

MINNESOTA • REVENUE

2012 Property Values and
Assessment Practices Report
Assessment Year 2011

A REPORT SUBMITTED TO THE MINNESOTA STATE LEGISLATURE

PURSUANT TO

LAWS 2001, FIRST SPECIAL SESSION, CHAPTER 5, ARTICLE 3, SECTION 92 AND
MINNESOTA STATUTES, SECTION 273.1108

Property Tax Division

Minnesota Department of Revenue

March 2, 2012

MINNESOTA • REVENUE

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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 the State of Minnesota. This is the tenth annual version of this report. As part of an ongoing effort to streamline processes, this report has been combined with the annual report related to agricultural properties and Green Acres. This report satisfies 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 within the state of Minnesota, with an emphasis on market values for 2a agricultural and 2b rural vacant land properties, and Green Acres value methodology and determinations.

Sincerely,



Myron Frans
Commissioner
Minnesota Department of Revenue

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.

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Executive Summary

This report analyzes the assessment of six types of property: Residential/Seasonal, Apartments, Commercial-Industrial, Agricultural 2a, and Rural Vacant Land 2b. The real estate market continued to slow down throughout Minnesota with the number of sales declining for all property classes through the fall of 2011. Estimated values also continue to decline for most property types in much of the state.

Assessment quality remained relatively consistent between the 2010 and 2011 assessments. This is reflected in both of the sales ratio and the coefficient of dispersion, the two primary measures of assessment quality. As a general rule, both sales ratios and coefficients of dispersion are more accurate in classes with more sales activity which means that the sales sample reflects the range of values for all properties in the jurisdiction. In the 2011 assessment, the focus of assessment reviews was moving away from level of assessment towards assessment uniformity. Assessors have tracked the changing real estate markets, improved their overall levels of assessment and are working on improving uniformity. This is a challenge in areas with smaller numbers of sales since each sale has a larger impact on the statistics than in areas with large samples.

The coefficient of dispersion (COD) measures the uniformity of assessments. For the 2011 assessment, the coefficients generally were within the International Association of Assessing Officers' (IAAO) acceptable ranges in counties that had an adequate sample of sales. This is an area of concern in places with smaller sales samples. The IAAO ranges are shown on page 12.

A sales ratio measures how close assessors' values are to the ultimate sales price of property. The statewide median sales ratios for the 6 property types were all in the targeted 90% to 105% range. Most ratios were up slightly from 2010. Between 2010 and 2011, many counties reported market value decreases in a number of property types, as shown in Table 1.

Changes in Market Value by Property Type
Assessment Years 2010 to 2011

PROPERTY TYPE	NUMBER OF COUNTIES WITH DECREASED VALUE	STATEWIDE CHANGE IN VALUE
Residential	59	-3.4%
Apartment	42	-1.0%
Seasonal	50	-4.4%
Agricultural 2a / Rural Vacant 2b / Managed Forest 2c	36	+2.5%
Commercial/Industrial	40	-3.0%

Table 1

Assessors made small value changes again in 2011, following a trend that began in 2008. Only the estimated market values for the farm classes and 'other' class experienced positive growth in aggregate statewide. While overall values for agricultural property are up from 2010-2011, 2a and 2b diverge sharply. The estimated market value of 2a land rose by 4.48% from 2010 to 2011. Estimated market value for 2b rural vacant land, on the other hand, fell -4.87% during that same period. Agricultural values have risen at the same time that the value of other development has declined, and these changes have resulted in a decrease in value deferred under Green Acres. In 2011, the total amount of value deferred under Green Acres was 21% less than in 2010; value deferred for 2a lands was 21% less in 2011, value deferred for 2b lands was 19% less. Agricultural and rural vacant estimated market values declined in 36 counties between 2010 and 2011, while Green Acres taxable values declined in 41 counties. The counties with estimated market value increases were in the south and northwest regions of the state.

In the period from 2000 through 2006, all values increased by at least 10% annually, but the statewide values for residential property declined between 2007 and 2008 and have continued to decline in this study period and the period following the end of this study.

The State Board of Equalization issues corrective orders when the median sales ratio for a property type is outside the 90% to 105% acceptable range. In 2011, State Board Orders were issued in 9 counties. In 2010, State Board orders were issued in 10 counties. 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. The issues to watch usually fall into three watch indicator categories:

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

Introduction

During the 2001 special legislative session, the state legislature mandated an annual report from the Minnesota Department of Revenue on property tax values and assessment practices within the state of Minnesota. This year, 2012, is the tenth annual report on such data and practices to the legislature.

Beginning this year, 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.

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;
- Green Acres value methodology and determinations; and
- assessment and classification practices pertaining to 2a and 2b property.

The purpose of this report is to provide the legislature with an accurate snapshot of the current state of property tax assessment, as well as an overview of the Minnesota Department of Revenue's responsibility to oversee the state's property tax assessment process. This report provides a vehicle for an ongoing, systematic collection of property value data for the purpose of monitoring and analyzing underlying value trends and assessment quality indicators. This information and analysis is used to satisfy the Department's responsibility to inform government officials and the public about valuation trends within the property tax system.

Overview of the Department of Revenue's Role

Property taxes are an important source of revenue for all local units of government in the Minnesota, including counties, cities, townships, school districts and special taxing districts. The primary responsibility of the Minnesota Department of Revenue's Property Tax Division is to ensure fair and uniform administration of, and compliance with, Minnesota's 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 issue orders increasing or decreasing assessed market values in order to bring about equalization;

- Promotion of uniformity of administration among the counties, thereby ensuring 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 supplied to county officials, including technical manuals, bulletins, answers to specific questions, and courses taught by Division personnel. These offerings provide county officials the support and training necessary to administer the property tax laws equitably and uniformly. In addition, education and information that the Division provides to taxpayers helps ensure they pay no more and no less than the law requires.

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 reality, the breakdown of property tax classifications includes 35 specific statutory descriptions that result in over 55 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:

$$\text{Taxable Market Value} \times \text{Classification Rate} = \text{Net Tax Capacity}$$

Equation 1

The classification system is also used as part of the Department of Revenue’s efforts to measure assessment quality. The sales ratio study and State Board of Equalization utilize 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 1 through 5 numbering as shown above).

- Residential and non-commercial seasonal
- 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 prohibited from adopting a lower or different standard of value, as the value is used for the basis of taxation. Assessors are also required to determine the value of the land only, the value of the structures and improvements to the land separately, and the total market value comprised of the land and structure/improvement value.

Minnesota Statutes, section 272.03, subdivision 8 defines market value in the following way:

“Market value’ means 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 new 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 used the following criteria to determine whether a property meets the definition of an open-market transaction:

1. Whether the buyer and seller are typically motivated;
2. Whether both parties are well-informed or well-advised, and each party is acting in its own best interest;
3. Whether a reasonable amount of time has been allowed for the property to be exposed to the open market;
4. Whether payment is made in cash or a cash equivalent;
5. Whether financing (if any) is on terms generally available to the community and is typically for the property type in its locale; and
6. Whether 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.

A note on foreclosures

The statutory definitions of market value, as well as the standards used in assessment practices, preclude assessors from considering foreclosures as part of open-market transactions in the sales approach of valuing property. As such, foreclosure sales are not included in the sales ratio study conducted by the Department of Revenue.

For assessors, the International Association of Assessing Officers standard on sales ratio studies provides that “the physical characteristics of the property on the date of the assessment must be the same as those on the date of the sale.”¹ For most open-market transactions, this is the case. However, for many foreclosure sales, determining the characteristics and state of the property on the date of the sale is very difficult.

In some limited markets, foreclosure-type sales are so prevalent as to be driving the sales prices of non-foreclosure home sales. In these markets, foreclosure sales that otherwise meet the definition of “open market” may be used to help value other properties, but they usually are not used in a sales study unless the assessor has made an inspection reasonably close to the time of the sale. Even if not directly used, it can also be argued that the existence of foreclosed properties and buyers’ ability to buy these properties, by their existence and availability, has a dampening effect on the value of all other properties that are offered for sale. Consequently, their existence would already be reflected in the real estate market.

Regardless, it is important to note that assessors value similar properties in a similar manner. The sales price of any given home (whether open-market or not) will not be the sole determinant in that property’s estimated market value as determined by the assessor for property tax purposes.

The EMV is not necessarily the value on which the property is taxed. The legislature has provided various programs which may reduce the market value for certain types of property for purposes of taxation. These reductions are made by deferment, limitation or exclusion, such as Green Acres, or Disabled Veterans Homestead Valuation Exclusion programs. The market value after these reductions are applied is referred to as the taxable market value (TMV). TMV is explained later in this report.

¹ International Association of Assessing Officers, *Standard on Ratio Studies* (Kansas City, MO: International Association of Assessing Officers, 2010), 9.

Sales Ratio Studies and Analyses

In order to evaluate the accuracy and uniformity of assessments within the state (and thus to ensure compliance with property tax laws), the Property Tax Division conducts annual sales ratio studies. These studies measure the relationship between appraised values and market values or 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:

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

Equation 2

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 utilizing 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. The validity of sales information is crucial. The sales analysis and study conducted by the assessor is only as good as the information provided to and the work completed by the assessor.

Sales information, the majority of which is required to be reported on a Certificate of Real Estate Value, go through a verification and review process before being utilized by the assessor as part of a sales ratio study to estimate future values. Minnesota is fortunate to be a state that requires reporting of sales information. 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.

The sales ratio studies have three basic purposes:

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

A formal sales study is also conducted on these sales to verify 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 is 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 September 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, 2010 and September 30, 2011 are used for determining estimated market values for the January 2, 2012 assessment. The 12-month study is discussed in greater detail in Appendix E.
2. **A 9-month study:** This study is used by the Tax Court and 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.)
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. For example, sales that occurred between January 2010 and December 2010 are compared to the assessor's 2010 values, while sales occurring from January 2011 and September 2011 are compared to the assessor's 2011 values. The 21-month study is discussed in greater detail in Appendix F.

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 of Revenue 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

As previously stated, sales ratio studies are only as reliable as the information they are based on. Therefore, it is necessary to take action to ensure the dependability of the information used in the ratio studies. The five steps necessary are as follows:

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 on computer.
4. Sort information by listed 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 maximum 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 formula.

An equitable distribution of the tax burden is achieved only if it is built upon a uniform assessment. The result of a non-uniform assessment is 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.

2011 Sales Ratio Study

There were 102,448 Certificates of Real Estate Value (CRV) received in the 2010 study for the 2011 State Board of Equalization. Of these, 44,348 were considered good, current-year, open-market sales. These sales provide the basis for the sales ratio studies.

Table 2 shows median sales ratios and coefficients of dispersion (COD) by property type for 2010 and 2011. 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 2010 and 2011

PROPERTY TYPE	FINAL ADJUSTED MEDIAN RATIO		COEFFICIENT OF DISPERSION		SAMPLE SIZE	
	2010	2011	2010	2011	2010	2011
Residential/Seasonal	93.7	97.8	9.8	11.3	34,900	35,588
Apartment	96.0	98.8	10.8	14.1	188	189
Commercial/Industrial	93.8	96.5	14.8	20.5	823	753
Resorts	90.7	90.9	22.6	16.8	8	10
Agricultural 2a / Rural Vacant 2b	92.3	95.2	16.8	18.7	2,099	2,061

Table 2

The IAAO recommends trimming the most extreme outliers from the sample before calculating the COD. The trimming method is to exclude sales that are outside 1.5 times the inter-quartile range. 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

Value Trends

There are 2,724,495 taxable real property parcels statewide. Overall, assessors' estimated market value of all property in the state decreased 1.89% from the 2010 assessment to the 2011 assessment. Decreases were deepest among seasonal recreational property, while agricultural property was the only major class that increased in value statewide. Residential and Commercial/Industrial property continue to decline in market value, but the declines are smaller than those from 2008-2009 and 2009-2010.

Estimated Market Value Percent Change by Class

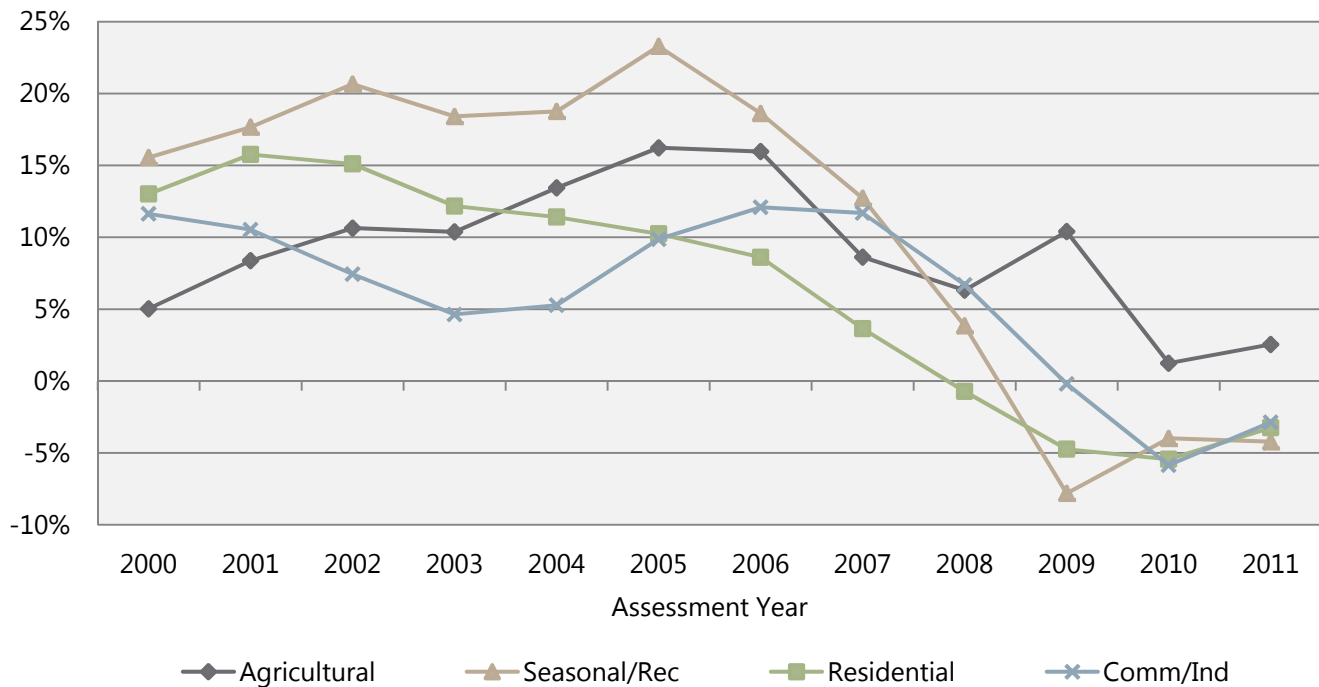


Chart 1

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. The following example shows a possible transition from EMV to TMV.

Market Value Calculation Example
Assessment year 2011 for taxes payable in 2012

1.	Market Value Irrespective of Contaminants	\$480,000
2.	Contamination Value	\$120,000
3.	Estimated Market Value (EMV) [1-2]	\$360,000
4.	Green Acres Deferment	\$50,000
5.	Rural Preserves Deferment	NA
6.	Open Space Deferment	NA
7.	Aggregate Resource Preservation Deferment	NA
8.	Platted Vacant Land Exclusion	NA
9.	"This Old House" Exclusion	\$9,000
10.	"This Old Business" Exclusion	\$15,000
11.	Disabled Veterans Exclusion	NA
12.	Mold Damage Reduction	NA
13.	Lead Hazard Reduction	NA
14.	MV Prior to Homestead MV Exclusion [3-4-5-6-7-8-9-10-11-12-13]	\$286,000
15.	Homestead Market Value Exclusion	\$11,500
16.	Taxable Market Value (TMV) [14-15]	\$274,500

Table 4

This rather extreme scenario assumes that the parcel:

- 1) Is a split class farm homestead/commercial parcel;
- 2) Is contaminated and subject to the contamination tax;
- 3) Qualifies for the Green Acres Deferment;
- 4) Has qualifying improvements under "This Old House"; and
- 5) Has qualifying improvements under "This Old Business."

Examples from previous years may also contain limited market value calculations as well, which expired in assessment year 2009. Additional examples 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 exclusion and deferrals that remove taxable value from the tax base are shown in the following table:

EXCLUSION / DEFERRAL	2011 VALUE
Green Acres	\$4,507,218,110
Rural Preserve	\$122,998,472
Open Space	\$596,233,000
Homestead Market Value Exclusion	\$29,271,297,983
This Old House	\$241,185,150
Disabled Veterans	\$1,487,991,908
Plat Law	\$200,201,455
This Old Business	\$61,400
Homestead Property Damaged by Mold	No Data
Lead Hazard Property	No Data

Table 5

The Green Acres and Rural Preserve deferral programs will be discussed more thoroughly in the following sections.

For taxes payable in 2012, the market value exclusion for homestead properties was introduced. This value exclusion replaced a state-paid credit. The exclusion reduces the amount of a homestead's property that is subject to taxation. For a homestead valued at \$76,000 or less, the exclusion is 40 percent of market value, yielding a maximum exclusion of \$30,400 at \$76,000 of market value. For a homestead valued between

\$76,000 and \$413,800, the exclusion is \$30,400 minus nine percent of the valuation over \$76,000. For a homestead valued at \$413,800 or more, there is no valuation exclusion. On average, the exclusion reduces homestead taxable market value by almost ten percent. The exclusion reduced taxable market value of all property statewide by five percent.

Taxable Market Value Percent Change by Class

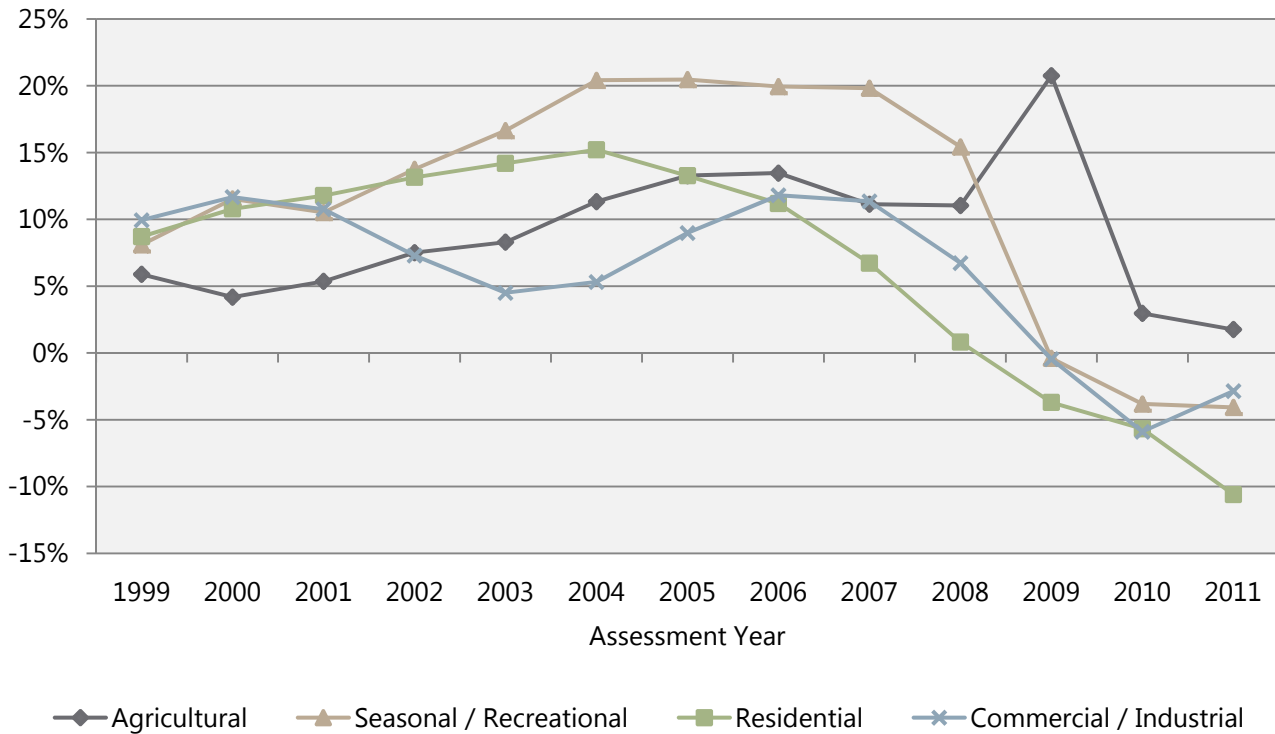


Chart 2

Green Acres

In 1967, the Minnesota Legislature created a property tax program named the Minnesota Agricultural Property Tax Law, which is referred to as “Green Acres”. Legislators were attempting to find a method for valuing agricultural property based on its agricultural use only while protecting its value from other non-agricultural influences. At the time, development appeared to be swallowing up agricultural property in the seven-county metropolitan area, driving up the market values used to calculate property taxes. Under this law, qualifying agricultural property enrolled in the Green Acres program is valued using sales data for agricultural property outside the metropolitan area to eliminate the non-agricultural development influences.

Since 1967, the provisions of Green Acres have changed multiple times. Under current law, only class 2a agricultural land qualifies for the deferral provided by Green Acres. For Green Acres purposes, Minnesota Statutes, section 273.13, subdivision 23, lists the requirements that must be met for a property to be classified as class 2a agricultural land:

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; and
3. The agricultural product must be produced for sale.

The benefit of the program is a reduced value for farm properties that are facing increasing value pressures due to non-agricultural value influences such as residential and commercial development, or seasonal recreational land uses. By providing a lower taxable valuation, the deferral program redistributes the tax burden to non-qualifying properties within the same taxing jurisdictions.

Taxable Green Acres Value

For assessors, the most significant barrier to implementing Green Acres prior to law changes made since 2008 was determining the “actual” agricultural value of farmland in their counties. By law, assessors must determine the “highest and best use” of property and then estimate the market value based on that determination. If the highest and best use of agricultural property is for residential, lakeshore, or commercial development, or for recreational purposes, the assessor must value the property as if it were to be converted to the highest and best use and disregard its value as property used agriculturally. Thus, in cases where the highest and best use of the property is for something other than agriculture, the assessor places a value on that property that exceeds its agricultural value, likely resulting in higher property taxes.

Green Acres, however, 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). Then the assessor must determine the agricultural value of the property based on Department of Revenue guidance. If this agricultural value is below the highest and best use value, the assessor must use the agricultural value for

tax purposes. The Department of Revenue is charged with establishing agricultural land values throughout the state.

In 2007, a Green Acres Committee made up of members of the assessment community and the Department of Revenue was formed partly for the purpose of determining Green Acres agricultural values. Based upon available data, the committee located the most recent period in time when the non-agricultural influences on farmland sales were either minimal or non-existent throughout the state, with the exception of the seven-county metropolitan area. The committee found that the southwest counties of Lyon, Murray, Nobles, Pipestone, and Rock were the most indicative of true agricultural sales; these now form what is referred to as the “base counties” for agricultural values.

Next, the 2007 committee established a period of time when farmland property values faced the fewest non-agricultural influences. Each county’s median price for farmland sales during the period was compared to that of the base counties to establish a ratio, or factor. This factor could then be applied to the current median sales price per acre in the base counties to establish a current indicator of agricultural value for each county. A map of the Green Acres factor by county is included in Appendix C of this report.

A common misconception is that the base counties determine the agricultural values used throughout the state. The base counties are used to help define the current agricultural economy in general, but each county’s individual agricultural economy is treated differently depending upon how it differs from the norm. In order to determine a county’s relationship to the general agricultural economy, the 2007 committee established a period of time when farmland property values faced the fewest non-agricultural influences statewide. Each individual county’s median price for farmland sales during this time period was compared to that of the base agricultural counties in the same time period to establish a ratio, or factor. This factor serves to reflect the relationship between a county’s individual agricultural economy and the agricultural economy as indicated by the base counties.

The factor was created to reflect the differences in farm economies based on the varying lengths of the growing season from southern to northern Minnesota, the differences in soil quality throughout the state, and the different commodities that drive agricultural land values. For example, soil quality is typically better in the southern portion of the state, while lesser-quality land is more prevalent in the northeastern portion of the state. Counties with greater need for pastureland due to dairy farming practices typically had a smaller market for tillable agricultural land.

A county’s factor as developed by the committee was designed be applied to the current median sales price per acre in the base counties to establish a current indicator of agricultural value. Median values are used to cull out the behavior at the extremes and focus on more typical behaviors that are better indicated by using median sales values.

For example, from October 1990 through October 1996, the Green Acres base counties had 653 sales of agricultural land. Those sales yielded a median sales price of \$1,058 per acre. During that same timeframe, Dodge County had 109 sales of agricultural land with a median sales price of \$1,175 per acre. The Green Acres “factor” for Dodge County was determined by dividing the median sales price per acre for Dodge County (\$1,175) by the median sales price per acre for the base counties (\$1,058).

For the 2012 assessment the base county median is \$5,200 per acre. The Dodge County factor (110%) is applied to the 2012 base median to determine a 2012 tillable agricultural value for Dodge County of \$5,720. If the average tillable value based on local markets for Dodge County exceeds \$5,720 per acre, then the Green Acres (GA) value is applied to the tillable lands.

EXAMPLE 1

STEP 1: DODGE COUNTY FACTOR – TILLABLE LANDS (BASED ON SALES OCCURRING 1990-1996)

Dodge County Median (1990-1996)	÷	Base County Median	=	Dodge County Factor
\$1,175	÷	\$1,058	=	111.06% (rounded to 110%)

STEP 2: DODGE COUNTY 2012 BASE VALUE – TILLABLE LANDS

Base County Median Value per acre	×	Dodge County Factor	=	Dodge County GA Value per acre
\$5,200	×	110%	=	\$5,720 per acre

During that same time frame (1990-1996), Benton County had 51 sales of agricultural land with a median sales price of \$641 per acre. The Green Acres factor for Benton County was determined by dividing the median sales price per acre for Benton County by the median sales price per acre for the base counties.

For the 2012 assessment the Benton County factor of 60% is applied to the 2012 base median to determine a 2012 tillable agricultural value for Benton County of \$3,120 per acre. If the average tillable value based on local sales for Benton County exceeds \$3,120 per acre, then the Green Acres value is applied to tillable lands.

EXAMPLE 2

STEP 1: BENTON COUNTY FACTOR – TILLABLE LANDS (BASED ON SALES OCCURRING 1990-1996)

Benton County Median (1990-1996)	÷	Base County Median	=	Benton County Factor
\$641	÷	\$1,058	=	60.59% (rounded to 60%)

STEP 2: BENTON COUNTY 2012 BASE VALUE – TILLABLE LANDS

Base County Median Value per acre	×	Benton County Factor	=	Benton County GA Value per acre
\$5,200	×	60%	=	\$3,120 per acre

This process has proved very effective for valuing tillable lands and - with a little blending of the values between counties - provides a fair, uniform, and equalized method to value tillable agricultural land throughout the state. Based on the best data available to the Department of Revenue and to Minnesota assessors, the method for establishing agricultural values for tillable agricultural properties in Minnesota that was developed by the Green Acres Committee and used by the Department of Revenue produces values for agricultural land that reflected true agricultural values in the state. Assessors must use the values as the basis for setting agricultural values for qualifying Green Acres properties in their counties.

While not perfect, this method of establishing agricultural values has also provided a uniform basis for valuation while still deriving agricultural values from the market. The result is a projection of what the current agricultural value of land would be in the absence of the current non-agricultural market influences. Also, while the Green Acres value for a county is determined by Department of Revenue, the values resulting from the factor may be “feathered” by the assessor to account for different land types throughout a county. While adjustments can be made for higher and lower quality lands, the overall county average value must not go below the department’s guidelines. Additionally, the factors are appealable by the assessor if the assessor believes them to not represent the agricultural market in the county.

Minnesota Statutes, section 273.111, subdivision 4 reads:

“(a) The value of any real estate [qualifying for Green Acres]... shall ... be determined solely with reference to its appropriate agricultural classification and value.... Furthermore, the assessor shall not consider any added values resulting from nonagricultural factors. In order to account for the presence of nonagricultural influences that may affect the value of agricultural land, the commissioner of revenue shall, in consultation with the Department of Applied Economics at the University of Minnesota, develop a fair and uniform method of determining the average value of agricultural land for each county in the state consistent with this subdivision. The values must be determined using appropriate sales data. When appropriate, the commissioner may make reasonable adjustments to the values based on the most recent available county or regional data for agricultural production, commodity prices, production expenses, rent, and investment return. The commissioner shall annually assign the resulting countywide average value to each county, and these values shall be used as the basis for determining the agricultural value for all properties in the county qualifying for tax deferral under this section. The county assessor, in consultation with the Department of Revenue, shall determine the relative value of agricultural land for each assessment district in comparison to the countywide average value, considering and giving recognition to appropriate agricultural market and soil data available.

“(b) In the case of property qualifying for tax deferral only..., the assessor shall not consider the presence of commercial, industrial, residential, or seasonal recreational land use influences in determining the value for ad valorem tax purposes provided that in no case shall the value exceed the value prescribed by the commissioner of revenue for class 2a tillable property in that county.”

The Department of Revenue began discussing agricultural values with the Department of Applied Economics at the end of 2010 (prior to the 2011 assessment). The department also verified and reviewed the valuation process with members of the assessment community from different areas of the state. As part of this analysis and review, it became apparent that there had been a shift in the relationships between tillable and non-tillable (e.g., pastureland) agricultural properties. Previously, the department and the committee recommended using of 50% of the county’s tillable value per acre for non-tillable properties. During studies, it became apparent that it was not appropriate in all cases. The department, with members of the assessment community, developed a new method for valuing non-tillable agricultural lands. The new method results in a compression of values for non-tillable agricultural lands, reflecting that non-tillable lands carry values that are affected by the local agricultural economies. For example, non-tillable lands carry a lower value relative to tillable lands in the counties that are primarily tilled agricultural markets. Contrariwise, non-tillable lands may carry higher values relative to tillable lands in the northern portion of the state, due to the shorter growing season and difficulty in using tillable lands for tillable purposes in that area of the state. In an ongoing effort to address

the varying agricultural economies throughout the state, the department continues to analyze these trends with representatives of the assessment community.

Non-tillable lands

As part of the analysis and review of Green Acres values by the department and counties, it became apparent that the relationships between tillable and non-tillable (e.g., pastureland) agricultural properties was not as clearly indicated by the factor process. The methodology described above was developed initially to review and determine *tillable* agricultural values. For valuing non-tillable lands in previous years, the department recommended using a value of 50% of the tillable value. Since that time, it has been determined that a statewide factor of 50% of the tillable value per county is not appropriate in all cases. The department further analyzed these values with representatives of the assessment community from different areas of the state.

In northwest Minnesota, tillable lands generally carry a lower value per acre than in the base counties due to the decreased length of the tillable farming season, the quality of the soil, and other factors. Conversely, non-tillable agricultural lands (pasturelands) carry higher values relative to the tillable lands due to the economic and physical sustainability of this type of soil use. For some counties in this region of the state, the 50% value was too low to reflect the actual agricultural values of non-tillable lands.

In southeast Minnesota, tillable lands carry a higher value than in the base counties due to higher per-acre yields and productivity. Non-tillable lands carry much lower values relative to the tillable values due to topography, composition of the land, and the very low demand for non-tillable farmland in this area of the state. Consequently, a 50% value for non-tillable lands is too high to reflect the actual agricultural value of non-tilled lands.

The department, along with assessors from different areas of the state including northwest, southeast, and central Minnesota, reviewed and analyzed the data available. After discussions, the department developed a new method for valuing non-tillable agricultural lands. This method is based on comparisons between the average tillable values for each county relative to the values for non-tillable agricultural lands. The result is a compressed range in values when compared to the previous method (the range is from \$936 per acre to \$2,704 per acre). This compression acknowledges that different regions of the state have different economic forces affecting the values of non-tillable lands.

The process of valuing non-tillable agricultural lands will be further analyzed and studied. Assessors from various regions of the state will continue to be part of these discussions.

Because of the different values for tillable and non-tillable lands, and because of diverse non-agricultural influences in different areas of the state, it is possible that a county may only have non-tillable lands receiving Green Acres deferral if the average 2a tillable value does not exceed the 100% Green Acres value but the county's non-tillable value exceeds the Green Acres non-tillable value. Conversely, it is possible to have only tillable lands receiving deferral but not the non-tillable lands.

Green Acres Values: 2011 and 2012 Assessment Years

Agricultural Land Sales Trends 2006-2011

Median sale price per acre and number of sales
Bare land, 34.5+ acres, at least 75% tilled

REGION	OCT. 2006- SEPT. 2007	OCT. 2007- SEPT. 2008	OCT. 2008- SEPT. 2009	OCT. 2009- SEPT. 2010	OCT. 2010- SEPT. 2011
SW Base Counties	\$3,000 137	\$3,985 155	\$4,287 122	\$4,289 80	\$5,201 111
Rest of State	\$2,638 1,136	\$3,196 1,262	\$3,661 688	\$3,491 686	\$3,950 1162
Statewide	\$2,724 1,273	\$3,333 1,417	\$3,802 810	\$3,670 766	\$4,105 1,273

Table 6

For the 2011 assessment, although the median sales price statewide was \$3,670 per acre, the average sales price for the base counties was higher (\$4,289 per acre). The base value for Green Acres purposes was set at \$4,300 per acre for the 2011 assessment. Sales and per-acre prices increased during the 2010-2011 study period for the 2012 assessment. The 2012 Green Acres base value was set at \$5,200 per acre. Referring to the Green Acres factor map (Appendix C), most of the counties' factors throughout the state are below 100%, meaning the tilled values used for those counties will be below \$5,200 per acre for Green Acres purposes.

Statewide assessed values of 2a and 2b land increased 3.2% but estimated market values for properties enrolled in the Green Acres program declined 5.8%. The properties that experienced a decline in value deferred under Green Acres are likely those that have seen the greatest decline in development pressure, due to the 2008 recession. Green Acres value subject to tax (after deferment) is up almost 3.4%. The consequence of these changes is that Green Acres deferment is down 21%. The chart below illustrates these changes.

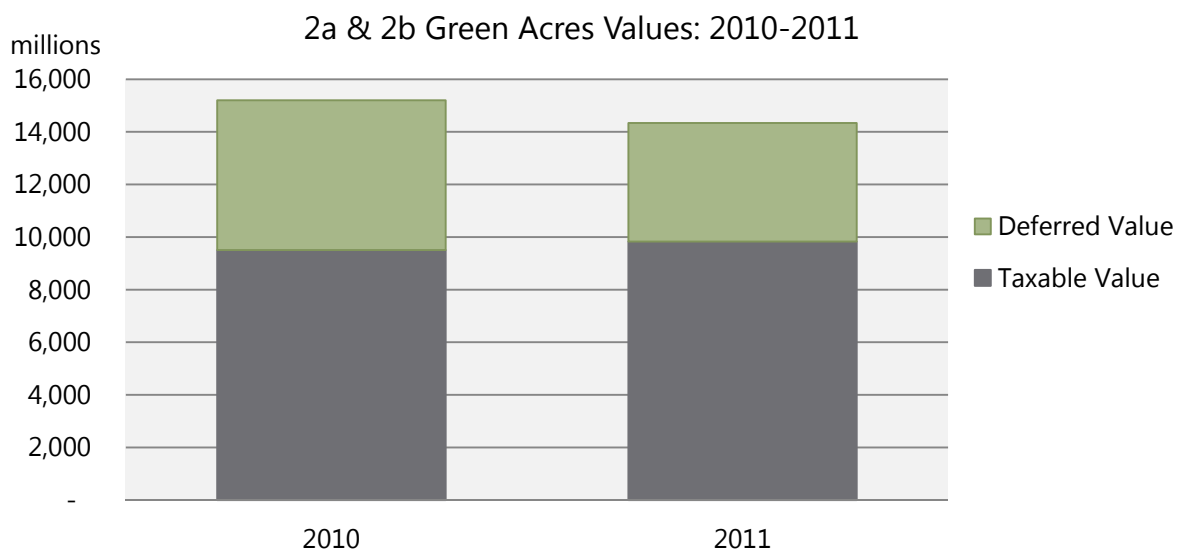


Chart 3

Rural Preserve

The Rural Preserve Property Tax Program under Minnesota Statutes, section 273.1114, was enacted in 2009 and first available for the 2011 assessment year (taxes payable in 2012). The program coincides with Green Acres and applies to class 2b rural vacant land property that is part of a contiguous farm that is concurrently enrolled in Green Acres. The Rural Preserve program was enacted to provide similar tax benefits as the Green Acres program to property owners who own qualifying class 2b rural vacant land

As with Green Acres, a portion of taxable value is deferred for the duration of enrollment 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 (e.g. residential or commercial development) factors. The difference between the highest and best use value and the Rural Preserves value is a reduction in the taxable market value that redistributes the tax burden to other properties in the taxing jurisdiction. The actual taxes are based on the Rural Preserve value and the difference between the taxes based on the Rural Preserve value and the taxes based on a highest and best use value are deferred for the duration of the program.

Taxable Rural Preserve Value

Minnesota Statutes, section 273.114, subdivision 3 provides:

“Notwithstanding sections 272.03, subdivision 8, and 273.11 [both sections refer to market value], the value of any real estate that qualifies under subdivision 2 must, upon timely application by the owner in the manner provided in subdivision 5, not exceed the value prescribed by the commissioner of revenue for class 2a tillable property in that county. The house and garage, if any, and the immediately surrounding one acre of land and a minor, ancillary nonresidential structure, if any, shall be valued according to their appropriate value. In determining the value for ad valorem tax purposes, the assessor shall not consider the presence of commercial, industrial, residential, or seasonal recreational land use influences that may affect the value of real estate subject to this section.”

Class 2b rural vacant land property is not always unusable wasteland. Sometimes, class 2b land may be otherwise 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. For purposes of valuation for the Rural Preserve program, the Department of Revenue has recommends using the following:

- For otherwise tillable class 2b lands, counties are urged to use the Green Acres tillable land value.
- For non-tillable lands that are otherwise usable as pasture, counties are urged to use their non-tillable Green Acres value.
- For unusable waste, wild land, swamp land, etc. enrolled in Rural Preserve, assessors use 50% of the **non-tillable** class 2a land value.

For example, 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 (based on the Green Acres valuation memo) is \$2200, the deferral is based on the \$300 per acre difference.

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 (based on the Green Acres valuation memo), 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.

Statewide, \$122,998,472 of estimated market value was deferred under the Rural Preserve program year for the 2011 assessment.

If the estimated market value (EMV) of the land the property owner wishes to enroll in Rural Preserve is less than the recommended value for the Rural Preserve Program, the property may still be enrolled, but there are no deferred taxes. The Rural Preserve deferral is only applicable in cases where the EMV exceeds the indicated Rural Preserve value for any given property. For example, 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 (based on the Green Acres valuation memo) and 50% of that value is \$1100, there is no deferral because the swamp EMV is lower than the Rural Preserve value.

Unusable wasteland often carries a very low estimated market value, and does not always carry a value high enough that Green Acres or Rural Preserve values would be implemented. 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.

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 new 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 2011 assessment year (taxes payable 2012), agricultural and rural vacant land represented about 19% of taxable property value and paid about 7% of property taxes (see table below). In comparison, commercial properties accounted for 13% of taxable property and paid approximately 31% of property taxes:

Tax Liability Share by Classes of Property
Assessment Year 2011, Taxes Payable 2012 (Preliminary Estimates)

PROPERTIES BY CLASS	MARKET VALUE (MILLIONS)	NET TAX (MILLIONS)	MARKET VALUE SHARE	SHARE OF NET TAXES PAYABLE
Agricultural/Rural Vacant Land	\$99,200	\$629	19%	7%
Residential	\$315,872	\$4,559	60%	54%
Seasonal Recreational	\$24,746	\$231	5%	3%
Commercial/Industrial	\$69,097	\$2,577	13%	31%
Utility/other	\$13,431	\$401	3%	5%

Table 7

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. This explains why the Green Acres program causes increasing tax pressure on residential, seasonal, and commercial properties. It also explains why the homestead market value exclusion increases tax pressure on commercial, seasonal, and agricultural properties. If commercial properties' taxable value was reduced or excluded, the tax pressure would shift to residential, seasonal, and agricultural properties.

APPENDIX A - Classification Rate Table

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 Ag and Non-Ag)	First \$50,000	0.45%	NA
1c	Ma & Pa Resort (Comm. SRR < 250 days, incl. 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 \$1,210,000	0.50%	NA
2a/2b	Farming Entities Excess 1st Tier (Unused from homestead)	Unused 1 st \$1,210,000	0.50%	NA
2a	Agricultural Land (Hmstd Remainder and Non-Hmstd; Includes Structures)		1.00%	NA
2b	Rural Vacant Land (Hmstd Remainder and Non-Hmstd; Incl.Minor Ancil. 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%
			2.00%	NA
			2.00%	2.00%
			2.00%	2.00%
3b	Employment Property (Border City Zones)	First \$150,000	1.50%	1.50%
		Over \$150,000	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 SRR)		1.25%	NA
4b(2)	Unclassified Manufactured Home		1.25%	NA
4b(3)	Ag Non-Homestead (2 or 3 Units, Garage, One Acre)		1.25%	NA
4b(4)	Unimproved Residential		1.25%	NA
4bb(1)	Residential Non-Homestead (Single Unit)	First \$500,000	1.00%	NA
		Over \$500,000	1.25%	NA
4bb(2)	Ag Non-Homestead (Single Unit, Garage, One Acre)	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 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-Comm Aircraft Hangars and Land: Leased Land		1.50%	NA
4c(8)	Certain Non-Comm 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
4c(11)	Marina	First \$500,000	1.00%	1.00%
		Over \$500,000	1.25%	1.25%
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		0.75%	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 2011 State Board Orders

COUNTY	ASSESSMENT DISTRICT	TYPE OF PROPERTY	STATE BOARD CHANGES		
			PERCENT INCREASE	PERCENT DECREASE	
Blue Earth	Township of: South Bend	Residential Land Only This Order Applies to Property Located in Lehillier Neighborhood Excluding Parcels Located on Lyd Boulevard and Will Result in an Overall Reduction of Approximately 10%		-40	
Freeborn	City of: Albert Lea	Commercial Land and Structures Industrial Land and Structures		-5 -5	
	Township of: Pickerel Lake	Residential Structures Only		-5	
	Lake	Townships of: Silver Creek <i>(Excluding Lake Superior Shoreline)</i>	Agricultural 2a Land Only		-10
Rural 2b Land Only				-10	
Residential Land Only				-10	
Seasonal Residential Recreational Land Only				-10	
Unorganized #2 <i>(Excluding Lake Superior Shoreline)</i>		Agricultural 2a Land Only		-10	
		Rural 2b Land Only		-10	
		Residential Land Only		-10	
		Seasonal Residential Recreational Land Only		-10	
Lincoln	Townships of: Hendricks	Residential Land and Structures	+10		
		Seasonal Residential Recreational Land and Structures	+10		
	Lake Shakatan	Residential Land and Structures	+10		
		Seasonal Residential Recreational Land and Structures	+10		
Mower	City of: Grand Meadow	Residential Land Only		-5	
Nobles	City of: Worthington	Commercial Structures Only		-5	
Norman	City of: Gary	Residential Structures	+10		
	Townships of: Anthony	Agricultural 2a Land Only	+10		
		Bear Creek	Agricultural 2a Land Only	+10	
		Flom	Agricultural 2a Land Only	+10	
		Fossum	Agricultural 2a Land Only	+10	

APPENDIX B • Summary of State Board Orders

COUNTY	ASSESSMENT DISTRICT	TYPE OF PROPERTY	STATE BOARD CHANGES	
			PERCENT INCREASE	PERCENT DECREASE
Norman (continued)	Townships of: Good Hope	Agricultural 2a Land Only	+10	
	Halstad	Agricultural 2a Land Only	+10	
	Hegne	Agricultural 2a Land Only	+10	
	Hendrum	Agricultural 2a Land Only	+10	
	Lee	Agricultural 2a Land Only	+10	
	Mary	Agricultural 2a Land Only	+10	
	McDonaldsville	Agricultural 2a Land Only	+10	
	Pleasant View	Agricultural 2a Land Only	+10	
	Shelly	Agricultural 2a Land Only	+10	
	Spring Creek	Agricultural 2a Land Only	+10	
	Strand	Agricultural 2a Land Only	+10	
	Sundal	Agricultural 2a Land Only	+10	
	Winchester	Agricultural 2a Land Only	+10	
Ottertail	Township of: Pelican	Residential Land and Structures On Prairie Lake Only		-5
		Seasonal Residential Recreational Land and Structures On Prairie Lake Only		-5
Polk	Townships of: Bygland	Residential Structures Only	+10	
	Grand Forks	Residential Structures Only	+5	

Summary of 2011 State Board Orders by Property Classification and Jurisdictions (for the 2012 Assessment)*

PROPERTY CLASSIFICATION	BOARD ORDER (% increase or decrease)	JURISDICTIONS AFFECTED BY ORDER				Percent of Total
		Countywide	City	Township	Total	
Residential	Subtotal	0	2	9	11	27.5%
	+10		1	3	4	10.0%
	+5			1	1	2.5%
	-5		1	2	3	7.5%
	-10			2	2	5.0%
	-40			1	1	2.5%
Apartment	Subtotal	0	0	0	0	0.0%
Commercial-Industrial	Subtotal	0	3	0	3	7.5%
	-5		3		3	7.5%
Seasonal-Recreational	Subtotal	0	0	5	5	12.5%
	+10			2	2	5.0%
	-5			1	1	2.5%
	-10			2	2	5.0%
Agricultural	Subtotal	0	0	19	19	47.5%
	+10			17	17	42.5%
	-10			2	2	5.0%
Rural Vacant	Subtotal	0	0	2	2	5.0%
	-10			2	2	5.0%
Totals		0	5	35	40	100.0%

***Example Interpretation**

17 (or 42.5%) of the 40 State Board Orders issued in 2011 were + 10% adjustments to agricultural property.

Summary of 2011 Non-Orders

State Board Orders are not necessarily issued every time a sales ratio is outside the acceptable range (90-105%). In 2011, 218 of these non-compliant ratios were not given orders. A summary of those instances and reasons for not issuing board orders are provided below.

- **Evidence not strong/dispersed sales** - limited recent sales; sales over a wide, dispersed, or dissimilar area; or recent sales contradict the average ratio, (including 6 or more sales over a large geographic area, countywide, or unorganized district.)
- **Reassessment** - a reassessment has recently been completed or has been agreed to in lieu of an order.
- **Stratification of sales** - sales analysis indicates the problem may be limited to certain property types, geographic locations, or value strata.
- **Attention to market** - assessor addressed issue with an assessment change and/or some local effort.
- **Fluctuating ratios** - ratios over history are not consistently high or low
- **Current compliance** - sales in new ratio study period are significant and indicate acceptable levels of assessment
- **Monitoring or county review** - the county has agreed to monitor and review properties and/or sales information in lieu of an order.
- **Sale excluded** - the sales sample was changed, either data corrected, or a sale added or deleted.
- **Current sales indicate different market** - there is a change/shift in the market where an order wouldn't improve the assessment.

	Residential/ Seasonal	Commercial/ Industrial	Apartment	Agricultural/ Rural Vacant	Totals by reason
SMALL SAMPLE*					
Evidence not Strong / Dispersed Sales	22	4			26
Reassessment	8	1			9
Attention to Market	5				5
Fluctuating Ratios	24	4			28
Current Compliance	23	2	2		27
Monitoring or County Review	43	19	1		63
REGULAR SAMPLE					
Evidence not Strong / Dispersed Sales	10	2		5	17
Reassessment	7	1		1	9
Stratification of Sales	8			4	12
New Study Ratios	11	1		2	14
Attention to Market	5				5
Sale Excluded	1				1
Current Sales Indicate Different Market				2	2
Total	167	34	3	14	218

*Small sample = less than six sales of a certain property type

Non-Orders by County

County	All	Small Sample	Regular Sample
Aitkin	4	2	2
Anoka	4	2	2
Becker	5	4	1
Beltrami	8	5	3
Benton	3	3	0
Big Stone	1	1	0
Blue Earth	2	2	0
Brown	0	0	0
Carlton	7	6	1
Carver	1	0	1
Cass	6	6	0
Chippewa	2	1	1
Chisago	1	1	0
Clay	0	0	0
Clearwater	5	4	1
Cook	1	0	1
Cottonwood	1	1	0
Crow Wing	5	3	2
Dakota	1	0	1
Dodge	3	2	1
Douglas	2	2	0
Faribault	4	4	0
Fillmore	2	0	2
Freeborn	4	4	0
Goodhue	3	2	1
Grant	6	4	2
Hennepin	3	2	1
Houston	0	0	0
Hubbard	4	1	3
Isanti	1	1	0
Itasca	5	5	0
Jackson	2	2	0
Kanabec	1	1	0
Kandiyohi	0	0	0
Kittson	3	2	1
Koochiching	2	1	1
La qui Parle	0	0	0
Lake	4	2	2
Lake of the Woods	5	3	2
Le Sueur	0	0	0
Lincoln	1	1	0
Lyon	1	1	0
McLeod	2	2	0
Mahnomen	1	0	1
Marshall	2	2	0
Martin	7	6	1
Meeker	2	1	1

County	All	Small Sample	Regular Sample
Mille Lacs	0	0	0
Morrison	1	0	1
Mower	2	2	0
Murray	2	2	0
Nicollet	2	2	0
Nobles	4	3	1
Norman	1	1	0
Olmsted	1	0	1
Otter Tail	2	2	0
Pennington	3	3	0
Pine	1	1	0
Pipestone	0	0	0
Polk	5	4	1
Pope	2	2	0
Ramsey	0	0	0
Red Lake	2	1	1
Redwood	2	2	0
Renville	1	0	1
Rice	0	0	0
Rock	4	2	2
Roseau	4	2	2
St Louis	28	18	10
Scott	0	0	0
Sherburne	0	0	0
Sibley	0	0	0
Stearns	1	0	1
Steele	0	0	0
Stevens	0	0	0
Swift	2	1	1
Todd	3	2	1
Traverse	2	2	0
Wabasha	5	3	2
Wadena	4	4	0
Waseca	1	1	0
Washington	0	0	0
Watonwan	4	4	0
Wilkin	1	1	0
Winona	0	0	0
Wright	1	1	0
Yellow Medicine	0	0	0
Duluth	0	0	0
St. Cloud	0	0	0
Minneapolis	0	0	0
Totals by reason	218	158	60

APPENDIX C • 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.

FIGURE 1 shows the statewide growth in estimated market value, taxable market value, and property value exclusions from 2005 through 2011.

FIGURE 2 shows the statewide growth in estimated market value by major property types from 2005 through 2011.

MAP 1 displays the percent change in estimated market value for each county from assessment years 2010 to 2011.

MAP 2 displays the average percentage that new construction composes of estimated market value for each county from assessment years 2010 to 2011.

MAP 3 shows taxable tillable Green Acres/Rural Preserve values. Values to be used for tillable properties enrolled in Green Acres or Rural Preserve for a given county are the product of the county's factor and the base county tillable value, which is \$5,200 for the 2012 assessment for taxes payable in 2013. 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 range in taxable values for non-tillable agricultural properties enrolled in Green Acres or Rural Preserve is from \$936 per acre to \$2,704 per acre (compared to the range for tillable properties, which is \$1,040 per acre to \$6,670 per acre). The non-tillable values are closer to the tillable values in the north half of the state. .

Figure 1:
Growth in Total EMV, TMV and Excluded Value, 2005-2011

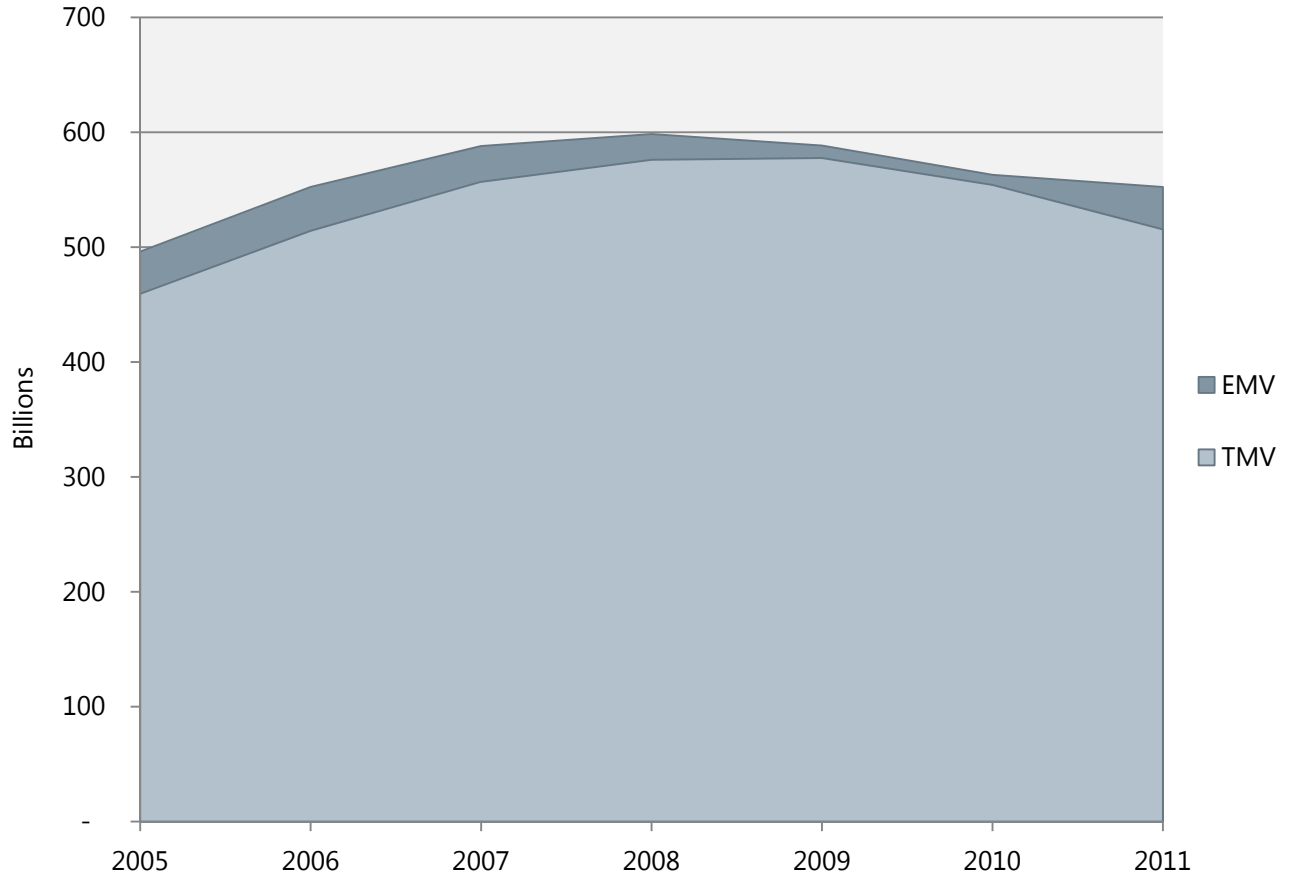
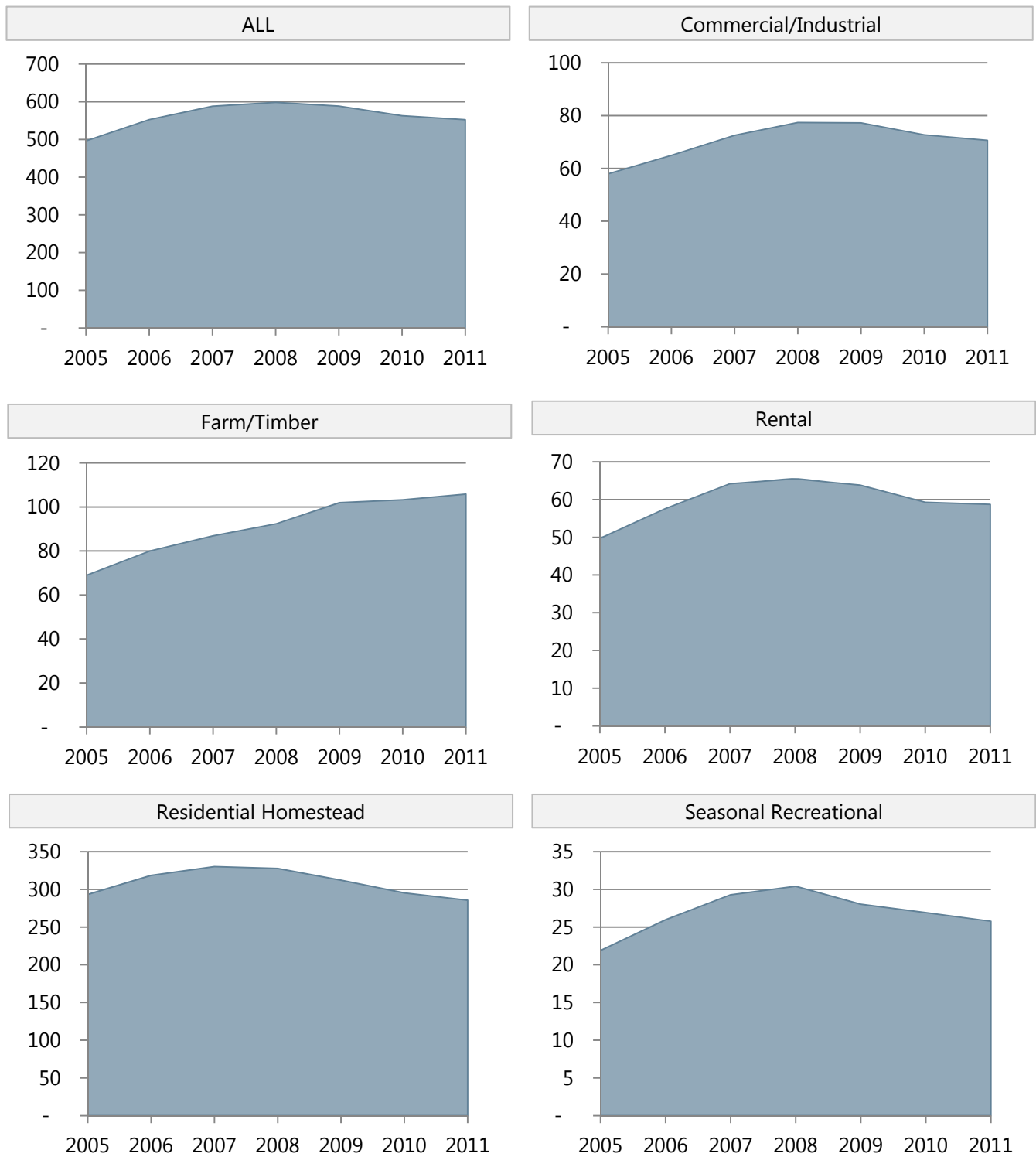
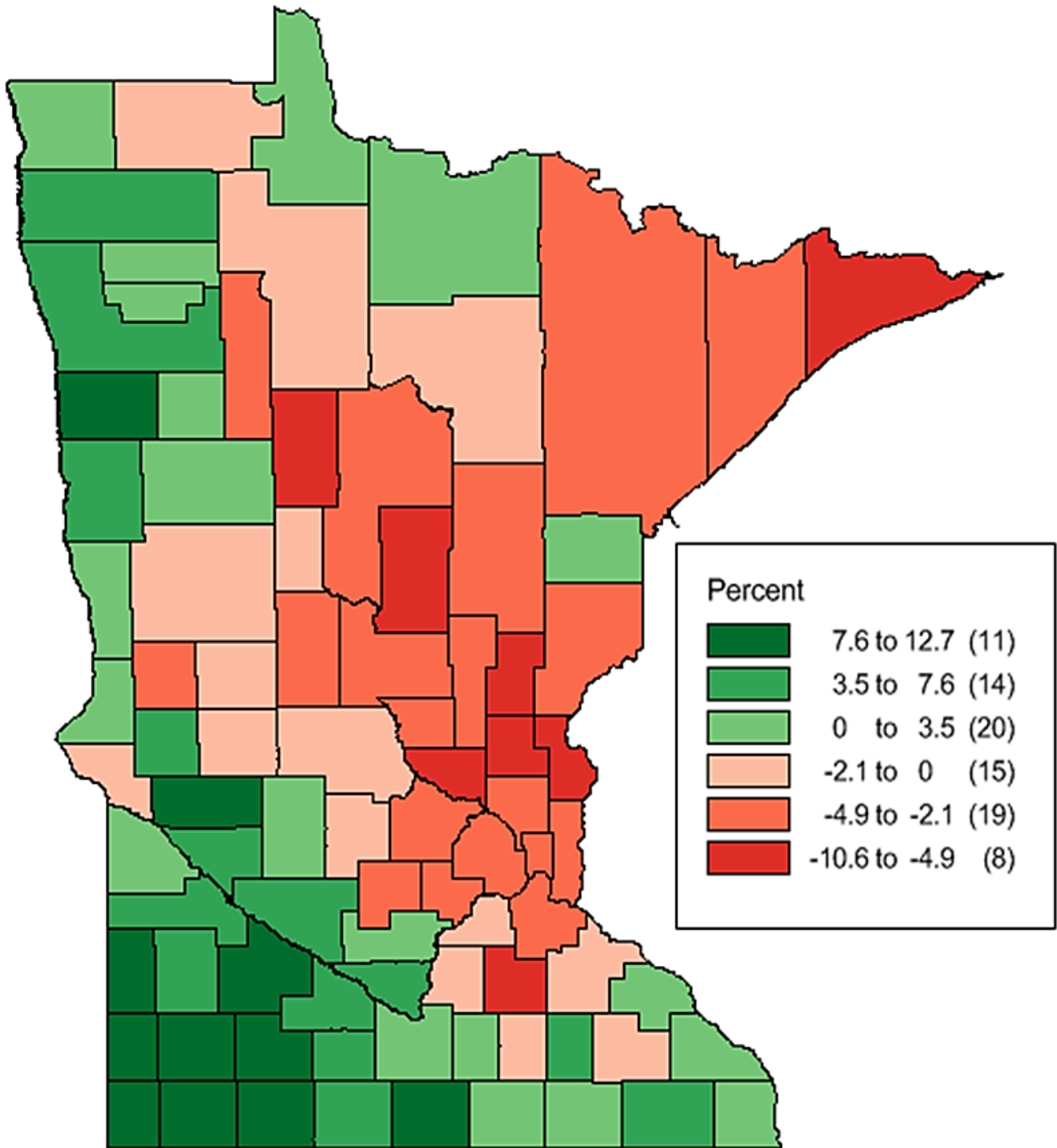


Figure 2:
Statewide Total Estimated Market Value by Property Type (in billions of \$)

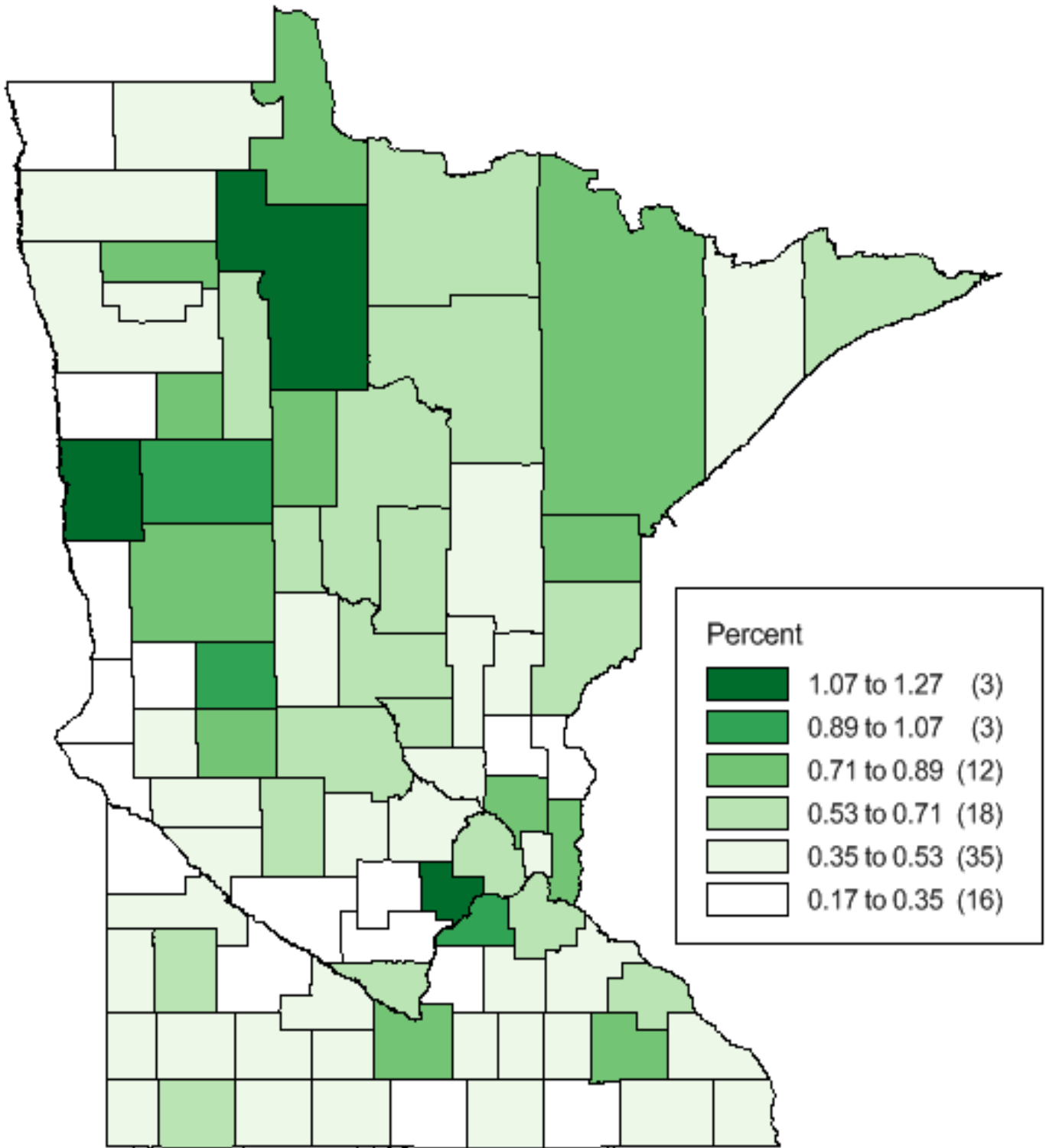


Map 1:

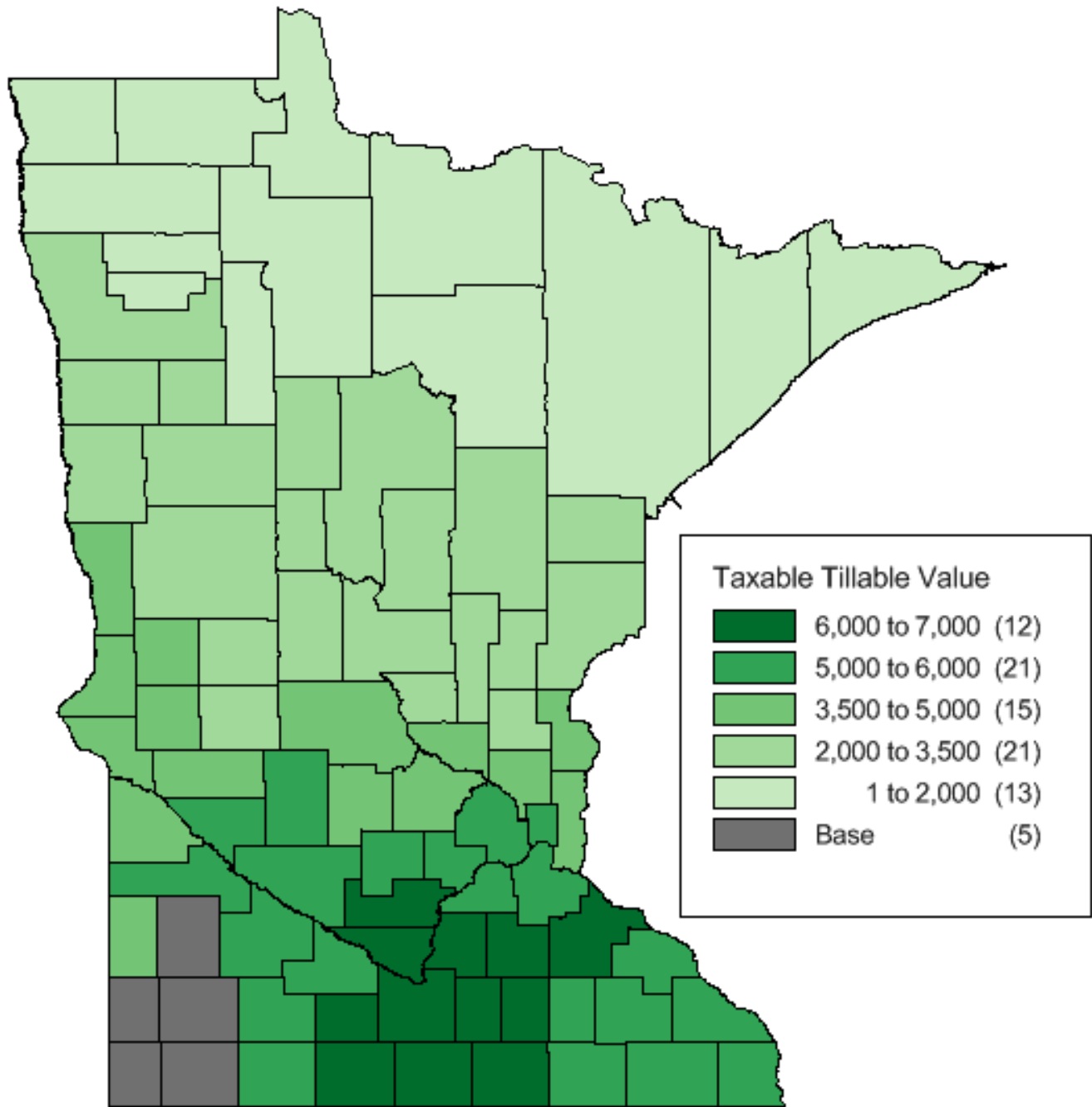
Percent Change in Total Estimated Market Value 2010-2011



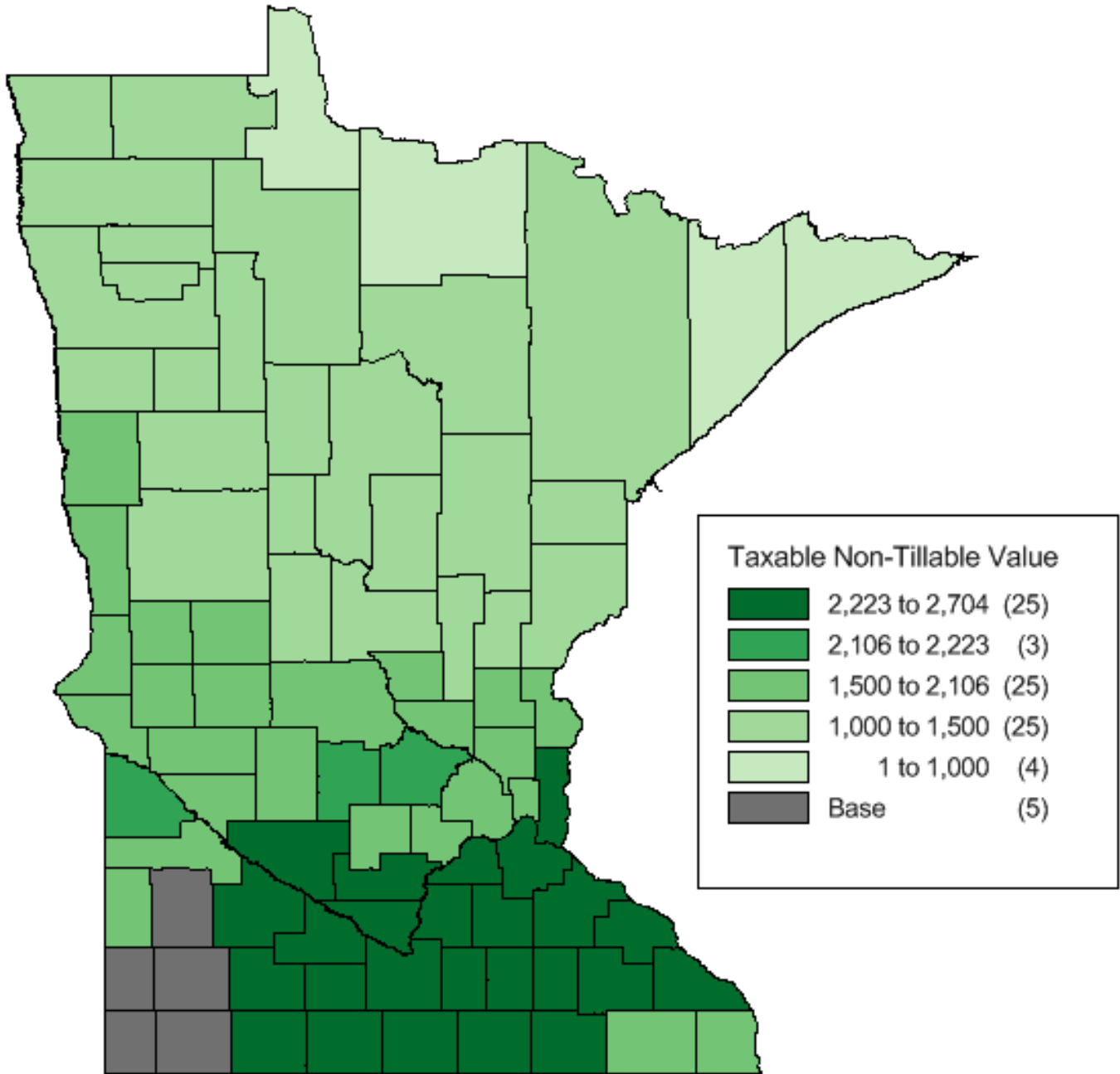
Map 2:
New Construction as a Percent of Total Estimated Market Value 2011



Map 3:
Taxable Tillable Green Acres/Rural Preserve Value



Map 4:
Taxable Non-Tillable Green Acres/Rural Preserve Value



APPENDIX D • 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 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 January 2nd 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 that are outside 1.5 times the inter-quartile range. This method starts by sorting the sample by ascending ratio then dividing the sample into quarters (quartiles). The first quarter is at the 25% point of sample. The second quartile is the 50% or median point. The third quartile is at the 75% point. The fourth quartile includes the highest ratios. The inter quartile range is the difference between the values at the first and third quartiles. This number is multiplied by 1.5 to calculate the trimming point for the upper and lower bounds when calculating the COD.

APPENDIX E • 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, 2009, through September 30, 2010. These sales are compared with values from assessment year 2010, taxes payable 2011. The sale prices are adjusted for time and financial terms back to the date of the assessment, which is January 2nd of each year. For this study, the sales are adjusted to January 2, 2010*. 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 2010 for \$200,000, it would be adjusted back to a January 2009 value of \$196,500, or the sales price would be adjusted downward by 1.75 percent for the seven-month timeframe back 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.

**Beginning with the state board of equalization held in 2012, the sales are adjusted forward to the January after the end of the sales period. This change in methodology will be discussed in greater detail in next year's report.*

APPENDIX F • 21-Month Study

The 21-month study is different from the nine-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 nine- 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 nine- 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. In the example below, the residential net tax capacity would be 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.