

Preface

The requirements for the assessment of real property for the purposes of property taxation are found in Nebraska law. The Constitution of Nebraska requires that “taxes shall be levied by valuation uniformly and proportionately upon all real property and franchises as defined by the Legislature except as otherwise provided in or permitted by this Constitution.” Neb. Const. art. VIII, sec. 1 (1) (1998). The uniform standard for the assessed value of real property for tax purposes is actual value, which is defined by law as “the market value of real property in the ordinary course of trade.” Neb. Rev. Stat. §77-112 (R.R.S., 2003). The assessment level for all real property, except agricultural land and horticultural land, is one hundred percent of actual value. The assessment level for agricultural land and horticultural land, hereinafter referred to as agricultural land, is seventy-five percent of actual value. Neb. Rev. Stat. §77-201(1) and (2)(R.S. Supp., 2007). More importantly, for purposes of equalization, similar properties must be assessed at the same proportion of actual value when compared to each other. Achieving the constitutional requirement of proportionality ultimately ensures the balance equity in the imposition of the property tax by local units of government on each parcel of real property.

The assessment process, implemented under the authority of the county assessor, seeks to value similarly classed properties at the same proportion to actual value. This is not a precise mathematical process, but instead depends on the judgment of the county assessor, based on his or her analysis of relevant factors that affect the actual value of real property. Nebraska law provides ranges of acceptable levels of value that must be met to achieve the uniform and proportionate valuation of classes and subclasses of real property in each county. Neb. Rev. Stat. §77-5023 (R.S. Supp., 2007) requires that all classes of real property, except agricultural land, be assessed within the range of ninety-two and one hundred percent of actual value; the class of agricultural land be assessed within the range of sixty-nine to seventy-five percent of actual value; the class of agricultural land receiving special valuation be assessed within the range sixty-nine to seventy-five percent of its special value; and, when the land is disqualified for special value the recapture value be assessed at actual value.

To ensure that the classes of real property are assessed at these required levels of actual value, the Department of Revenue Property Assessment Division, hereinafter referred to as the Division, is annually responsible for analyzing and measuring the assessment performance of each county. This responsibility includes requiring the Property Tax Administrator to prepare statistical and narrative reports for the Tax Equalization and Review Commission, hereinafter referred to as the Commission, and the county assessors. Pursuant to Neb. Rev. Stat. §77-5027 (R.S. Supp., 2005):

- (2) ... the Property Tax Administrator shall prepare and deliver to the commission and to each county assessor his or her annual reports and opinions.
- (3) The annual reports and opinions of the Property Tax Administrator shall contain statistical and narrative reports informing the commission of the level of value and the quality of assessment of the classes and subclasses of real property within the county and a certification of the opinion of the Property Tax

Administrator regarding the level of value and quality of assessment of the classes and subclasses of real property in the county.

(4) In addition to an opinion of level of value and quality of assessment in the county, the Property Tax Administrator may make nonbinding recommendations for consideration by the commission.

The narrative and statistical reports contained in the Reports and Opinions of the Property Tax Administrator, hereinafter referred to as the R&O, provide a thorough, concise analysis of the assessment process implemented by each county assessor to reach the levels of value and quality of assessment required by Nebraska law. The Property Tax Administrator's opinion of level of value and quality of assessment achieved by each county assessor is a conclusion based upon all the data provided by the county assessor and gathered by the Division regarding the assessment activities during the preceding year. This is done in recognition of the fact that the measurement of assessment compliance, in terms of the concepts of actual value and uniformity and proportionality mandated by Nebraska law, requires both statistical and narrative analysis.

The Division is required by Neb. Rev. Stat. §77-1327 (R. S. Supp., 2007) to develop and maintain a state-wide sales file of all arm's length transactions. From this sales file the Division prepares an assessment sales ratio study in compliance with acceptable mass appraisal standards. The assessment sales ratio study is the primary mass appraisal performance evaluation tool. From the sales file, the Division prepares statistical analysis from a non-randomly selected set of observations, known as sales, from which inferences about the population, known as a class or subclass of real property, may be drawn. The statistical reports contained in the R&O are developed in compliance with standards developed by the International Association of Assessing Officers, hereinafter referred to as the IAAO.

However, just as the valuation of property is sometimes more art than science, a narrative analysis of assessment practices in each county is necessary to give proper context to the statistical inferences from the assessment sales ratio study. There may be instances when the analysis of assessment practices outweighs or limits the reliability of the statistical inferences of central tendency or quality measures. This may require an opinion of the level of value that is not identical to the result of the statistical calculation. The Property Tax Administrator's goal is to provide statistical and narrative analysis of the assessment level and practices to the Commission, providing the Commission with the most complete picture possible of the true level of value and quality of assessment in each county.

The Property Tax Administrator's opinions of level of value and quality of assessment are stated as a single numeric representation for level of value and a simple judgment regarding the quality of assessment practices. Based on the information collected in developing this report the Property Tax Administrator may feel further recommendations must be stated for a county to assist the Commission in determining the level of value and quality of assessment within a county. These opinions are made only after considering all narrative and statistical analysis provided by the county assessor and gathered by the Division. An evaluation of these opinions must only be made after considering all other information provided in the R&O.

Finally, after reviewing all of the information available to the Property Tax Administrator regarding the level and quality of assessment for classes and subclasses of real property in each county, the Property Tax Administrator, pursuant to Neb. Rev. Stat. §77-5027(4) (R.S. Supp., 2005), may make recommendations for adjustments to value for classes and subclasses of property. All of the factors relating to the Property Tax Administrator's determination of level of value and quality of assessment shall be taken into account in the making of such recommendations. Such recommendations are not binding on the Commission.

Purpose Statement

Purpose Statements

Commission Summary

Displays essential statistical information from other reports contained in the R&O. It is intended to provide an overview for the Commission, and is not intended as a substitute for the contents of the R&O.

Property Tax Administrator's Opinions & Recommendations

Contains the conclusions and recommendations reached by the Property Tax Administrator regarding level of value and quality of assessment based on all the data provided by the county assessor and gathered by the Department of Revenue Property Assessment Division regarding the assessment activities of the county.

Correlation Section

Contains the narrative analysis of the assessment actions and statistical results which may influence the determination of the level of value and quality of assessment for the three major classes of real property. This section is divided into three parts: Residential Real Property; Commercial Real Property; and, Agricultural Land. All information for a class of real property is grouped together to provide a thorough analysis of the level of value and quality of assessment for the class of real property.

Each part of the Correlation Section contains the following sub-parts:

- I. Correlation
- II. Analysis of Percentage of Sales Used
- III. Analysis of the Preliminary, Trended Preliminary and R&O Median Ratios
- IV. Analysis of Percentage Change in Total Assessed Value in the Sales File to Percentage Change in Assessed Value
- V. Analysis of the R&O Median, Weighted Mean, and Mean Ratios
- VI. Analysis of R&O COD and PRD
- VII. Analysis of Changes in the Statistics Due to the County Assessor Actions
- VIII. Trended Ratio Analysis

Sub-part I is the narrative conclusion of all information known to the Division regarding the class of property under analysis. Sub-parts II through VIII compare important statistical indicators that the Division analyzes when comparing assessment actions to statistical results and provide the explanation necessary to understand the conclusions reached in Sub-part I.

The Correlation Section also contains the 2009 County Abstract of Assessment for Real Property, Form 45, Compared with the 2008 Certificate of Taxes Levied (CTL) Report which compares data from two annual administrative reports filed by the county assessor. It compares the data from the 2008 CTL to establish the prior year's assessed valuation and compares it to the data from the 2009 County Abstract of Assessment for Real Property, Form 45, to

demonstrate the annual change in assessed valuation that has occurred between assessment years. This report displays the amount of assessed dollars of change in value and the percentage change in the value of various classes and subclasses of real property. It also displays real property growth valuation in the county.

Statistical Reports Section

Contains the statistical reports prepared by the Division pursuant to Neb. Rev. Stat. Section 77-1327(3) (R. S. Supp., 2007) and the *Standard on Ratio Studies*, International Association of Assessing Officers, (2007). These statistical reports are the outputs of the assessment sales ratio study of the county by the Division.

The draft statistical reports are available anytime throughout the year through the Assessor Assistant, in a PDF format, or by printed copy upon specific request. The Division, pursuant to 350 Nebraska Administrative Code, Chapter 12, Sales File, and *Directive 08-06, Development of the Real Property State Sales File*, December 29, 2008. The purpose of the Draft Statistical Reports is to provide the statistical indicators of the sales in the sales rosters that are available to the county anytime throughout the year through the Assessor Assistant.

The Division provided the 2009 Preliminary Statistical Reports to the county assessors and the Tax Equalization and Review Commission on or before Friday, January 30, 2009, based on data in the sales file as of Friday, January 9, 2009.

The Statistical Reports Section contains statistical reports from two points in time:

R&O Statistical Reports, in which the numerator of the assessment sales ratio is the 2009 assessed valuation of the property in the sales file as of the 2009 Abstract Filing Date.

Preliminary Statistical Reports, in which the numerator of the assessment sales ratio is the final 2008 assessed value of the property in the sales file.

All statistical reports are prepared using the query process described in the Technical Specification Section of the 2009 R&O. An additional statistical report is included in the 2009 R&O which represents the sales of non-agricultural land that has a non-agricultural value that is less than five percent (5%) of the selling price.

County Assessment Survey

Part one contains the General Information developed in a combined effort between the Division and the county assessor to describe the funding and staffing of the county assessor's office. It also documents the appraisal information as it relates to the three major classes of property; residential, commercial and agricultural land.

Part two of the Assessment Survey entitled "Assessment Actions" is also a joint effort between the Division and the county assessor to document the 2009 assessment actions taken to address the three classes of real property in the county.

County Reports Section

Contains reports from and about a county which are referenced in other sections of the R&O:

County Abstract of Assessment for Real Property, Form 45

A required administrative report filed annually with the Division by the county assessor. It is a summation of the 2009 assessed values and parcel record counts of each defined class or subclass of real property in the county and the number of acres and total assessed value by Land Capability Group (LCG) and by market area (if any).

County Agricultural Land Detail

A report prepared by the Division. The Division relies on the data submitted by the county assessor on the Abstract of Assessment of Real Property, Form 45, Schedule IX and computes by county and by market area (if any) the average assessed value of each LCG and land use.

The County Assessor's Three Year Plan of Assessment-Update

The Three Year Plan of Assessment is prepared by the county assessor and updated annually pursuant to Neb. Rev. Stat. §77-1311.02 (R. S. Supp., 2007). It explains the scope and detail of the assessment processes planned by the county assessor for the next assessment year and subsequent two assessment years.

Special Valuation Section

The recognition of special valuation in a county, in whole or in part, presents challenges to the measurement of level of value and quality of assessment of special value. Special valuation is a unique assessment process that imposes an obligation upon the assessment officials to assess qualified real property at a constrained taxable value. The Purpose Statements provides the legal and policy framework for special valuation and describes the methodology used by the Division to measure special value in a county.

Special valuation is recognized if the county assessor has determined that there are factors other than agricultural or horticultural influences on the actual value of agricultural land and has established a special value that is different than the full market value for part or all of the agricultural land in the county. If a county has implemented special valuation, all information necessary for the measurement of agricultural land in that county will be contained in the Agricultural Section of the R&O of the Property Tax Administrator.

Nebraska Constitutional Provisions:

Neb. Const. art. VIII, sec. 1, (1) (1998): Taxes shall be levied by valuation uniformly and proportionately upon all real property and franchises as defined by the Legislature except as provided by this Constitution.

Neb. Const. art. VIII, sec. 1, (4) (1998): the Legislature may provide that agricultural land and horticultural land, as defined by the Legislature, shall constitute a separate and distinct class of property for purposes of taxation and may provide for a different method of taxing agricultural land and horticultural land which results in values that are not uniform and proportionate with all other real property and franchises but which results in values that are uniform and proportionate upon all property within the class of agricultural land and horticultural land.

Neb. Const. art. VIII, sec. 1, (5) (1998): the Legislature to enact laws to provide that the value of land actively devoted to agricultural or horticultural use shall for property tax purposes be that value which such land has for agricultural or horticultural use without regard to any value which such land might have for other purposes or uses.

Nebraska Statutory Provisions for Agricultural Land:

Neb. Rev. Stat. §77-112 (R.R.S., 2003): Actual value, defined. Actual value of real property for purposes of taxation means the market value of real property in the ordinary course of trade. Actual value may be determined using professionally accepted mass appraisal methods, including, but not limited to, the (1) sales comparison approach using the guidelines in section 77-1371, (2) income approach, and (3) cost approach. Actual value is the most probable price expressed in terms of money that a property will bring if exposed for sale in the open market, or in an arm's length transaction, between a willing buyer and willing seller, both of whom are knowledgeable concerning all the uses of which the real property is adapted and for which the real property is capable of being used. In analyzing the uses and restrictions applicable to real property, the analysis shall include a consideration of the full description of the physical characteristics of the real property and an identification of the property rights being valued.

Neb. Rev. Stat. §77-201 (R.S. Supp., 2007): Property taxable; valuation; classification. (1) Except as provided in subsections (2) through (4) of this section, all real property in this state, not expressly exempt there from, shall be subject to taxation and shall be valued at its actual value. (2) Agricultural land and horticultural land as defined in section 77-1359 shall constitute a separate and distinct class of property for purposes of property taxation, shall be subject to taxation, unless expressly exempt from taxation, and shall be valued at seventy-five percent of its actual value. (3) Agricultural land and horticultural land actively devoted to agricultural or horticultural purposes which has value for purposes other than agricultural or horticultural uses and which meets the qualifications for special valuation under section 77-1344 shall constitute a separate and distinct class of property for purposes of property taxation, shall be subject to taxation, and shall be valued for taxation at seventy-five percent of its special value as defined in section 77-1343 and at its actual value when the land is disqualified for special valuation under section 77-1347.....

Neb. Rev. Stat. §77-1359(1) (R.S. Supp., 2008~~6~~): Agricultural and horticultural land; terms defined. Agricultural land and horticultural land shall mean a parcel of land, excluding any building or enclosed structure and the land associated with such building or enclosed structure located on the parcel, which is primarily used for agricultural or horticultural purposes, including wasteland lying in or adjacent to and in common ownership or management with other agricultural or horticultural land. Agricultural or horticultural purposes means used for the commercial production of any plant or animal product in a raw or unprocessed state that is derived from the science and art of agriculture, aquaculture, or horticultures. Land retained or protected for future agricultural or horticultural uses under a conservation easement as provided in the Conservation and Preservation Easements Act shall be defined as agricultural land or horticultural land. Land enrolled in a federal or state program in which payments are received for removing such land from agricultural or horticultural production shall be defined as agricultural land or horticultural land. Land that is zoned predominantly for purposes other than agricultural or horticultural use shall not be assessed as agricultural land or horticultural land.

Nebraska Statutory Provisions for Special Valuation:

Neb. Rev. Stat. §77-201(3) (R. S. Supp., 2007): Creates a separate and distinct class of property for special valuation for purposes of property taxation, shall be subject to taxation, and shall be valued for taxation at seventy-five percent of its special value as defined in Neb. Rev. Stat. §77-1343 (R.S. Supp., 2006) and at seventy-five percent of its actual value when the land is disqualified for special valuation stated in Neb. Rev. Stat. §77-1347 (R. S. Supp., 2007).

Neb. Rev. Stat. §77-1343(6) (R. S. Supp., 2006): Definition of special valuation. Special valuation means the value that the land would have for agricultural or horticultural purposes or uses without regard to the actual value the land would have for other purposes or uses.

Nebraska Statutory Provisions for Measurement of Level of Value:

Neb. Rev. Stat. §77-1327(4) (R. S. Supp., 2007): For purposes of determining the level of value of agricultural and horticultural land subject to special valuation under section 77-1343 to 77-1348, the Property Tax Administrator shall annually make and issue a comprehensive study developed in compliance with professionally accepted mass appraisal techniques to establish the level of value if in his or her opinion the level of value cannot be developed through the use of the comprehensive assessment ratio studies developed in subsection (3) of this section.

Neb. Rev. Stat. §77-5023(2) (R.S. Supp., 2007): An acceptable range is the percentage of variation from a standard for valuation as measured by an established indicator of central tendency of assessment. Acceptable ranges are: (a) For agricultural and horticultural land as defined in section 77-1359, sixty-nine to seventy-five percent of actual value; (b) for lands defined in section 77-1344 receiving special valuation, sixty-nine to seventy-five percent of special valuation as defined in section 77-1343; and (c) for all other real property, ninety-two to one hundred percent of actual value.

Discussion of the Constitutional and Statutory Provisions:

Nebraska law requires that all values of real property for tax purposes shall be uniform and proportionate. Agricultural land may be treated differently from other real property for tax purposes, but the assessed values shall be uniform and proportionate within the class of agricultural land. Additionally, agricultural land may be valued for tax purposes at its value solely for agricultural use without regard to the value the land might have for any other purpose and use; however, these values must be uniform and proportionate within the application of this constitutional provision.

Nebraska's statutory structure for the valuation of agricultural land is fairly straightforward. The valuation policy is based on actual or market value. Actual value is a common, market standard that is used to determine the value of a property for many purposes, including taxation. Actual value is also a measure that is governed by practices and principles familiar to most people. Additionally, using actual value as the standard by which to determine valuation of real property provides the property owner with the ability to judge the proportionality of the valuation with other like property.

Discussion of Special Valuation:

The policy of special valuation was developed following the Constitutional amendment which recognized that the conversion of agricultural land to other uses demanded action for two purposes: one, the systematic and planned growth and development near and around urban areas; and two, to provide a tax incentive to keep agricultural uses in place until the governing body was ready for the growth and development of the land. Special value is both a land management tool and a tax incentive for compliance with the governing body's land management needs. As alternative, more intensive land uses put pressure for the conversion of underdeveloped land, economic pressures for higher and more intensive uses from non-agricultural development provide economic incentives to landowners to sell or convert their land. Governments, in order to provide for the orderly and efficient expansion of their duties, may place restrictions on landowners who convert land from one land use to a higher more intensive land use. Additionally, the existing landowners who may wish to continue their agricultural operations have an incentive to continue those practices until the governing body is ready for the conversion of their property to a more intensive use.

Without special valuation, existing agricultural landowners in these higher intensive use areas would be forced to convert their land for tax purposes, as the market value of the land could be far greater than its value for agricultural purposes and uses. The history of special valuation would indicate that the other purposes and uses are those not normally or readily known within the agricultural sector and are more intensive, such as residential, recreational, commercial or industrial development.

There are two scenarios that exist when special valuation is implemented in a county:

One, special valuation is applicable in a defined area of the county or only for certain types of land in the county. In these situations the county has found that use of the land

for non-agricultural purposes and uses influences the actual value of some of the agricultural land in the county. In these situations, the Division must measure the level of value of agricultural land and special value. If the methodology of the county assessor states that the county assessor used sales of similar land that are not influenced by the non-agricultural purposes and uses of the land, then the sales of uninfluenced land are used to determine the special valuation of the influenced land. The sales of agricultural land that are not influenced by the non-agricultural purposes and uses are used to measure the level of value of uninfluenced agricultural land.

Two, special valuation is applicable in the entire county. In this situation the county has found that the actual value of land for other purposes and uses other than agricultural purposes and uses influences the actual value of all of the agricultural land in the county. In these situations, the Division must measure the special value level of value.

Measurement of Special Valuation

The Division has two options in measuring the level of value of special valuation. In a county where special valuation is not applicable in the entire county and the land that is subject to special value is similar to agricultural land that is not subject to special value, the Division can analyze the level of value outside the special valuation area and determine if the level of value in that area should be deemed to be the level of value for special valuation. If the land in the special value area is dissimilar to other agricultural land in the county so there is no comparability of properties, the Division would analyze the valuations applicable for special value to determine if they correlate with the valuations in other parts of the county or other counties, even though direct comparability may not exist.

In a county where special valuation is applicable throughout the entire county, the Division has developed an income based measurement methodology which does not rely on the sales of agricultural land in the county. In developing this methodology, the Division considered all possible mass appraisal techniques. There is, however, no generally accepted approach for the measurement of constrained values. For example, the assessment/sales ratio study measures influences of the “whole” market. In counties where there are nonagricultural influences throughout the county, there are no sales in that county without a nonagricultural influence on value. As a result, the Division had to examine and adapt professionally accepted mass appraisal techniques to the measurement of special valuation other than the assessment sales ratio. As the Division analyzed the three professionally accepted mass appraisal techniques relating to the valuation of real property, the Division discarded the use of the cost approach as not being suited to the analysis of unimproved agricultural land. With respect to the sales comparison approach, in counties that are 100 percent special valuation, any sales data would have to be “surrogate” sales from other counties where nonagricultural influences have no impact on sales of agricultural land. This analysis would provide a significant level of subjectivity in terms of whether the counties from which the surrogate sales are drawn are truly comparable to the county that is being measured. The Division ultimately chose to adapt the income approach to this process. First, the income approach could rely on income data from the county being measured. Second, the Division could, to some degree, reduce the subjectivity of the process

because nonagricultural influences do not influence the cash rent that land used for agricultural purposes commands in the market place.

Rent Data

For purposes of determining the income for the Division's measurement technique, the Division gathered cash rent data for agricultural land. There were three sources for cash rent data: One, the annual study done by the University of Nebraska, Lincoln, titled *Nebraska Farm Real Estate Market Developments 2005-2006*. Two, another annual survey entitled *Farm and Ranch Managers Cash Rental Rate Survey*, which is provided to the Division from the Board of Educational Lands and Funds (BELF). Three, the Board of Educational Lands and Funds (BELF), also provides a statewide survey and an in depth schedule of crop land and grass land rental rates. The databases provided by BELF contained a summary presentation of all of the rental contracts that were examined by county, parcel size, land use, contract rent, BELF rent estimate and classification and notes relating to lease conditions. This data was provided for both cropland and grassland. The Division adapts the data in these publications to be used within the classification structure used by all counties to prepare rent estimates for all classified agricultural land in each county. Gross rental amounts are used in the Division's methodology because the marketplace tends to take expenses and taxes (items that must be accounted for in any income approach to value) into account in the determination of the amount the lessee will pay the lessor for the rental of agricultural land.

Rate Data

The second portion of the income methodology is the development of a "rate". The Division sought to correlate the available data and determine a single rate for each major land use. By doing this, the final values which were developed as a standard for comparison with the special valuation varied by county based on the rent estimates that were made. The calculation for the rate was done in several steps. First, the abstract of assessment was used to determine the assessed valuation for each land classification group for the counties not using special valuation that were comparable to the special valuation counties. Second, that assessed valuation was divided by the level of value for agricultural land as determined by the Tax Equalization and Review Commission to reach 100% of the value of agricultural land without nonagricultural influences. In turn, the Division took the rent estimates for each LCG in those counties and multiplied them by the number of acres in that LCG to generate total income. That amount was then divided by the total value of agricultural land to determine a rate for that county. The rates for the comparable counties were then arrayed, in a manner similar to assessment/sales ratios. In developing the rates, a starting point was the use of "comparable" counties to those using special valuation.

The Division looked to counties where there was not an active process of special valuation in place or unrecognized nonagricultural influences. Additionally, the Division looked to comparable counties in the proximity of the counties being measured. The most significant group was made up of the counties that were geographically adjacent to the eight special valuation counties. Further, the Division looked at the distribution of land uses in the comparable counties and whether they were similar to those in the subject counties. The Division

then sorted counties and rates based on land use mix. As the Division worked through the process, land use mix and the adjacent county mix tended to drive the analysis. The eight primary special valuation counties were all strongly weighted toward dryland use; the eight eastern Special Value counties ranged from about 62% to 83% dryland use.

For 2008, the analysis indicated an irrigated rate of 6.80%, considerably lower than the rate of 7.20% used in 2007. A rate of 4.90% was selected for dryland measurement. This rate was significantly lower than the 2007 rate of 5.20%. The analysis also indicated a rate of 3.20% for grassland, considerably lower than the rate of 3.65% used in 2007. The lower rates are deemed to be a direct reflection of significant increases in the valuations in the comparable counties. To continue a practice started in 2007, the Division decided to soften all of the rates by blending the new rate estimates with those used in 2007. The primary reason for the softening process was to avoid any 1 year spike in rates and the values used to measure the LOV. This was done by simply calculating a weighted average of the 2007 rates and the raw 2008 calculated rates. The weighting factor was 1 times the 2007 rate and 2 times the 2008 raw rate and the result was rounded to five hundredths of a percent.

Valuation Calculation

The applicable rates were applied to the rental income for each land use multiplied by the number of acres for that use. The result of this calculation was to reach total special valuation, which represents the estimate of full market value for agricultural purposes only.

Measurement Calculation

Finally, to calculate the level of value achieved by a county, the Division used the value calculated from the income based approach, representing the total special valuation for a county and compared it to the amount of special valuation provided by the county on its annual abstract of assessment to reach the estimated level of value for special valuation in each subject county.

Measurement of Agricultural Land Valuation

In a county where special valuation is not applicable in the entire county, the Division must measure the level of value of the agricultural land valuation. This is accomplished by using part of the agricultural land sales file using sales that are not in the area where special valuation is available. Other than using only the applicable part of the sales file, this is the same measurement process that is used by the Division for agricultural land in a county that has no other purposes and uses for its agricultural land.

Purpose Statement

Describes the contents and purpose of each section in the R&O.

Glossary

Contains the definitions of terms used throughout the R&O.

Technical Specifications Section

Contains the calculations used to prepare the Commission Summary, the Correlation Section tables, the Statistical Reports Query, and the Statistical Reports.

Certification

Sets forth to whom, how and when copies of the R&O are distributed.

Map Section

The Map section contains a collection of maps that the Property Tax Administrator has gathered that pertain to each county. These maps may be used as a supplement to the R&O.

Valuation History Charts Section

The Valuation History chart section contains five charts for each county. The first four charts display taxable valuations by property class and subclass, annual percentage change, cumulative percentage change, and the rate of annual percent change over the time period of 1998 to 2008. The fifth chart displays 2008 taxable valuations by property type for each city within the county and compares to the county's valuation for each class and subclass of property. The fifth chart also displays populations for the cities and the county.

Glossary

Actual Value: The market value or fair market value of real property in the ordinary course of trade. Actual value may be determined using professionally accepted mass appraisal methods, including, but not limited to, the (1) sales comparison approach using the guidelines in sections 77-1371, (2) income approach, and (3) cost approach. Actual value is the most probable price expressed in terms of money that a property will bring if exposed for sale in the open market, or in an arm's length transaction, between a willing buyer and willing seller, both of whom are knowledgeable concerning all the uses of which the real property is adapted and for which the real property is capable of being used. In analyzing the uses and restrictions applicable to real property, the analysis shall include a consideration of the full description of the physical characteristics of the real property and an identification of the property rights being valued.

Adjusted Sale Price: A sale price that is the result of adjustments made to the purchase price reported on the Real Estate Transfer Statement, Form 521, for the affects of personal property or financing included in the reported purchase price. If the sale price is adjusted, it is the adjusted sale price that will be used as the denominator in the assessment sales ratio. The International Association of Assessing Officers considers adjustments for time. However, currently the Division does not recognize adjustments for time.

Agricultural Land: Land that is agricultural land and horticultural land as defined in Neb. Rev. Stat. §77-1343(1) (R. S. Supp., 2006) and Neb. Rev. Stat. §77-1359(1) (R. S. Supp., 2008).

Agricultural Land Market Areas: Areas with defined characteristics within which similar agricultural land is effectively competitive in the minds of buyers and sellers with other comparable agricultural land in the area within a county. These areas are defined by the county assessor.

Agricultural Property Classification: Includes all properties in the state-wide sales file with Property Classification Code: Property parcel type-05 Agricultural, all Statuses. A sub-classification is defined for the Status-2: unimproved agricultural properties (see, Agricultural Unimproved Property Classification).

Agricultural Unimproved Property Classification: Includes all properties in the state-wide sales file with Property Classification Code: Property parcel type-05 Agricultural, Status-2.

Arm's Length Transaction: A sale between two or more parties, each seeking to maximize their positions from the transaction. All sales are deemed to be arm's length transactions unless determined to be otherwise under professionally accepted mass appraisal techniques.

Assessed Value: The value of a parcel of real property established by a government that will be the basis for levying a property tax. In Nebraska, the assessed value of a parcel of real property is first established by the county assessor of each county. For purposes of the Division's sales file, the assessed value displays the value for land, improvements and total. The assessed value is the numerator in the assessment sales ratio.

Assessment: The official act of the county assessor to discover, list, value, and determine the taxable value of real property in a county and placing it on the assessment roll.

Assessment Level: The legal requirement for the assessed value of all parcels of real property. In Nebraska, the assessment level for the classes of residential and commercial real property is one hundred percent of actual value; the assessment level for the class of agricultural and horticultural land is seventy-five percent of actual value; and, the assessment level for agricultural land receiving special valuation is seventy-five percent of special valuation.

Assessment Sales Ratio: The ratio that is the result of the assessed value divided by the sale price, or adjusted sale price, of a parcel of real property that has sold within the study period of the state-wide sales file.

Assessor Location: Categories in the state-wide sales file which are defined by the county assessor to represent a class or subclass of property that is not required by statute or regulation. Assessor location allows the county assessor to further sub-stratify the sales in the state-wide sales file.

Average Absolute Deviation (AVG.ABS.DEV.): The arithmetic mean of the total absolute deviations from a measure of central tendency such as the median. It is used in calculating the coefficient of dispersion (COD).

Average Assessed Value: The value that is the result of the total assessed value of all sold properties in the sample data set divided by the total of the number of sales in the sample data set.

Average Selling Price: The value that is the result of the total sale prices of all properties in the sample data set divided by the total of the number of sales in the sample data set.

Central Tendency, Measure of: A single point in a range of observations, around which the observations tend to cluster. The three most commonly used measures of central tendency calculated by the Division are the median ratio, weighted mean ratio and mean ratio.

Coefficient of Dispersion (COD): A measure of assessment uniformity. It is the average absolute deviation calculated about the median expressed as a percentage of the median.

Coefficient of Variation (COV): The measure of the relative dispersion of the sample data set about the mean. It is the standard deviation expressed in terms of a percentage of the mean.

Commercial Property Classification: Includes all properties in the state-wide sales file with Property Classification Code: Property parcel type-02 Multi-Family, all Statuses; Property parcel type 03-Commercial, all Statuses; and, Property parcel type 04-Industrial, all Statuses.

Confidence Interval (CI): A calculated range of values in which the true measure of central tendency of the sales is expected to fall. The Division has calculated confidence intervals around all three measures of central tendency.

Confidence Level: The required degree of confidence in a confidence interval commonly stated as 90, 95, or 99 percent. For example, a 95 percent confidence interval would mean that one can be 95% confident that the true measure of central tendency used in the interval falls within the indicated range.

Direct Equalization: The process of adjusting the assessed values of parcels of real property, usually by class or subclass, using adjustment factors or percentages, to achieve proportionate valuations among the classes or subclasses.

Equalization: The process to ensure that all locally assessed real property and all centrally assessed real property is assessed at or near the same level of value as required by law.

Geo Code: Each township represented by a state-wide unique sequential four-digit number starting with the township in the most northeast corner of the state in Boyd County going west to the northwest corner of the state in Sioux County and then proceeding south one township and going east again, until ending at the township in the southwest corner of the state in Dundy County.

Growth Value: Is reported by the county assessor on the Abstract of Assessment for Real Property, Form 45. Growth value includes all increases in valuation due to improvements of real properties as a result of new construction, improvements, and additions to existing buildings. Growth value does not include a change in the value of a class or subclass of real property as a result of the revaluation of existing parcels, the value changes resulting from a change in use of the parcel, or taxable value added because a parcel has changed status from exempt to taxable. There is no growth value for agricultural land.

Indirect Equalization: The process of computing hypothetical values that represent the best estimate of the total taxable value available at the prescribed assessment level. Usually a function used to ensure the proper distribution of intergovernmental transfer payments between state and local governments, such as state aid to education.

Level of Value: The level of value is the most probable overall opinion of the relationship of assessed value to actual value achieved by the county assessor for a class or subclass of centrally assessed property. The Property Tax Administrator is annually required to give an opinion of the level of value achieved by each county assessor to the Tax Equalization and Review Commission. The acceptable range for levels of value for classes of real property are provided in Neb. Rev. Stat. §77-5023 (3) (R.S. Supp., 2007).

Location: The portion of the Property Classification Code that describes the physical situs of the real property by one of the following descriptions:

- 1-Urban, a parcel of real property located within the limits of an incorporated city or village.
- 2-Suburban, a parcel of real property located outside the limits of an incorporated city or village, but within the legal jurisdiction of an incorporated city or village.

3-Rural, a parcel of real property located outside an urban or suburban area, or located in an unincorporated village or subdivision which is outside the legal jurisdiction of an incorporated city or village.

Majority Land Use: The number of acres compared to total acres by land use for agricultural land. The thresholds used by the Division are: 95%, 80% and 50%. If “N/A” appears next to any category it means there are “other” land classifications included within this majority grouping.

Maximum Ratio: The largest ratio occurring in the arrayed sample data set.

Mean Ratio: The ratio that is the result of the total of all assessment/sales ratios in the sample data set divided by the number of ratios in the sample data set.

Median Ratio: The middle ratio of the arrayed sample data set. If there is an even number of ratios, the median is the average of the two middle ratios.

Minimally Improved Agricultural Land: A statistical report that uses the sales file data for all sales of parcels classified as Property Classification Code: Property parcel type-05 Agricultural, which have non-agricultural land and/or improvements of minimal value, the assessed value of the improvement(s) is determined to be less than 5% of the selling price.

Minimum Ratio: The smallest ratio occurring in the arrayed sample data set.

Non-Agricultural Land: For purposes of the County Abstract of Assessment for Real Property, Form 45, land located on a parcel that is classified as Property Classification Code: Property parcel type-05 Agricultural, which is not defined as agricultural and horticultural land, pursuant to Neb. Rev. Stat. §77-1359 (R. S. Supp., 2008).

Number of Sales: The total number of sales contained in the sales file that occurred within the applicable Sale Date Range for the class of real property.

Population: The set of data from which a statistical sample is taken. In assessment, the population is all parcels of real property within a defined class or subclass in the county.

Price Related Differential (PRD): A measure of assessment vertical uniformity (progressivity or regressivity). It measures the relative treatment of properties based upon the selling price of the properties. It is calculated by dividing the mean ratio by the weighted mean ratio.

Property Classification Code: A code that is required on the property record card of all parcels of real property in a county. The Property Classification Code enables the stratification of real property into classes and subclasses of real property within each county. The classification code is a series of numbers which is defined in Title 350, Nebraska Administrative Code, ch.10-004.02.

Property Parcel Type: The portion of the Property Classification Code that indicates the predominant use of the parcel as determined by the county assessor. The Property parcel types are:

- 01-Single Family Residential
- 02-Multi-Family Residential
- 03-Commercial
- 04-Industrial
- 05-Agricultural
- 06-Recreational
- 07-Mobile Home
- 08-Minerals, Non-Producing
- 09-Minerals, Producing
- 10-State Centrally Assessed
- 11-Exempt
- 12-Game and Parks

Purchase Price: The actual amount, expressed in terms of money, paid for a good or service by a willing buyer. This is the amount reported on the Real Estate Transfer Statement, Form 521, Line 22.

Qualified Sale: A sale which is an arm's length transaction included in the state-wide sales file. The determination of the qualification of the sale may be made by the county assessor or the Division.

Qualitative Statistics: Statistics which assist in the evaluation of assessment practices, such as the coefficient of dispersion (COD) and the price related differential (PRD).

Quality of Assessment: The quality of assessment achieved by the county assessor for a class or subclass of real property. The Property Tax Administrator is annually required to give an opinion of the quality of assessment achieved by each county assessor to the Commission.

Residential Property Classification: Includes all properties in the state-wide sales file with Property Classification Code: Property parcel type-01 Single Family, all Statuses; Property parcel type-06 Recreational, all Statuses; and, Property parcel type-07 Mobile Home, Statuses 1 and 3.

Sale: All transactions of real property for which the Real Estate Transfer Statement, Form 521, is filed and with stated consideration of more than two dollars and twenty-five cents of documentary stamp taxes are paid.

Sale Date Range: The range of sale dates reported on Real Estate Transfer Statements, Form 521, that are included in the sales assessment ratio study for each class of real property.

Sale Price: The actual amount, expressed in terms of money, received for a unit of goods or services, whether or not established in a free and open market. The sale price may be an

indicator of actual value of a parcel of real property. An estimate of the sales price may be made from the amount of Documentary Stamp Tax reported on the Real Estate Transfer Statement, Form 521, as the amount recorded on the deed. The sale price is part of the denominator in the assessment sales ratio.

Sample Data Set: A set of observations selected from a population.

Special Value: For agricultural and horticultural land receiving special valuation, the assessed value of the land if the land is qualified for special valuation. Special value means the value that the land has for agricultural or horticultural purposes or uses without regard to the actual value that land has for other purposes and uses. Special value land is valued for taxation at 75% of its special value.

Standard Deviation (STD): The measure of the extent of the absolute difference of the sample data set around the mean. This calculation is the first step in calculating the coefficient of variation (COV). It assumes a normalized distribution of data, and therefore is not relied on heavily in the analysis of assessment practices.

Statistics: Numerical descriptive data calculated from a sample, for example the median, mean or COD. Statistics are used to estimate corresponding measures for the population. *See, International Association of Assessing Officers publication, Glossary for Property Appraisal and Assessment, (1997).*

Status: The portion of the Property Classification Code that describes the status of a parcel:

- 1-Improved, land upon which buildings are located.
- 2-Unimproved, land without buildings or structures.
- 3-Improvement on leased land (IOLL), any item of real property which is located on land owned by a person other than the owner of the item.

Total Assessed Value: The sum of all the assessed values in the sample data set.

Total Sale Price: The sum of all the sale prices in the sample data set. If the selling price of a sale was adjusted for qualification, then the adjusted selling price would be used.

Usability: The coding for the treatment of a sale in the state-wide sales file database.

- 1-use the sale without adjustment
- 2-use the sale with an adjustment
- 3-substantially changed sale should not be used in study
- 4-exclude the sale

Valuation: Process or act to determine the assessed value of all parcels of real property in the county each year.

Weighted Mean Ratio: The ratio that is the result of the total of all assessed values of all properties in the sample data set divided by the total of all sale prices of all properties in the sample data set.

Commission Summary Calculations

For all classes of real property

For Statistical Header Information and History: see Statistical Calculations

For Residential Real Property

% of value of this class of all real property value in the county:

$\text{Abstract \#4 value} + \text{Abstract \#16 value} / \text{Abstract Total Real Property Value}$

% of records sold in study period:

$\text{Total Sales from Sales File} / \text{Abstract \#4 records} + \text{Abstract \#16 records}$

% of value sold in the study period:

$\text{Total Value from Sales File} / \text{Abstract \#4 value} + \text{Abstract \# 16 value}$

Average assessed value of the base:

$\text{Abstract \#4 value} + \text{Abstract \#16 value} / \text{Abstract \#4 records} + \text{Abstract \# 16 records}$

For Commercial Real Property

% of value of this class of all real property value in the county:

$\text{Abstract \#8 value} + \text{Abstract \# 12 value} / \text{Abstract Total Real Property Value}$

% of records sold in study period:

$\text{Total Sales from Sales File} / \text{Abstract \#8 records} + \text{Abstract \# 12 records}$

% of value sold in the study period:

$\text{Total Value from Sales File} / \text{Abstract \#8 value} + \text{Abstract \# 12 value}$

Average assessed value of the base:

$\text{Abstract \#8 value} + \text{Abstract \#12 value} / \text{Abstract \# 8 records} + \text{Abstract \# 12 records}$

For Agricultural Land

% of value of this class of all real property value in the county:

$\text{Abstract \#30 value} / \text{Abstract Total Real Property Value}$

% of records sold in the study period:

$\text{Total Sales from Sales File} / \text{Abstract \#30 records}$

% of value sold in the study period:

$\text{Total Value from Sales File} / \text{Abstract \#30 value}$

Average assessed value of the base:

$\text{Abstract \#30 value} / \text{Abstract \#30 records}$

Correlation Table Calculations

I. Correlation - Text only

II. Analysis of Percentage of Sales Used

	Total Sales	Qualified Sales	Percent Used
2009			XX.XX
2008			XX.XX
2007			XX.XX
2006			XX.XX
2005			XX.XX

Chart: Yes

Stat Type: Total & Qualified

Stat Title: R&O

Study Period: Standard

Property Type: Residential, Commercial and Agricultural Unimproved

Display: XX.XX

History: 2005, 2006, 2007, 2008

Field: no2009

Calculation:

Percent of Sales Used: Round([Qualified]/[Total]*100,2)

III. Analysis of the Preliminary, Trended Preliminary, and R&O Median Ratios

	Preliminary Median	% Change in Assessed Value (excl. growth)	Trended Preliminary Ratio	R&O Median
2009		XX.XX	XX.XX	
2008				
2007				
2006				
2005				

Chart: Yes

Stat Type: Qualified

Stat Title: R&O and Prelim

Study Period: Standard

Property Type: Residential, Commercial and Agricultural Unimproved

Display: XX.XX

History: 2005, 2006, 2007, 2008

Field: median

Calculations:

%Chngexclgrowth: Round(If([proptype]="Residential",([Trended 4 (resgrowvalsum)]!SumOftotalvalue-[Trended 4 (resgrowvalsum)]!SumOfgrowth-Avg(ctl08cnt!RESID+ctl08cnt!RECREAT))*100)/Avg(ctl07cnt!RESID+ctl08cnt!RECREAT),If([proptype]="Commercial",([Trended 5 (comgrowvalsum)]!SumOftotalvalue-[Trended 5

(comgrowvalsum)]!SumOfgrowth-Avg(ctl08cnt!COMM+ctl08cnt!INDUST))*100)/Avg(ctl08cnt!COMM+ctl08cnt!INDUST),IIf([proptype]="AGRICULTURAL UNIMPROVED",((([Trended 6 (agvalsum)]!SumOftotalvalue-Avg(ctl08cnt!TOTAG))*100)/Avg(ctl08cnt!TOTAG),Null))),2)
Trended Ratio: Round(IIf([proptype]="Residential",([Trended 1 (Prelim).median]+([Trended 1 (Prelim).median]*([Trended 4 (resgrowvalsum)]!SumOftotalvalue-[Trended 4 (resgrowvalsum)]!SumOfgrowth-Avg(ctl08cnt!RESID+ctl08cnt!RECREAT)))/(Avg(ctl08cnt!RESID+ctl08cnt!RECREAT)*100)*100),IIf([proptype]="Commercial",[Trended 1 (Prelim).median]+([Trended 1 (Prelim).median]*((([Trended 5 (comgrowvalsum)]!SumOftotalvalue-[Trended 5 (comgrowvalsum)]!SumOfgrowth-Avg(ctl08cnt!COMM+ctl08cnt!INDUST))*100)/(Avg(ctl08cnt!COMM+ctl08cnt!INDUST)*100),IIf([proptype]="Agricultural Unimproved",[Trended 1 (Prelim).median]+([Trended 1 (Prelim).median]*((([Trended 6 (agvalsum).SumOftotalvalue]-Avg(ctl08cnt!TOTAG))*100)/(Avg(ctl08cnt!TOTAG)*100),Null))),2)

IV. Analysis of Percentage Change in Total Assessed Value in the Sales File to Percentage Change in Assessed Value

% Change in Total Assessed Value in the Sales File		% Change in Assessed Value (excl. growth)
XX.XX	2009	XX.XX (from Table III Calc)
	2008	
	2007	
	2006	
	2005	

Chart: Yes

Stat Type: Qualified

Stat Title: R&O and Prelim

Study Period: Yearly (most recent twelve months of sales)

Property Type: Residential, Commercial and Agricultural Unimproved

Display: XX.XX

History: 2005, 2006, 2007, 2008

Field: aggreg

Calculation:

%ChngTotassvals: IIf(Val([Percent Change 2 (Prelim).aggreg])=0,"N/A",Round((([Percent Change 1 (R&O).aggreg]-[Percent Change 2 (Prelim).aggreg])/[Percent Change 2 (Prelim).aggreg]*100,2))

% Change in Assessed Value Excl. Growth, use %Chngexclgrowth from Table III calc.

V. Analysis of the R&O Median, Weighted Mean, and Mean Ratios

	Median	Weighted Mean	Mean
R&O Statistics			

Chart: Yes

Stat Type: Qualified

Stat Title: R&O

Study Period: Standard

Property Type: Residential, Commercial and Agricultural Unimproved

Display: XX

History: None

Field: median, aggreg and mean

VI. Analysis of R&O COD and PRD

	COD	PRD
R&O Statistics		
Difference	XX	XX

Chart: No

Stat Type: Qualified

Stat Title: R&O

Study Period: Standard

Property Type: Residential, Commercial and Agricultural Unimproved

Display: XX

History: None

Field: PRD and COD

Calculations:

CODDiff: Round(IIf([2008R&O]!proptype="Residential",IIf(Val([2009R&O]!cod)>15,Val([2009R&O]!cod)-15,0),IIf(Val([2009R&O]!cod)>20,Val([2009R&O]!cod)-20,0)),2)

PRDDiff: Round(IIf(Val([2009R&O]!prd)>103,Val([2009R&O]!prd)-103,IIf(Val([2009R&O]!prd)<98,Val([2009R&O]!prd)-98,0)),2)

VII. Analysis of Changes in the Statistics Due to the County Assessor Actions

	Preliminary Statistics	R&O Statistics	Change
Number of Sales			XX
Median			XX
Weighted Mean			XX
Mean			XX
COD			XX
PRD			XX
Min Sales Ratio			XX
Max Sales Ratio			XX

Chart: No

Stat Type: Qualified
 Stat Title: R&O and Prelim
 Study Period: Standard
 Property Type: Residential, Commercial and Agricultural Unimproved
 Display: XX
 History: None
 Field: no2009, median, aggreg, mean, COD, PRD, min and max
 Calculations:
 no2009Diff: R&O.no2009-Prelim.2008 2007
 medianDiff: R&O.median-Prelim.median
 meanDiff: R&O.mean-Prelim.mean
 aggregDiff: R&O.aggreg-Prelim.aggreg
 CODDiff: R&O. COD-Prelim. COD
 PRDDiff: R&O. PRD-Prelim. PRD
 minDiff: R&O. Min-Prelim. Min
 maxDiff: R&O. Max-Prelim. Max

VIII. R&O and Trended Ratio Statistical Reports

	R&O Statistics	Trended Ratio	Difference
Number of Sales			XX
Median			XX
Weighted Mean			XX
Mean			XX
COD			XX
PRD			XX
Min Sales Ratio			XX
Max Sales Ratio			XX

Chart: No
 Stat Type: Qualified
 Stat Title: R&O and Trended Ratio Statistical Reports
 Study Period: Standard
 Property Type: Residential
 Display: XX
 History: None
 Field: no2009, median, aggreg, mean, COD, PRD, min and max
 Calculations:
 no2009Diff: R&O.no2009-NumSalesTrended.2009
 medianDiff: R&O.median- MedianTrended.2009
 aggregDiff: R&O.aggreg- WtgMeanTrended.2009
 CODDiff: R&O. COD- CODTrended.2009
 PRDDiff: R&O. PRD- PRDTrended.2009
 minDiff: R&O. Min- MinTrended.2009
 maxDiff: R&O. Max- MaxTrended.2009

Statistical Reports Query

The Statistical Reports contained in the Reports and Opinions for each county derive from the sales file of the Department of Revenue Property Assessment Division. The sales file contains all recorded real property transactions with an amount stated on the Real Estate Transfer Statement, Form 521, for Documentary Stamp Tax greater than \$2.25 or for consideration greater than \$100. Transactions meeting these criteria are considered sales.

The first query performed by the sales file is by county number. For each of the following property classifications, the sales file performs the following queries:

Residential:

Property Class Code: Property Type 01, all Statuses
Property Type 06, all Statuses
Property Type 07, Statuses 1 and 3
Sale Date Range: July 1, 2006 through June 30, 2008
Qualified: All sales with Assessor Usability Code: blank, zero, 1 or 2.
If blank or zero will be considered a Usability of 1.

Commercial:

Property Class Code: Property Type 02, all Statuses
Property Type 03, all Statuses
Property Type 04, all Statuses
Sale Date Range: July 1, 2005 through June 30, 2008
Qualified: All sales with Division Usability Code: zero, 1 or 2
If blank or zero will be considered a Usability of 1.

Unimproved Agricultural:

Property Class Code: Property Type 05, Status 2
Sale Date Range: July 1, 2005 through June 30, 2008
Qualified: All sales with Division Usability Code: zero, 1 or 2.
If blank or zero will be considered a Usability of 1.

Agricultural: (Optional)

Property Class Code: Property Type 05, Status 1 and 2
Sale Date Range: July 1, 2005 through June 30, 2008
Qualified: All sales with Division Usability Code: zero, 1 or 2.
If blank or zero will be considered a Usability of 1

Minimally Improved Agricultural: (Optional)

Property Class Code: Property Type 05, All Statuses

Sale Date Range: July 1, 2005 through June 30, 2008

Qualified: All sales with Division Usability Code: zero, 1 or 2.

If blank or zero will be considered a Usability of 1.

Once a record is deemed qualified agricultural, the program will determine: If the current year assessed value improvement plus the non-agricultural total value is less than 5% of the Total Adjusted Selling Price, the record will be deemed Minimally Improved.

Statistical Calculations

The results of the statistical calculations that make up the header of the Statistical Reports are:

Number of Sales
Total Sales Price
Total Adj. Sales Price
Total Assessed Value
Avg. Adj. Sales Price
Avg. Assessed Value

Median
Weighted Mean
Mean
COD
PRD
COV
STD
Avg. Abs. Dev.
Max Sales Ratio
Min Sales Ratio
95% Median C.I.
95% Wgt. Mean C.I.
95% Mean C.I.

Coding Information & Calculations

Each sale in the sales file becomes a record in the sales file program. All statistical calculations performed by the sales file program round results in the following manner: if the result is not a whole number, then the program will round the result five places past the decimal and truncate to the second place past the decimal. Sales price and assessed value are whole numbers.

Number of Sales

- Coded as Count, Character, 5-digit field.
- The Count is the total number of sales in the sales file based upon the selection of Total or Qualified. For purposes of this document, Qualified and Sale Date Range is assumed.

Total Sales Price

- Coded as TotSalePrice, Character, 15-digit field.
- The Total Sales Price is based on the Total Sale Amount, shown on Line 24 of the Real Estate Transfer Statement, Form 521, for each record added together.
- Calculation
 - Sum SaleAmt

Total Adj. Sales Price

- Coded as TotAdjSalePrice, Character, 15-digit field.
- The Total Adjusted Sales Price is the Total Sale Amount for each record plus or minus any adjustments made to the sale by the county assessor, Division or the Commission (from an appeal).
- Calculation
 - $\text{Sum SaleAmt} + \text{or} - \text{Adjustments}$

Total Assessed Value

- Coded as TotAssdValue, Character, 15-digit field.
- The Total Assessed Value is based on the Entered Total Current Year Assessed Value Amount for each record. If the record is an agricultural record, Property Classification Code: Property Parcel Type-05, then the Total Assessed Value is the Entered Current Year Total Value adjusted by any value for Non-Ag Total and Current Year Total Improvements, so that the Total Assessed Value used in the calculations for these records is the assessed value for the agricultural land only.
- Calculation
 - Sum TotAssdValue

Avg. Adj. Sales Price

- Coded as AvgAdjSalePrice, Character, 15-digit field.
- The Average Adjusted Sale Price is dependant on the TotAdjSalePrice and the Count defined above.
- Calculation
 - $\text{TotAdjSalePrice} / \text{Count}$

Avg. Assessed Value

- Coded as AvgAssdValue, Character, 15-digit field.
- The Average Assessed Value is dependant on the TotAssdValue and the Count defined above.
- Calculation
 - $\text{TotAssdValue} / \text{Count}$

Median

- Coded as Median, Character, 12-digit field.
- The Median ratio is the middle ratio when the records are arrayed in order of magnitude by ratio.
 - If there is an odd number of records in the array, the median ratio is the middle ratio of the array.
 - If there is an even number of records in the array, the median ratio is the average of the two middle ratios of the array.
- Calculation
 - Array the records by order of the magnitude of the ratio from high to low
 - Divide the Total Count in the array by 2 equals Record Total
 - If the Total Count in the array is odd:
 - Count down the number of whole records that is the Record Total + 1. The ratio for that record will be the Median ratio
 - If the Total Count in the array is even:
 - Count down the number of records that is Record Total. This is ratio 1.
 - Count down the number of records that is Records Total + 1. That is ratio 2.
 - $(\text{ratio 1} + \text{ratio 2}) / 2$ equals the Median ratio.

Weighted Mean

- Coded as Aggreg, Character, 12-digit field.
- Calculation
 - $(\text{TotAssdValue} / \text{TotAdjSalePrice}) * 100$

Mean

- Coded Mean, Character, 12-digit field
- Mean ratio is dependant on TotalRatio which is the sum of all ratios in the sample.
- Calculation
 - $\text{TotalRatio} / \text{RecCount}$

COD

- Coded COD, Character, 12-digit field
- Calculation
 - Subtract the Median from Each Ratio
 - Take the Absolute Value of the Calculated Differences
 - Sum the Absolute Differences
 - Divide by the Number of Ratios to obtain the “Average Absolute Deviation”
 - Divide by the Median
 - Multiply by 100

PRD

- Coded PRD, Character, 12-digit field
- Calculation
 - $(\text{MeanRatio}/\text{AggregRatio}) * 100$

COV

- Coded COV, Character, 12-digit field
- Calculation
 - Subtract the Mean from each ratio
 - Square the Calculated difference
 - Sum the squared differences
 - Divide the number of ratios less one to obtain the Variance of the ratios
 - Compute the Squared Root to obtain the Standard Deviation
 - Divide the Standard Deviation by the Mean
 - Multiply by 100

STD

- Coded StdDev, Character, 12-digit field
- Calculation
 - Subtract the Mean Ratio from each ratio
 - Square the resulting difference
 - Sum the squared difference
 - Divide the number of ratios less one to obtain the Variance of the ratios
 - Compute the squared root of the variance to obtain the Standard Deviation

Avg. Abs. Dev.

- Coded AvgABSDev, Character, 12-digit field
- Calculation
 - Subtracting the Median ratio from each ratio
 - Summing the absolute values of the computed difference
 - Dividing the summed value by the number of ratios

Max Sales Ratio

- Coded Max, Character, 12-digit field
- The Maximum ratio is the largest ratio when the records are arrayed in order of magnitude of ratio.

Min Sales Ratio

- Coded Min, Character, 12-digit field
- The Minimum ratio is the smallest ratio when the records are arrayed in order of magnitude of ratio.

95% Median C.I.

- Coded MedianConfInterval, Character, 12-digit field
- The Median Confidence Interval is found by arraying the ratios and identifying the ranks of the ratios corresponding to the Lower and Upper Confidence Limits. The equation for the number of ratios (j), that one must count up or down from the median to find the Lower and Upper Confidence Limits is:
- Calculation
 - If the number of ratios is Odd
 - $j = 1.96 \times \sqrt{n}/2$
 - If the number of ratios is Even
 - $j = 1.96 \times \sqrt{n}/2 + 0.5$
 - If the calculation has anything past the decimal, it will be rounded to the next whole number and the benefit of the doubt is given
 - If the sample size is 5 or less, then N/A is given as the confidence interval
 - If the sample size is 6-8, then the Min and Max is the given range

95% Wgt. Mean C.I.

- Coded AggregConfInterval, Character, 12-digit field
- Calculation
 - Items needed for this calculation
 - Number of sales
 - Assessed Values – Individual and Summed
 - Assessed Values Squared – Individual and Summed
 - Average Assessed Value
 - Sale Prices – Individual and Summed
 - Sales Prices Squared – Individual and Summed
 - Average Sale Price
 - Assessed Values x Sale Prices – Individual and Summed
 - The Weighted Mean
 - The t value for the sample size

- The actual calculation:

$$CI(\bar{A/S}) - \bar{A/S} \pm t \times \frac{\sqrt{\sum \bar{A}^2 - 2(\bar{A/S}) \sum (\bar{A} \times \bar{S}) + (\bar{A/S})^2 (\sum \bar{S}^2)}}{\bar{S} \sqrt{(n)(n-1)}}$$

- If the sample size is 5 or less, then N/A is given as the confidence interval

95% Mean C.I.

- Coded MeanConfInterval, Character, 12-digit field
- The Mean Confidence Interval is based on the assumption of a normal distribution and can be affected by outliers.
- Calculation
 - Lower Limit
 - $\text{The Mean} - ((t\text{-value} * \text{The Standard Deviation}) / \text{the Square Root of the Number of Records})$
 - Upper Limit
 - $\text{The Mean} + ((t\text{-value} * \text{The Standard Deviation}) / \text{the Square Root of the Number of Records})$
 - If the number of records is > 30 , then use 1.96 as the t-value
 - If the number of records is ≤ 30 , then a “Critical Values of t” Table is used based on sample size. Degrees of freedom = sample size minus 1
 - If the sample is 1 or less, then N/A is given as the confidence interval

Ratio Formulas

- Residential and Commercial Records
 - If the Assessed Value Total Equals Zero, the system changes the Assessed Value to \$1.00 for the ratio calculations. It does not make the change to the actual data.
 - If the Sale Amount is Less Than \$100.00 AND the Adjustment Amount is Zero. The system derives an Adjustment Amount based upon the Doc Stamp fee (Doc Stamp Fee/.00225).
 - Ratio Formula is: $(\text{Assessed Value Total} / (\text{Sale Amount} + \text{Adjustment Amount})) * 100$.
- Agricultural Records
 - If the Sale Amount is Less Than \$100.00 AND the Adjustment Amount is Zero. The system derives an Adjustment Amount based upon the Doc Stamp fee (Doc Stamp Fee /.00225).
 - If the Sale Amount – Assessed Improvements Amount – Entered Non-Ag Amount + Adjustment Amount = 0. The system adds \$1.00 to the Adjustment Amount.
 - If the Assessed Land Amount – Entered Non-Ag Amount Equals Zero. The system adds \$1.00 to the Assessed Land Amount.
 - Ratio Formula is:
 - a. If No Greenbelt: $(\text{Agland Total Amount} / (\text{Sale Amount} - \text{Assessed Improvements} - \text{Entered NonAg Amount} + \text{Adjustment Amount})) * 100$.
 - b. If Greenbelt: $(\text{Recapture Amount} / (\text{Sale Amount} - \text{Assessed Improvements Amount} - \text{Entered NonAg Amount} + \text{Adjustment Amount})) * 100$.

Map Source Documentation

Each map contains a legend which describes the information contained on the map.

Market Areas: Information obtained from the county assessor. Compiled and edited by the staff of the Tech Support Section in the Property Assessment Division.

Registered Wells > 500 GPM: Obtained from the Nebraska Department of Natural Resources website.

Geo Codes: Compiled and edited by the staff of the Tech Support Section in the Property Assessment Division.

Towns, Sections, Rivers and Streams, Topography, and Soil Classes: Obtained from the Nebraska Department of Natural Resources website.

Valuation History Chart Specifications

EXHIBITS 1B - 93B Valuation History Charts. There are five charts for each county. The first four charts display history of taxable valuations by property class and subclass, annual percentage change, cumulative percentage change, and the rate of annual percent change over the time periods specified. The fifth chart displays 2008 taxable valuations by property type for each city within the county and compares the county's valuation for each class and subclass of property. The fifth chart also displays populations for the cities and the county. *Note: The list of cities for each county is based on the 2008 Certificate of Taxes Levied Report (CTL) and may not include certain cities/villages that did not levy a property tax or are unincorporated.*

Chart 1 (Page 1) Real Property Valuations - Cumulative %Change 1998-2008

Source: Certificate of Taxes Levied Reports CTL.

Property Class: Residential & Recreational, Commercial & Industrial, Total Agricultural Land

Chart 2 (Page 2) Real Property & Growth Valuations - Cumulative %Change 1998-2008

Source: Certificate of Taxes Levied Reports CTL & Growth Valuations from County Abstract of Assessment Reports.

Property Class & Subclass: Residential & Recreational, Commercial & Industrial, Agricultural Improvements & Site Land

Chart 3 (Page 3) Agricultural Land Valuations - Cumulative %Change 1998-2008

Source: Certificate of Taxes Levied Reports CTL.

Property Class & Subclass: Irrigated Land, Dry Land, Grass Land, Waste Land, Other Agland, Total Agricultural Land

Chart 4 (Page 4) Agricultural Land -Average Value per Acre – Cumulative % Change 1998-2008

Source: County Abstract of Assessment Report for Real Property

Property Class & Subclass: Irrigated Land, Dry Land, Grass Land, Waste Land, Other Agland, Total Agricultural Land

Chart 5 (Page 5) 2008 County and Municipal Valuations by Property Type

Source: Certificate of Taxes Levied Reports CTL, County Populations per US Bureau of Census 2000, and Municipality Populations as certified December 2008 by NE Department of Revenue

Property Class & Subclass: Personal Property, Centrally Assessed Personal Property & Centrally Assessed Real Property, Residential, Commercial, Industrial, Recreational, Agricultural Land, Ag-Dwelling & Farm Home Site Land, Ag-Improvements & Farm Site Land, Mineral Interests, Total Taxable Value

City Class, Population, & Zoning Authority:

City Class:	Village	Second Class	First Class	Primary Class	Metropolitan
Population:	100-800	801-5,000	5,001-100,000	100,001-299,999	300,000 or more
Zoning Auth	1 mile outside city	1 mile outside city	2 mile outside city	3 mile outside city	3 mile outside city
Neb. Rev. Stat. §	17-201 & 17-1001	17-101 & 17-1001	16-101 & 16-901	15-101 & 15-905	14-101 & 14-419