DEPARTMENT OF REVENUE

2017 Property Values and Assessment Practices Report

Assessment Year 2016

Property Tax Division

March 1, 2017

Per Minnesota Statutes, section 3.197, any report to the Legislature must contain, at the beginning of the report, the cost of preparing the report, including any costs incurred by another agency or another level of government.

This report cost $7,400.

March 1, 2017

To Members of the Legislature of the State of Minnesota:

I am pleased to present to you this report on property values and assessment practices in Minnesota, the 15th annual version of this report. Since 2012, this report has been combined with the annual report related to agricultural properties and Green Acres, satisfying the requirements of both Minnesota Laws 2001, First Special Session, chapter 5, article 3, section 92 and Minnesota Statutes, section 273.1108.

This report provides a summary of assessed property values and assessment practices in Minnesota, with an emphasis on market values for 2a agricultural and 2b rural vacant land properties, and Green Acres value methodology and determinations.

Sincerely,

Cynthia Bauerly
Commissioner
Minnesota Department of Revenue

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Executive Summary

This report analyzes the assessment of various types of property including residential, seasonal recreational residential (cabins), apartments, commercial/industrial, agricultural, and rural lands. The report also examines current law and taxable values in relation to the Green Acres and Rural Preserve property tax programs.

Assessment Practices and Market Values

The number of sales between the 2015 and 2016 assessment years increased for all property classes except agricultural and rural vacant land. The data comes from sales that occurred between October 1, 2014, and September 30, 2015. Estimated market values also increased for all property types other than agricultural and rural vacant land. Overall estimated market values increased 2.7 percent from calendar year 2015 to 2016, displaying similar growth to the 2.9 percent increase in the previous year.

In the 2016 assessment, agricultural property values continued to decline for the second year in a row, decreasing more than 4 percent. While other property types continued to show increases in value, only apartment and non-commercial seasonal residence values grew more from 2015 to 2016 than in the previous year. In the 2016 assessment, apartment property values were up 15 percent and seasonal property values increased about 3 percent. At the same time, the growth in the estimated market value of residential homesteads and commercial/industrial property slowed to 3.3 percent and 4.8 percent, respectively.

Statewide Change in Value by Property Type

Assessment Years 2015 and 2016

Property Type	2015 Statewide Change in Value	2016 Statewide Change in Value
Residential Homestead	+4.1%	+3.3%
Apartment	+13.0%	+15.3%
Non-Commercial Seasonal	+2.6%	+2.9%
Agricultural / Rural Vacant Land[1]	-3.9%	-4.7%
Commercial / Industrial	+5.2%	+4.8%
All Property Types	+2.9%	+2.7%

Table 1

Assessment quality improved slightly between the 2015 and 2016 assessments. This is reflected in both the sales ratio and the “coefficient of dispersion” (COD), the two primary measures of assessment quality. As a general rule, sales ratios and coefficients of dispersion are more accurate in classes with more sales activity because a larger sales sample is more likely to reflect the range of values for all properties in the jurisdiction.

[1] This number represents only agricultural land, and not agricultural buildings or other site values.

A "sales ratio" measures how close assessors' values are to the actual sales prices of property. For the 2016 assessment, the statewide median sales ratios for most property types were in the acceptable targeted range of 90 to 105 percent. (See Table 2 on page 10.)

The COD measures the uniformity of assessments. For the 2016 assessment, the statewide coefficients for almost all property classes were within the International Association of Assessing Officers' (IAAO) acceptable ranges. This is an area of concern with smaller sales samples. The IAAO ranges are shown on page 11. (See Table 3.)

The State Board of Equalization issues corrective orders when the median sales ratio for a property type is outside the 90 to 105 percent acceptable range. For the 2016 assessment, 13 counties were issued State Board Orders. This was a slight decrease compared to 2015 when 18 counties were issued State Board Orders.

The Minnesota Department of Revenue's appraisal staff works with assessors to identify areas of concern for future assessments to help avoid State Board Orders. These issues usually fall into three categories:

1. Low sales ratios in areas with a history of few sales
2. Sales ratios near the 90 to 105 percent range boundaries
3. Areas with uniformity concerns

Green Acres and Rural Preserve

Green Acres and Rural Preserve are property tax deferral programs that help keep farm property values from increasing due to non-agricultural influences such as development or recreational uses on nearby properties.

The Department of Revenue determines a Green Acres value for class 2a agricultural land for each county to reflect market and agricultural conditions, and counties use the Green Acres value when calculating property taxes. Rural Preserve provides a similar benefit for class 2b rural vacant land that is part of a farm.

Although there were fewer total acres enrolled in Green Acres and Rural Preserve in 2016, the overall deferred value increased from 2015 to 2016, as the estimated market value – which reflects non-agricultural influences – increased, while agricultural value alone decreased.

Introduction

In 2001, the Minnesota Legislature mandated an annual report from the Minnesota Department of Revenue on property tax values and assessment practices in the state. This year is the 15th annual report on such data and practices to the Legislature. Since 2012, this report has been combined with the annual report about agricultural properties and Green Acres, satisfying the requirements of both Minnesota Laws 2001, First Special Session, chapter 5, article 3, section 92, and Minnesota Statutes, section 273.1108.

In accordance with those mandates, this report contains:

- Information by major types of property on a statewide basis and at various jurisdictional levels
- Recent market value trends, including projections
- Trend analysis of excluded market value
- Assessment quality indicators, including sales ratios and coefficients of dispersion for counties
- Percentage of parcels that change in value each year
- A summary of State Board Orders issued in 2016
- Green Acres value methodology and determinations
- Assessment and classification practices for class 2a agricultural and 2b rural vacant land property

The purpose of this report is to provide an accurate description of the current state of property tax assessment and an overview of the department's responsibility to oversee the state's property tax assessment process. This report collects property value data for the purpose of monitoring and analyzing underlying value trends and assessment quality indicators. This information and analysis is used to inform government officials and the public about valuation trends within the property tax system.

Overview of the Minnesota Department of Revenue's Role

Property taxes are an important source of revenue for all local units of government in Minnesota, including counties, cities, townships, and school districts. The primary responsibility of the department's Property Tax Division is to ensure fair and uniform administration of, and compliance with, state property tax laws.

The Property Tax Division measures compliance with property tax laws through:

- The State Board of Equalization, which ensures that property taxpayers pay their fair share – no more and no less. The Commissioner of Revenue, acting as the State Board of Equalization, has the authority to increase or decrease assessed market values in order to bring about equalization.
- Promotion of uniformity of administration among the counties to ensure that each taxpayer will be treated in the same manner regardless of where the taxpayer lives.
- Delivery of accurate and timely aid calculations, certifications, and actual aid payments.
- Education and information for county officials, including technical manuals, bulletins, answers to specific questions, and courses taught by division staff. These offerings provide county officials the support and training necessary to administer property tax laws equitably and uniformly.

Property Tax Classifications

In Minnesota, property is classified according to its use on the assessment date – January 2. The classification system is used to identify a given property's classification rate, which in turn determines the share of the tax burden borne by that property.

There are five main property tax classifications used in Minnesota. However, in reality, the breakdown of property tax classifications includes 34 specific statutory descriptions that result in different class rates based on value tiers and homestead benefits. A classification rate table is shown in Appendix A. The five main property tax classifications in Minnesota are:

Class 1 properties: Mostly residential properties.

Class 2 properties: Mostly rural properties, including agricultural and forestland.

Class 3 properties: Commercial and industrial properties.

Class 4 properties: Residential non-homestead properties, seasonal/resort properties, and commercial properties.

Class 5 properties: Iron ore and iron-bearing formations and "other" properties not classified elsewhere.

The authority to define properties by classification is granted in the Minnesota Constitution, Article X, which states, "Taxes shall be uniform upon the same class of subjects." In other words, similarly-used properties are given similar classifications. Classification rates are applied uniformly within a given classification, but the rates may differ between different classifications.

Defining the classification rate of a property is one of the first steps in calculating property taxes. The class rate is then used to determine a property's net tax capacity:

$$\textit{Taxable Market Value} \times \textit{Classification Rate} = \textit{Net Tax Capacity (NTC)}$$

Equation 1

For example, consider a residential homestead with a Taxable Market Value of $100,000:

$$\$100{,}000 \times 1.00\% = \$1{,}000 \text{ NTC}$$

The classification system is also used as part of the Minnesota Department of Revenue's efforts to measure assessment quality. The sales ratio study and State Board of Equalization use these classifications to study value trends and accuracy of assessors' valuations. For the purposes of this report, the department has focused on the following major classification types (which do not necessarily follow the classification system's one through five numbering as shown above).

- Residential
- Seasonal recreational residential (cabins)
- Apartments
- Commercial/industrial properties
- Agricultural and rural lands

Property Valuation Basics

Minnesota law requires that all property be valued at its market value. For property tax assessment purposes, the market value is rounded so that any amount under $100 is rounded up to $100, and any value exceeding $100 is rounded to the nearest $100. Assessors are required to determine the value of the land, the value of the structures and improvements to the land, and the total market value comprised of the land and structure/improvement value.

Minnesota Statutes, section 272.03, subdivision 8, defines market value as:

"…the usual selling price at the place where the property to which the term is applied shall be at the time of assessment; being the price which could be obtained at a private sale or an auction sale, if it is determined by the assessor that the price from the auction sale represents an arm's-length transaction. The price obtained at a forced sale shall not be considered."

The three standard approaches used to determine market value are the cost approach, the income approach, and the sales comparison approach.

The **COST APPROACH** estimates the value of the land as if it was vacant, and then adds the depreciated cost of the improvements to arrive at an estimate of value.

The **INCOME APPROACH** utilizes the income or rent that a property may be expected to produce to determine the value. It is most commonly used for income-producing properties.

Finally, the **SALES COMPARISON APPROACH** estimates the value of property by looking at the sales prices of comparable properties that have sold in the same market. The sales comparison method is the method most often used for property tax assessment purposes.

The "market value" used for property tax purposes is the "open market value," which is the price a property would sell for under typical, normal, and competitive conditions. It is also called the estimated market value (EMV). The most common method of determining the EMV is through the comparable sales approach. The EMV, like the property's classification, is determined on January 2 of the assessment year.

Appraisal principles and procedures guidelines commonly use the following criteria to determine whether a property meets the definition of an open-market transaction:

1. The buyer and seller are typically motivated;
2. Both parties are well-informed or well-advised, and each party is acting in its own best interest;
3. A reasonable amount of time has been allowed for the property to be exposed to the open market;
4. Payment is made in cash or a cash equivalent;
5. Financing (if any) is on terms generally available to the community and is typically for the property type in its locale; and
6. The price represents a normal consideration for the property sold, and appears unaffected by special financing amounts or terms, services, fees, costs, or credits incurred in the transaction.

Sales Ratio Studies and Analyses

In order to evaluate the accuracy and uniformity of assessments within the state (and to ensure compliance with property tax laws), the Minnesota Department of Revenue conducts annual sales ratio studies. These studies measure the relationship between appraised values and the actual sales price. As a mathematical expression, a sales ratio is the assessor's estimated market value of a property divided by its actual sales price, as seen here:

$$\textit{Sales Ratio} = \frac{\textit{Assessor's Estimated Market Value}}{\textit{Sales Price}}$$

Equation 2

For example, assume a home was valued by the assessor at $100,000. The home sold for $105,000. The sales ratio would be calculated as follows:

$$\textit{Sales Ratio} = \frac{\$100{,}000}{\$105{,}000} = 95\%$$

The sales ratio study provides an indication of the level of assessment (how close appraisals are to market value on an overall basis), as well as the uniformity of assessment (how close individual appraisals are to the median ratio and each other).

Purpose of Sales Ratio Studies

Sales are the foundation for mass appraisal when using a sales comparison approach. Assessors rely heavily on sales of properties in their jurisdictions when estimating values of all other similar properties in the same area. Assessors are required to use sales information in their assessment work, so the validity of sales information is crucial.

The sales ratio studies have three basic purposes:

1. To plan an upcoming assessment
2. To evaluate an existing assessment
3. To identify inequities

Minnesota requires reporting of sales information. Most sales information is required to be reported on a Certificate of Real Estate Value. Assessors must verify and review sales information before it can be used by the assessor as part of a sales ratio study. Certain sales are automatically removed from consideration, while others require more scrutiny and review by the assessor. When only verified sales remain, the assessor is able to analyze and study them to make some generalizations for the market and to make any changes in value to respond to the market.

A formal sales study is also conducted on these sales to verify that the assessors' actions responded appropriately to the changes in the market. The Department of Revenue conducts additional studies as a check on the assessors' performances and to ensure equalization of values. Any of these formal studies involve data analysis, statistical measurement, critical thinking to develop solutions to correct issues, and reporting of results.

The sales ratio study is the culmination of the ongoing process of collecting information about the local real estate market. It provides important information in planning the upcoming assessment, evaluating the existing assessment, and identifying inequities in the assessment. There are other uses, as well. The state conducts several sales ratio studies to assist in assessment review and equalization and to aid the tax court.

Many county and local assessors also perform their own in-house sales ratio analyses. Sales ratio studies are used by assessors in refining their valuation levels, by the tax court in adjudicating assessments, by the State Board of Equalization in determining orders, and by various aid formulas that utilize measures of equalized values. By the time sales ratio studies are completed by the department, there is an expectation that all the underlying sales data has been reviewed and are representative of the market.

The three main sales ratio studies used are:

1. **A 12-month study:** This study uses sales from October 1 of a given year to Sept. 30 of the following year, and is used to estimate market values for the following assessment. In other words, sales that occurred between October 1, 2014, and September 30, 2015, are used for determining estimated market values for the January 2, 2016, assessment. The 12-month study is discussed in detail in Appendix E.
2. **A 9-month study:** This study is based on sales occurring between January 1 and September 30 of a given year. It is the same as the 12-month study, but excludes the sales from October, November, and December. As described below, this study is used by the Minnesota Tax Court.
3. **A 21-month study:** This study is used for levy and aid purposes. This study uses sales that run from January 1 of a given year to September 30 of the following year and compares the sales to the assessor's market values. The 21-month study is discussed in detail in Appendix F.

The five primary uses of the sales ratio study in Minnesota are:

1. The Minnesota State Board of Equalization uses a 12-month study to judge overall levels of assessment. For this study, a median ratio is used. The study looks forward to estimate what the ratio would be if the sales data were applied to the proposed assessor's values. The ratios are used to equalize values and enhance uniformity across property types and between jurisdictions.
2. The Minnesota Tax Court uses a 12-month study in property valuation cases that look backward to the January assessment date of the current study year. The Tax Court also uses the 9-month ("backward-looking") study in property valuation cases; it is preferred by the Tax Court if there are at least six usable sales because all sales in the study occur after the assessment date. This study is used to measure unequal levels of assessment (discrimination) within property types. A median ratio is used to measure assessment equity.
3. The Department of Revenue's State Assessed Property Unit uses the 12-month study to equalize railroad and utility values. A median ratio is used.
4. The 21-month study is used to produce Adjusted Net Tax Capacities (also called ANTCs) for school and local government aids, as well as a variety of apportionments. A weighted median ratio is used for all aid calculations.
5. The Economic Market Value Study is a sales ratio-adjusted measure of a community's property wealth, using estimated market values as a starting point. Bonding companies use the adjusted estimated market value of cities and towns to measure fiscal capacities for bond rating calculations.

In previous years, the adjusted-ratio study was based on taxable values and was called the Indicated Market Value Study. In 2011, Minnesota created a new homestead market value exclusion, which excluded a share of homestead property from the net tax capacity calculation, leading to a reduction in taxable market value. As a result, the wealth of a community is better represented by the estimated market value, rather than the taxable market value that has been reduced by the homestead exclusion.

The State Board of Equalization uses sales ratio studies to determine the assessment level for equalization purposes. The study may indicate inequities in the assessment. It may also help to guide assessors by providing information on which to base adjustments to the assessment with respect to neighboring counties. The studies are useful to legislators to develop tax policy or to change tax rates. Property owners may use the studies if they have concerns about unfair or inequitable treatment by assessors.

When the Commissioner of Revenue determines that there has been an unfair or inequitable assessment, the commissioner is authorized to order a reassessment of any taxing district in order to make a correction. The commissioner assists the State Board of Equalization and in that capacity is empowered to reduce wide disparities in assessment levels between counties and among the classes of real estate within counties.

Sales ratio studies are an excellent tool for the commissioner to measure how closely assessed values are to actual sales prices, and to judge the quality of equalization within classes of properties, and between classes and areas.

Sales Ratio Study Process

Sales ratio studies take the following steps to ensure the dependability of the information:

1. Gather basic data on real estate transfers.
2. Screen and edit information to make any necessary adjustments for conditions of sale and exclude all sales that do not represent arm's-length transactions.
3. Put relevant data into an acceptable format for processing by computer programs.
4. Sort information by categories of real estate within each area.
5. Total the data and compute statistics to describe the information.

One of the main objectives in property tax administration is an equalized assessment. It is important that equalization be attained both among local property owners and between taxing districts because the assessment serves as a basis for:

1. Tax levies by overlapping governmental units (i.e. counties, school districts, and special taxing districts).
2. Determination of net bonded indebtedness restricted by statute to a percentage of either the local assessed value or market value.
3. Determination of authorized levies restricted by statutory tax rate limits.
4. Apportionment of state aid to governmental units via the school aid formula and the local government aid formulae.

An equitable distribution of the tax burden is achieved only if it is built upon a uniform assessment. Nonuniform assessment will result in a shift in the tax burden to other property owners.

Sales Ratio Studies: Measures of Central Tendency and Uniformity

Measures of central tendency describe the overall level at which properties are appraised. Mean, median, and aggregate (weighted) ratios are used. For each measure, the individual ratio for each sale is used. After the sales ratio for each sale has been determined, the measurements can be calculated.

The **MEAN RATIO** (the mathematical average of the sales ratios) is easily affected by extreme sales ratios, and can lead to a significant distortion of the average.

The **MEDIAN RATIO** is the most widely used measure of central tendency because it is not affected by extreme ratios. Department of Revenue guidelines indicate that the median ratio of a sales ratio study should range from 90 to 105 percent. The median ratio is used to determine the level of assessment for the State Board of Equalization.

Finally, the **AGGREGATE RATIO** (or weighted mean) is computed by dividing the total assessor's EMV for all properties sold by the total sales price of those properties. Higher priced properties are given more weight than lower priced properties. The aggregate mean is generally accepted as the most appropriate measure to be used in the equalization of aids.

Measures of uniformity measure the quality and uniformity of the assessment. The measures of uniformity include the range of ratios, the coefficient of dispersion, and the price-related differential.

The **RANGE** is the difference between the smallest and largest ratios. A large range typically indicates poor uniformity. The range is highly susceptible to extreme ratios.

The **COEFFICIENT OF DISPERSION** is an index by which individual ratios vary from the median. A low coefficient of dispersion indicates that appraisals within a class or area are uniform; a high coefficient of dispersion indicates that properties are being appraised at inconsistent percentages of market value. The coefficient of dispersion is calculated by dividing the average absolute deviation (the average difference between each ratio and the median ratio) by the median.

The **PRICE-RELATED DIFFERENTIAL** measures the relationship between the mean ratio and the aggregate mean ratio. It is calculated by dividing the mean sales ratio by the aggregate mean sales ratio. Appraisal uniformity may be regressive if high-value properties are under-appraised relative to low-value properties, and would be evident by a price-related differential of greater than one hundred percent. A progressive assessment would be indicated by a price-related differential of less than one hundred percent, and indicates that lower priced properties are under-appraised.

2015 Sales Ratio Study for the 2016 State Board of Equalization

There were 129,803 Certificates of Real Estate Value (CRVs) received in the 2015 study for the 2016 State Board of Equalization. Of these, 79,896 were considered good, current-year, open-market sales. These sales provided the basis for the sales ratio studies.

Table 2 shows median sales ratios and coefficients of dispersion (CODs) by property type for 2015 and 2016 (see next page). The lower the COD, the more uniform are the assessments. A high coefficient suggests a lack of equality among individual assessments, with some parcels being assessed at a considerably higher ratio than others. Note that property types with smaller sample sizes tend to have lower sales ratios and higher CODs.

Median Sales Ratios and Coefficients of Dispersion by Property Type

Assessment Years 2015 and 2016

Property Type	Final Adjusted Median Ratio		Coefficient of Disperson		Sample Size	
State Board Year	*2015*	*2016*	*2015*	*2016*	*2015*	*2016*
Residential/Seasonal	93.9	94.9	8.6	8.4	58,033	69,903
Apartment	96.5	93.5	11.9	11.7	387	463
Commercial/Industrial	96.1	95.9	15.6	16.2	1,352	1,447
Resorts	105.9	94.2	12.9	21.6	18	16
Agricultural 2a / Rural Vacant 2b	96.7	97.6	19.5	18.5	3,198	2,960

Table 2

The International Association of Assessing Officers (IAAO) recommends trimming the most extreme outliers from the sample before calculating the COD. The trimming method used by the Sales Ratio excludes sales outside of an interquartile range determined by jurisdiction. This eliminates a few extreme sales that would distort the COD. Per the IAAO, the acceptable ranges for the COD are as follows:

Coefficient of Dispersion (COD) Acceptable Ranges

by Property Type

Property Type	Acceptable COD Range
Newer, homogenous residential properties	10.0 or less
Older residential areas	15.0 or less
Rural residential and seasonal properties	20.0 or less
Income producing: larger, urban area	15.0 or less
smaller, rural area	20.0 or less
Vacant land	20.0 or less
Depressed markets	25.0 or less

Table 3

The acceptable COD ranges are set by the IAAO as an international standard. As a result, the IAAO property type groupings on the previous page represent a mixture of sales from different IAAO property type categories and do not necessarily match the property type groupings used in Minnesota.

Estimated Market Value Trends

In 2016, there were over 2,736,000 taxable real property parcels statewide. Overall, assessors' estimated market value of all property in the state increased 2.7 percent from the 2015 assessment to the 2016 assessment. Except for agricultural property, all major property classes gained value from 2015 to 2016.

Major findings:

- **Agricultural property:** The 4.0 percent decrease in value (after including building and site values) from 2015-2016 was a larger decline than the 3.4 percent decrease from 2014-2015.
- **Residential homestead property:** The 3.3 percent increase in value from 2015-2016 was smaller than the 4.1 percent increase in the previous year.
- **Seasonal recreational residential property:** In contrast to the other three classes, the 2.9 percent increase in value from 2015-2016 was larger than the 2.6 percent increase from 2014-2015.
- **Commercial/industrial property**: The 4.8 percent increase from 2015-2016 was smaller than the 5.2 percent increase in the previous year.

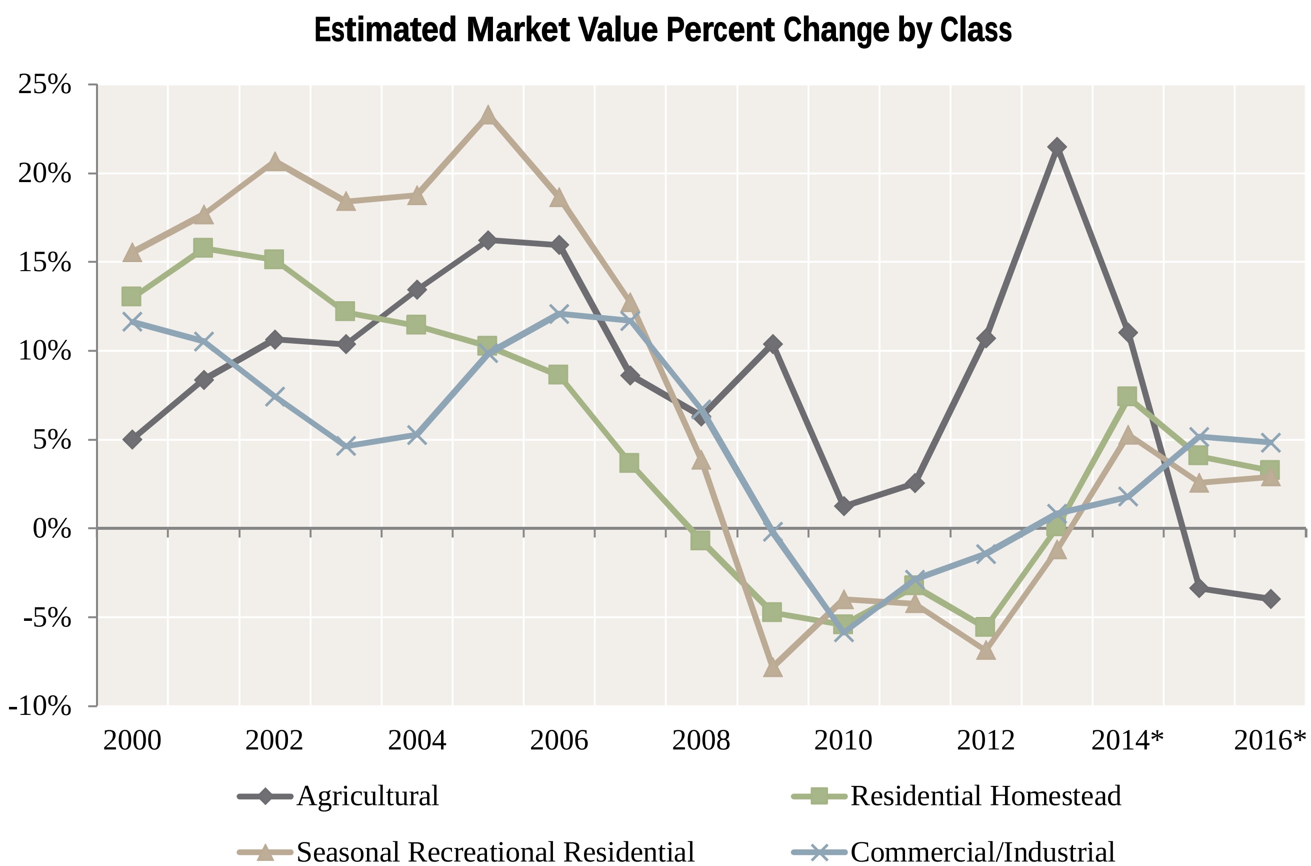


Chart 1[2]

[2] Prior to 2013, the "agricultural" class as shown here included forest land, which was removed for the 2017 report.

Taxable Market Value

In Minnesota, taxes are not directly based on the estimated market value. Minnesota property tax statutes contain a number of exclusions, value deferrals, and exemptions that decrease the amount of the EMV that is subject to taxation. Taxable Market Value (TMV) refers to the amount of value that is actually used in calculating property taxes. This often differs from EMV due to special programs and exclusions. Sample TMV calculations can be found in Section 04.10 of the Auditor/Treasurer Manual, available at www.revenue.state.mn.us.

Taxable market value not only decreases an individual property's tax burden, it also decreases the tax base for the taxing jurisdiction. The taxable market value is used to determine the tax base for referendum market value, local net tax capacity, and state net tax capacity. For example, a given county's levy (budget) is spread among all classes of taxable property by determining the cumulative net tax capacity of all the properties. The net tax capacity (taxable market value multiplied by the class rate) of all taxable properties in a jurisdiction is the tax base.

A simple illustration of how property tax rates are determined is shown below:

Step 1:

Total proposed budget
– *All non-property tax revenue (state aids and fees)*
= *Property tax revenue needed*

Step 2:

Property tax revenue needed
÷ *Total tax capacity of all taxable properties*
= *Local tax rate*

When taxable market values change, the tax burden is redistributed within the jurisdiction. If the levy remains constant, property taxes for a single property may still change depending on changes in the classification rate and/or taxable market value of other properties in the jurisdiction. Some of the more common exclusions and deferrals that remove taxable value from the tax base are shown in Table 4.

As indicated in Table 4 (next page), continued growth in residential homestead values has reduced eligibility for the Homestead Market Value Exclusion while increasing development pressure. These changes have resulted in an increase in value deferred under Green Acres. In 2016, the total amount of value deferred under Green Acres was 5.9 percent more than it was in the 2015 assessment.

The Homestead Market Value Exclusion reduces the amount of a homestead's market value that is subject to taxation. On average, the exclusion reduced homestead taxable market value by 8.5 percent. The exclusion reduced taxable market value of all property statewide by 4.2 percent. The statewide total Homestead Market Value Exclusion decreased from 2015-2016 in part due to the increase in residential homestead market values. This is because higher-valued homes are phased out of the exclusion.

Value Exclusions and Deferrals

Exclusion/Deferral	2015 Value	2016 Value	% Change
Homestead Market Value Exclusion	$27,319,474,320	$26,670,938,916	-2.4%
Green Acres[3]	$2,105,376,789	$2,229,226,720	5.9%
Veterans with a Disability	$1,978,179,635	$2,164,831,597	9.4%
Rural Preserve	$567,417,626	$545,010,262	-3.9%
Open Space	$609,981,700	$391,566,000	-35.8%
Plat Law	$264,994,694	$323,383,805	22.0%
This Old House	$32,864,680	$11,105,900	-66.2%
Homestead Damaged by Mold	$49,000	$49,000	0.0%
This Old Businesss	$27,100	$0	-100.0%

Table 4

After including the various exclusions, deferrals, and special valuations, taxable market values for all classes of property other than agricultural property increased from 2015-2016.

Taxable Market Value Percent Change by Major Class

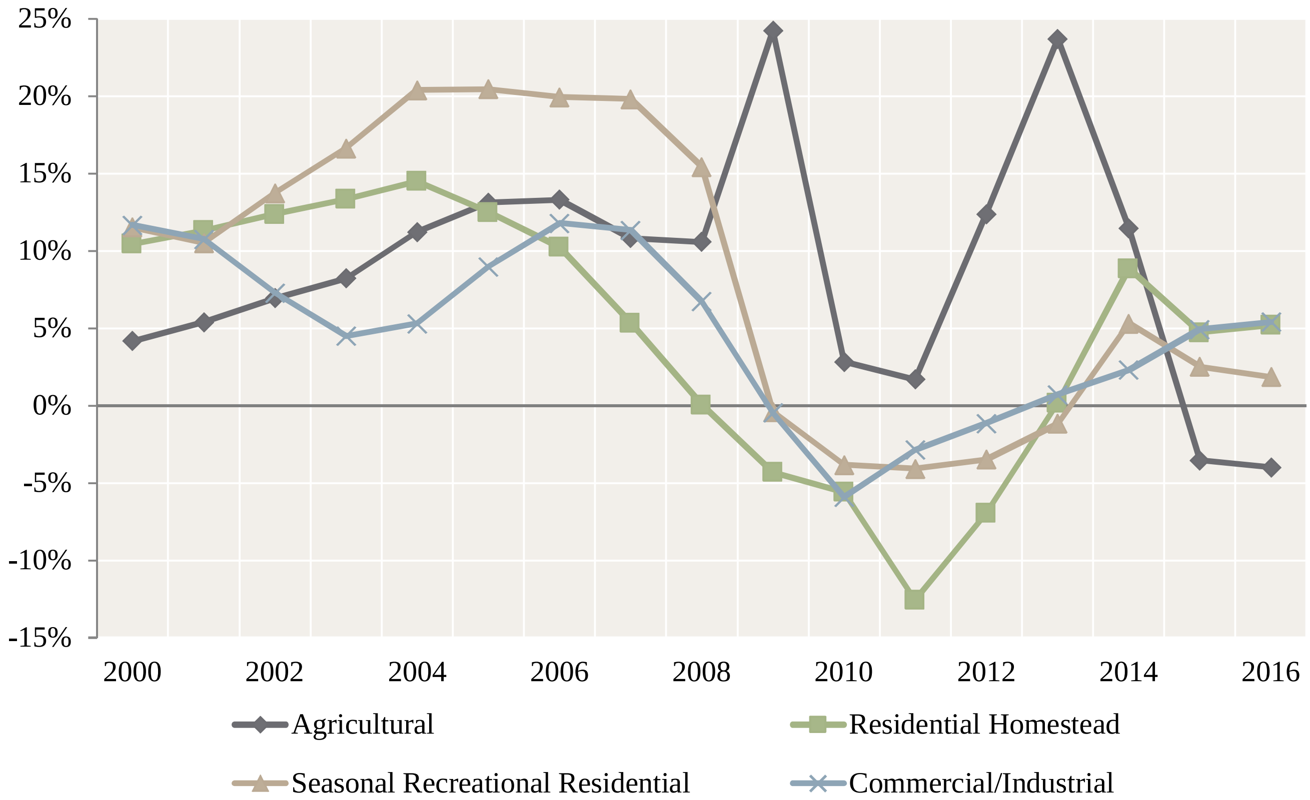


Chart 2[4]

[3] The 2015 assessment value for Green Acres is a revised figure. The value was adjusted to correct for a reporting error.
[4] The homestead market value exclusion, enacted in 2010, affected the taxable market value of homestead properties in 2011, which appears as a drop in taxable market value for the 2011 year.

Tax Distribution

Minnesota's property tax system – with various components including classification, valuation, and special programs that reduce taxable value – determines which properties will pay a greater or lesser share of taxes.

Agricultural and homesteaded properties, through both classification rates and programs such as Green Acres and the Homestead Market Value Exclusion, have typically received preferential property tax treatment. Conversely, commercial properties that have a higher class rate and lesser eligibility for special programs will pay a greater share of taxes than a residential or agricultural property of equal value.

Based on preliminary estimates from the 2016 assessment year (taxes payable 2017), agricultural property and rural vacant land represent about 23 percent of taxable property value and pay approximately 8 percent of property taxes (see tables below). In comparison, commercial properties account for about 12 percent of taxable property and pay approximately 29 percent of property taxes.

Due to declining agricultural land values, the market value share of agricultural property decreased from 24.1 percent in 2015 to 22.5 percent in 2016. However, because some jurisdictions are heavily reliant on agricultural property for their tax base, the 8.1 percent share of net taxes estimated to be paid by agricultural properties in 2016 is only slightly lower than the 8.6 percent share paid in the previous year.

In contrast, it is estimated that the share of taxes to be paid in 2017 by commercial/industrial properties will remain at about 29 percent, while the share paid by apartment and utility properties will increase. This shift is the result of jurisdictions with a mixed tax base experiencing larger increases in apartment and utility property values relative to commercial/industrial properties.

Net Tax Liability by Property Class

Assessment Year 2016, Taxes Payable 2017 (Preliminary Estimates)

Properties by Class	Market Value (Millions)	Net Tax (Millions)	Market Value Share	Net Tax Share
Agricultural/Rural Vacant	$141,854	$776	22.5%	8.1%
Residential (Homestead and Non-Homestead)	$333,271	$4,653	52.8%	48.4%
Apartments	$32,841	$557	5.2%	5.8%
Seasonal Recreational Residential	$25,963	$261	4.1%	2.7%
Commercial/Industrial	$77,854	$2,797	12.3%	29.1%
Utility/Other	$19,692	$564	3.1%	5.9%

Table 5

If the taxable value of a given class of property decreases, the other classes of property face an increase in the tax burden to account for the loss of tax base elsewhere. For example, special valuation programs such as the Green Acres program and the Homestead Market Value exclusion may cause increasing tax pressure on all other property types that are not eligible for the special valuation program(s).

Green Acres

The Minnesota Agricultural Property Tax Law (referred to as "Green Acres") helps insulate farm owners from rising land values due to non-agricultural influences on the land – such as nearby residential and commercial development, or seasonal cabin and resort properties.

Property enrolled in the Green Acres program is valued using sales data for agricultural property. This provides a lower taxable value for qualifying properties and redistributes the tax burden to other properties in the same jurisdiction.

Only class 2a agricultural land can qualify for Green Acres. All of the following requirements must be met for a property to be classified as agricultural land that may qualify for Green Acres. (See Minnesota Statutes section 273.13, subdivision 23.)

1. At least 10 contiguous acres must be used to produce agricultural products in the preceding year (or be qualifying land enrolled in an eligible conservation program).
2. The agricultural products are defined by statute.
3. The agricultural product must be produced for sale.

Green Acres is a property tax deferral program. When a property is sold, transferred, or no longer qualifies for the program, the owner has to pay the difference in tax for the last three years of enrollment. When a property enrolled in Green Acres is sold to another person who may qualify for the program, the new owner must apply to the county assessor within 30 days of the purchase for the program to continue on the property.

Taxable Green Acres Value

Green Acres requires assessors to look at qualifying agricultural property in two ways.

- First, the assessor must value the property according to its highest and best use (as is done for all properties). This may include non-agricultural value influences.
- Then the assessor must determine the agricultural value of the property based on Department of Revenue guidance.
- If the agricultural value is below the highest and best use value, the assessor must use the agricultural value for tax purposes.

The Minnesota Department of Revenue establishes agricultural land values throughout the state in consultation with the University of Minnesota. (See Minnesota Statutes, section 273.111, subdivision 4.)

Analyzing Agricultural Sales

To establish these agricultural values, the department examines sales of agricultural land throughout the state. (See Minnesota Statutes, section 273.111, subdivision 4.)

The department looks at agricultural sales in each of the 87 counties to determine Green Acres values that reflect the agricultural economy in general. When determining Green Acres values, the department attempts to identify pure agricultural sales – sales that were not influenced by developmental pressure or other non-agricultural factors.

To identify pure agricultural sales, the department identifies areas where development pressure may affect the sale price of agricultural land. Properties from these areas are removed from the sales data. The remaining sales are used to determine Green Acres values for tillable and non-tillable land in each county.

Identifying Areas with Non-Agricultural Influences

The department has identified three variables that may indicate non-agricultural influences in a particular area, city, or town:

- Change in number of households
- Newly created non-agricultural parcels
- Annexations to cities and towns

These variables indicate the change in the previous three years for each city or town in Minnesota.[5] Each variable is assigned a threshold that may indicate development pressure:

- More than five households in a city or town
- More than five new non-agricultural parcels in a city or town
- Any annexations (for all cities and towns in and surrounding the annexation)

Agricultural sales in areas that meet any two of the thresholds are flagged as sales with potential non-agricultural influence. These sales are referred to the department's regional Property Tax Compliance Officers (PTCOs) for further review.

Whenever a PTCO confirms that non-agricultural influence may have affected the price of a sale, it is removed from the sales data used to determine the Green Acres value. Sales are also removed if they include land on a lake or river, include non-agricultural land, or represent outliers in the data.

Determining Agricultural Values

After sales with potential non-agricultural influences are removed from the sales data, the remaining sales are used to determine each county's agricultural value, used for Green Acres purposes.

These values are calculated using a basic regression and the county's sales data from the previous 12 months – sale prices, tillable acres, and non-tillable acres. This regression estimates a value per acre for tillable land (β_1) and non-tillable land (β_2).

$$Sale\ Price\ =\ \beta 1\ *\ Tillable\ Acres\ +\ \beta 2\ *\ Non-Tillable\ Acres$$

The size and representativeness of sales data can vary by county and year to year. As a result, the Green Acres values calculated with a county's data for the previous 12 months may not always be reliable.

To get more data, the regression is run using two additional data sets: the previous 21 months of sales in each county, and the previous 12 months of sales in each agricultural region. If a county's 12-month value is questionable, the additional results are considered, prioritizing the 21-month results for the county over the 21-month results for the agricultural regions.

[5] Data for the three variables comes from the Minnesota State Demographic Center, Metropolitan Council, Market Value by Parcel File, and Minnesota Geospatial Information Office.

If all three regressions fail to yield a consistent Green Acres value, the Property Tax Division's staff sets Green Acres values based on surrounding counties, counties with similar agricultural markets, and previous years' Green Acres values. See Appendix C for final 2016 Green Acres values by county.

Green Acres Values: 2016 Assessment Year Impact

For 2016, statewide taxable values of 2a agricultural land decreased about 4 percent, while the amount of value deferred under Green Acres increased more than 5 percent.The chart below shows changes for the last seven assessment years.

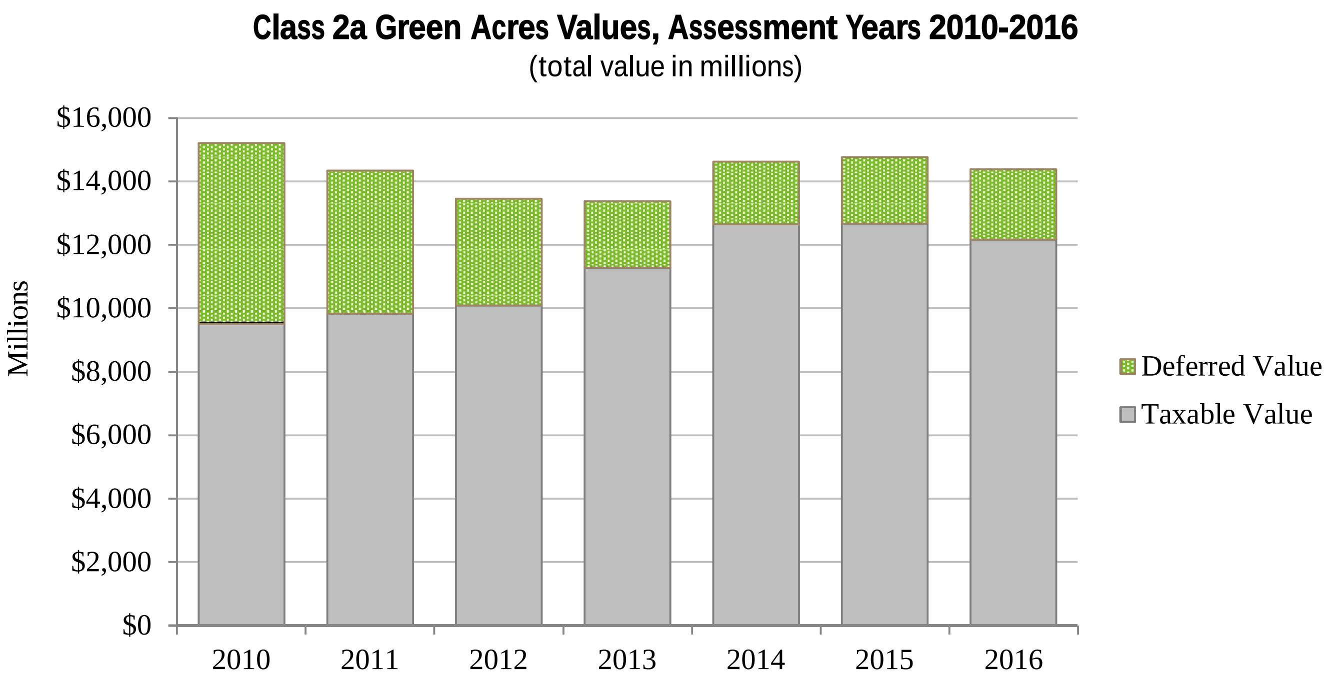


Chart 3 [6]

[6] Values for assessment years 2014 and 2015 are revised figures. The values were adjusted to correct for a reporting error.

Rural Preserve

Statewide, $545 million of estimated market value was deferred under the Rural Preserve program year for the 2016 assessment.

The Rural Preserve Property Tax Program complements Green Acres and provides similar property tax benefits for class 2b rural vacant land that is part of a contiguous farm enrolled in Green Acres. Rural Preserve was enacted in 2009 for the 2011 assessment (taxes payable in 2012) under Minnesota Statutes, section 273.114.

As with Green Acres, a portion of taxable value is deferred for qualifying land while it is enrolled in the program. The assessor determines two values for the land: a "highest and best use value" based on market conditions, and a value that is uninfluenced by non-agricultural factors such as residential or commercial development. The assessor must use whichever value is lower for property tax purposes.

This provides a lower taxable value for qualifying properties and redistributes the tax burden to other properties in the same jurisdiction. When a property is sold, transferred, or no longer qualifies for the program, the owner has to pay the difference in tax for the last three years of enrollment.

Taxable Rural Preserve Value

Class 2b rural vacant land property is not always unusable wasteland. Sometimes, class 2b land may be tillable or usable as pastureland, but is not used for agricultural purposes. The classification system acknowledges the different land uses; however for valuation purposes, similar lands should be similarly assessed.

Rural Preserve values are calculated differently than under Green Acres. Each year, the department issues a memo to notify counties of their Green Acres values for tillable and non-tillable agricultural lands. The department urges counties to use the following guidelines to calculate Rural Preserve values:

- For otherwise tillable lands, use the Green Acres tillable land value.
- For non-tillable lands that are otherwise pastureable, use their non-tillable Green Acres value.
- For unusable waste, wild land, swamp land, etc., use 50% of the **non-tillable** Green Acres value.

Examples

1. If the county has estimated the value of woods at $2500 per acre because of recreational or other non-agricultural value influences, and the value for Rural Preserve is $2200, the deferral is based on the $300 per acre difference.
2. If a county has estimated the value of a swamp at $1800 per acre because of recreational or other non-agricultural market value influences, and the value for Rural Preserve is $2200, then the recommended Rural Preserve value for the **unusable** swamp land is $1100 per acre (50% of $2200), and the deferral is based on the $700 difference in value.
3. If a county has valued a swamp at $900 per acre due to lack of non-agricultural market influences, and the recommended value for Rural Preserve is $2200 and 50 percent of that value is $1100, there is no deferral. (The property may still be enrolled in the program, but the tax deferral only applies if the EMV set by the county exceeds the Rural Preserve value.)

Unusable wasteland often carries a very low estimated market value, which may not be high enough to receive a tax deferral under Rural Preserve (as shown in Example 3 above). However, there may be some areas of the state where recreational uses are affecting the market value of these unusable wastelands that are part of a farm.

Appendix A - Classification Rates (2016 Assessment)

Class	Description	Tiers	Class Rate	State Rate
1a	**Residential Homestead**	First $500,000	1.00%	NA
		Over $500,000	1.25%	NA
1b	**Blind/Disabled Homestead** (Both Agricultural and Non-Agricultural)	First $50,000	0.45%	NA
1c	**Ma & Pa Resort** (Commercial Seasonal Residential Recreational < 250 days, Including Homestead)	First $600,000	0.50%	NA
		$600,000 - $2,300,000	1.00%	NA
		Over $2,300,000	1.25%	1.25%
1d	**Migrant Housing** (Structures Only)	First $500,000	1.00%	NA
		Over $500,000	1.25%	NA
2a	**Homestead House, Garage, One Acre (HGA):**	First $500,000	1.00%	NA
		Over $500,000	1.25%	NA
2a/2b	**1st Tier Homestead Property**	First $2,050,000	0.50%	NA
2a/2b	**Farming Entities Excess 1st Tier** (Unused From Homestead)	Unused 1st Tier	0.50%	NA
2a	**Agricultural Land** (Homestead Remainder, Non-homestead, Includes Structures)		1.00%	NA
2b	**Rural Vacant Land** (Homestead Remainder, Non-homestead, Includes Minor Ancillary Structures)		1.00%	NA
2c	**Managed Forest Land**		0.65%	NA
2d	**Private Airport**		1.00%	NA
2e	**Land with a Commercial Aggregate Deposit**		1.00%	NA
3a	**Commercial/Industrial and Public Utility**	First $150,000	1.50%	1.50%
		Over $150,000	2.00%	2.00%
	Electric Generating Public Utility Machinery		2.00%	NA
	All Other Public Utility Machinery		2.00%	2.00%
	Transmission Line Right-Of-Way (Owned in Fee by a Utility)		2.00%	2.00%
4a	**Apartment** (4+ units, Including Private For-Profit Hospitals)		1.25%	NA
4b(1)	**Residential Non-Homestead** (1-3 Units, Not 4bb or Seasonal Residential Recreational)		1.25%	NA
4b(2)	**Unclassified Manufactured Home**		1.25%	NA
4b(3)	**Ag Non-Homestead** (2 or 3 Units),		1.25%	NA
4b(4)	**Unimproved Residential**		1.25%	NA
4bb	**Residential or Agricultural Non-Homestead** (Single Unit)	First $500,000	1.00%	NA
		Over $500,000	1.25%	NA
4c(1)	**Commercial Seasonal Residential Recreational (Resort)**	First $500,000	1.00%	1.00%
		Over $500,000	1.25%	1.25%
4c(2)	**Qualifying Golf Course**		1.25%	NA
4c(3)(i)	**Non-Profit Community Service Oriented Organization (Non-Revenue)**		1.50%	NA
4c(3)(ii)	**Non-Profit Community Service Oriented Organization (Donations)**		1.50%	1.50%
4c(4)	**Post-Secondary Student Housing**		1.00%	NA
4c(5)(i)	**Manufactured Home (MH) Park**		1.25%	NA
4c(5)(ii)	**MH Park Cooperative (Over 50% Shareholder Occupied)**		0.75%	NA
4c(5)(ii)	**MH Park Cooperative (50% or Less Shareholder Occupied)**		1.00%	NA
4c(6)	**Metro Non-Profit Recreational Property**		1.25%	NA
4c(7)	**Certain Non-Commercial Aircraft Hangars and Land: Leased Land**		1.50%	NA
4c(8)	**Certain Non-Commercial Aircraft Hangars and Land: Private Land**		1.50%	NA
4c(9)	**Bed and Breakfast (Up to 5 Units)**		1.25%	NA
4c(10)	**Seasonal Restaurant on a Lake**		1.25%	NA

Class	Description	Tiers	Class Rate	State Rate
4c(11)	**Marina**	First $500,000	1.00%	NA
		Over $500,000	1.25%	NA
4c(12)	**Non-Commercial Seasonal Residential Recreational (Cabin)**	First $76,000	1.00%	0.40%
		$76,000 - $500,000	1.00%	1.00%
		Over $500,000	1.25%	1.25%
4d	**Qualifying Low-Income Rental Housing**	First $115,000	0.75%	NA
		Over $115,000	0.25%	NA
5(1)	**Unmined Iron Ore and Low-Grade Iron-Bearing Formations**		2.00%	2.00%
5(2)	**All Other Property Not Otherwise Classified**		2.00%	NA

Appendix B - Summary of 2016 State Board Orders

2016 State Board Orders by County

County	Assessment District	Type of Property	State Board Changes Percent Increase	State Board Changes Percent Decrease
Becker	**City of:**			
	Frazee	Residential Land and Structures	+10	
		Non-Commercial Seasonal Residential Recreational Land and Structures	+10	
	Townships of:			
	Cormorant	Residential Land and Structures – Off-water	+10	
		Non-Commercial Seasonal Residential Recreational Land and Structures – Off-water	+10	
	Holmesville	Residential Land and Structures	+5	
		Non-Commercial Seasonal Residential Recreational Land and Structures	+5	
	Maple Grove	Residential Land and Structures – On-water	+5	
		Non-Commercial Seasonal Residential Recreational Land and Structures – On-water	+5	
Beltrami	**Townships of:**			
	Grant Valley	Residential Structures	+5	
		Non-Commercial Seasonal Residential Recreational Structures	+5	
	Turtle River	Residential Structures	+5	
		Non-Commercial Seasonal Residential Recreational Structures	+5	
Clearwater	**Countywide**	Agricultural 2a Non-tillable Land Only	+10	
	Township of:			
	Copley	Residential Land and Structures	+5	
Freeborn	**Township of:**			
	Albert Lea	Residential Land and Structures	+5	
		Non-Commercial Seasonal Residential Recreational Land and Structures	+5	
Houston	**City of:**			
	Caledonia	Residential Structures	+5	
		Non-Commercial Seasonal Residential Recreational Structures	+5	

County	Assessment District	Type of Property	State Board Changes Percent Increase	Percent Decrease
Kittson	**Cities of:**			
	Humboldt	Agricultural 2a Tillable Land Only		-5
		Rural Vacant Land 2b Tillable Land Only		-5
	Karlstad	Residential Land and Structures	+15	
	Townships of:			
	Hill	Agricultural 2a Tillable Land Only		-5
		Rural Vacant Land 2b Tillable Land Only		-5
	St. Vincent	Agricultural 2a Tillable Land Only		-5
		Rural Vacant Land 2b Tillable Land Only		-5
Lake	**Township of:**			
	Silver Creek	Residential Land and Structures	+10	
		Non-Commercial Seasonal Residential Recreational Land and Structures	+10	
Martin	**City of:**			
	Trimont	Residential Land and Structures	+10	
		Non-Commercial Seasonal Residential Recreational Land and Structures	+10	
McLeod	**Cities of:**			
	Hutchinson	Commercial Land Only	+5	
	Winsted	Residential Structures Only	+5	
		Non-Commercial Seasonal Residential Recreational Structures Only	+5	
	Township of:			
	Hassan Valley	Residential Land and Structures	+5	
		Non-Commercial Seasonal Residential Recreational Land and Structures	+5	
Nobles	**City of:**			
	Worthington	Commercial Land and Structures	+5	
Pennington	**Township of:**			
	Smiley	Residential Land Only	+5	
Polk	**City of:**			
	East Grand Forks	Residential Land and Structures	+5	

County	Assessment District	Type of Property	State Board Changes Percent Increase	Percent Decrease
Red Lake	**City of:**			
	Red Lake Falls	Residential Land and Structures =/<$85,000	+5	
		Residential Land and Structures =/>$85,001	+10	

Appendix C - Green Acres/Rural Preserves Values

County Average Value per Acre for Assessment Year 2016

County	Tillable	Non-Tillable
AITKIN	1,300	1,300
ANOKA	2,700	2,000
BECKER	3,000	1,500
BELTRAMI	1,200	1,000
BENTON	3,100	1,900
BIG STONE	6,000	1,500
BLUE EARTH	7,500	2,900
BROWN	8,700	1,800
CARLTON	1,500	1,500
CARVER	7,100	2,900
CASS	1,800	1,400
CHIPPEWA	7,500	1,400
CHISAGO	2,700	2,000
CLAY	4,100	1,200
CLEARWATER	1,300	1,100
COOK	1,000	1,000
COTTONWOOD	7,100	1,500
CROW WING	2,000	2,000
DAKOTA	7,200	2,900
DODGE	7,500	2,200
DOUGLAS	4,000	2,000
FARIBAULT	7,900	1,500
FILLMORE	6,000	2,700
FREEBORN	7,400	1,500
GOODHUE	6,700	2,500
GRANT	5,500	2,000
HENNEPIN	6,700	2,900
HOUSTON	6,000	3,100
HUBBARD	2,300	1,400
ISANTI	2,700	2,100
ITASCA	1,000	1,000
JACKSON	7,500	1,500
KANABEC	2,000	1,500
KANDIYOHI	6,500	1,500
KITTSON	2,600	600
KOOCHICHING	700	700
LAC QUI PARLE	5,500	1,400
LAKE	800	800

County	Tillable	Non-Tillable
LAKE OF THE WOODS	800	600
LE SUEUR	7,000	2,900
LINCOLN	6,200	1,400
LYON	6,900	1,400
MCLEOD	7,000	2,000
MAHNOMEN	2,800	1,000
MARSHALL	2,400	700
MARTIN	7,500	1,500
MEEKER	4,500	1,800
MILLE LACS	2,200	1,300
MORRISON	3,100	1,900
MOWER	7,800	1,500
MURRAY	7,000	1,400
NICOLLET	9,500	2,000
NOBLES	8,100	1,600
NORMAN	3,100	900
OLMSTED	7,000	2,500
OTTER TAIL	3,100	1,800
PENNINGTON	2,300	900
PINE	1,800	1,100
PIPESTONE	7,100	2,500
POLK	2,800	900
POPE	4,500	1,800
RAMSEY	N/A	N/A
RED LAKE	2,500	900
REDWOOD	7,800	1,600
RENVILLE	8,900	1,400
RICE	7,100	2,900
ROCK	11,100	2,300
ROSEAU	1,000	700
ST LOUIS	900	900
SCOTT	7,200	2,900
SHERBURNE	3,100	1,900
SIBLEY	7,800	2,000
STEARNS	4,300	2,400
STEELE	7,000	1,700
STEVENS	6,500	1,600
SWIFT	5,000	1,500
TODD	2,000	1,500
TRAVERSE	6,500	1,500
WABASHA	6,600	2,600
WADENA	1,600	1,300
WASECA	7,700	1,700

County	Tillable	Non-Tillable
WASHINGTON	7,200	2,900
WATONWAN	7,300	1,500
WILKIN	4,500	1,300
WINONA	7,400	2,500
WRIGHT	5,900	2,900
YELLOW MEDICINE	6,600	1,500

Appendix D - Statewide Values and Assessment Practices Indicators

The following pages contain statewide charts and maps with information about Minnesota property values, sales ratio measures, and the Green Acres and Rural Preserve programs.

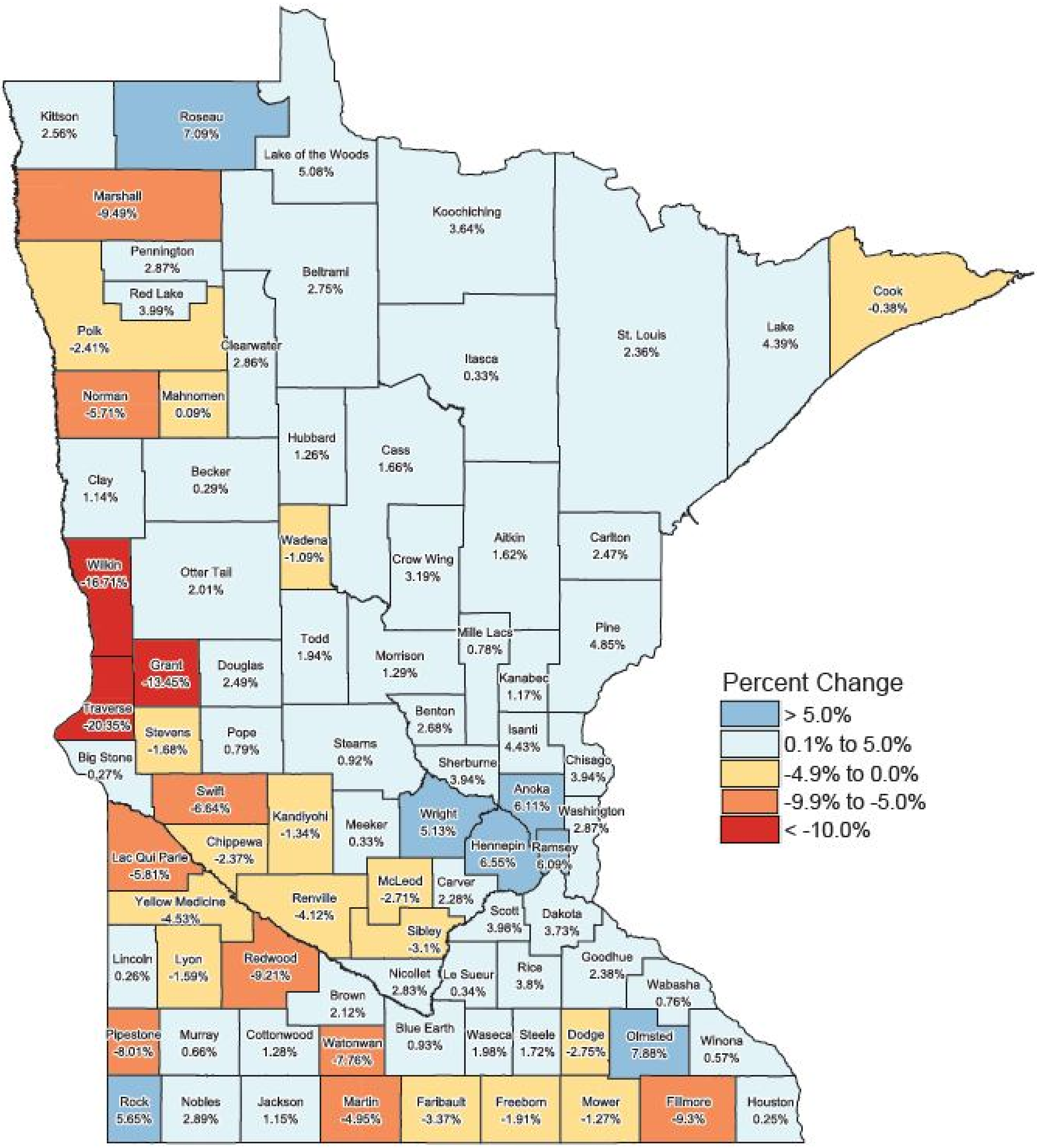
MAP 1 displays the percent change in estimated market value for each county from assessment years 2015 to 2016.

MAP 2 displays the average percentage that new construction composes of estimated market value for each county from assessment years 2015 to 2016.

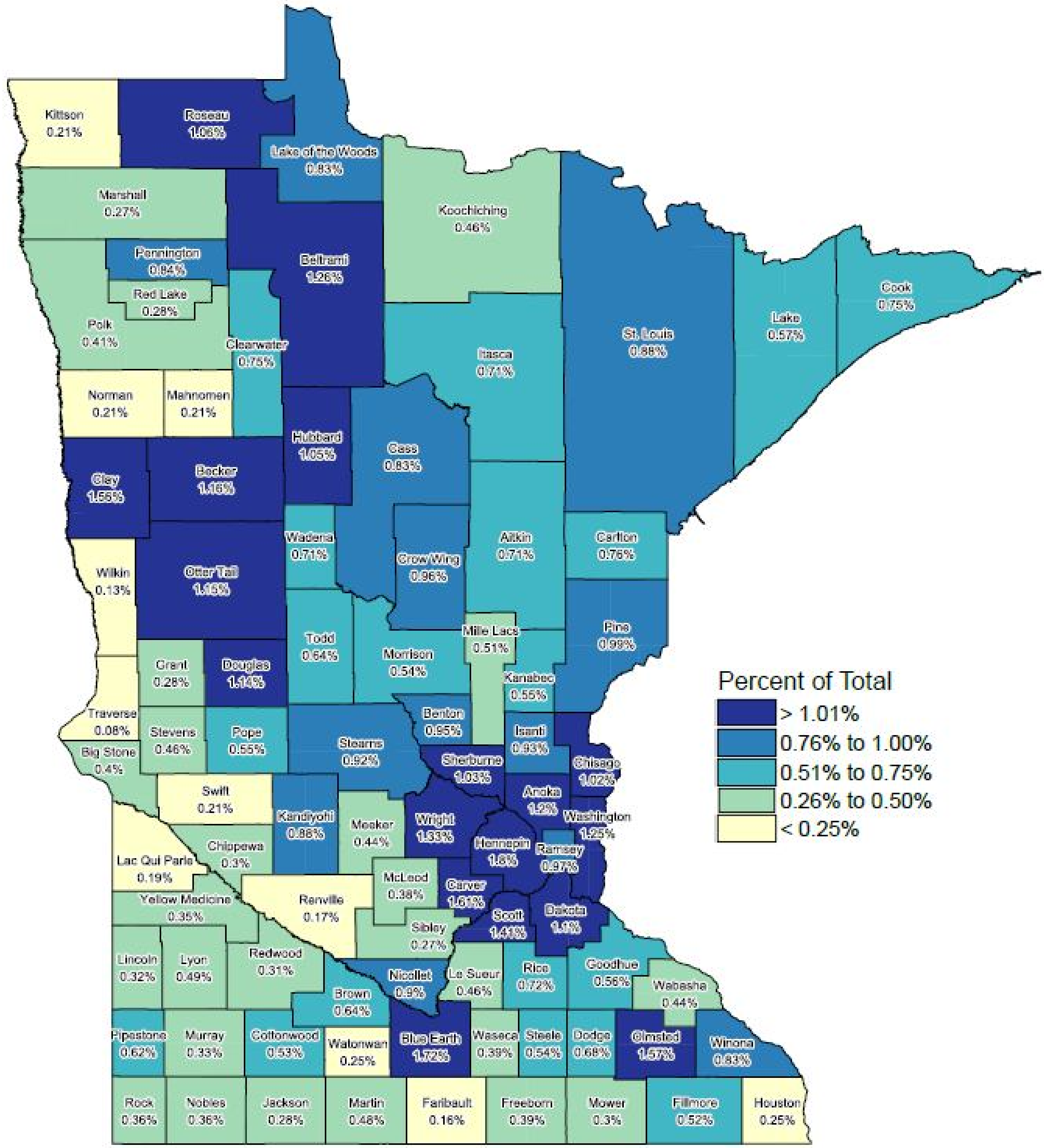
MAP 3 shows taxable tillable Green Acres/Rural Preserve values. Higher taxable values are shown in the southern portion of the state while lower taxable values are shown in the northeastern part of the state.

MAP 4 shows taxable non-tillable Green Acres/Rural Preserve values. Values to be used for non-tillable properties enrolled in Green Acres or Rural Preserve do not vary as widely as the values for tillable properties. The non-tillable values are closer to the tillable values in the northern half of the state.

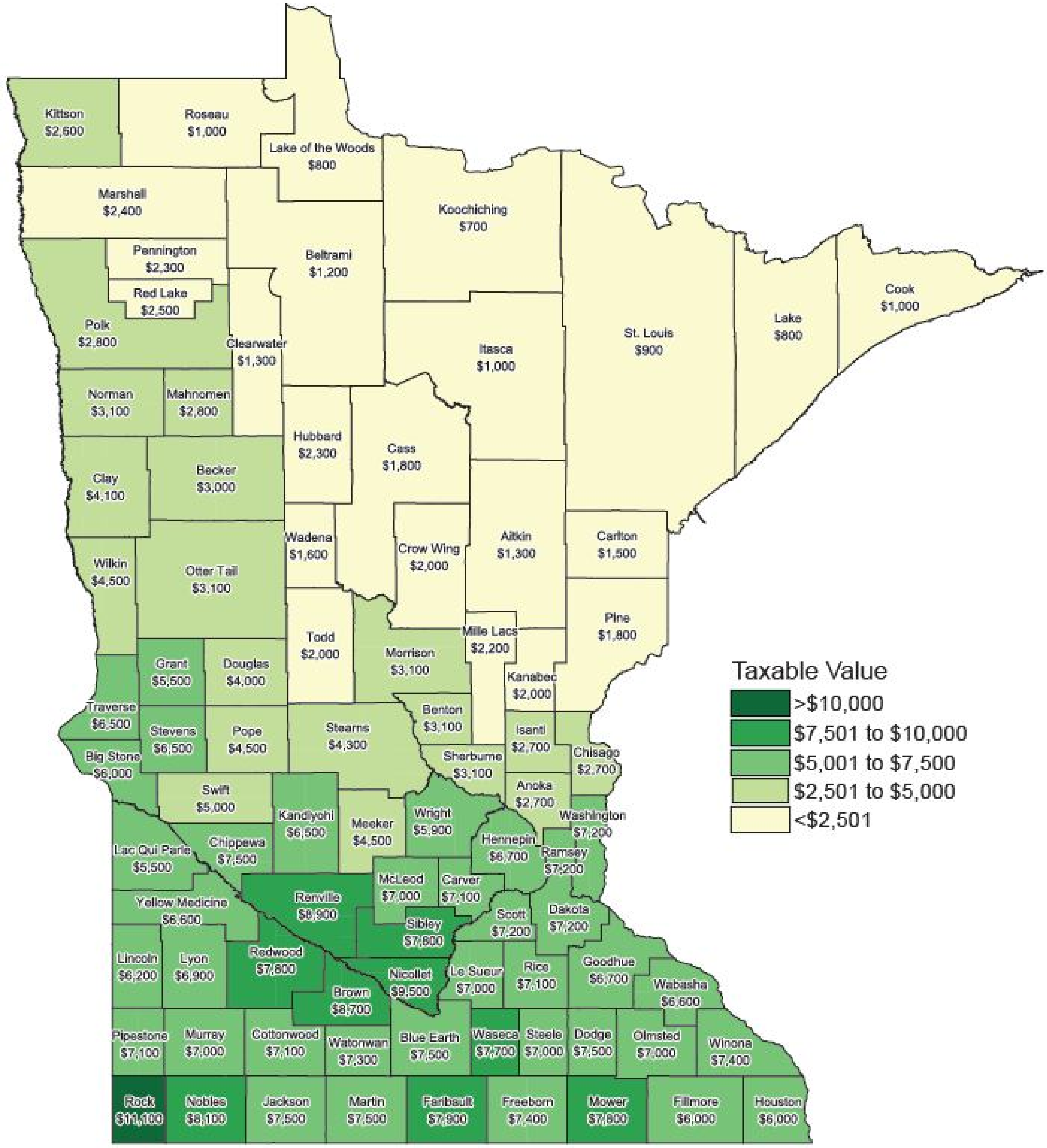
Map 1: Percent Change in Total Estimated Market Value 2015-2016



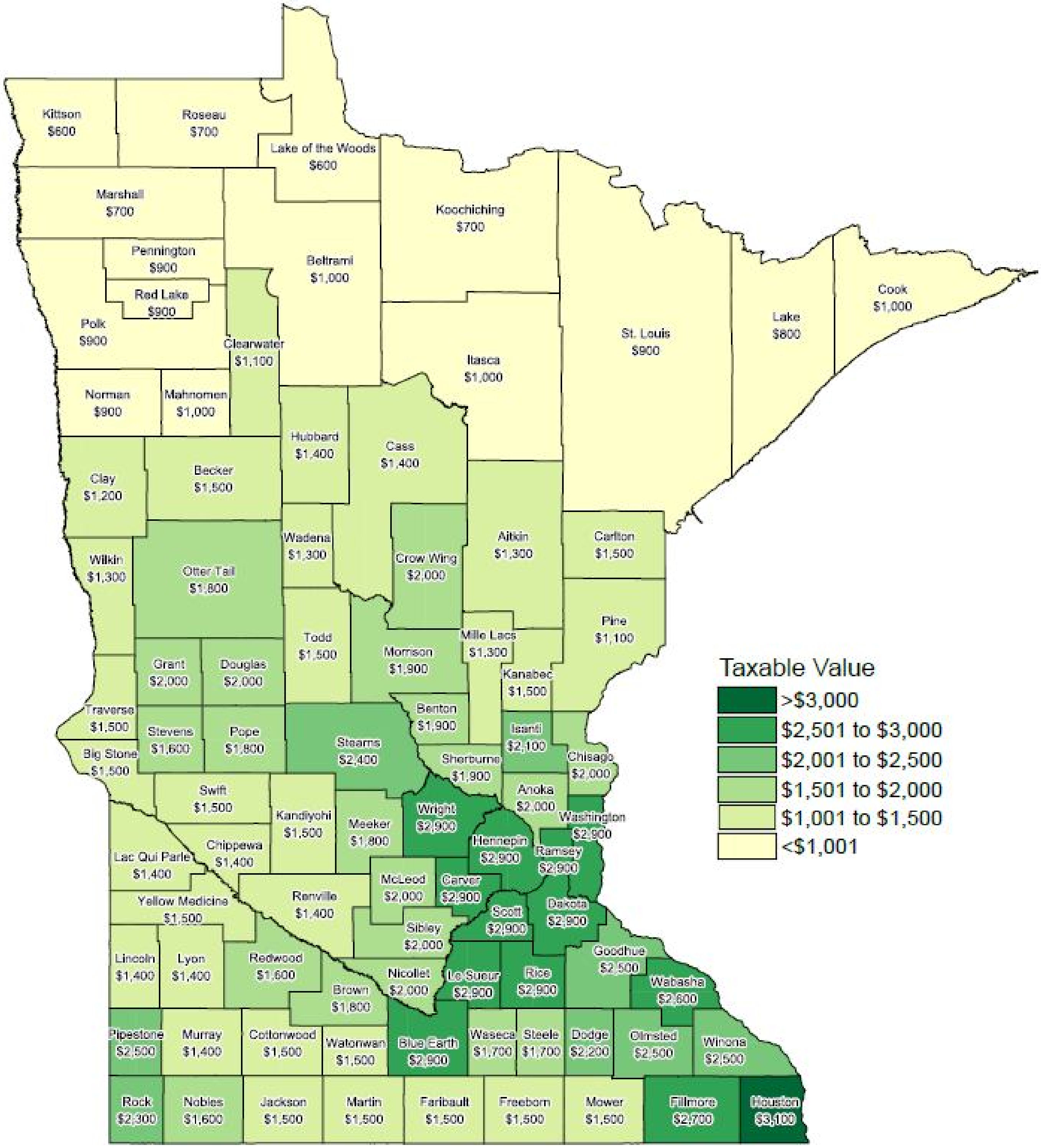
Map 2: New Construction as a Percent of Total Estimated Market Value (2016 Assessment)



Map 3: Taxable Tillable Green Acres/Rural Preserve Value (2016 Assessment)



Map 4: Taxable Non-Tillable Green Acres/Rural Preserve Value (2016 Assessment)



Appendix E - Glossary

ADJUSTED MEDIAN RATIO The adjusted median ratio is calculated by multiplying the median ratio by one plus the overall percent change in value made by the local assessor between the prior and current assessment year. The change in assessor's value is also called local effort.

$$\textit{Adjusted Median Ratio} = \textit{Median Ratio} \times (1 + \textit{Local Effort})$$

Equation 3

CERTIFICATE OF REAL ESTATE VALUE (CRV) A certificate of real estate value must be filed with the county auditor whenever real property is sold or conveyed in Minnesota. Information reported on the CRV includes the sales price, the value of any personal property, if any, included in the sale, and the financial terms of the sale. The CRV is eventually filed with the Property Tax Division of the Minnesota Department of Revenue.

COEFFICIENT OF DISPERSION (COD) The coefficient of dispersion is a measurement of variability (the spread or dispersion) and provides a simple numerical value to describe the distribution of sales ratios in relationship to the median ratio of a group of properties sold. The COD is also known as the "index of assessment inequality" and is the percentage by which the various sales ratios differ, on average, from the median ratio.

ESTIMATED MARKET VALUE (EMV) The estimated market value is the assessor's estimate of what a property would sell for on the open market with a typically motivated buyer and seller without special financial terms. This is the most probable price, in terms of money, that a property would bring in an open and competitive market. The EMV for a property is finalized on the assessment date, which is Jan. 2 of each year.

MEDIAN RATIO The median ratio is a measure of central tendency. It is the sales ratio that is the midpoint of all ratios. Half of the ratios fall above this point and the other half fall below this point. The median ratio is used for the State Board of Equalization and the Minnesota Tax Court studies after all final adjustments.

SALES RATIO A sales ratio is the ratio comparing the market value of a property with the actual sales price of the property. The market value is determined by the county assessor and reported annually to the Department of Revenue. The actual sales price is reported on the Certificate of Real Estate Value (CRV).

STATE BOARD OF EQUALIZATION The State Board of Equalization consists of the Commissioner of Revenue, who has the power to review sales ratios for counties and make adjustments in order to bring estimated market values within the accepted range of 90 to 105 percent.

STATE BOARD ORDER A state board order is issued by the State Board of Equalization to adjust the market values of certain property within certain jurisdictions.

TAXABLE MARKET VALUE (TMV) The taxable market value is the value that a property is actually taxed on after all limits, deferrals, and exclusions are calculated. It may or may not be the same as the property's estimated market value or limited market value.

TRIMMING METHOD The trimming method used here is to exclude sales with rations less than 0.5 or greater than 2. This eliminates a few extreme sales that would distort the COD.

Appendix F - 12-Month Study

The 12-month study is mainly used to determine State Board of Equalization Orders. The 12 months encompass the period from October 1 of one year through September 30 of the following year. The dates are based on the dates of sale as indicated on the Certificate of Real Estate Value (CRV). These certificates are filled out by the buyer or seller whenever property is sold or conveyed and filed with the county. The certificates include the sales price of the property, disclosure of any special financial terms associated with the sale, and whether the sale included personal property. The actual sales price from the CRV is then compared to what the county has reported as the market value.

The data contained in the report is based upon the 12-month study using sales from October 1, 2014, through September 30, 2015. These sales are compared with preliminary values for assessment year 2016, taxes payable 2017. The sale prices are adjusted for time and financial terms to the date of the assessment, which is January 2 of each year. For this study, the sales are adjusted to January 2, 2016. In areas with few sales, it is very difficult to adjust for inflation or deflation because the sales samples are used to develop time trends. For example, based on an annual inflation rate of 3 percent (.25 percent monthly), if a house were purchased in August 2015 for $200,000, it would be adjusted to a January 2016 value of $202,500, or the sales price would be adjusted upward by 1.25 percent for the 5-month timeframe to January.

The State Board of Equalization orders assessment changes when the level of assessment (as measured by the median sales ratio) is below 90 percent, or above 105 percent. The orders are usually on a county-, city-, or township-wide basis for a particular classification of property. All State Board Orders must be implemented by the county. The changes will be made to the current assessment under consideration, for taxes payable the following year.

The equalization process (including issuing State Board Orders) is designed not only to equalize values on a county-, town-, or city-wide basis, but also to equalize values across county lines to ensure a fair valuation process across taxing districts, county lines, and property types. State Board Orders are implemented only after a review of values and sales ratios and discussions with the county assessors in the county affected by the State Board Orders, county assessors in adjacent counties, and the commissioner.

Appendix G - 21-Month Study

The 21-month study is different from the 9-month and 12-month studies. Its purpose is to adjust values used for state aid calculations so that all jurisdictions across the state are equalized. In order to build stability into the system, a longer term of 21 months is used, which allows for a greater number of sales. While the 9- and 12-month studies compare the actual sales to the assessor's *estimated* market value, the 21-month study compares actual sales to the assessor's *taxable* market value. As with the 9- and 12-month studies, the sale prices are adjusted for time and terms of financing.

The 21-month study is used to calculate adjusted net tax capacities that are used in the foundation aid formula for school funding. It is also used to calculate tax capacities for Local Government Aid (LGA) and various smaller aids such as library aid. This study is also utilized by bonding companies to rate the fiscal capacity of different governmental jurisdictions.

The adjusted net tax capacity is used to eliminate differences in levels of assessment between taxing jurisdictions for state aid distributions. All property is meant to be valued at its selling price in an open market, but many factors make that goal hard to achieve. The sales ratio study can be used to eliminate differences caused by local markets or assessment practices.

The adjusted net tax capacity is calculated by dividing the net tax capacity of a class of property by the sales ratio for the class. For example, the net tax capacity for residential properties is divided by the residential sales ratio to produce the residential adjusted net tax capacity. The process would be repeated for all of the property types. The total adjusted net tax capacity would be used in state aid calculations.