

2023 Property Values and Assessment Practices Report

Assessment Year 2022

Property Tax Division

March 1, 2023

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 \$8,100.



March 1, 2023

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 20th 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 Statutes, section 273.1108, and Minnesota Laws 2001, First Special Session, chapter 5, article 3, section 92.

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,

A handwritten signature in blue ink that reads 'Paul Marquart'.

Paul Marquart
Commissioner
Minnesota Department of Revenue

600 N. Robert St., St. Paul, MN 55146
www.revenue.state.mn.us

An equal opportunity employer
This material is available in alternate formats.

Table of Contents

Commissioner’s Letter	i
Introduction	1
Data Sources.....	1
Overview of the Minnesota Department of Revenue’s Role.....	1
Estimated Market Values and the Sales Ratio Study	3
Sales Used for the 2022 Assessment Year	3
Analysis of Sales Impacting Market Value Changes	3
2022 Assessment Quality and Sales Ratio Studies on EMVs	4
Statewide Change in Value by Property Type.....	5
Taxable Market Value	20
Exclusion and Deferral Trends.....	22
Green Acres and Rural Preserve	23
Tax Distribution.....	24
Taxable Value	25
2022 Trends	25
Appendix A – Summary of 2022 State Board Orders.....	27
Sales Ratios and Coefficients of Dispersion	27
State Board Orders by County for 2022 Assessment Year	28
Appendix B – Sales Ratio Studies	32
Appendix C – Classification Rates (2022 Assessment)	34
Appendix D – Green Acres and Rural Preserve Values	36
Taxable Green Acres Value.....	36
Rural Preserve	38
County Average Value Per Acre – Assessment Year 2022	39
Appendix E – Maps: Statewide Market Values and Assessment Practices Indicators	41
Appendix F – Glossary	47

Introduction

This is the 21st annual report to the Minnesota Legislature on property tax values and assessment practices in the state. The Legislature mandated this report from the Minnesota Department of Revenue in 2001. Since 2012, this report has been combined with the annual report about agricultural properties and Green Acres, satisfying the requirements of both Minnesota Statutes, section 273.1108, and Minnesota Laws 2001, First Special Session, chapter 5, article 3, section 92.

As required by those mandates, this report contains:

- Information by major types of property on a statewide basis and at various jurisdictional levels
- Recent market value trends
- Trend analysis of excluded market value
- Assessment quality indicators, including sales ratios and coefficients of dispersion for counties
- A summary of State Board Orders issued in 2022
- Green Acres value methodology and determinations
- Assessment and classification practices for class 2a agricultural and 2b rural vacant land property

This report provides 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. This information and analysis informs government officials and the public about valuation trends within the property tax system.

Data Sources

The data for the assessment practices report is gathered through data submissions from all 87 counties in Minnesota. The data used in this report for assessment year 2022 is from the PRISM 2 files, submitted on September 1, 2022.

Historical data is gathered from PRISM 3 submissions, submitted on April 1 of the taxes-payable year. The April 1 file may reflect minor changes to taxable market value that occur between September 1 and December 31, such as properties that become exempt. Prior to the 2021 Assessment Practices Report, all data used was from PRISM 2 submissions, and therefore may cause small differences when comparing data to earlier reports.

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 ensures that property owners pay their fair share – no more and no less. The Department 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.

The classification system is another part of the Minnesota Department of Revenue's efforts to measure assessment quality. The sales ratio study and State Board of Equalization use property 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:

- Residential
- Seasonal recreational residential (cabins)
- Apartments
- Commercial
- Industrial
- Agricultural and rural lands

Estimated Market Values and the Sales Ratio Study

Minnesota law requires that all property be valued at its market value. For property tax assessment purposes, the market value 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 resulting total market value.

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 to determine EMVs is the comparable sales approach.

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.

Sales Used for the 2022 Assessment Year

The number of total sales and the number of good sales increased between the 2020 and 2021 sales ratio study years. The data comes from sales that occurred October 1, 2020 - September 30, 2021.

There were 162,451 Certificates of Real Estate Value (CRVs) received in the 2021 sales ratio study for the 2022 State Board of Equalization. Of these, 104,269 were considered good, current-year, open-market sales. This was an increase in the number of sales and good sales from the previous year (138,971 sales, 87,523 of them good sales). Additionally, this represented an increase in the ratio of good sales compared to overall sales (64.2% compared with 63% last year).

Analysis of Sales Impacting Market Value Changes

Sales ratio studies measure the relationship between appraised values and the actual sales price. 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 1

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:

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

2022 Assessment Quality and Sales Ratio Studies on EMVs

The two primary measures of assessment quality are the sales ratio and the coefficient of dispersion (COD).¹

Sales ratios measure the **level of assessment** (how close appraisals are to market value on an overall basis). For the 2021 sales ratio study (for the 2022 assessment), the statewide median sales ratios for all property types were in the acceptable targeted range of 90 to 105%.

Coefficients of dispersion measure the **uniformity of assessment** (how close individual appraisals are to the median ratio and each other). The lower the COD, the more uniform 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. This is an area of concern with smaller sales samples.

Assessment quality decreased slightly between the 2020 and 2021 sales ratio studies (for assessment years 2021 and 2022). Sales ratios worsened for all property types other than Commercial/Industrial, while the COD of all property types aside from resorts and miscellaneous saw a small increase in their COD.

See Appendix A for the median sales ratios and CODs by property type.

State Board Orders

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. Thirteen counties were issued State Board Orders for the 2021 sales ratio study, compared to five counties for the 2020 study.

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% range boundaries
3. Areas with uniformity concerns

(See Appendix A for a list of 2022 State Board Orders by county and Appendix B for a detailed explanation of sales ratio studies used for these board orders.)

¹ 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.

Statewide Change in Value by Property Type

Methods of Examining Value

The following sections will examine how EMV changed for the 2022 assessment year. To do so, we will use two different types of EMV: aggregate EMV and “Constant Class” (CC) EMV. We will also look at sale numbers, class changes, and the value of new improvements.

Aggregate EMV is the amount of assessed value that is classified and categorized as each property type. This can change based on values for that property increasing or decreasing, existing properties changing from one type to another, or construction or destruction of properties of that type.

CC EMV is aggregate EMV **without** considering classification changes and does not factor in new construction or destruction of improvements. CC EMV numbers are estimates that depend on the quality of data submitted, and therefore are not as accurate as Aggregate EMV. Nonetheless, CC EMV is extremely helpful as it shows how values of different property types are increasing or decreasing without having to worry about new construction or classification changes.²

Sale numbers are collected from good eCRV submissions and can help show what types of properties were sold during the year. Class changes show when a property was changed from one type to another; this is usually due to the use changing from year to year, but can also be due to law changes reclassifying a use from one property type to another. Lastly, new improvements are the total value added by new construction and new improvements minus the value lost by demolition of improvements for each property type.

These figures are compared across the major property types, determined by classification and other data submitted by counties. These property types are:

- Agricultural homestead house, garage, and acre (HGA)
- Agricultural homestead land
- Agricultural non-homestead land
- Seasonal residential recreational non-commercial (cabins)
- Residential homestead
- Residential non-homestead (1-3 units)
- Apartments
- Commercial
- Industrial

Comparing to Previous Years

As with the 2021 assessment year, the first since the COVID-19 pandemic and subsequent market shifts, the 2022 assessment again provided trends that are unique compared to assessment year 2020 and before. Due to these unique factors, last year’s report compared the 2021 data with the previous four-year average

² Example: a residential home was valued at \$200,000 in AY2020. During 2020 they built a new garage. For AY 2021, the house was valued at \$220,000 and the garage valued at \$30,000, bringing the total value to \$250,000. Aggregate EMV would show a 25% increase (from \$200,000 to \$250,000), while CC EMV would show a 10% increase (the increased value of the house from \$200,000 to \$220,000).

change in EMV instead of only examining the change from one year to the next³. The following sections will compare EMV numbers from the 2022 assessment, 2021 assessment, and the same previous average from 2016-2020.

Statewide Trends in 2022

Estimated market values in assessment year 2022 saw large increases across all property types, with almost all seeing increases more than double the changes in 2021. This follows the increase in the number of good sales in the most recent sales ratio study, which was the largest of the 2016-2022 period.

Percent Change in Statewide Aggregate EMV by Property Type

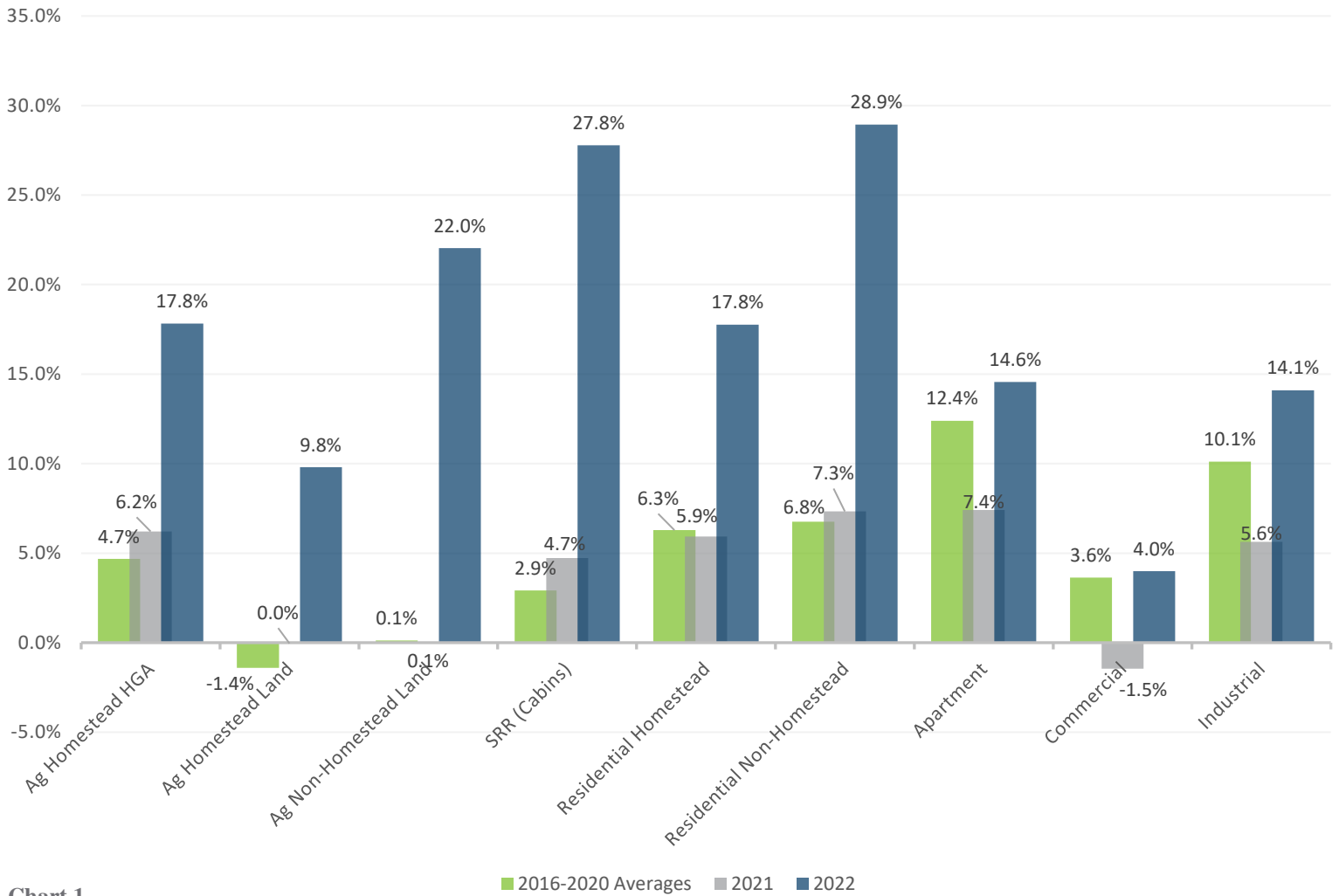


Chart 1

Residential properties, making up the majority of statewide market value, saw especially large gains close to triple their increases last year or over the four-year average. This in turn resulted in the largest statewide aggregate EMV increase since our data began in 2005, as seen in Chart 2.

³ This averaged the change in EMV from 2016-2017, 2017-2018, 2018-2019, and 2019-2020.

Statewide Change in Aggregate EMV by Year									
Assessment Year	2005	2006	2007	2008	2009	2010	2011	2012	2013
Change	11.9%	11.3%	6.5%	0.7%	-1.7%	-4.2%	-1.8%	-1.1%	5.2%
Assessment Year	2014	2015	2016	2017	2018	2019	2020	2021	2022
Change	7.9%	2.9%	3.0%	4.5%	5.3%	5.4%	4.5%	4.1%	17.0%

Table 1

Looking at CC EMV, we again see large increases across all property types, with some types⁴ seeing larger percentage increases than aggregate EMV. This suggests that there were large value increases for established property types irrespective of new construction or classification changes.

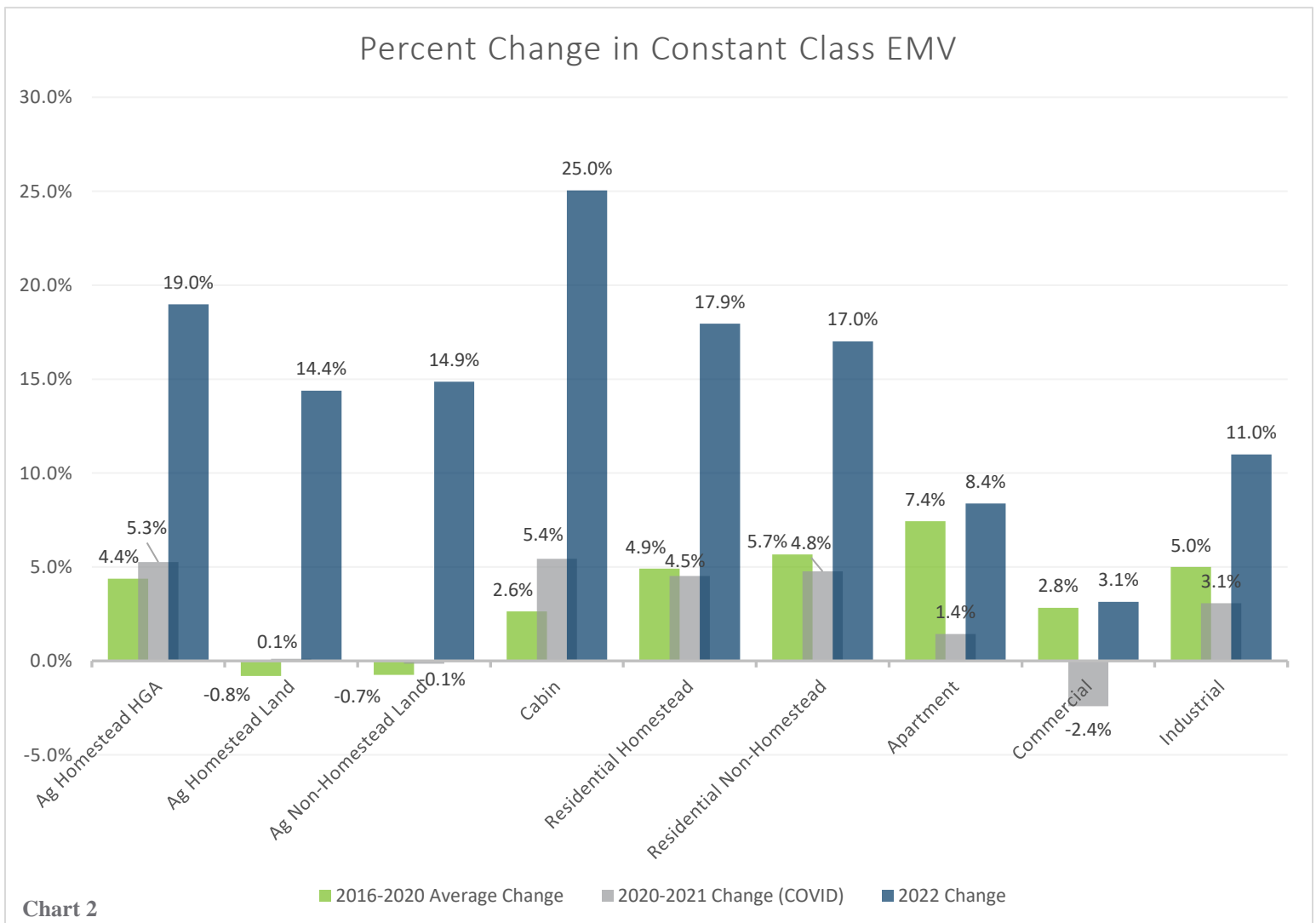
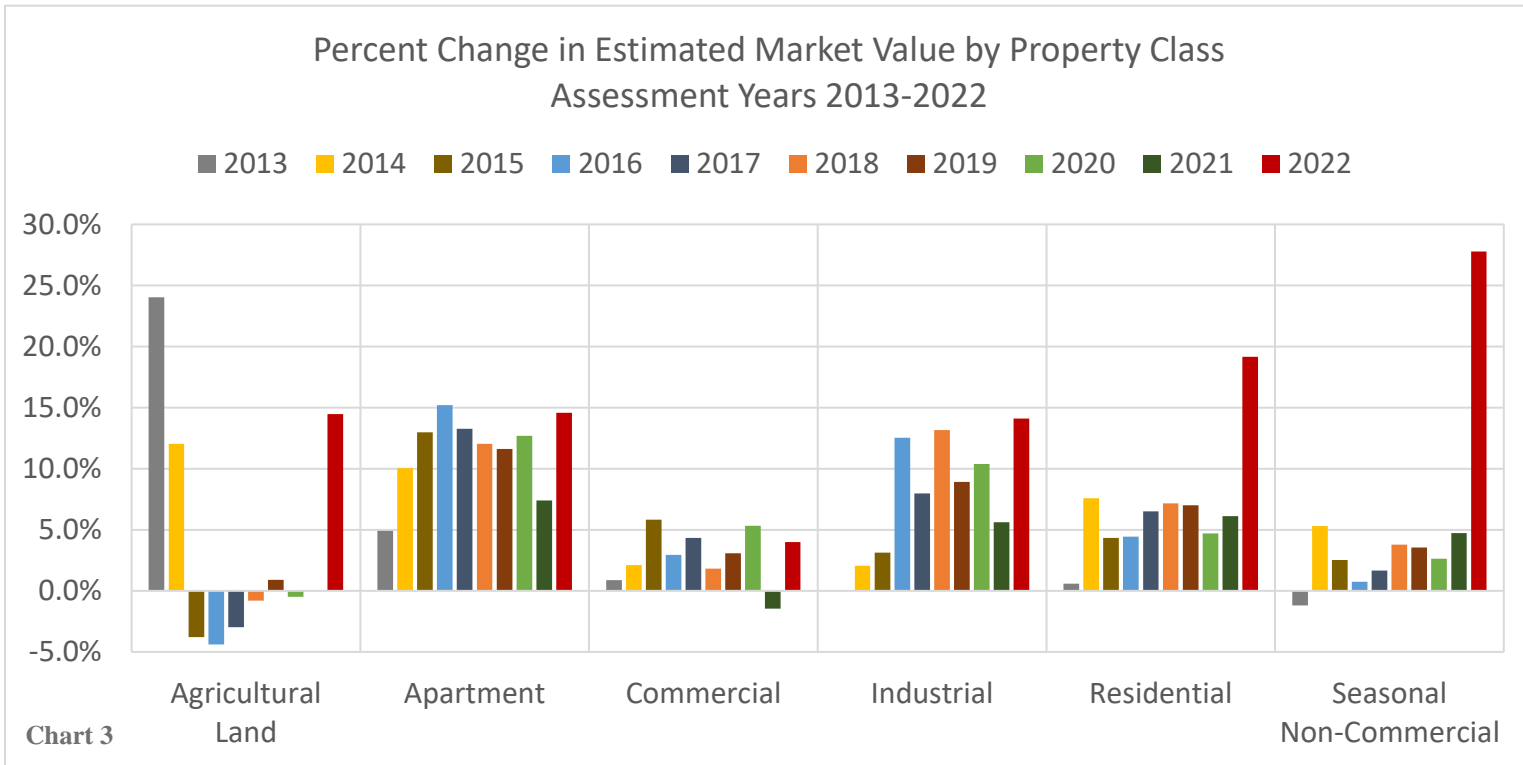


Chart 2

⁴ Agricultural homestead HGA, agricultural homestead land, and residential homestead

Chart 3 provides additional historical context by examining the aggregate change in EMV for certain property groups between 2013 and 2022.



Regional Trends in 2022

To examine regional trends, we again divided EMV data into three regions:

- Twin Cities Metro Area
- Non-Metro Cities
- Greater Minnesota

The Non-Metro Cities category includes all cities of the first and second class outside the seven-county Metro area (instead of only Duluth, Mankato, and St. Cloud). This change provides a clearer distinction between these cities and the rest of Greater Minnesota.⁵

Table 1 compares the percent change in both aggregate and CC EMV by region for all property types for assessment years 2022, 2021, and the four-year average between 2016-2020. From these numbers, we can see that between 2016 and 2020, on average the Metro saw greater increases in both aggregate and CC EMV than Non-Metro Cities, which in turn had greater increases than the rest of Greater Minnesota. These numbers converged in 2021, with the Metro and Non-Metro Cities seeing reduced increases in both aggregate and CC EMV, while Greater Minnesota’s increases grew. While all regions shared in the

⁵ The 11 non-Metro cities include: Rochester, Duluth, St. Cloud, Moorhead, Mankato, Winona, Owatonna, Austin, Elk River, Faribault, and Northfield. (Part of Northfield falls into Dakota County; this is included in EMV totals for the non-Metro cities category.)

dramatic increases in 2022, Greater Minnesota's relative upward trend continued and saw the highest EMV increases in both aggregate and CC EMV.

Percent Change in EMV (All Property Types)						
<i>(Average EMV is the Average Change from 2016-2020)</i>						
Region (2022 EMV in millions)	2016-2020 Average Aggregate EMV	2021 Aggregate EMV	2022 Aggregate EMV	2016-2020 Average CC EMV	2021 CC EMV	2022 CC EMV
Twin Cities Metro Area <i>(\$521,702)</i>	6.8%	4.3%	15.6%	4.7%	2.8%	14.1%
Non-Metro Cities <i>(\$55,771)</i>	5.9%	4.9%	15.2%	4.1%	3.4%	13.6%
Greater Minnesota <i>(\$403,468)</i>	2.6%	3.7%	19.2%	2.2%	2.8%	17.5%

Table 2

Agricultural Land

Agricultural land includes both agricultural and rural vacant land, and is almost entirely located in Greater MN (95% of total market value). For that reason, it is much more useful to examine the differences between homestead and non-homestead land; agricultural homestead HGAs will be examined in the residential section.

Looking at both homestead and non-homestead aggregate EMV in Table 3, we see increases to both, and a much larger increase for non-homestead land than for homestead. These increases are the highest for aggregate EMV since 2014 and 2013, respectively, as since then agricultural EMV has generally remained flat or decreased. Examining CC EMV, we see that both increased at a much more similar pace. This is expected, as increased value of the land would be unlikely to distinguish between homesteaded and non-homesteaded land.

Percent Change in Statewide Agricultural Land EMV

(Average EMV is the Average Change from 2016-2020)

Land Type (2022 Nominal EMV in millions)	Average Aggregate EMV	2021 Aggregate EMV	2022 Aggregate EMV	Average CC EMV	2021 CC EMV	2022 CC EMV
Agricultural Homestead Land (\$89,086)	-1.4%	0.0%	9.8%	-0.8%	0.1%	14.4%
Agricultural Non-Homestead Land (\$60,975)	0.1%	0.1%	22.0%	-0.7%	-0.1%	14.9%
All Agricultural Land (\$150,061)	-0.9%	0.0%	14.5%	-0.8%	0.0%	14.6%

Table 3

The fact that the CC EMV increase of all agricultural land is almost the same as that of aggregate EMV suggests that the increase in value was likely due to increased value of the land rather than new land being used for farming. Indeed, looking at Chart 4 we see that acreage decreased from 2021 to 2022, and that the trendline for acreage is mostly flat.

All Agricultural Land EMV and Acreage

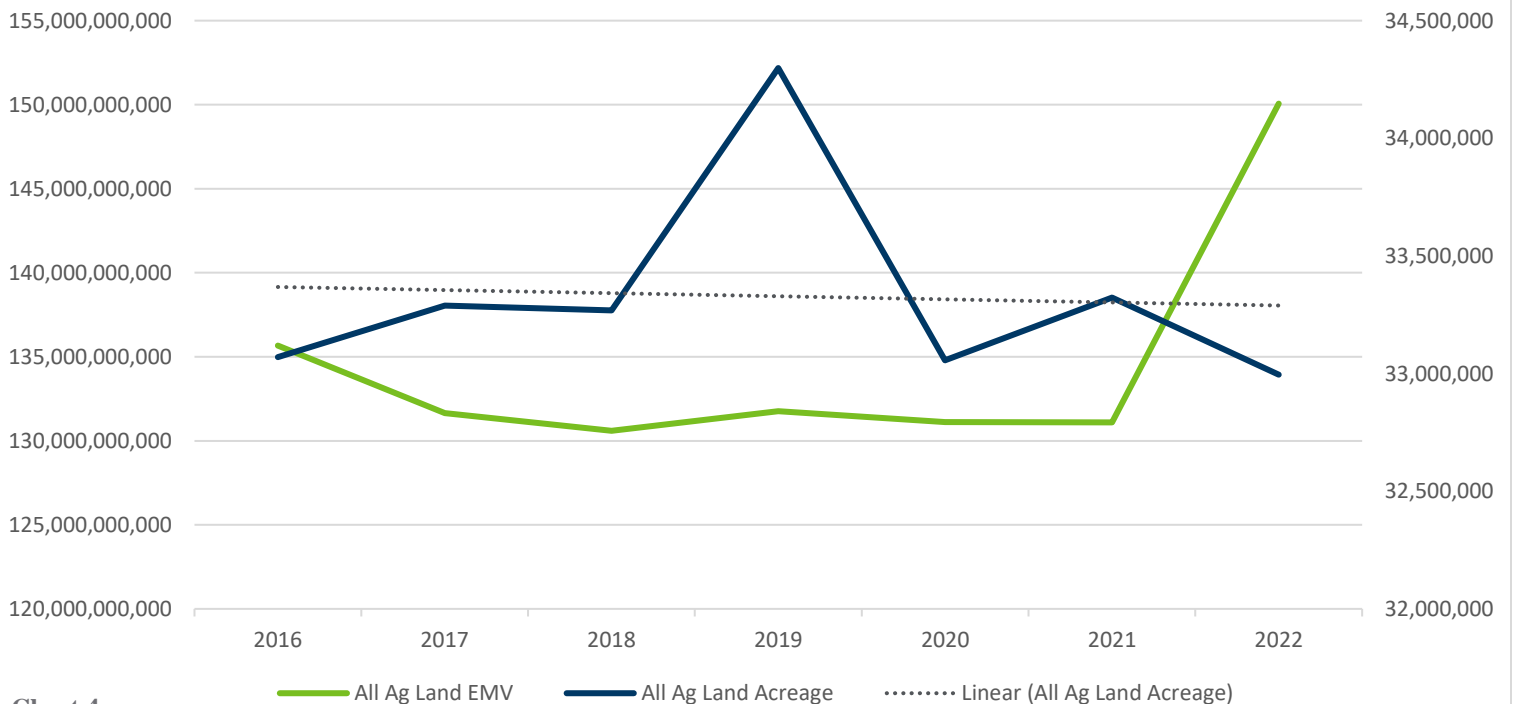
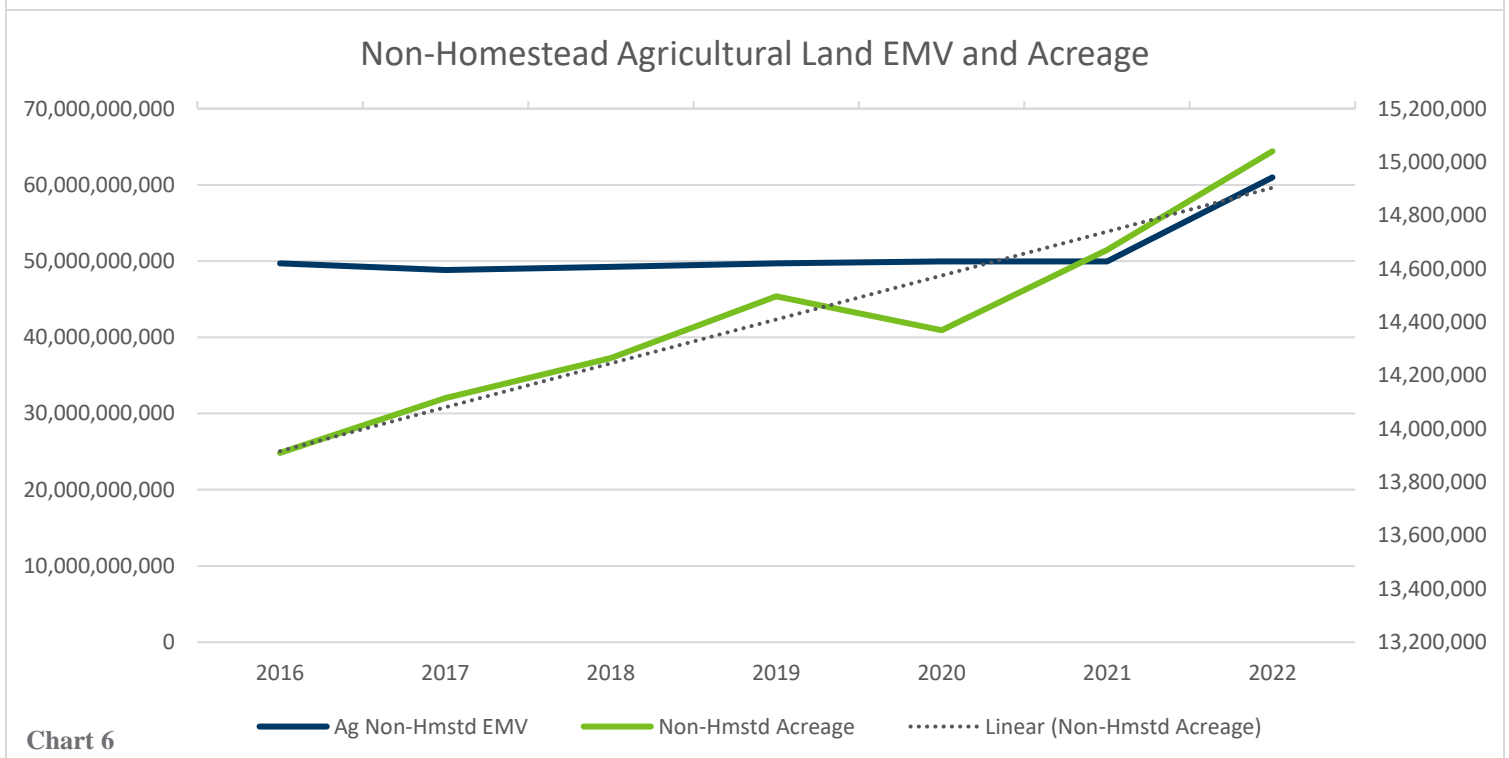
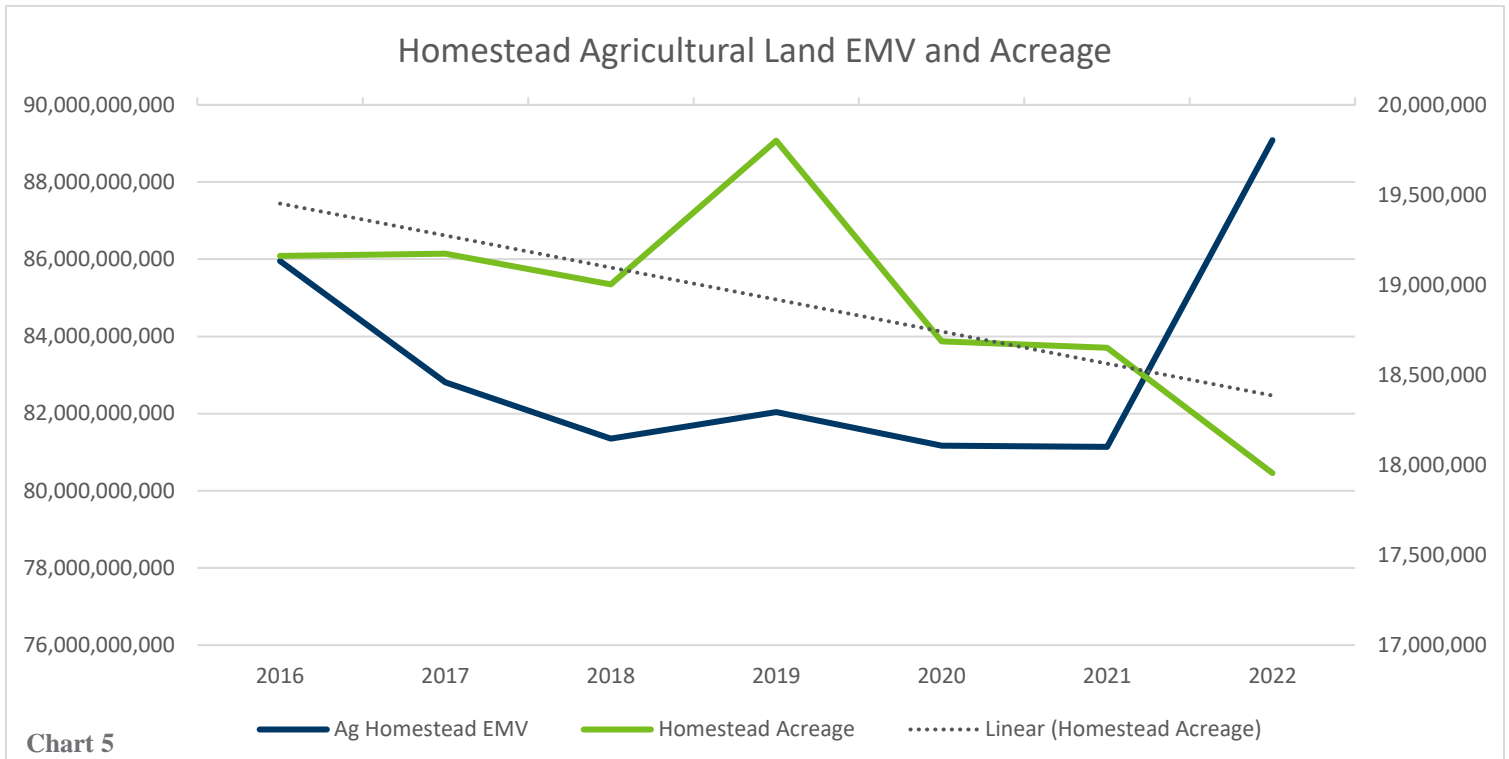


Chart 4

Splitting out EMV and acreage based on homestead status, we see that acreage has been generally increasing for non-homesteaded land at the expense of homesteaded land since at least 2016. This is reflected in the EMV trends by the fact that homestead EMV has generally been decreasing slightly, while non-homestead EMV has held steady.

It is important to remember that these increases are just for the Estimated Market Value, which is calculated before any deferrals such as Green Acres or Rural Preserve are applied. Those programs and their effects are discussed in their own section below.



Apartments

Aggregate apartment EMV increased by double-digits in all regions after seeing lower-than-average increases in 2021. The increases were all similar regionally, meaning that the increase in Greater Minnesota is double that than the pre-2021 average, while the increase in the Metro only represents a 1.2% increase compared to the prior average. Most market value for apartments is located in the Metro (82.5%), which means that the statewide numbers generally reflect that region, while others may see more swings due to the lower EMV.

Percent Change in Apartment EMV

(Average EMV is the Average Change from 2016-2020)

Region <i>(2022 Nominal EMV in millions and % of total regional EMV)</i>	Average Aggregate EMV	2021 Aggregate EMV	2022 Aggregate EMV	Average CC EMV	2021 CC EMV	2022 CC EMV
Twin Cities Metro Area <i>(\$53,207; 10.2 %)</i>	13.3%	7.5%	14.5%	8.3%	1.1%	7.9%
Non-Metro Cities <i>(\$5,531; 9.9%)</i>	10.7%	7.3%	14.2%	4.8%	3.1%	10.0%
Greater Minnesota <i>(\$5,729; 1.4%)</i>	7.0%	6.6%	15.8%	3.1%	3.0%	10.8%

Table 4

Constant Class EMV increases are again several percentage points lower than those of aggregate EMV, although both saw much larger increases compared to 2021 and a less dramatic difference between aggregate and CC EMV. This suggests that a large contributor to EMV increases are due to new construction or classification changes. For the second year in a row Greater Minnesota saw higher increases than in the Metro, which is especially noteworthy given that from 2016-2020 the Metro averaged a much higher increase than that of Greater Minnesota.

As a whole, apartments make up approximately 10% of all market value in the Metro and Non-Metro Cities, though these numbers both decreased by around 0.1% from 2021. This is likely due to the larger increase in residential property, which already makes up a larger amount of statewide EMV. Apartments have seemingly returned to similar rates of EMV increases from pre-2021, albeit with increases seen more in Greater Minnesota than the Metro. Meanwhile since 2021, Non-Metro Cities have seen changes in aggregate EMV similar to the Metro area, but with changes in CC EMV more akin to that of Greater MN.

Residential Property

Residential properties are likely the most important type of properties we examine in this report, as they contain a plurality of the market value of all three regions, and a majority of market value for the Metro and Non-Metro Cities (table 5). Therefore the changes in residential property, especially residential homestead, greatly affect the tax base of all of Minnesota.

Residential Proportion of Area's Total EMV by Property Type for Assessment 2022			
<i>Total EMV (in millions)</i>			
Property Type	Twin Cities Metro Area	Non-Metro Cities	Greater Minnesota
Homestead	62.3% — \$325,188	58.3% — \$32,497	36.2% — \$146,192
Non-Homestead	10.2% — \$52,987	11.3% — \$6,303	5.1% — \$20,517

Table 5

Aggregate EMV sharply increased for both residential homestead EMV and non-homestead EMV, and we again see larger increases in non-homestead compared to homestead across all regions. These increases were all at least double the increase in assessment 2021 and the previous 2016-2020 averages. This represents a significant increase in the residential tax base, as homesteaded property EMV was already more than five times the next highest EMV statewide (\$427.9 billion in 2021, next highest is agricultural homestead land at \$81.1 billion). Given the large increase this past year, this gap is only increasing.

Percent Change in Residential Aggregate EMV						
<i>(Average EMV is the Average Change from 2016-2020)</i>						
Region	Average Homestead EMV	2021 Homestead EMV	2022 Homestead EMV	Average Non-Homestead EMV	2021 Non-Homestead EMV	2022 Non-Homestead EMV
Twin Cities Metro Area	6.4%	4.5%	16.6%	7.2%	11.8%	27.0%
Non-Metro Cities	6.0%	5.0%	16.2%	6.1%	12.4%	28.2%
Greater Minnesota	6.1%	5.7%	20.8%	5.7%	19.6%	34.6%

Table 6

Percent Change in Agricultural HGA EMV						
<i>(Average EMV is the Average Change from 2016-2020)</i>						
Region	Average Aggregate EMV	2021 Aggregate EMV	2022 Aggregate EMV	Average CC EMV	2021 CC EMV	2022 CC EMV
Statewide	4.7%	6.2%	17.8%	3.7%	2.8%	15.5%

Table 7

Percent Change in Residential CC EMV

(Average EMV is the Average Change from 2016-2020)

Region	Average Homestead EMV	2021 Homestead EMV	2022 Homestead EMV	Average Non-Homestead EMV	2021 Non-Homestead EMV	2022 Non-Homestead EMV
Twin Cities Metro Area	5.1%	4.1%	16.9%	6.3%	4.5%	16.0%
Non-Metro Cities	4.8%	5.0%	16.9%	4.9%	5.3%	16.4%
Greater Minnesota	4.6%	5.3%	20.3%	4.2%	5.3%	19.7%

Table 8

We see similar increases to homestead CC EMV as to aggregate EMV, which suggests that much of these increases are due to increase in value rather than new construction or classification changes. As with last year, Greater Minnesota saw larger increases in both CC and aggregate EMV than the Metro area, which is a reversal of the trend we saw from 2016-2020. Agricultural Homestead HGA, which is almost entirely located in Greater Minnesota (91%), also saw larger increases in aggregate and CC EMV compared to previous years, with the 2021 increase in aggregate EMV even higher than that of the 2016-2020 average. Non-Metro cities saw similar increases to the Metro in aggregate and CC EMV this year after seeing increases more aligned with Greater Minnesota last year.

One point of note is that the increase in aggregate non-homestead EMV for assessment year 2021 was originally much higher as reported on PRISM 2 and in the 2022 Assessment Practices Report, with a similar EMV added to aggregate homestead EMV. Because there is much more homestead EMV than non-homestead, these changes can significantly alter the percentage increase of non-homestead EMV. This suggests that there were more mid-year homesteads, which flattened out the 2021 numbers. Especially given this year's high increase in non-homestead EMV, this provides an important reminder that EMV numbers for residential properties can fluctuate based on homestead status.

For more specific geographic breakdowns, we can use the geographic regions from the Property Tax Burden (Voss) Report. This breaks the state into twenty separate regions and allows us to examine if there were disproportionate increases in certain areas of the Metro or of Greater Minnesota. See a map of the different Voss regions in appendix F.

Looking at residential homestead by Voss region, we see that the largest percentage increases were in North Central and East Central Minnesota; these regions also have lower EMV to begin with, although residential property makes up over 56% of all EMV in East Central Minnesota. For regions falling inside the Metro, there was a large gap: Washington, Anoka, and Carver/Scott all increased by more than 20%, which is especially significant given that residential homesteads already make up over two-thirds of all EMV in the region. This is contrasted by Minneapolis, with by far the lowest increase of all regions at only 6%, and Southeast Hennepin and Saint Paul following at 12.5% and 13.3% respectively. These regions also had a lower proportion of homestead EMV compared to the Metro regions that saw larger increases. Meanwhile the lowest increase in a region in Greater Minnesota was 16.3% in Southeast Minnesota, meaning that regions in Greater Minnesota had much less of a gap compared to the Metro.

Region	Arrowhead	Central	East Central	Minnesota Valley	North Central	Northwest/Headwaters	South Central
Change	20.2%	21.6%	24.2%	17.5%	28.1%	20.6%	19.6%
<i>Nominal EMV in millions and % of regional EMV</i>	\$22,408 (47.6%)	\$37,158 (59.2%)	\$13,981 (56.8%)	\$9,217 (25.0%)	\$14,177 (37.0%)	\$8,523 (26.1%)	\$14,446 (31.4%)
Region	Southeast	Southwest	West Central	Anoka	Carver/Scott	Dakota	Minneapolis
Change	16.3%	17.6%	16.5%	20.7%	22.0%	15.8%	6.0%
<i>Nominal EMV in millions and % of regional EMV</i>	\$37,172 (44.1%)	\$4,886 (13.7%)	\$16,567 (32.7%)	\$36,791 (72.1%)	\$32,447 (67.8%)	\$46,673 (67.5%)	\$29,055 (44.2%)
Region	North Hennepin	Saint Paul	Southeast Hennepin	Southwest Hennepin	Suburban Ramsey	Washington	
Change	18.2%	13.3%	12.5%	18.0%	15.0%	22.1%	
<i>Nominal EMV in millions and % of regional EMV</i>	\$30,768 (66.2%)	\$18,064 (53.1%)	\$30,832 (56.0%)	\$43,627 (64.5%)	\$23,167 (63.2%)	\$33,918 (70.2%)	

Table 9

Seasonal Recreational Residential Property

Seasonal residential recreational (cabins) saw some of the largest increases in aggregate EMV of any property type, and the highest increase in CC EMV of all property types. The aggregate EMV increase of 27.8% was the largest increase for cabins since at least 2005 when our data begins, and the first increase of more than double-digits since between 2005-2007. CC EMV increased at almost the same rate, suggesting that the majority of this large increase was simply due to increasing value for cabin property. Cabin CC EMV increased at a higher rate than any other type of property, suggesting that, on average across the state, a cabin's market value increased by 25% without any new construction or changes to the classification of the property.

Percent Change in Seasonal Recreational Residential EMV						
<i>(Average EMV is the Average Change from 2016-2020)</i>						
<i>(2022 Nominal EMV in millions)</i>	Average Aggregate EMV	2021 Aggregate EMV	2022 Aggregate EMV	Average CC EMV	2021 CC EMV	2022 CC EMV
Statewide (\$38,553)	2.9%	4.7%	27.8%	2.6%	5.4%	25.0%

Table 10

While cabins have one of the lowest **statewide** market shares of the major property types we examine (higher only than industrial and agricultural homestead HGA), they represent a little over 9% of all Greater Minnesota's EMV, which is fourth most in the region (after residential homestead, agricultural homestead land, and agricultural non-homestead land). This makes them an important part of the local tax base, as well as the state tax base as one of the property types that pays into the state general tax base.

Commercial/Industrial Property

Starting with the 2020 Assessment Practices report, commercial property has been reviewed independently from industrial property due to trends showing commercial property EMV is increasing at a much lower rate than industrial property EMV.

Properties that are considered commercial include office buildings, retail stores, malls, hotels, banks, restaurants, and service outlets. We also include seasonal recreational commercial properties within the commercial section. Industrial properties include property used for manufacturing, warehouses, and distribution facilities.

Commercial Property

Percent Change in Commercial EMV

(Average EMV is the Average Change from 2016-2020)

Region <i>(2021 Nominal EMV in millions and % of total regional EMV)</i>	Average Aggregate EMV	2021 Aggregate EMV	2022 Aggregate EMV	Average CC EMV	2021 CC EMV	2022 CC EMV
Twin Cities Metro Area <i>(\$49,250; 9.4%)</i>	4.1%	-2.1%	2.4%	3.4%	-2.8%	1.9%
Non-Metro Cities <i>(\$8,536; 15.3%)</i>	2.9%	0.7%	6.3%	2.0%	-1.4%	4.9%
Greater Minnesota <i>(\$13,491; 3.3%)</i>	2.4%	-0.2%	8.6%	1.1%	0.6%	6.3%

Table 11

Commercial property rebounded after seeing decreases in both aggregate and CC EMV in 2021; however, similar to 2021 there were pronounced regional differences. In the Metro, where just over 69% of all commercial EMV is located, the increases in both aggregate and CC EMV were lower than the 2016-2020 average and the 2.4% increase in aggregate EMV is the lowest since 2014 (other than in 2021).

Meanwhile in non-metro cities and Greater Minnesota, which both fared better than the Metro in 2021, saw increases more than double their 2016-2020 averages in both aggregate and CC EMV. For non-metro cities, this represents the largest increase since 2008, and the largest for Greater Minnesota since 2007.

Commercial property is especially important to the tax base because it, like industrial property, has the highest classification rate of all major property types in addition to paying into the state general tax. As a result, commercial property generally maintains about twice the net tax share as market value statewide, whereas residential and agricultural properties usually have a higher market value share than net tax share (see the *Tax Distribution* section for more info). Chart 7 shows the percentage of regional EMV for commercial property for all three regions, as well as statewide, and Chart 8 shows the commercial aggregate EMV by year broken out by region. These charts show that over the last decade, despite commercial EMV mostly increasing, the market value share of commercial property compared to other property types has decreased. This trend has accelerated since 2020, with commercial property’s share of regional EMV dropping in all regions, leading to a 2% decrease statewide. This shows the effect of the difference in EMV increases for commercial property compared to other property types- less of the tax base is commercial, which results in other property types taking on more of the tax share.

Commercial EMV as Percentage of Regional Total EMV

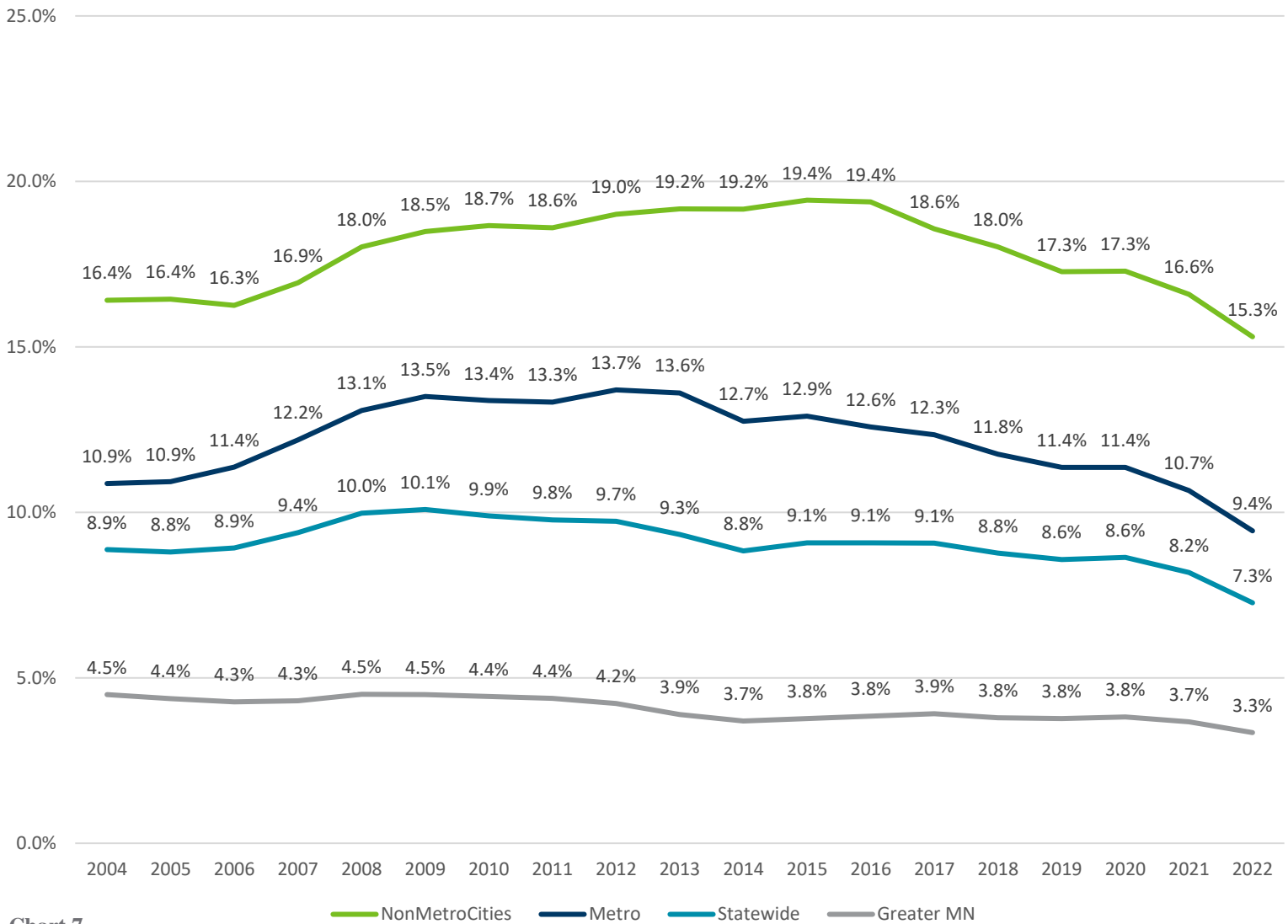


Chart 7

Commercial Aggregate EMV by Year

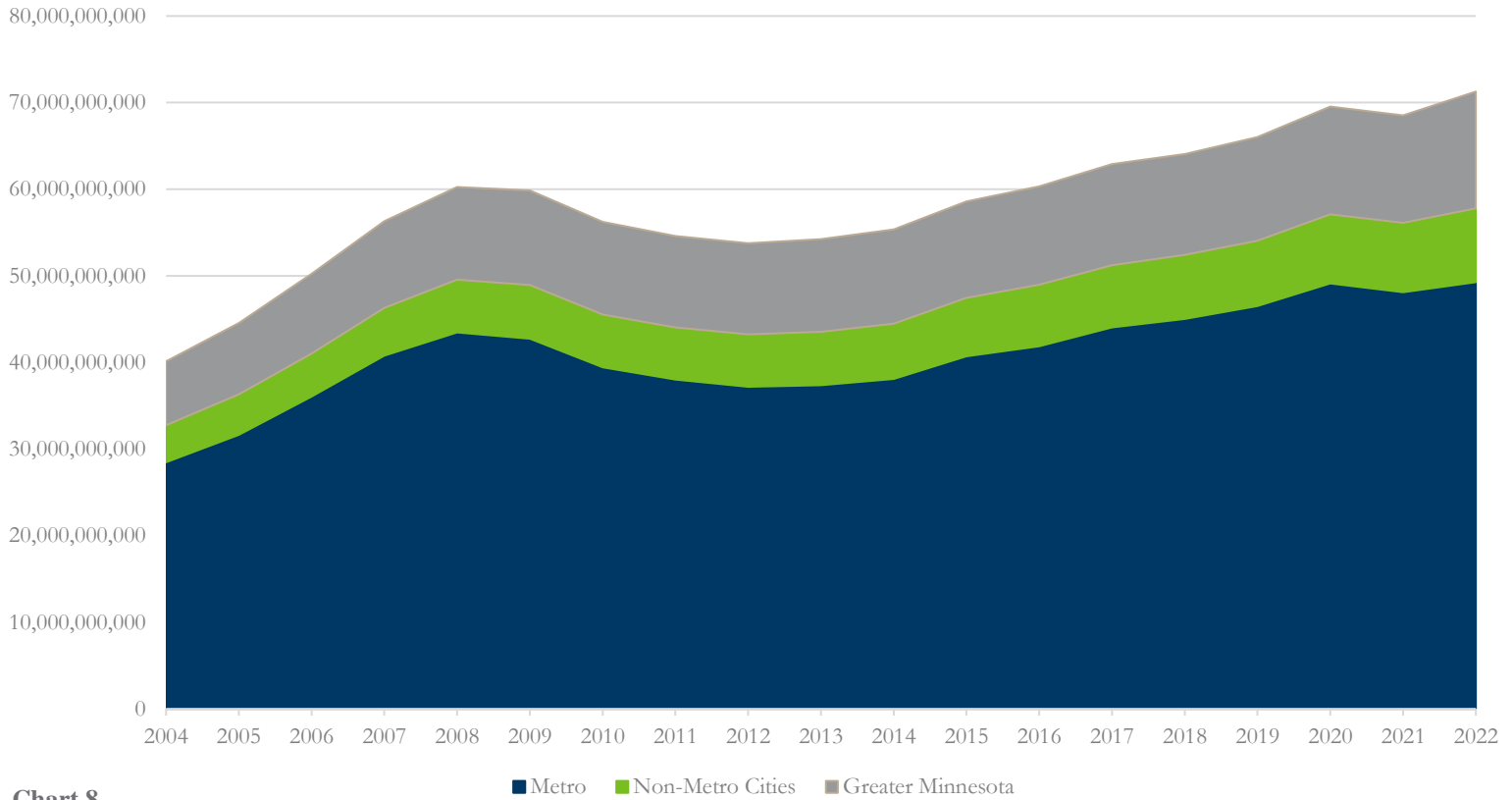


Chart 8

Industrial Property

After smaller increases in both aggregate and steady EMV in 2021, industrial aggregate EMV increased by double-digits, while CC EMV increased at rates more than double that of the 2016-2020 average. The only region to not see aggregate increases greater than their previous average was non-metro cities, which has the lowest EMV of the three regions and therefore is more likely to have larger swings. Industrial property maintains the lowest statewide EMV of all property types (other than agricultural homestead HGA). Chart 9 shows how statewide industrial EMV has compared with other non-agricultural property types since 2004- industrial EMV has been steadily increasing since 2015 and was poised to surpass cabins before the latter’s large increase this year. Unlike cabins, the majority (78%) of industrial EMV is located in the Metro area. Given that apartments and commercial property are also mainly located in the Metro, this has meant that despite industrial EMV increases its share of EMV in the Metro has only increased by 0.9% in that same timeframe (3.8% in 2015 to 4.7% now).

Percent Change in Industrial EMV

(Average EMV is the Average Change from 2016-2020)

Region (2022 Nominal EMV in millions and % of total regional EMV)	Average Aggregate EMV	2021 Aggregate EMV	2022 Aggregate EMV	Average CC EMV	2021 CC EMV	2022 CC EMV
Twin Cities Metro Area (\$24,685; 4.7%)	10.4%	5.7%	15.1%	6.3%	3.8%	12.7%
Non-Metro Cities (\$1,773; 3.2%)	12.4%	3.1%	10.4%	1.1%	0.5%	5.5%
Greater Minnesota (\$5,243; 1.3%)	8.4%	6.3%	10.9%	1.0%	0.8%	6.2%

Table 12

Statewide EMV by Year by Property Type

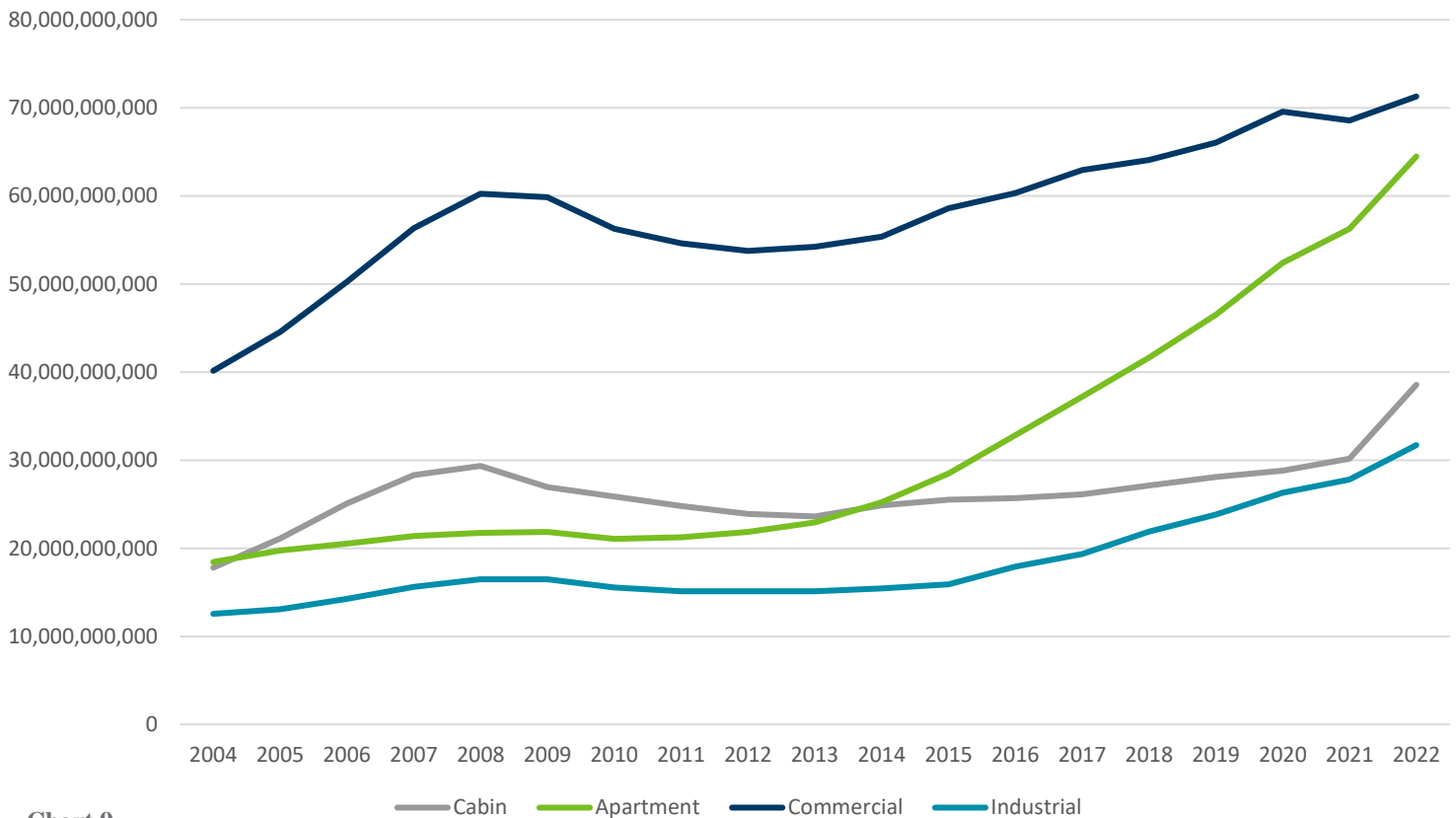


Chart 9

Taxable Market Value

In Minnesota, taxes are not directly based on the estimated market value. State property tax laws 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 the Property Tax Administrator's 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 levying authorities (cities, counties, towns, etc.).

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:

$$\begin{array}{r}
 \text{Step 1:} \qquad \qquad \qquad \textit{Total proposed budget} \\
 \qquad \qquad \qquad \qquad \qquad \textit{- All non-property tax revenue (state aids and fees)} \\
 \hline
 \qquad \qquad \qquad \qquad \qquad \textit{= Property tax revenue needed}
 \end{array}$$

$$\begin{array}{r}
 \text{Step 2:} \qquad \qquad \qquad \textit{Property tax revenue needed} \\
 \qquad \qquad \qquad \qquad \qquad \textit{\div Total tax capacity of all taxable properties} \\
 \hline
 \qquad \qquad \qquad \qquad \qquad \textit{= Local tax rate}
 \end{array}$$

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 or taxable market value of other properties in the jurisdiction. Table 13 provides figures for some of the more common exclusions and deferrals that remove taxable value from the tax base, while Chart 10 shows the historical figures of the percent change in TMV for major property groups since 2013.

Value Exclusions and Deferrals

All Values in Millions

Exclusion/Deferral	2021 Value	2022 Value	% Change
Homestead Market Value Exclusion	\$21,249	\$16,626	-21.8%
Veterans with a Disability Exclusion	\$3,862	\$4,307	11.5%
Green Acres	\$2,683	\$3,665	36.6%
Open Space	\$731	\$770	5.3%
Rural Preserve	\$599	\$773	29.1%
Plat Law	\$421	\$696	65.5%

Table 13

Percent Change in Taxable Market Value by Property Class Assessment Years 2013-2022

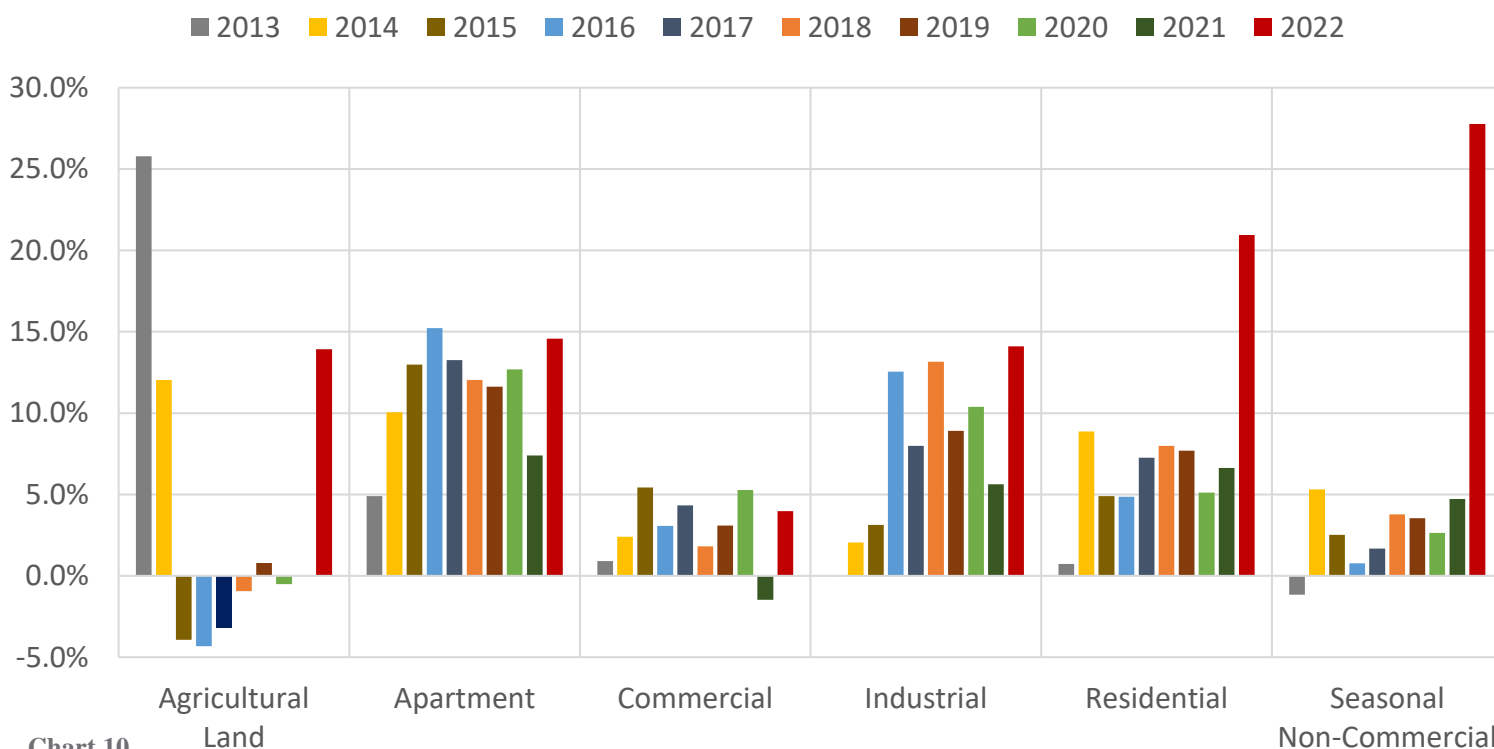
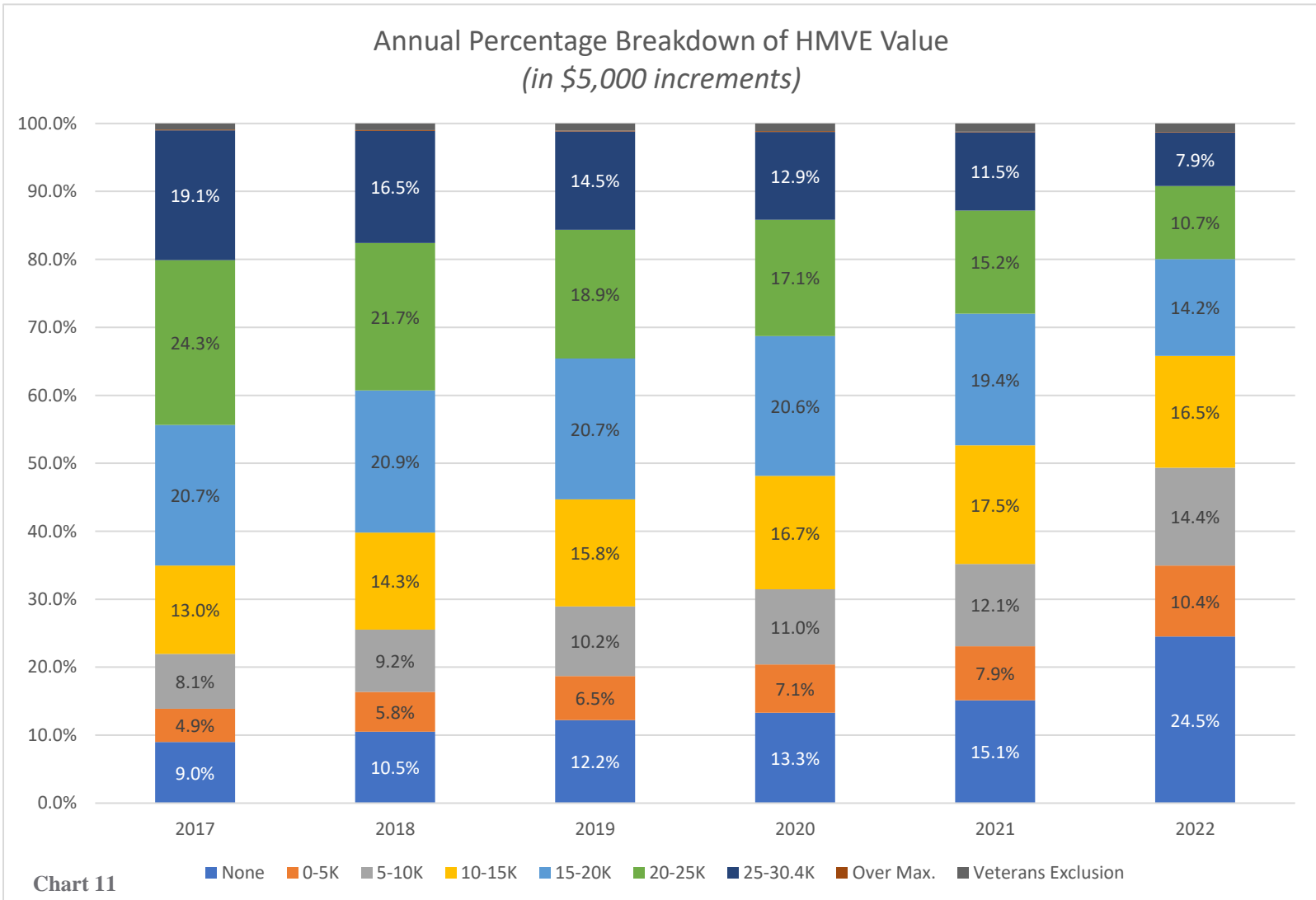


Chart 10

Exclusion and Deferral Trends

As indicated in Table 11, the sharp increase in residential and agricultural homestead EMV led to a large decrease in the homestead market value exclusion (HMVE) between 2021 and 2022. Chart 11 shows the breakdown of what homesteads receive for the market value exclusion, broken down by percentages per \$5,000 increment.⁶ This shows the effect of steadily increasing residential values. In 2017, a plurality of homes received between \$20,000-\$25,000 of exclusion, and 43.4% saw over \$20,000 excluded. The largest exclusion that can be received is just over \$30,400 for homesteads worth \$76,000. Examining the portion of homes that receive above or below the midpoint (approximately \$15,000), we see that in 2017, 64% received over \$15,000 in exclusion. Looking at the initial 2022 data, the distribution has reversed: only around 33% receive over \$15,000, meaning that almost 66% receive under \$15,000 in exclusion. Additionally, a plurality (24.5%) of homesteads now receive no market value exclusion, up from only 9% in 2017. These changes compound with the increase in homesteaded property’s EMV to result in even more of the tax base shifting to residential and agricultural homesteaded properties.



⁶ Some parcels receive above the maximum Homestead Market Value Exclusion amount due to there being multiple homesteads on the parcel (parcels that have multiple houses, housing cooperatives, etc.). Parcels also cannot receive a HMVE if they are also receiving a homestead exclusion for veterans with a disability. Both categories make up under 1.5% of parcels for all years in the chart.

The Homestead Exclusion for Veterans with a Disability amount continued to increase. While the exclusion had steadily increased by around 10% between 2013-2019, it had only seen increases of around 5% in 2020 and 2021, leading to questions of whether the exclusion was flattening out. This year's increase of 11.5% represents a return to previous levels. While we cannot say definitively why exclusion amounts have continued to increase, more properties continue to receive the exclusion annually (over 1,000 between 2021 and 2022), suggesting that qualifying veterans are continuing to learn about the program and apply.

Plat law saw its largest increase for the deferral since our data begins in 2004, increasing by around \$275 million. This is expected given the large increases in EMV and residential EMV in particular, suggesting that there was increased development. While this is still a large amount of deferred value, it only represents 0.05% of all residential market value for assessment year 2022. Regardless, this magnitude of new market value being deferred under the program shows the extent of development. Given that this exclusion only provides a deferral for a limited number of years per parcel⁷ and can be cut short due to new construction or the transfer of the property, it is possible that the large increase in deferred value this year will abruptly end sometime in the coming years.

Open Space increased by a little over 5%, which again is somewhat expected given the increased development. Open Space is a program that has comparatively few properties enrolled, which can result in large swings based on enrollment and reporting.

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 taxable market value of qualifying farmland is based on its agricultural use, rather than its highest and best use (which may be impacted by sales of nearby land for development or speculation).

The Department of Revenue determines a Green Acres value for tillable and non-tillable class 2a agricultural land for each county to reflect market and agricultural conditions. 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. (See Appendix D for details about Green Acres and Rural Preserve values for the 2022 assessment.)

⁷ Plat Law phases in new market value when raw land is platted into a subdivision. The new value is phased in over three years in the Metro, or seven years in Greater Minnesota (and some exceptions in the Metro).

Green Acres Values: 2022 Assessment Year Impact

For assessment year 2022 (taxes payable 2023), statewide taxable values of agricultural land increased by 13.9%, 0.6% less than the increase in aggregate EMV due to Green Acres and Rural Preserve. Data for Green Acres and Rural Preserve for the last three years is shown in Table 14.

The percentage of value deferred for Green Acres increased to the highest value since at least 2016, despite the double-digit increase in agricultural land EMV, emphasizing the even higher increases in other classification's EMV and increased development pressure. Enrolled market value increased by almost 14% from 2021, despite a decrease in the number of enrolled acres (from 3.093 million in 2021 to 3.021 million in 2022). This resulted in almost \$1 billion increase in deferred value, a 36.6% increase from 2021.

Rural Preserve also saw large increases in enrolled and deferred value, despite enrolled acreage decreasing by around 2,000 acres. Rural Preserve actually had a higher percent of market value deferred in 2019 that sharply dropped in 2020, though that was partly due to a small number of counties that contained a disproportionately large amount of deferred value changing their base values between 2019 and 2020.

Green Acres and Rural Preserve Deferrals			
<i>All Values in Millions</i>			
Green Acres	2020	2021	2022
Enrolled Market Value	\$14,725	\$14,719	\$16,767
Taxable Value	\$11,972	\$12,036	\$13,102
Deferred Value	\$2,753	\$2,683	\$3,665
Percent Deferred*	18.7%	18.2%	21.9%
Rural Preserve	2020	2021	2022
Enrolled Market Value	\$1,377	\$1,373	\$1,605
Taxable Value	\$788	\$774	\$832
Deferred Value	\$589	\$599	\$773
Percent Deferred*	42.7%	43.6%	48.1%

* *Percent Deferred = Percentage of Total EMV (Deferred Value + Taxable Value) that received deferral*

Table 14

The large increases in Green Acres and Rural Preserve this year show the importance of the program, providing a tax deferral to enrolled agricultural and rural vacant land in the face of increased development pressure.

Tax Distribution

Minnesota's property tax system has several components including classification, valuation, and special programs that reduce taxable value, credits, and different levies. These components determine which properties will pay a greater or lesser share of taxes.

Taxable Value

The nature of Minnesota’s property tax system is that if the taxable value of one class of property decreases, it pays a smaller share of the overall tax burden and other property classes pay a larger share.

For example, agricultural and homesteaded properties have typically received preferential property tax treatment through classification rates and programs – such as Green Acres and the Homestead Market Value Exclusion – and through homestead credits and school bonding credits,

Conversely, commercial/industrial properties typically pay a greater share of taxes than residential or agricultural properties of equal value due to a higher class rate, lesser eligibility for special programs, and being subject to additional levies such as the state general tax. (See Appendix C for details about the classification rates used for the 2022 assessment.)

The impact of these components is clear when reviewing tax liability and effective tax rates. Based on preliminary estimates from the 2022 assessment year (taxes payable 2023):

- Agricultural property and rural vacant land represent around 15% of taxable property value and pay a bit more than 5% of net property taxes statewide. (See Table 12, next page.)
- Residential property makes up almost 60% all market value and pays just over 54% of all net property taxes
- Commercial property accounts for about 7.4% of market value and pays 17% of property taxes.
- Industrial property accounts for about 3% of market value and pays about 8% of property taxes.

These numbers are affected by where the majority of each property type is located and the surrounding tax base, but they still provide insight into how different classifications contribute to the tax base.

2022 Trends

Net Tax Liability

Table 13 shows the net tax and tax share for each major property class. The numbers in italics represent the percent change in the market value and net tax share from last year.

Agricultural and Residential Property

Despite increases in EMV, market value share of agricultural property continued to decrease, continuing a downward trend since 2014. These decreases have slowed in the last two years, only decreasing by 0.5% and 0.7% compared to previous decreases that were around 1% or higher; agricultural market share had been 21% as recently as 2016. While last year’s decreases were due to other property types not increasing as much and agricultural land staying steady, this year saw a lower decrease due to other property types seeing much higher increases than normal. Green Acres and Rural Preserve also have helped temper the higher increase in agricultural land’s aggregate EMV.

Net Tax Liability and Tax Share by Property Class
Assessment Year 2022, Taxes Payable 2023 (Preliminary Estimates)

Properties by Class	Market Value (Millions)	Net Tax (Millions)	Market Value Share	Net Tax Share
Agricultural/Rural Vacant	\$145,606	\$636	15.3% (-0.5%)	5.2% (-0.2%)
Residential	\$563,571	\$6,649	59.1% (+1.6%)	54.2% (+1.9%)
Apartments	\$64,456	\$922	6.8% (-0.1%)	7.5% (-0.1%)
Seasonal (Non-Commercial)	\$38,541	\$303	4.0% (+0.2%)	2.5% (+/- 0%)
Commercial	\$70,560	\$2,081	7.4% (-1.0%)	17.0% (-1.6%)
Industrial	\$31,698	\$949	3.3% (-0.1%)	7.7% (+/- 0%)
All Other	\$39,671	\$718	4.2% (+/- 0%)	5.9% (+0.1%)
Total Real & Personal	\$954,105	\$12,259	100.0%	100.0%

Table 15 *Please note that due to rounding, there may be some small differences between the listed totals and sums of all classes.*

Residential property continues to see larger market value and net tax share due to the large increases in EMV. The past two years have seen increases greater than 1% to both market value and net tax share, and have also seen tax share increases larger than market value increases. This is likely due to a multitude of factors, such as decreases in other property's market value share that pay more in tax (such as commercial property), but it also corresponds with the large decreases in value from the Homestead Market Value Exclusion this year. The consistent increases have meant that both the residential market value and net tax share has risen by around 6% since 2016 (52.8% and 48.5% in 2016 respectively). It is important to note that the percentage of tax share varies considerably by region as shown in Table 9 in the Residential section; while the statewide proportions can inform general trends, each taxing jurisdiction will have its own breakdown of the tax base.

Commercial and Industrial Property

For commercial property, market value share dropped by a full percent following a smaller increase in aggregate EMV compared to other property types. This is the largest decrease in both market value and net tax share since at least 2017. This is especially significant given that commercial property has a higher classification rate and therefore generally pays more tax, so it takes more market value of other property types to make up the same net tax capacity. Commercial properties still pay the second highest share of net tax behind residential property, though residential property has seen increases rather than decreases in net tax share. Industrial property market value share and net tax share were virtually unchanged.

Appendix A – Summary of 2022 State Board Orders

Sales Ratios and Coefficients of Dispersion

Property Type	Final Adjusted Median Ratio		Coefficient of Dispersion		Sample Size	
	2020	2021	2020	2021	2020	2021
<i>State Board Year</i>	<i>2020</i>	<i>2021</i>	<i>2020</i>	<i>2021</i>	<i>2020</i>	<i>2021</i>
Residential/Seasonal	94.59	93.87	8.05	8.55	76,297	88,125
Apartment	95.29	95.28	11.70	11.75	496	815
Commercial/Industrial	94.17	95.67	16.01	16.25	1,424	2,142
Resorts	99.87	101.27	21.86	16.51	33	52
Agricultural 2a / Rural Vacant 2b	96.73	93.99	19.82	20.23	3,736	5,090

Table 16

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 17

State Board Orders by County for 2022 Assessment Year

County	Assessment District	Class	Percent Increase	Percent Decrease
Becker	Countywide	2b Rural Vacant Land- Land Only to those parcels that have less than 75% 2a or 2b acreage; 2c Managed Forest Land- Land Only	5%	
	Township of Burlington	Residential- Land Only; Seasonal Residential Recreational- Land Only	5%	
	Township of Green Valley	Residential- Land and Structures; Seasonal Residential Recreational- Land and Structures	5%	
Freeborn	City of Albert Lea	Residential- Land Only On-Water; Seasonal Residential Recreational- Land Only On-Water	10%	
	Township of Pickerel Lake	Residential- Land Only Off-Water; Seasonal Residential Recreational- Land Only Off-Water	10%	
Mahnomen	Township of Beaulieu	2b Rural Vacant Land- Land Only	5%	
	Township of Clover	2b Rural Vacant Land- Land Only	5%	
	Township of Heier	2b Rural Vacant Land- Land Only	5%	
	Township of Island Lake	2b Rural Vacant Land- Land Only	5%	
	Township of Little Elbow	2b Rural Vacant Land- Land Only	5%	
	Township of Oakland	2b Rural Vacant Land- Land Only	5%	
	Township of Twin Lakes	2b Rural Vacant Land- Land Only	5%	
McLeod	Township of Collins	Residential- Land Only On Water; Seasonal Residential Recreational Land Only On Water	5%	

County	Assessment District	Class	Percent Increase	Percent Decrease
		Residential- Structures Only On Water; Seasonal Residential Recreational Structures Only On Water	10%	
Mower	City of Lyle	Residential Structures Only; Seasonal Residential Recreational Structures Only	5%	
Norman	City of Halstad	Residential Land Only; Seasonal Residential Recreational Land Only	5%	
Otter Tail	City of Battle Lake	Commercial		Reassessment
	City of Fergus Falls	Commercial Offices and Restaurants Only- Land and Structures		10%
Pennington	City of Thief River Falls	Commercial- Land and Structures	10%	
Polk	City of Erskine	Residential- Land and Structures On- Water; Seasonal Residential Recreational- Land and Structures On- Water	10%	
		Residential- Land Only Off Water; Seasonal Residential Recreational Land Only Off Water	20%	
Red Lake	City of Oklee	Residential- Land and Structures; Seasonal Residential Recreational- Land and Structures	5%	
Redwood	City of Vesta	Residential- Structures Only; Seasonal Residential Recreational Structures Only	5%	
Wabasha	City of Lake City	Commercial- Structures Only		5%
Wright	All Townships	Rural Vacant Land and Agricultural Land greater than 34.5 acres- Land Only	5%	
	Township of Albion	Residential Land Only; Seasonal Residential Recreational Land Only	5%	
	Township of Chatham	Residential Land Only; Seasonal Residential Recreational Land Only	5%	
	Township of Corinna	Residential Land Only; Seasonal Residential Recreational Land Only	5%	

County	Assessment District	Class	Percent Increase	Percent Decrease
	Township of Maple Lake	Residential Land Only; Seasonal Residential Recreational Land Only	5%	
	Township of Silver Creek	Residential Land Only; Seasonal Residential Recreational Land Only	5%	



2018-2022 State Board of Equalization Summary

Comparison of SBE Orders

	2018			2019			2020			2021			2022		
	Count	% of Counties	% Change	Count	% of Counties	% Change	Count	% of Counties	% Change	Count	% of Counties	% Change	Count	% of Counties	% Change
Counties with SBE orders	13	15%	2%	8	9%	2%	10	11%	2%	5	6%	6%	13	15%	9%
Counties with no SBE orders	74	85%	2%	79	91%	2%	77	89%	2%	82	94%	6%	74	85%	9%
Districts with orders	26			8			17			10			39		
Countywide orders	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	2	2%	2%

2022 Takeaways

- Overall magnitude of orders fell from 8.75% to 6.7%, all but two orders were increases
- Many orders included land classified as Rural Vacant Land
- Many orders were caused by assessors missing minimum ratio requirements by less than 3%
- Two counties needed countywide orders

Magnitude & Frequency of Assessment District Orders

Amount of change ordered:	# of Assessment Dist. Orders				
	2018	2019	2020	2021	2022
+15% or more	5	0	2	4	2
+10%	5	2	14	8	9
+5%	12	4	22	10	34
-5%	2	1	0	0	1
-10%	1	0	0	2	1
-15% or more	1	0	0	0	0
Reassessment	0	1	2	2	2
Total:	26	8	40	26	49

Magnitude & Frequency of Countywide Orders

Amount of change ordered	# of Countywide Orders				
	2018	2019	2020	2021	2022
+15% or more	0	0	0	0	0
+10%	0	0	0	0	0
+5%	0	0	1	0	2
-5%	0	0	0	0	0
-10%	0	0	0	0	0
-15% or more	0	0	0	0	0
Reassessment	0	0	0	0	0
	0	0	1	0	2

Appendix B – Sales Ratio Studies

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).

CRVs 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 on the 12-month study using sales from October 1, 2020, through September 30, 2021. These sales are compared with preliminary values for assessment year 2022, taxes payable 2023. 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, 2022.

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% (.25% monthly), if a house were purchased in August 2021 for \$200,000, it would be adjusted to a January 2022 value of \$202,500, or the sales price would be adjusted upward by 1.25% 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%, or above 105%. 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 department.

A separate nine-month 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.)

21-Month Study

The purpose of the 21-month study 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.

Appendix C – Classification Rates (2022 Assessment)

Class	Description	Tiers	Class Rate	State General Rate
1a	Residential Homestead	First \$500,000	1.00%	N/A
		Over \$500,000	1.25%	N/A
1b	Homestead of Persons who are Blind/Disabled [classified as 1a or 2a] [classified as 1a or 2a]	First \$50,000	0.45%	N/A
		\$50,000 - \$500,000	1.00%	N/A
		Over \$500,000	1.25%	N/A
1c	Homestead Resort	First \$600,000	0.50%	N/A
		\$600,000 - \$2,300,000	1.00%	N/A
		Over \$2,300,000	1.25%	1.25%
1d	Housing for Seasonal Workers	First \$500,000	1.00%	N/A
		Over \$500,000	1.25%	N/A
2a	Agricultural Homestead - House, Garage, 1 Acre (HGA)	First \$500,000	1.00%	N/A
		Over \$500,000	1.25%	N/A
2a/2b	Agricultural Homestead - First Tier	First \$1,890,000	0.50%	N/A
2a/2b	Farm Entities Excess First Tier	Unused First Tier	0.50%	N/A
2a	Agricultural - Nonhomestead or Excess First Tier		1.00%	N/A
2b	Rural Vacant Land		1.00%	N/A
2c	Managed Forest Land		0.65%	N/A
2d	Private Airport		1.00%	N/A
2e	Commercial Aggregate Deposit		1.00%	N/A
3a	Commercial/Industrial/Utility (<i>not including utility machinery</i>)	First \$100,000	1.50%	N/A
		\$100,000 - \$150,000	1.50%	1.50%
		Over \$150,000	2.00%	2.00%
		Electric Generation Public Utility Machinery	2.00%	N/A
		All Other Public Utility Machinery	2.00%	2.00%
		Transmission Line Right-of-Way	2.00%	2.00%
4a	Residential Nonhomestead 4+ Units		1.25%	N/A
4b(1)	Residential Non-Homestead 1-3 Units		1.25%	N/A
4b(2)	Unclassified Manufactured Home		1.25%	N/A
4b(3)	Agricultural Non-Homestead Residence (2-3 units)		1.25%	N/A
4b(4)	Unimproved Residential Land		1.25%	N/A
4bb(1)	Residential Non-Homestead Single Unit	First \$500,000	1.00%	N/A
		Over \$500,000	1.25%	N/A
4bb(2)	Agricultural Non-Homestead Single Unit - (HGA)	First \$500,000	1.00%	N/A
		Over \$500,000	1.25%	N/A
4bb(3)	Condominium Storage Unit	First \$500,000	1.00%	N/A
		Over \$500,000	1.25%	N/A
4c(1)	Seasonal Residential Recreational Commercial (resort)	First \$500,000	1.00%	1.00%
		Over \$500,000	1.25%	1.25%

Class	Description	Tiers	Class Rate	State General Rate
4c(2)	Qualifying Golf Course		1.25%	N/A
4c(3)(i)	Non-Profit Community Service Org. (non-revenue)		1.50%	N/A
	Congressionally Chartered Veterans Organization (non-revenue)		1.00%	N/A
4c(3)(ii)	Non-Profit Community Service Org. (donations)		1.50%	1.50%
	Congressionally Chartered Veterans Organization (donations)		1.00%	1.00%
4c(4)	Post-Secondary Student Housing		1.00%	N/A
4c(5)(i)	Manufactured Home Park		1.25%	N/A
4c(5)(ii)	Manufactured Home Park (>50% owner-occupied)		0.75%	N/A
4c(5)(ii)	Manufactured Home Park (50% or less owner-occupied)		1.00%	N/A
4c(5)(iii)	Class I Manufactured Home Park		1.00%	N/A
4c(6)	Metro Non-Profit Recreational Property		1.25%	N/A
4c(7)	Certain Non-Comm. Aircraft Hangars and Land (leased land)		1.50%	N/A
4c(8)	Certain Non-Comm. Aircraft Hangars and Land (private land)		1.50%	N/A
4c(9)	Bed & Breakfast		1.25%	N/A
4c(10)	Seasonal Restaurant on a Lake		1.25%	N/A
4c(11)	Marina	First \$500,000	1.00%	N/A
		Over \$500,000	1.25%	N/A
4c(12)	Seasonal Residential Recreational Non-Commercial	First \$76,000	1.00%	0.40%
		\$76,000 - \$500,000	1.00%	1.00%
		Over \$500,000	1.25%	1.25%
4d	Low Income Rental Housing (Per Unit)	First \$162,000	0.75%	N/A
		Over \$162,000	0.25%	N/A
5(1)	Unmined Iron Ore and Low-Grade Iron-Bearing Formations		2.00%	2.00%
5(2)	All Other Property		2.00%	N/A

Appendix D – Green Acres and Rural Preserve Values

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 at its agricultural value rather than its highest and best use value (which may be impacted by development pressures). This provides a lower taxable value for qualifying properties and redistributes the tax burden to other properties in the same jurisdiction.

Only property classified as class 2a agricultural land under Minnesota Statutes section 273.13, subdivision 23 can qualify for Green Acres, and at least 10 contiguous acres must be used (unless it is a qualifying nursery or greenhouse).

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.⁸ 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).

$$\text{Sale Price} = \beta_1 * \text{Tillable Acres} + \beta_2 * \text{Non - Tillable Acres}$$

Equation 2

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.

⁸ 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.

Rural Preserve

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 (see 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

Rural Preserve values may be different than Green Acres values. 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 pasturable, 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% 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.

County Average Value Per Acre – Assessment Year 2022

County	Tillable Value	Non-Tillable Value
Aitkin	1,300	1,000
Anoka	3,500	2,200
Becker	3,300	1,600
Beltrami	1,400	1,100
Benton	3,900	1,800
Big Stone	5,500	1,500
Blue Earth	7,900	1,800
Brown	7,600	1,700
Carlton	1,400	1,200
Carver	7,000	2,500
Cass	2,400	1,300
Chippewa	7,200	1,500
Chisago	3,500	2,300
Clay	4,600	1,200
Clearwater	1,300	1,100
Cook	800	800
Cottonwood	8,400	1,500
Crow Wing	2,300	1,300
Dakota	7,600	2,600
Dodge	8,200	2,100
Douglas	4,000	1,800
Faribault	7,700	1,500
Fillmore	6,800	2,600
Freeborn	7,500	1,500
Goodhue	7,200	2,400
Grant	5,000	1,800
Hennepin	7,300	2,600
Houston	5,200	2,900
Hubbard	2,400	1,600
Isanti	3,900	2,200
Itasca	1,400	900
Jackson	7,900	1,500
Kanabec	2,400	1,200
Kandiyohi	7,000	1,500
Kittson	2,400	800
Koochiching	800	800
Lac Qui Parle	5,600	1,500
Lake	900	800

County	Tillable Value	Non-Tillable Value
Lake of the Woods	1,000	800
Le Sueur	7,400	2,600
Lincoln	6,700	1,500
Lyon	7,100	1,500
Mcleod	6,500	1,900
Mahnomen	3,400	1,000
Marshall	2,400	800
Martin	7,800	1,500
Meeker	5,500	1,700
Mille Lacs	3,000	1,100
Morrison	3,100	1,400
Mower	7,700	1,500
Murray	7,500	1,500
Nicollet	8,600	1,900
Nobles	8,300	1,700
Norman	3,700	1,000
Olmsted	7,200	2,900
Otter Tail	3,300	1,600
Pennington	2,200	900
Pine	2,100	1,300
Pipestone	7,800	2,200
Polk	4,200	900
Pope	4,000	1,800
Ramsey	7,100	2,600
Red Lake	2,400	900
Redwood	8,300	1,600
Renville	7,400	1,500
Rice	7,300	2,600
Rock	9,200	2,200
Roseau	1,200	800
St. Louis	1,000	800
Scott	7,300	2,600
Sherburne	3,600	2,000
Sibley	7,900	2,000
Stearns	5,500	2,300
Steele	6,800	1,700
Stevens	5,400	1,600
Swift	6,500	1,500
Todd	2,500	1,600
Traverse	5,700	1,400
Wabasha	6,300	2,900

County	Tillable Value	Non-Tillable Value
Wadena	2,500	1,400
Waseca	7,200	1,700
Washington	7,100	2,600
Watonwan	7,200	1,500
Wilkin	4,300	1,200
Winona	6,700	3,000
Wright	6,200	2,700
Yellow Medicine	6,300	1,500

Appendix E – Maps: Statewide Market 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 2021 to 2022.

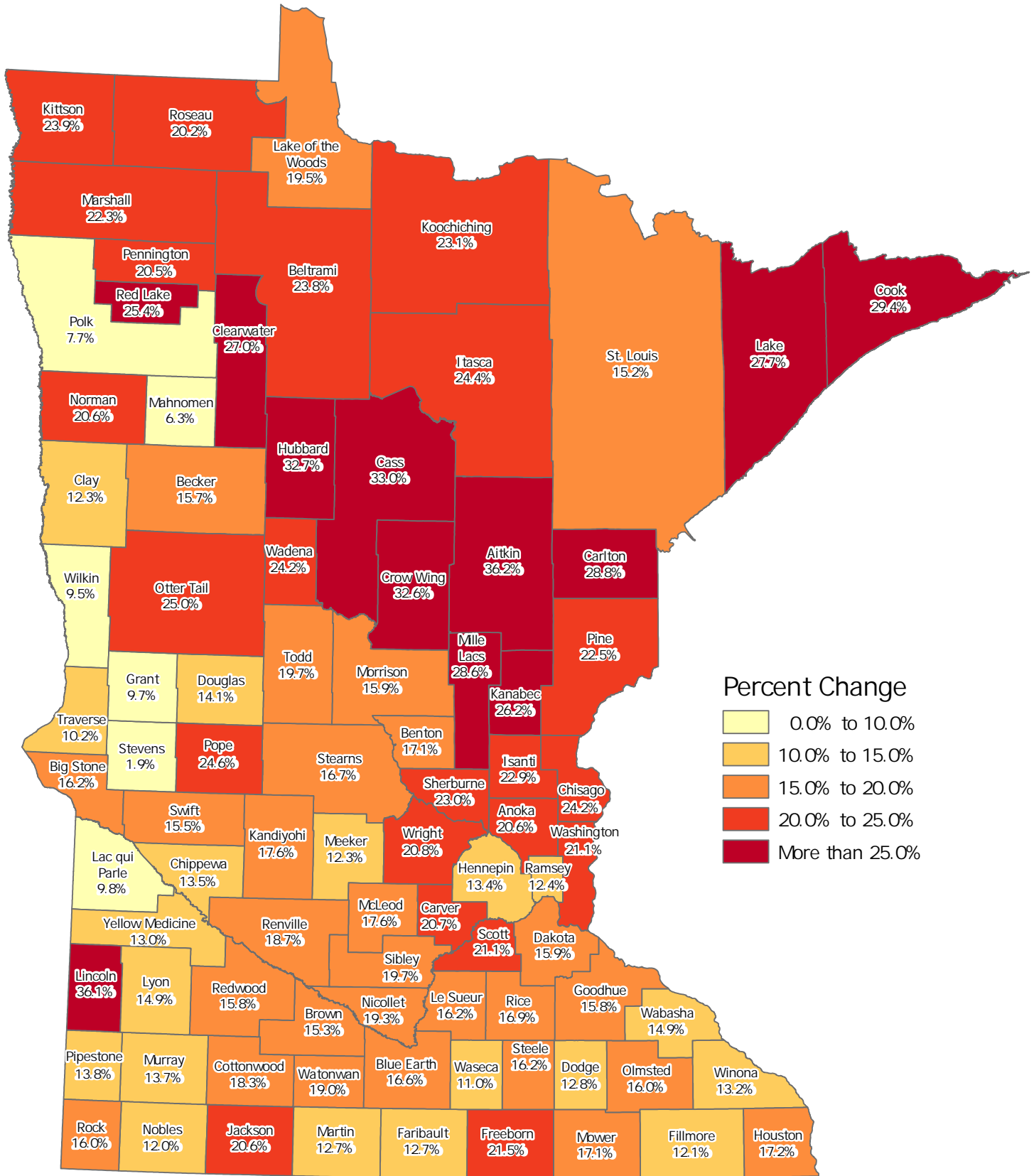
MAP 2 displays the real property sales per 100 parcels for each county for assessment year 2022.

MAP 3 shows taxable tillable Green Acres and 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.

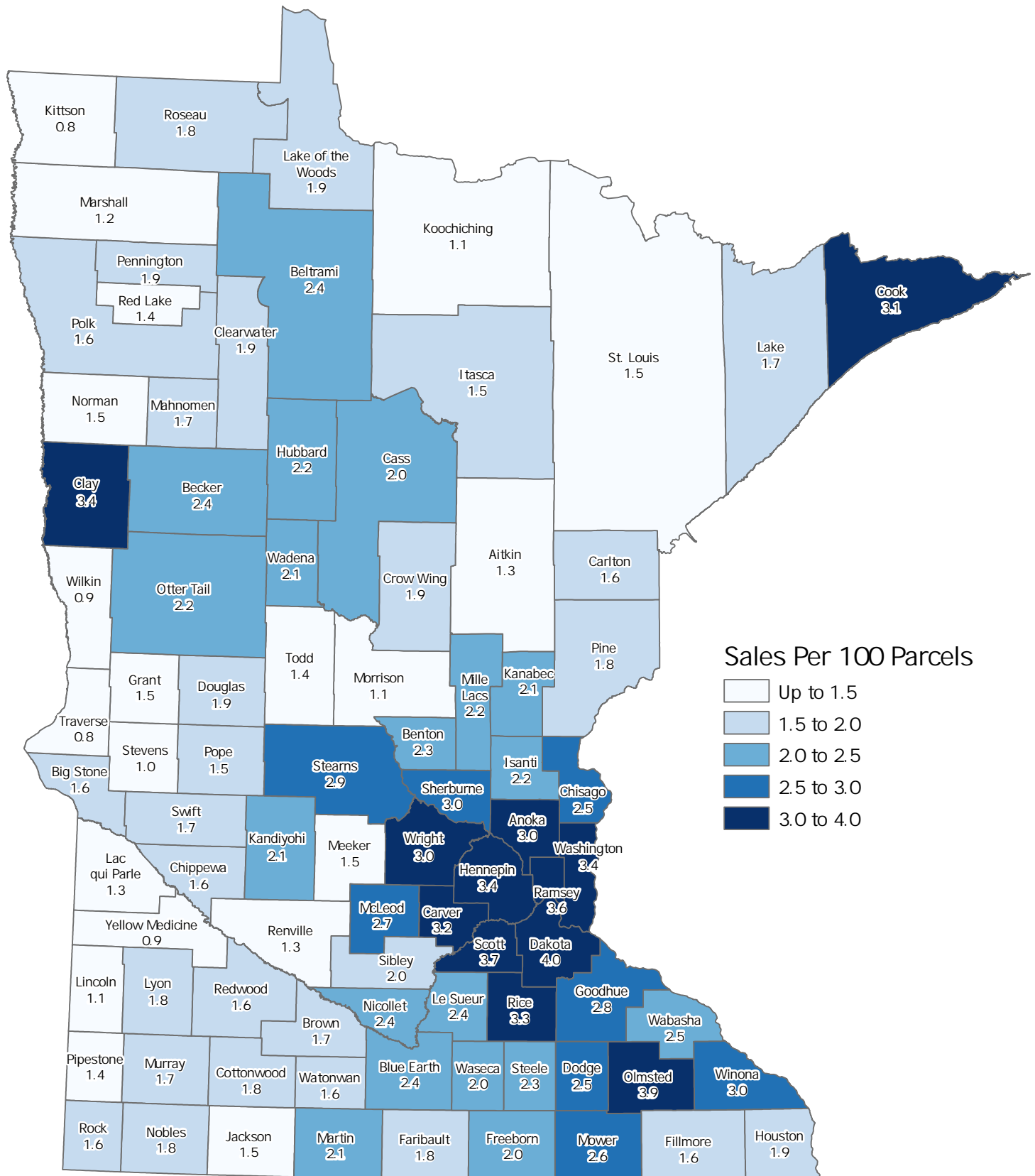
MAP 4 shows taxable non-tillable Green Acres and Rural Preserve values. Values to be used for non-tillable properties enrolled in Green Acres or Rural Preserve do not vary as widely as the values for tillable properties. The non-tillable values are closer to the tillable values in the northern half of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

MAP 5 shows the percentage of county EMV that is a result of new construction first assessed in the 2022 assessment year.

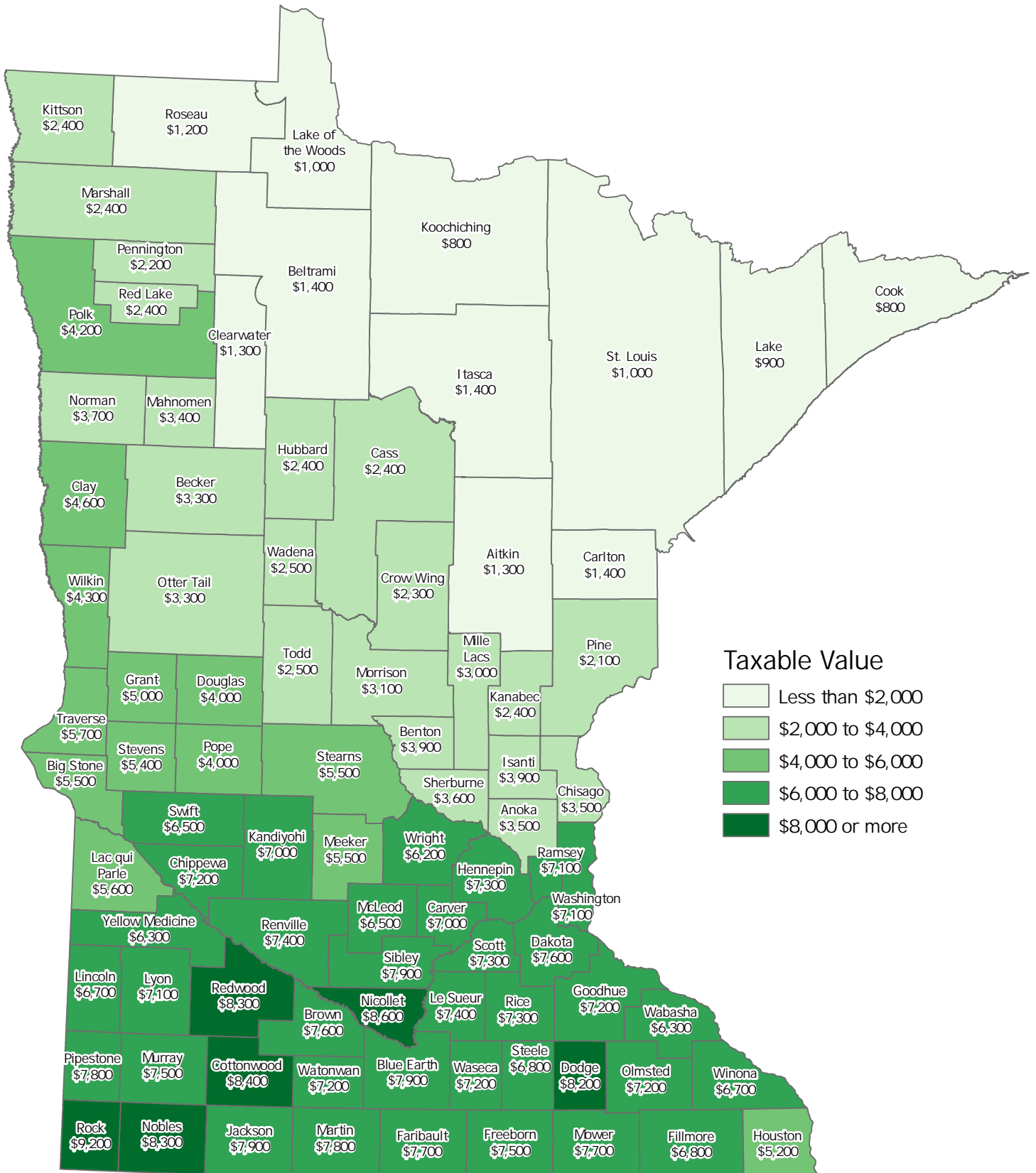
Map 1: Percent Change in Total Estimated Market Value 2021-2022



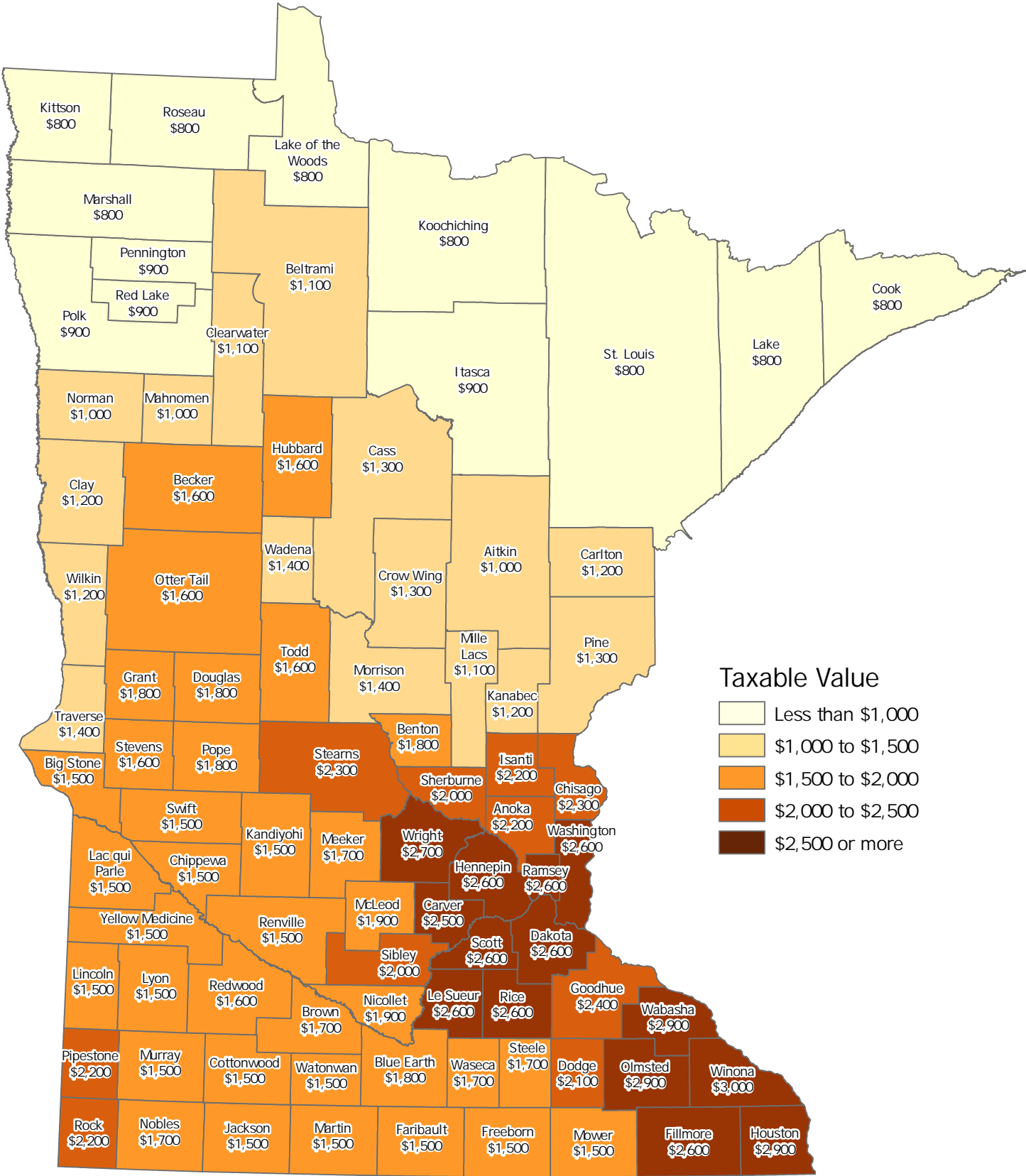
Map 2: Real Property Sales Per 100 Parcels in 2022



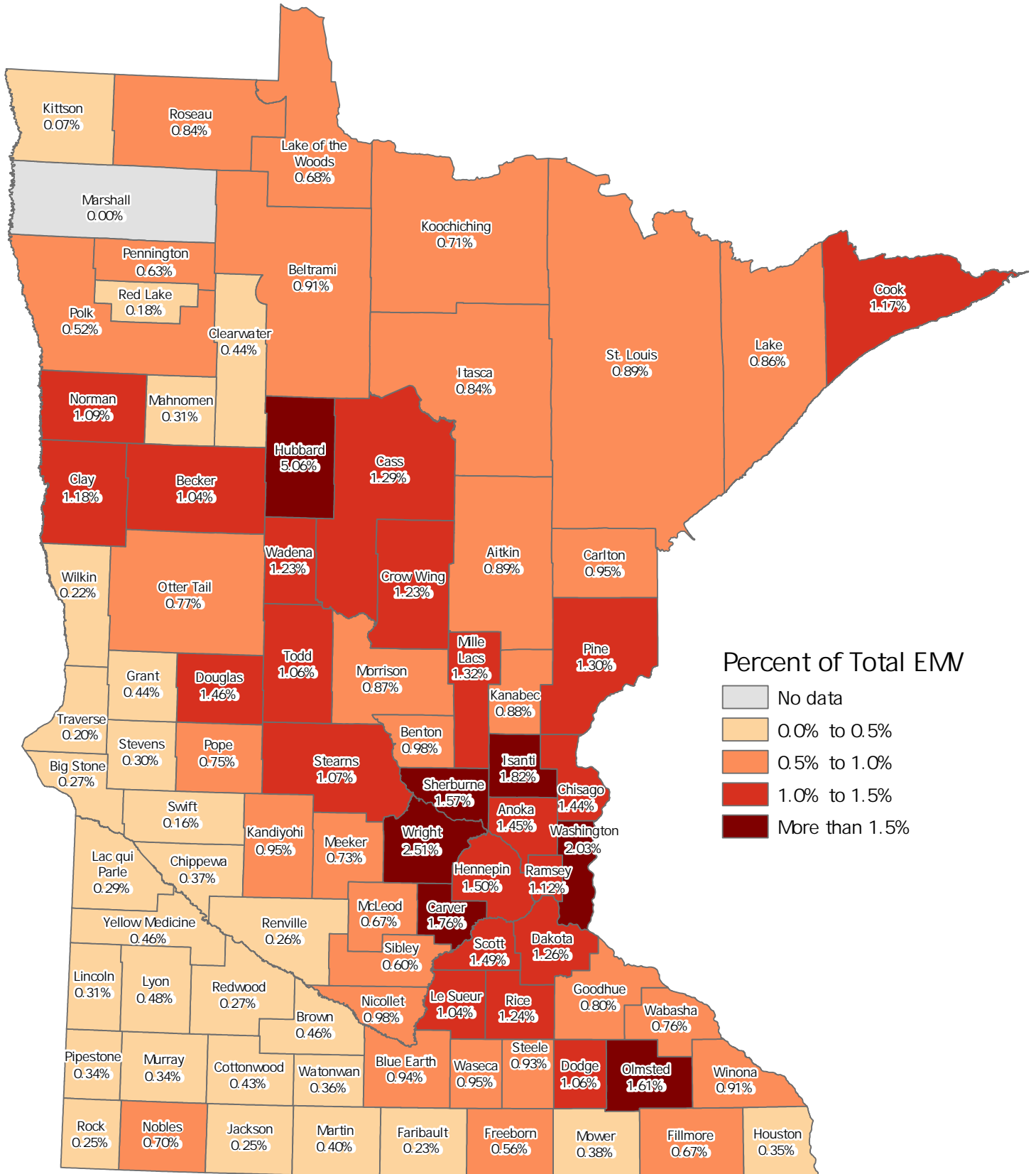
Map 3: Taxable Tillable Green Acres/Rural Preserve Value (2022 Assessment)



Map 4: Taxable Non-Tillable Green Acres and Rural Preserve Value (2022 Assessment)



Map 5: New Construction EMV as a Percentage of Total EMV (2022 Assessment)



Appendix F – 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.

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

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.

CLASSIFICATION 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 44 specific statutory descriptions that result in different class rates based on value tiers and homestead benefits. A classification rate table is shown in Appendix C.

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.

NET TAX CAPACITY In Minnesota, property taxes are based on a property’s net tax capacity, which is its taxable market value multiplied by its classification rate.

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

Equation 4

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

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

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 (eCRV).

STATE BOARD OF EQUALIZATION The State Board of Equalization consists of the Department 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.

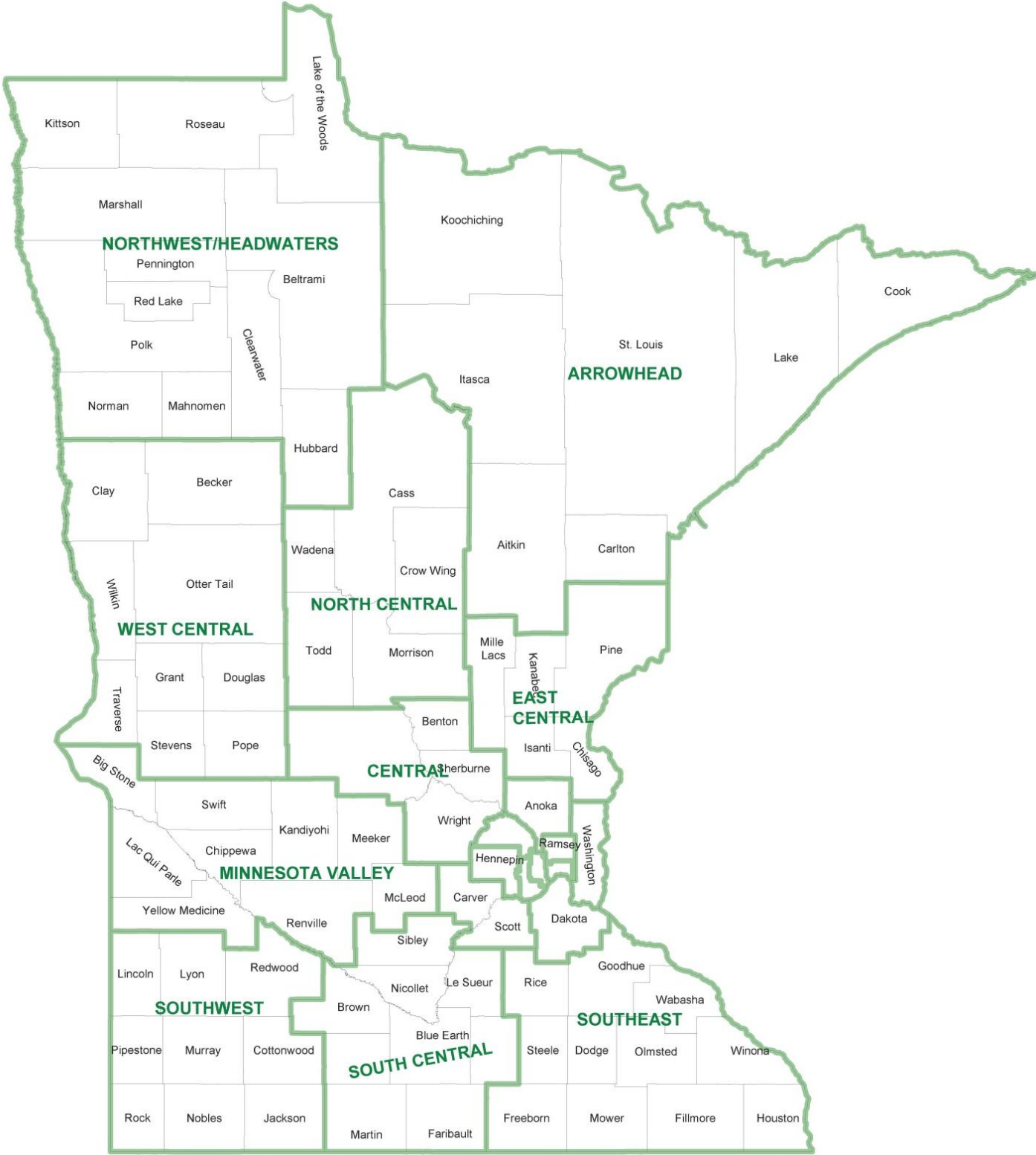
STATE BOARD ORDER A state board order is issued by the State Board of Equalization to adjust the market values of certain property within certain jurisdictions.

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 ratios less than 0.5 or greater than 2. This eliminates a few extreme sales that would distort the COD.

VOSS REGIONS Maps showing the Voss regions used in the report are on the following pages.

Voss Regions – Greater Minnesota Map



Voss Regions- Metro Map

