35.71%      | 18%                            | 29.69%   | 42.71% | 25.94% | 48.85% | 65.00% | 239          |
| Commercial        | 35.49       | 19                             | 30.38    | 43.83  | 23.71  | 54.75  | 70.00  | 81           |
| Farm              | 42.20       | 20                             | 35.67    | 52.69  | 28.86  | 62.17  | 63.33  | 83           |
| <b>CARLTON</b>    |             |                                |          |        |        |        |        |              |
| Residential       | 23.44%      | 21%                            | 18.31%   | 27.97% | 13.38% | 32.90% | 40.00% | 148          |
| Commercial        | 24.88       | 24                             | 18.59    | 30.33  | 13.44  | 35.58  | 33.33  | 76           |
| Farm              | 33.79       | 40                             | 23.54    | 50.40  | 16.17  | 75.83  | 150.00 | 96           |

## STATE OF MINNESOTA

## COUNTY-WIDE MEASURES OF DISPERSION FOR SELECTED CLASSES OF PROPERTY

|                   | MED-<br>IAN | COEF.<br>of<br>DISP-<br>ERSION | QUARTILE |        | DECILE |        | RANGE  | NO.<br>CASES |
|-------------------|-------------|--------------------------------|----------|--------|--------|--------|--------|--------------|
|                   |             |                                | 1st      | 3rd    | 1st    | 9th    |        |              |
| <b>CARVER</b>     |             |                                |          |        |        |        |        |              |
| Residential       | 29.41%      | 16%                            | 25.56%   | 35.24% | 21.14% | 41.98% | 52.37% | 160          |
| Commercial        | 30.86       | 20                             | 24.24    | 36.38  | 21.02  | 43.34  | 55.32  | 87           |
| Farm              | 45.27       | 18                             | 39.44    | 55.93  | 31.70  | 63.80  | 105.57 | 95           |
| <b>CASS</b>       |             |                                |          |        |        |        |        |              |
| Residential       | 22.43%      | 26%                            | 16.20%   | 27.85% | 12.17% | 36.04% | 34.67% | 117          |
| Commercial        | 20.32       | 33                             | 13.07    | 26.59  | 10.40  | 36.64  | 62.59  | 74           |
| Farm              | 31.95       | 36                             | 25.26    | 48.33  | 17.11  | 55.19  | 90.87  | 147          |
| <b>CHIPPEWA</b>   |             |                                |          |        |        |        |        |              |
| Residential       | 29.41%      | 18%                            | 25.26%   | 36.11% | 18.46% | 48.75% | 74.00% | 139          |
| Commercial        | 29.66       | 29                             | 23.06    | 40.28  | 17.80  | 47.33  | 50.00  | 65           |
| Farm              | 40.57       | 18                             | 34.22    | 48.41  | 30.94  | 61.25  | 88.33  | 69           |
| <b>CHISAGO</b>    |             |                                |          |        |        |        |        |              |
| Residential       | 29.22%      | 14%                            | 25.09%   | 33.44% | 19.69% | 38.24% | 42.17% | 135          |
| Commercial        | 31.67       | 15                             | 25.35    | 34.77  | 21.54  | 41.34  | 66.95  | 69           |
| Farm              | 51.67       | 20                             | 40.84    | 61.58  | 31.55  | 68.91  | 73.92  | 105          |
| <b>CLAY</b>       |             |                                |          |        |        |        |        |              |
| Residential       | 26.74%      | 16%                            | 22.47%   | 30.82% | 18.76% | 36.07% | 54.00% | 182          |
| Commercial        | 32.39       | 22                             | 27.33    | 41.34  | 22.73  | 50.66  | 57.50  | 71           |
| Farm              | 49.00       | 20                             | 40.00    | 59.14  | 31.43  | 80.02  | 107.50 | 151          |
| <b>CLEARWATER</b> |             |                                |          |        |        |        |        |              |
| Residential       | 33.37%      | 29%                            | 25.65%   | 44.80% | 19.16% | 52.40% | 38.75% | 45           |
| Commercial        | 39.16       | 26                             | 31.95    | 52.17  | 21.92  | 76.25  | 62.50  | 32           |
| Farm              | 41.79       | 25                             | 34.72    | 55.94  | 28.60  | 65.67  | 58.33  | 65           |
| <b>COOK</b>       |             |                                |          |        |        |        |        |              |
| Residential       | 26.97%      | 17%                            | 23.00%   | 31.91% | 21.89% | 39.08% | 40.33% | 35           |
| Commercial        | 28.27       | 24                             | 24.06    | 37.63  | 20.02  | 44.44  | 61.62  | 23           |
| Farm              | 50.18       | 19                             | 41.02    | 60.28  | 37.53  | 82.14  | 102.70 | 17           |
| <b>COTTONWOOD</b> |             |                                |          |        |        |        |        |              |
| Residential       | 29.71%      | 18%                            | 25.54%   | 36.22% | 20.93% | 42.65% | 38.94% | 133          |
| Commercial        | 35.40       | 23                             | 27.10    | 43.60  | 21.81  | 55.29  | 94.60  | 66           |
| Farm              | 36.71       | 15                             | 31.26    | 42.32  | 28.24  | 49.52  | 65.71  | 108          |
| <b>CROW WING</b>  |             |                                |          |        |        |        |        |              |
| Residential       | 22.00%      | 33%                            | 14.32%   | 28.85% | 10.09% | 39.27% | 94.51% | 289          |
| Commercial        | 30.64       | 29                             | 18.83    | 36.84  | 14.92  | 46.62  | 84.54  | 71           |
| Farm              | 38.67       | 37                             | 27.60    | 56.12  | 24.00  | 74.60  | 156.38 | 109          |

## STATE OF MINNESOTA

## COUNTY-WIDE MEASURES OF DISPERSION FOR SELECTED CLASSES OF PROPERTY

|             | MED-<br>IAN | COEF.<br>of<br>DISP-<br>ERSION | QUARTILE |        | DECILE |        | RANGE   | NO.<br>CASES |
|-------------|-------------|--------------------------------|----------|--------|--------|--------|---------|--------------|
|             |             |                                | 1st      | 3rd    | 1st    | 9th    |         |              |
| DAKOTA      |             |                                |          |        |        |        |         |              |
| Residential | 25.18%      | 13%                            | 22.16%   | 28.61% | 18.79% | 31.86% | 55.15%  | 604          |
| Commercial  | 28.86       | 20                             | 23.54    | 35.27  | 15.08  | 39.64  | 38.90   | 97           |
| Farm        | 46.63       | 20                             | 36.60    | 55.37  | 28.05  | 65.08  | 81.77   | 124          |
| DODGE       |             |                                |          |        |        |        |         |              |
| Residential | 33.56%      | 22%                            | 25.41%   | 40.11% | 21.71% | 48.44% | 67.33%  | 110          |
| Commercial  | 32.24       | 17                             | 25.75    | 37.01  | 21.20  | 52.38  | 52.79   | 67           |
| Farm        | 45.77       | 13                             | 39.45    | 51.69  | 36.00  | 62.76  | 53.89   | 104          |
| DOUGLAS     |             |                                |          |        |        |        |         |              |
| Residential | 32.43%      | 17%                            | 26.52%   | 37.68% | 21.61% | 43.84% | 50.00%  | 186          |
| Commercial  | 31.53       | 19                             | 26.00    | 37.69  | 20.46  | 46.00  | 65.00   | 91           |
| Farm        | 55.53       | 21                             | 44.38    | 67.36  | 36.37  | 81.50  | 125.00  | 130          |
| FARIBAULT   |             |                                |          |        |        |        |         |              |
| Residential | 29.55%      | 20%                            | 23.57%   | 35.35% | 19.72% | 43.06% | 54.00%  | 232          |
| Commercial  | 32.64       | 22                             | 24.46    | 38.96  | 18.67  | 47.89  | 63.77   | 112          |
| Farm        | 32.40       | 14                             | 28.80    | 37.99  | 25.97  | 43.12  | 59.33   | 130          |
| FILLMORE    |             |                                |          |        |        |        |         |              |
| Residential | 33.49%      | 21%                            | 27.97%   | 41.92% | 23.70% | 49.55% | 80.41%  | 244          |
| Commercial  | 31.49       | 20                             | 25.08    | 37.91  | 21.09  | 49.57  | 59.88   | 100          |
| Farm        | 51.46       | 22                             | 41.70    | 64.18  | 32.73  | 75.62  | 95.85   | 175          |
| FREEBORN    |             |                                |          |        |        |        |         |              |
| Residential | 31.10%      | 13%                            | 26.68%   | 34.64% | 23.12% | 41.11% | 115.97% | 395          |
| Commercial  | 31.75       | 15                             | 27.35    | 37.15  | 22.50  | 46.72  | 80.44   | 110          |
| Farm        | 41.02       | 15                             | 35.34    | 47.64  | 28.22  | 55.51  | 61.14   | 144          |
| GOODHUE     |             |                                |          |        |        |        |         |              |
| Residential | 31.97%      | 19%                            | 26.57%   | 38.87% | 20.64% | 45.50% | 97.50%  | 306          |
| Commercial  | 31.89       | 21                             | 24.85    | 38.04  | 20.53  | 44.60  | 50.00   | 97           |
| Farm        | 58.87       | 21                             | 47.69    | 71.99  | 38.07  | 88.92  | 97.50   | 172          |
| GRANT       |             |                                |          |        |        |        |         |              |
| Residential | 27.27%      | 25%                            | 22.93%   | 36.31% | 18.55% | 46.25% | 83.04%  | 73           |
| Commercial  | 30.24       | 29                             | 20.00    | 37.67  | 15.70  | 46.78  | 79.00   | 71           |
| Farm        | 45.33       | 21                             | 36.39    | 55.56  | 32.29  | 65.07  | 48.59   | 91           |
| HENNEPIN*   |             |                                |          |        |        |        |         |              |
| Residential | 30.30%      | 13%                            | 26.73%   | 34.60% | 22.71% | 39.43% | 103.33% | 2,092        |
| Commercial  | 31.32       | 29                             | 23.90    | 41.90  | 19.21  | 52.36  | 100.00  | 227          |
| Farm        | 41.38       | 24                             | 31.42    | 51.25  | 23.68  | 64.94  | 123.33  | 160          |

\*Excludes Minneapolis



## STATE OF MINNESOTA

## COUNTY-WIDE MEASURES OF DISPERSION FOR SELECTED CLASSES OF PROPERTY

|             | MED-<br>IAN | COEF.<br>of<br>DISP-<br>ERSION | QUARTILE |        | DECILE |        | RANGE  | NO.<br>CASES |
|-------------|-------------|--------------------------------|----------|--------|--------|--------|--------|--------------|
|             |             |                                | 1st      | 3rd    | 1st    | 9th    |        |              |
| HOUSTON     |             |                                |          |        |        |        |        |              |
| Residential | 28.27%      | 18%                            | 24.02%   | 34.10% | 20.73% | 37.87% | 50.58% | 125          |
| Commercial  | 30.68       | 20                             | 24.98    | 37.30  | 21.32  | 47.02  | 46.39  | 52           |
| Farm        | 51.93       | 20                             | 41.48    | 61.86  | 34.12  | 73.63  | 87.00  | 104          |
| HUBBARD     |             |                                |          |        |        |        |        |              |
| Residential | 32.08%      | 24%                            | 24.44%   | 40.00% | 17.17% | 47.00% | 70.00% | 75           |
| Commercial  | 29.99       | 23                             | 25.29    | 39.06  | 18.19  | 49.50  | 64.37  | 50           |
| Farm        | 40.82       | 30                             | 32.27    | 56.67  | 26.00  | 76.25  | 95.00  | 59           |
| ISANTI      |             |                                |          |        |        |        |        |              |
| Residential | 24.74%      | 19%                            | 20.59%   | 30.00% | 17.32% | 33.26% | 41.30% | 77           |
| Commercial  | 26.57       | 15                             | 21.98    | 29.99  | 19.04  | 34.97  | 44.31  | 39           |
| Farm        | 56.88       | 19                             | 46.33    | 67.64  | 36.68  | 80.96  | 111.56 | 120          |
| ITASCA      |             |                                |          |        |        |        |        |              |
| Residential | 14.64%      | 28%                            | 10.42%   | 18.70% | 7.70%  | 23.93% | 53.83% | 372          |
| Commercial  | 18.34       | 26                             | 14.39    | 23.86  | 10.99  | 31.51  | 39.89  | 128          |
| Farm        | 20.17       | 35                             | 14.72    | 28.87  | 10.43  | 35.50  | 55.63  | 189          |
| JACKSON     |             |                                |          |        |        |        |        |              |
| Residential | 30.65%      | 20%                            | 26.16%   | 38.18% | 22.50% | 42.15% | 38.49% | 107          |
| Commercial  | 30.05       | 22                             | 23.03    | 36.55  | 17.24  | 53.15  | 43.98  | 58           |
| Farm        | 37.22       | 15                             | 31.00    | 42.18  | 26.69  | 50.48  | 65.64  | 120          |
| KANABEC     |             |                                |          |        |        |        |        |              |
| Residential | 22.91%      | 11%                            | 20.56%   | 25.67% | 17.56% | 34.67% | 26.91% | 55           |
| Commercial  | 31.58       | 23                             | 23.33    | 38.12  | 16.52  | 45.38  | 40.83  | 34           |
| Farm        | 47.91       | 19                             | 39.54    | 57.83  | 33.57  | 70.12  | 68.18  | 81           |
| KANDIYOHI   |             |                                |          |        |        |        |        |              |
| Residential | 31.62%      | 18%                            | 26.81%   | 37.93% | 22.93% | 46.42% | 70.00% | 192          |
| Commercial  | 30.07       | 22                             | 25.37    | 38.61  | 18.50  | 46.33  | 57.50  | 103          |
| Farm        | 52.93       | 18                             | 45.26    | 64.06  | 36.38  | 78.50  | 85.00  | 120          |
| KITTSOON    |             |                                |          |        |        |        |        |              |
| Residential | 25.45%      | 21%                            | 21.20%   | 31.63% | 16.96% | 38.58% | 63.75% | 86           |
| Commercial  | 27.09       | 31                             | 21.76    | 38.33  | 17.60  | 47.80  | 52.50  | 71           |
| Farm        | 42.88       | 26                             | 32.81    | 55.31  | 27.75  | 74.25  | 70.00  | 62           |
| KOOCHICHING |             |                                |          |        |        |        |        |              |
| Residential | 12.37%      | 29%                            | 9.21%    | 16.46% | 7.70%  | 19.52% | 27.02% | 189          |
| Commercial  | 20.84       | 36                             | 12.15    | 27.16  | 8.39   | 31.79  | 31.50  | 57           |
| Farm        | 24.00       | 24                             | 18.50    | 29.80  | 14.14  | 35.00  | 51.79  | 79           |

## STATE OF MINNESOTA

## COUNTY-WIDE MEASURES OF DISPERSION FOR SELECTED CLASSES OF PROPERTY

|                          | MED-<br>IAN | COEF.<br>of<br>DISP-<br>ERSION | QUARTILE |        | DECILE |        | RANGE  | NO.<br>CASES |
|--------------------------|-------------|--------------------------------|----------|--------|--------|--------|--------|--------------|
|                          |             |                                | 1st      | 3rd    | 1st    | 9th    |        |              |
| <b>LAC QUI PARLE</b>     |             |                                |          |        |        |        |        |              |
| Residential              | 38.40%      | 14%                            | 34.02%   | 44.77% | 30.00% | 54.40% | 64.17% | 109          |
| Commercial               | 37.68       | 26                             | 29.60    | 49.23  | 21.20  | 57.66  | 55.91  | 63           |
| Farm                     | 48.76       | 16                             | 39.67    | 55.73  | 36.10  | 68.75  | 59.88  | 110          |
| <b>LAKE</b>              |             |                                |          |        |        |        |        |              |
| Residential              | 19.13%      | 14%                            | 16.57%   | 22.00% | 11.39% | 29.05% | 43.12% | 112          |
| Commercial               | 21.01       | 40                             | 13.37    | 29.96  | 6.13   | 39.00  | 44.52  | 30           |
| Farm                     | 23.02       | 20                             | 19.35    | 28.44  | 13.32  | 33.74  | 22.35  | 22           |
| <b>LAKE OF THE WOODS</b> |             |                                |          |        |        |        |        |              |
| Residential              | 23.41%      | 22%                            | 19.17%   | 29.50% | 13.25% | 33.77% | 39.38% | 51           |
| Commercial               | 28.83       | 14                             | 25.00    | 33.13  | 17.25  | 46.00  | 50.00  | 27           |
| Farm                     | 29.01       | 22                             | 22.35    | 35.14  | 17.46  | 45.17  | 70.00  | 118          |
| <b>LE SUEUR</b>          |             |                                |          |        |        |        |        |              |
| Residential              | 29.12%      | 16%                            | 24.94%   | 34.54% | 21.43% | 41.92% | 55.51% | 196          |
| Commercial               | 32.29       | 17                             | 28.08    | 38.79  | 24.13  | 45.93  | 50.52  | 118          |
| Farm                     | 44.73       | 20                             | 35.94    | 53.45  | 30.83  | 69.95  | 87.86  | 115          |
| <b>LINCOLN</b>           |             |                                |          |        |        |        |        |              |
| Residential              | 31.09%      | 22%                            | 25.57%   | 38.95% | 19.37% | 45.09% | 68.51% | 70           |
| Commercial               | 32.35       | 20                             | 29.22    | 42.02  | 20.29  | 51.87  | 80.81  | 54           |
| Farm                     | 41.81       | 14                             | 36.98    | 48.74  | 31.69  | 54.85  | 43.09  | 99           |
| <b>LYON</b>              |             |                                |          |        |        |        |        |              |
| Residential              | 31.04%      | 15%                            | 27.31%   | 36.47% | 23.64% | 42.50% | 73.33% | 245          |
| Commercial               | 34.80       | 19                             | 29.49    | 42.89  | 23.11  | 51.67  | 61.34  | 121          |
| Farm                     | 40.02       | 15                             | 34.36    | 46.29  | 30.05  | 52.48  | 65.77  | 122          |
| <b>MC LEOD</b>           |             |                                |          |        |        |        |        |              |
| Residential              | 34.48%      | 12%                            | 30.32%   | 38.67% | 26.00% | 44.69% | 64.09% | 210          |
| Commercial               | 33.52       | 18                             | 27.33    | 39.32  | 22.69  | 45.47  | 63.92  | 117          |
| Farm                     | 46.54       | 16                             | 40.54    | 55.03  | 33.93  | 60.44  | 54.92  | 120          |
| <b>MAHNOMEN</b>          |             |                                |          |        |        |        |        |              |
| Residential              | 24.14%      | 32%                            | 18.79%   | 34.03% | 12.49% | 44.71% | 53.75% | 50           |
| Commercial               | 20.70       | 22                             | 17.69    | 26.85  | 12.80  | 32.49  | 32.50  | 30           |
| Farm                     | 46.96       | 35                             | 34.42    | 66.93  | 27.53  | 96.37  | 150.00 | 81           |
| <b>MARSHALL</b>          |             |                                |          |        |        |        |        |              |
| Residential              | 28.26%      | 23%                            | 22.88%   | 35.90% | 19.38% | 43.20% | 69.17% | 100          |
| Commercial               | 28.51       | 23                             | 22.07    | 35.00  | 19.14  | 42.74  | 56.32  | 79           |
| Farm                     | 46.21       | 23                             | 35.21    | 56.02  | 28.58  | 64.87  | 69.97  | 118          |

## STATE OF MINNESOTA

## COUNTY-WIDE MEASURES OF DISPERSION FOR SELECTED CLASSES OF PROPERTY

|                   | MED-<br>IAN | COEF.<br>of<br>DISP-<br>ERSION | QUARTILE |        | DECILE |        | RANGE   | NO.<br>CASES |
|-------------------|-------------|--------------------------------|----------|--------|--------|--------|---------|--------------|
|                   |             |                                | 1st      | 3rd    | 1st    | 9th    |         |              |
| <b>MARTIN</b>     |             |                                |          |        |        |        |         |              |
| Residential       | 28.86%      | 16%                            | 25.04%   | 34.53% | 21.08% | 42.41% | 107.84% | 283          |
| Commercial        | 31.10       | 22                             | 26.66    | 40.15  | 23.81  | 54.54  | 94.81   | 109          |
| Farm              | 37.85       | 11                             | 33.09    | 41.69  | 30.62  | 45.58  | 39.88   | 139          |
| <b>MEEKER</b>     |             |                                |          |        |        |        |         |              |
| Residential       | 35.21%      | 14%                            | 29.77%   | 39.88% | 24.40% | 43.13% | 53.60%  | 165          |
| Commercial        | 37.33       | 15                             | 31.79    | 42.62  | 27.57  | 50.75  | 51.50   | 102          |
| Farm              | 50.38       | 13                             | 45.24    | 57.97  | 39.13  | 68.10  | 58.77   | 132          |
| <b>MILLE LACS</b> |             |                                |          |        |        |        |         |              |
| Residential       | 32.38%      | 14%                            | 28.17%   | 37.21% | 22.29% | 41.78% | 59.47%  | 125          |
| Commercial        | 32.65       | 18                             | 25.14    | 37.01  | 21.60  | 44.10  | 47.63   | 92           |
| Farm              | 39.77       | 15                             | 34.87    | 47.17  | 28.14  | 54.67  | 54.62   | 117          |
| <b>MORRISON</b>   |             |                                |          |        |        |        |         |              |
| Residential       | 28.82%      | 23%                            | 20.63%   | 33.90% | 16.84% | 41.76% | 53.30%  | 212          |
| Commercial        | 27.78       | 24                             | 20.40    | 33.72  | 16.77  | 40.92  | 57.00   | 145          |
| Farm              | 45.61       | 27                             | 36.10    | 60.66  | 28.13  | 69.28  | 80.38   | 154          |
| <b>MOWER</b>      |             |                                |          |        |        |        |         |              |
| Residential       | 31.93%      | 11%                            | 28.93%   | 36.21% | 25.36% | 42.84% | 61.95%  | 488          |
| Commercial        | 33.03       | 16                             | 28.59    | 39.04  | 21.76  | 51.66  | 87.79   | 106          |
| Farm              | 45.61       | 16                             | 38.16    | 52.64  | 33.35  | 61.70  | 67.38   | 179          |
| <b>MURRAY</b>     |             |                                |          |        |        |        |         |              |
| Residential       | 31.46%      | 17%                            | 27.60%   | 38.47% | 23.44% | 48.00% | 68.75%  | 101          |
| Commercial        | 34.01       | 25                             | 27.25    | 44.38  | 22.50  | 62.50  | 103.33  | 74           |
| Farm              | 39.75       | 18                             | 33.81    | 48.08  | 30.30  | 54.85  | 52.50   | 102          |
| <b>NICOLLET</b>   |             |                                |          |        |        |        |         |              |
| Residential       | 26.02%      | 16%                            | 21.98%   | 30.37% | 17.82% | 35.69% | 39.94%  | 199          |
| Commercial        | 29.89       | 20                             | 22.90    | 35.00  | 19.69  | 39.98  | 49.40   | 66           |
| Farm              | 41.46       | 20                             | 34.06    | 50.69  | 28.38  | 56.42  | 55.93   | 84           |
| <b>NOBLES</b>     |             |                                |          |        |        |        |         |              |
| Residential       | 34.37%      | 16%                            | 29.16%   | 39.94% | 21.54% | 47.07% | 192.58% | 230          |
| Commercial        | 34.29       | 20                             | 28.48    | 42.50  | 23.35  | 50.09  | 75.02   | 104          |
| Farm              | 36.32       | 12                             | 32.38    | 41.10  | 28.89  | 48.96  | 53.18   | 130          |
| <b>NORMAN</b>     |             |                                |          |        |        |        |         |              |
| Residential       | 27.54%      | 26%                            | 21.79%   | 35.95% | 16.89% | 45.87% | 60.00%  | 87           |
| Commercial        | 27.82       | 20                             | 22.68    | 33.88  | 18.99  | 44.65  | 42.50   | 51           |
| Farm              | 49.52       | 26                             | 39.62    | 65.37  | 29.57  | 82.48  | 128.33  | 124          |

## STATE OF MINNESOTA

## COUNTY-WIDE MEASURES OF DISPERSION FOR SELECTED CLASSES OF PROPERTY

|                 | MED-<br>IAN | COEF.<br>of<br>DISP-<br>ERSION | QUARTILE |        | DECILE |        | RANGE  | NO.<br>CASES |
|-----------------|-------------|--------------------------------|----------|--------|--------|--------|--------|--------------|
|                 |             |                                | 1st      | 3rd    | 1st    | 9th    |        |              |
| <b>STEARNS</b>  |             |                                |          |        |        |        |        |              |
| Residential     | 27.37%      | 15%                            | 23.42%   | 31.61% | 19.24% | 36.43% | 57.97% | 668          |
| Commercial      | 26.67       | 27                             | 20.39    | 34.64  | 14.57  | 42.43  | 86.42  | 220          |
| Farm            | 49.95       | 18                             | 43.19    | 61.60  | 36.23  | 75.47  | 78.96  | 197          |
| <b>STEELE</b>   |             |                                |          |        |        |        |        |              |
| Residential     | 30.00%      | 12%                            | 26.52%   | 33.63% | 21.16% | 38.46% | 50.73% | 224          |
| Commercial      | 31.46       | 28                             | 21.37    | 39.11  | 16.63  | 42.99  | 57.70  | 67           |
| Farm            | 43.36       | 19                             | 35.93    | 52.45  | 31.38  | 63.86  | 96.22  | 98           |
| <b>STEVENS</b>  |             |                                |          |        |        |        |        |              |
| Residential     | 31.33%      | 14%                            | 27.20%   | 36.14% | 22.07% | 47.17% | 53.64% | 102          |
| Commercial      | 32.68       | 24                             | 24.15    | 40.09  | 20.58  | 48.37  | 71.40  | 54           |
| Farm            | 52.65       | 16                             | 41.66    | 58.48  | 34.20  | 67.60  | 66.90  | 108          |
| <b>SWIFT</b>    |             |                                |          |        |        |        |        |              |
| Residential     | 31.80%      | 17%                            | 27.50%   | 38.00% | 23.17% | 46.40% | 66.77% | 139          |
| Commercial      | 33.19       | 16                             | 28.50    | 38.99  | 21.76  | 50.09  | 67.30  | 81           |
| Farm            | 42.26       | 19                             | 34.42    | 50.31  | 31.31  | 59.45  | 61.35  | 114          |
| <b>TODD</b>     |             |                                |          |        |        |        |        |              |
| Residential     | 28.86%      | 17%                            | 24.05%   | 34.02% | 17.60% | 43.14% | 51.40% | 156          |
| Commercial      | 23.59       | 27                             | 17.34    | 30.13  | 10.36  | 42.08  | 72.40  | 107          |
| Farm            | 47.99       | 20                             | 38.50    | 58.01  | 34.42  | 72.76  | 94.00  | 165          |
| <b>TRAVERSE</b> |             |                                |          |        |        |        |        |              |
| Residential     | 24.71%      | 22%                            | 20.23%   | 31.08% | 17.33% | 36.11% | 56.49% | 72           |
| Commercial      | 32.01       | 25                             | 23.09    | 39.32  | 16.56  | 50.85  | 73.00  | 45           |
| Farm            | 49.82       | 14                             | 43.07    | 57.37  | 38.92  | 64.53  | 64.21  | 72           |
| <b>WABASHA</b>  |             |                                |          |        |        |        |        |              |
| Residential     | 31.69%      | 17%                            | 26.67%   | 37.36% | 23.13% | 47.57% | 66.02% | 160          |
| Commercial      | 30.82       | 22                             | 24.41    | 37.84  | 21.62  | 47.45  | 59.39  | 75           |
| Farm            | 58.03       | 17                             | 47.08    | 66.56  | 29.50  | 76.00  | 95.00  | 101          |
| <b>WADENA</b>   |             |                                |          |        |        |        |        |              |
| Residential     | 28.00%      | 18%                            | 23.08%   | 33.25% | 18.62% | 41.85% | 73.84% | 112          |
| Commercial      | 28.39       | 15                             | 24.27    | 32.62  | 17.58  | 42.42  | 60.53  | 59           |
| Farm            | 48.63       | 20                             | 41.26    | 60.25  | 33.23  | 76.60  | 78.68  | 89           |
| <b>WASECA</b>   |             |                                |          |        |        |        |        |              |
| Residential     | 30.47%      | 16%                            | 25.62%   | 35.66% | 21.55% | 42.90% | 47.10% | 112          |
| Commercial      | 27.76       | 23                             | 22.70    | 35.59  | 19.54  | 43.35  | 49.04  | 59           |
| Farm            | 46.77       | 22                             | 38.76    | 59.43  | 34.99  | 78.85  | 70.83  | 67           |

## STATE OF MINNESOTA

## COUNTY-WIDE MEASURES OF DISPERSION FOR SELECTED CLASSES OF PROPERTY

|                 | MED-<br>IAN | COEF.<br>of<br>DISP-<br>ERSION | QUARTILE |        | DECILE |        | RANGE  | NO.<br>CASES |
|-----------------|-------------|--------------------------------|----------|--------|--------|--------|--------|--------------|
|                 |             |                                | 1st      | 3rd    | 1st    | 9th    |        |              |
| WASHINGTON      |             |                                |          |        |        |        |        |              |
| Residential     | 24.50%      | 17%                            | 20.98%   | 29.47% | 17.23% | 35.82% | 70.38% | 422          |
| Commercial      | 30.70       | 18                             | 25.77    | 36.94  | 21.28  | 41.78  | 39.71  | 120          |
| Farm            | 43.57       | 26                             | 32.21    | 55.09  | 22.14  | 69.12  | 75.28  | 98           |
| WATONWAN        |             |                                |          |        |        |        |        |              |
| Residential     | 33.38%      | 15%                            | 28.67%   | 38.55% | 25.38% | 43.91% | 50.00% | 144          |
| Commercial      | 32.70       | 22                             | 26.13    | 40.54  | 21.38  | 58.38  | 63.75  | 72           |
| Farm            | 41.84       | 16                             | 36.31    | 49.91  | 31.32  | 59.36  | 73.33  | 88           |
| WILKIN          |             |                                |          |        |        |        |        |              |
| Residential     | 27.04%      | 18%                            | 20.72%   | 30.70% | 17.97% | 39.54% | 47.63% | 93           |
| Commercial      | 33.16       | 21                             | 27.28    | 41.14  | 21.93  | 54.47  | 67.39  | 77           |
| Farm            | 47.15       | 16                             | 40.15    | 54.77  | 36.75  | 65.23  | 84.29  | 90           |
| WINONA          |             |                                |          |        |        |        |        |              |
| Residential     | 34.40%      | 18%                            | 27.40%   | 40.00% | 25.00% | 46.90% | 67.55% | 433          |
| Commercial      | 34.72       | 18                             | 27.62    | 40.15  | 24.08  | 52.25  | 59.40  | 119          |
| Farm            | 58.63       | 22                             | 49.52    | 75.35  | 38.49  | 91.69  | 98.37  | 120          |
| WRIGHT          |             |                                |          |        |        |        |        |              |
| Residential     | 30.70%      | 20%                            | 25.84%   | 38.16% | 21.60% | 46.09% | 54.55% | 164          |
| Commercial      | 29.15       | 21                             | 22.83    | 35.16  | 19.31  | 45.25  | 57.50  | 78           |
| Farm            | 44.48       | 18                             | 38.06    | 53.65  | 29.76  | 64.38  | 83.02  | 148          |
| YELLOW MEDICINE |             |                                |          |        |        |        |        |              |
| Residential     | 34.11%      | 15%                            | 28.54%   | 38.65% | 25.04% | 47.60% | 68.92% | 136          |
| Commercial      | 38.12       | 15                             | 32.27    | 43.90  | 25.92  | 57.87  | 74.75  | 84           |
| Farm            | 41.18       | 13                             | 35.45    | 46.07  | 33.17  | 53.18  | 62.13  | 123          |
| DULUTH          |             |                                |          |        |        |        |        |              |
| Residential     | 27.85%      | 15%                            | 23.69%   | 32.19% | 19.87% | 37.80% | 75.46% | 1,067        |
| Commercial      | 41.13       | 19                             | 32.21    | 48.13  | 22.68  | 60.38  | 73.14  | 91           |
| Apartments      | 35.91       | 19                             | 30.89    | 44.81  | 17.79  | 53.96  | 78.00  | 50           |
| MINNEAPOLIS     |             |                                |          |        |        |        |        |              |
| Residential     | 32.40%      | 12%                            | 29.00%   | 36.52% | 25.94% | 40.61% | 63.45% | 4,255        |
| Commercial      | 48.51       | 20                             | 39.10    | 58.75  | 32.46  | 68.22  | 101.84 | 230          |
| Apartments      | 36.94       | 10                             | 33.41    | 41.00  | 30.67  | 51.32  | 53.59  | 74           |
| ST. PAUL        |             |                                |          |        |        |        |        |              |
| Residential     | 32.98%      | 16%                            | 27.33%   | 37.63% | 22.35% | 41.67% | 89.88% | 3,310        |
| Commercial      | 44.11       | 23                             | 35.03    | 55.59  | 29.17  | 71.02  | 96.93  | 232          |
| Apartments      | 40.00       | 21                             | 30.94    | 47.96  | 23.95  | 54.02  | 59.35  | 76           |

APPENDIX III

STANDARD OF ASSESSMENT OF REAL PROPERTY IN MINNESOTA

|                   | <u>True &amp; Full Value</u> | <u>Estimated Market Value</u> | <u>Ratio</u> |
|-------------------|------------------------------|-------------------------------|--------------|
| Residential       | \$ 1,601,367,846             | \$ 5,260,312,746              | 30.44%       |
| Multiple Dwelling | 63,483,651                   | 167,879,234                   | 37.82        |
| Commercial        | 590,431,657                  | 1,521,950,148                 | 38.79        |
| Industrial        | 177,176,029                  | 505,315,313                   | 35.06        |
| Public Utility    | 92,058,438                   | 200,638,305                   | 45.88        |
| Lakeshore         | 24,506,228                   | 151,288,775                   | 16.20        |
| Farm              | 1,478,388,029                | 3,384,334,951                 | 43.68        |
| TOTAL             | \$ 4,027,411,878             | \$ 11,191,719,472             | 35.99%       |