



NEVADA DEPARTMENT OF TAXATION  
Division of Local Government Services

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# 2019-2020 REPORT OF ASSESSMENT RATIO STUDY

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2019 - 2020

Report of Assessment Ratio Study

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## 2019 - 2020 REPORT OF ASSESSMENT RATIO STUDY

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## 2019-2020 RATIO STUDY

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### INTRODUCTION: AUTHORITY, OVERSIGHT AND REPORTING

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NRS 361.333 requires the Department to determine the ratio of the assessed value of each type or class of property, for which the county assessor has the responsibility of assessing in each county, to the taxable value of that property as determined by the Department through appraisals of individual parcels. The ratio is in compliance with statute if the ratio of assessed value to taxable value is more than 32 percent or less than 36 percent. See NRS 361.333(5)(c).

Under NRS 361.333, the Nevada Tax Commission is obligated to equalize property under its jurisdiction. Equalization is the process by which the Commission ensures “that all property subject to taxation within the county has been assessed as required by law.”<sup>1</sup>

There are two types of information the Commission considers to determine whether property has been assessed equitably. The first comes from a ratio study, which is a statistical analysis designed to study the level and uniformity of the assessments. The second type of information comes from a review to determine whether each county has adequate procedures to ensure that all property subject to taxation is being assessed in a correct and timely manner.

It is important to note that the statistical analysis required by NRS 361.333 is a quality control technique designed for mass appraisal. Mass appraisal, like single-property appraisal, is a “systematic method for arriving at estimates of value.”<sup>2</sup> The difference between mass appraisal and single-property appraisal is only a matter of scope:

*Mass appraisal models have more terms because they attempt to replicate the market for one or more land uses across a wide geographic area. Single-property models, on the other hand, represent the market for one kind of land use in a limited area.*

*Quality is measured differently in mass appraisal and single-property appraisal. The quality of a single-property appraisal is measured against a small number of comparable properties that have sold. The quality of mass appraisals is measured with statistics developed from a sample of sales in the entire area appraised by the model.<sup>3</sup>*

Typically, mass appraisal techniques using valuation models for groups and classes of property are used by county assessors to determine taxable value. For example, mass appraisal techniques for land valuation are described in NAC 361.11795, and reference the use of base lot values as benchmarks for valuing properties within a stratum. In addition an assessor is required to use the IAAO “Standard on Automated Valuation Models” when developing mass appraisal models, pursuant to NAC 361.1216.

<sup>1</sup> NRS 361.333(4)(a) “The board of county commissioners and the county assessor, or their representatives, shall present evidence to the Nevada Tax Commission of the steps taken to ensure that all property subject to taxation within the county has been assessed as required by law.” Compare this statutory requirement to the International Association of Assessing Officers definition of equalization: “The process by which an appropriate governmental body attempts to ensure that property under its jurisdiction is appraised equitably at market value or as otherwise required by law.”

<sup>2</sup> Eckert, Joseph K., Ed., Property Appraisal and Assessment Administration (IAAO: Chicago, 1990), p. 35.

<sup>3</sup> Ibid.

NRS 361.333(2) permits the Department to conduct a ratio study on smaller groups of counties instead of the entire state in any one year. The ratio study is therefore conducted over a three year cycle. The counties reviewed for 2019-2020 are Douglas, Humboldt, Lyon, Nye and Washoe Counties.

If inequity or bias is discovered, NRS 361.333 provides the Nevada Tax Commission the authority to apply factors designed to correct inequitable conditions to classes of property or it may order reappraisal, the goal of which is to ensure that each of the classifications of real and personal property is assessed between 32% and 36% of taxable value. In addition, NRS 360.215 authorizes the Department of Taxation to assist county assessors in appraising property which the ratio study shows to be in need of reappraisal. The Department also consults on the development and maintenance of standard assessment procedures to ensure that property assessments are uniformly made.

## **RATIO STUDY DESIGN PARAMETERS AND STANDARDS FOR ANALYSIS**

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Generally speaking, a "ratio study" is "designed to evaluate appraisal performance by comparing the estimate of assessed value produced by the assessor on each parcel in the sample to the estimate of taxable value produced by the Department. The comparison is called a "ratio."

The appraisals conducted by the Department comprise a *sample* of the *universe or population* of all properties within the jurisdiction being reviewed. From the information about the *sample*, the Department *infers* what is happening to the population as a whole.

The Department examines the ratio information for *appraisal level* and *appraisal uniformity*. Appraisal level compares how close the assessor's estimate of assessed value is to the legally mandated standard of 35% of taxable value. Appraisal level is measured by a descriptive statistic called a *measure of central tendency*. A measure of central tendency, such as the mean, median, or aggregate ratio, is a single number or value that describes the center or the middle of a set of data. In the case of this ratio study, the median describes the middle of the array of all ratios comparing the assessed value to the taxable value established for each parcel.

*Assessment uniformity* refers to the degree to which different properties are assessed at equal percentages of taxable value. If taxable value could be described as the center of a "target," then assessment uniformity looks at how much dispersion or distance there is between each ratio and the "target." The statistical measure known as the coefficient of dispersion (COD) measures uniformity or the distance from the "target."

The ratio study, by law, must include the median ratio of the total property within each subject county and each class of property. The study must also include two comparative statistics known as the overall ratio (also known as the aggregate ratio or weighted mean ratio) and the coefficient of dispersion (COD) of the median, for both the total property in each subject county and for each major class of property within the county. NRS 361.333 (5)(c) defines the major classes of property as:

- I. Vacant land;
- II. Single-family residential;
- III. Multi-residential;
- IV. Commercial and industrial; and
- V. Rural

In addition, the statistics are calculated specifically for improvements, land, and total property values.

The median is a statistic describing the measure of central tendency of the sample. It is the middle ratio when all the ratios are arrayed in order of magnitude, and divides the sample into two equal parts. The median is the most widely used measure of central tendency by equalization agencies because it is less affected by extreme ratios or "outliers," and is therefore the preferred measure for monitoring appraisal performance or evaluating the need for a reappraisal.<sup>4</sup> NRS 361.333(5)(c) states that under- or- over assessment may exist if the median of the ratios falls in a range less than 32% or more than 36%.

The Department calculates the overall or aggregate ratio by dividing the total assessed value of all the observations (parcels) in the sample by the total taxable value of all the observations (parcels) in the sample. This produces a ratio weighted by dollar value. Because of the weight given to each dollar of value, parcels with higher values exert more influence than parcels with lower values. The aggregate ratio helps identify under or over assessment of higher valued property. For instance, an unusually high aggregate ratio might indicate that higher valued property is over assessed, or valued at a rate higher than other property. The statutory and regulatory framework does not dictate any range of acceptability for the aggregate ratio.

The COD is a measure of dispersion relating to the uniformity of the ratios and is calculated for all property, and each class of property, within the subject jurisdiction. The COD measures the deviation of the individual ratios from the median ratio as a percentage of the median and is calculated by (1) subtracting the median from each ratio; (2) taking the absolute value of the calculated differences; (3) summing the absolute differences; (4) dividing by the number of ratios to obtain the "average absolute deviation;" and (5) dividing by the median. The COD has "the desirable feature that its interpretation does not depend on the assumption that the ratios are normally distributed."<sup>5</sup> The COD is a relative measure and useful for comparing samples from different classes of property within, as well as among, counties.

In 2010, the Nevada Tax Commission adopted NAC 361.1216. The regulation adopted the Standard on Automated Valuation Models, September 2003 edition published by the International Association of Assessing Officers. The Standard on Automated Valuation Models, Section 8.4.2.1, discusses the coefficient of dispersion and Table 2 references Ratio Study Performance Standards with regard to the COD. The IAAO Standard on Ratio Studies states that "the smaller the measure, the better the uniformity, but extremely low measures can signal acceptable causes such as extremely homogeneous properties or very stable markets; or unacceptable causes such as lack of quality control, calculation errors, poor sample representativeness or sales chasing. Note that as market activity changes or as the complexity of properties increases, the measures of variability usually increase, even though appraisal procedures may be equally valid."<sup>6</sup>

The IAAO recommended ratio study performance standards are as follows:

<u>Type of Property</u>	<u>COD</u>
<b>Single-family Residential</b>	
Newer, more homogenous areas	5.0 to 10.0
Older, heterogeneous areas	5.0 to 15.0
Rural residential and seasonal	5.0 to 20.0

<sup>4</sup> International Association of Assessing Officers, Standard on Ratio Studies, (2010), p.12; 27.

<sup>5</sup> International Association of Assessing Officers, Standard on Ratio Studies, (2010), p. 13.

<sup>6</sup> International Association of Assessing Officers, Standard on Ratio Studies, (2013), p. 17.

<u>Type of Property</u>	<u>COD</u>
<b>Income-producing properties</b>	
Larger, urban jurisdictions	5.0 to 15.0
Smaller, rural jurisdictions	5.0 to 20.0
<b>Vacant land</b>	5.0 to 25.0
<b>Other real and personal property</b>	Varies with local conditions <sup>7</sup>

## **RATIO STUDY CONCLUSIONS**

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The 2019-2020 Ratio Study presentation includes the comparison of the median and aggregate ratios and the COD of all 17 counties required by NRS 361.333(1)(b)(1). These tables show the aggregate and median ratios and the coefficient of dispersion for the past three study years (2016 - 2018) across all counties for all properties.

Similar data is shown just for the counties in the 2019-2020 study year. Here the aggregate and median ratios, the COD, and the median related differential (MRD) are compared across types of property in the six counties. Data for each individual county is displayed for each type of property across all appraisal areas within the county, not just the reappraisal area.

### **Median Related Differential**

The median related differential is a statistic that tends to indicate regressivity when it is above 1.03 and progressivity when it is below .98. It is an indication of whether high-value properties are appraised higher or lower than low-value properties. The standard is not an absolute when samples are small or when wide variations in prices exist. In that case, other statistical tests may be more useful. *This particular test is not required by statute.*

The chart on page 12 indicates that of the five counties studied in 2019-2020, progressivity is present for Vacant Land and Commercial/Industrial properties in Lyon County and Improvements in Nye County. Conversely, regressivity is present for Rural Land & Improvements in Washoe County. Other counties where progressivity or regressivity occurred in prior years are also listed on page 10. The Department recommends reviewing stratifications of property and neighborhoods to ensure sufficient sales data is available, or use alternate methods of land valuation.

### **Aggregate Ratio**

The data for the Aggregate (overall) Ratio, or weighted mean, shown on page 11 are within the acceptable standard range of 32% to 36% on a composite basis for the six counties studied in 2019-2020, with the following exceptions noted: Lyon County Vacant Land at 39.1% and Nye County Rural Land at 37.7%. However, the Aggregate Ratio for all counties produced a total ratio of 34.2% that were within the acceptable standard range.

<sup>7</sup> International Association of Assessing Officers, Standard on Ratio Studies, (2013), p. 17; and Standard on Automated Valuation Models (2003), p. 28.

## **Median Ratio**

The Median Ratios of assessed value to taxable value generally indicate over-or-undervaluation of those types of property taken as a whole within the entire appraisal jurisdiction. Median Ratios may be acceptable, yet inequity could still exist in pocket areas. However, this study makes these inferences for property groups as a whole within the jurisdiction, without regard to individual market areas. As noted above, for purposes of monitoring appraisal performance and for direct equalization, the median ratio is the preferred measure of central tendency.

The Median Ratios shown on page 11 indicate the appraisal level for all classes of property in each county included in this study are within the acceptable standard range of 32% and 36% using the results of the sample taken by the Department. The land, improvement, and the property class ratios of the assessed value established by each county assessor, measured against the taxable value established by the Department, are within statutory limits, with the following exception noted: Nye County Rural Land at 37.7%.

## **Coefficient of Dispersion**

The COD ratios, shown on page 12, for the six counties studied in 2019-2020, indicate the ratios for all property, and each class of property, within the jurisdictions are relatively uniform with the exception of Lyon County Vacant Land which was higher than the other counties as a whole but still within IAAO recommended performance standards. The COD ratios reported are typically at the low end or below the IAAO range standards. The standards are more appropriate for comparison in market-based assessment systems than in Nevada's unique hybrid system.

## **PROCEDURAL / OFFICE REVIEW**

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NRS 361.333 (1)(b)(2) requires the Department to make a determination about whether each county has adequate procedures to ensure that all property subject to taxation is being assessed in a correct and timely manner, and to note any deficiencies. For the 2019-2020 Ratio Study, the Department reviewed assessors' procedures as part of the ratio study process.

## **LAND AND IMPROVEMENT FACTORS**

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Pursuant to NRS 361.260(5), the Department reviews assessments in areas where improvement factors are applied. All counties report that land is annually reappraised, making the land factor no longer applicable. Improvement Factors for the 2019-2020 tax year are available on the Taxation website at <https://tax.nv.gov/>.



2019-2020

REPORT OF ASSESSMENT RATIO STUDY

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STATISTICAL TABLES

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NEVADA DEPARTMENT OF TAXATION  
2019-2020 RATIO STUDY  
AGGREGATE RATIOS

SUBJECT COUNTY	STUDY YEAR	ALL PROPERTY	IMPROVEMENTS	IMPROVED LAND	VACANT LAND	SINGLE FAMILY RESIDENCE	MULTI-FAMILY RESIDENCE	COMMERCIAL INDUSTRIAL	RURAL LAND & IMPROVEMENTS
CARSON CITY	2017	34.1	34.6	33.8	32.5	34.1	34.4	34.5	33.7
CHURCHILL	2017	34.6	34.8	34.6	29.9	34.2	34.9	35.2	35.0
CLARK	2018	34.0	34.1	34.0	34.1	33.9	34.5	34.0	35.0
DOUGLAS	2019	34.5	35.0	34.1	34.2	34.2	34.9	34.7	35.0
ELKO	2017	33.4	33.6	34.1	34.9	34.3	34.1	33.0	35.0
ESMERALDA	2018	33.0	32.1	35.0	35.0	31.9	34.1	32.1	35.0
EUREKA	2018	33.6	33.5	34.1	34.1	33.6	33.3	33.8	35.0
HUMBOLDT	2019	34.2	33.8	35.2	34.5	34.1	34.3	34.2	35.0
LANDER	2017	34.3	34.2	34.7	34.4	34.4	34.3	34.2	33.3
LINCOLN	2018	33.7	34.2	31.7	34.2	32.9	34.1	34.4	35.0
LYON	2019	33.8	33.7	33.4	39.1	33.6	33.6	33.6	35.0
MINERAL	2018	36.1	34.7	34.7	57.7	34.3	33.9	35.2	35.0
NYE	2019	34.5	35.1	34.2	33.6	34.8	33.7	34.3	37.7
PERSHING	2017	34.5	33.9	36.4	36.1	34.6	34.3	34.3	35.0
STOREY	2018	39.2	39.7	35.6	34.9	34.2	35.2	39.4	35.0
WASHOE	2019	34.3	34.5	34.2	33.8	34.7	34.0	34.2	33.7
WHITE PINE	2017	34.3	34.6	33.5	34.2	34.5	34.4	34.2	34.4
STATEWIDE	<b>2019</b>	35.3	35.8	34.2	34.0	34.2	34.4	35.9	34.5

NEVADA DEPARTMENT OF TAXATION  
2019-2020 RATIO STUDY  
MEDIAN RATIOS

SUBJECT COUNTY	STUDY YEAR	ALL PROPERTY	IMPROVEMENTS	IMPROVED LAND	VACANT LAND	SINGLE FAMILY RESIDENCE	MULTI-FAMILY RESIDENCE	COMMERCIAL INDUSTRIAL	RURAL LAND & IMPROVEMENTS
CARSON CITY	2017	34.0	34.0	34.2	33.8	34.0	34.1	34.1	33.2
CHURCHILL	2017	34.7	34.9	34.6	33.5	34.6	34.9	34.8	35.0
CLARK	2018	34.5	34.2	34.8	34.7	34.1	34.5	34.0	35.0
DOUGLAS	2019	34.7	35.0	34.0	34.8	34.3	34.9	35.0	34.7
ELKO	2017	34.2	34.0	34.9	34.1	34.3	34.7	33.4	35.0
ESMERALDA	2018	34.8	33.7	35.0	35.0	34.2	34.0	33.8	35.0
EUREKA	2018	34.1	33.6	34.4	34.2	33.9	33.7	33.7	35.0
HUMBOLDT	2019	34.3	34.2	34.7	34.5	34.4	34.2	34.1	35.0
LANDER	2017	34.7	34.4	35.0	35.0	34.2	34.7	34.7	35.0
LINCOLN	2018	34.4	33.8	35.0	34.4	34.4	34.0	34.2	35.0
LYON	2019	34.3	33.9	33.8	34.5	34.6	33.9	32.9	35.0
MINERAL	2018	34.3	31.1	35.4	34.5	34.3	31.1	31.2	34.9
NYE	2019	34.3	34.2	34.7	34.0	34.8	34.4	34.0	37.7
PERSHING	2017	34.9	33.4	35.1	35.0	34.5	33.4	35.8	35.0
STOREY	2018	34.8	34.5	35.0	34.8	34.1	34.6	34.5	35.0
WASHOE	2019	34.4	34.3	34.9	33.6	34.8	34.2	33.7	35.0
WHITE PINE	2017	34.1	34.4	33.6	33.6	34.4	34.6	33.8	35.0
STATEWIDE	2019	34.5	34.2	34.8	34.6	34.3	34.3	34.0	35.0

NEVADA DEPARTMENT OF TAXATION  
2019-2020 RATIO STUDY  
COEFFICIENTS OF DISPERSION

SUBJECT COUNTY	STUDY YEAR	ALL PROPERTY	IMPROVEMENTS	IMPROVED LAND	VACANT LAND	SINGLE FAMILY RESIDENCE	MULTI-FAMILY RESIDENCE	COMMERCIAL INDUSTRIAL	RURAL LAND & IMPROVEMENTS
CARSON CITY	2017	3.6	5.9	3.8	5.7	1.8	2.2	5.5	1.4
CHURCHILL	2017	3.1	2.2	2.6	5.7	2.0	1.5	3.0	0.0
CLARK	2018	2.4	3.4	2.7	2.2	2.4	2.3	2.6	0.0
DOUGLAS	2019	2.1	2.8	2.8	2.7	2.0	1.4	2.4	0.9
ELKO	2017	2.6	2.7	2.0	3.4	2.0	2.0	2.5	0.1
ESMERALDA	2018	2.1	3.1	0.3	0.3	3.7	1.3	2.5	-
EUREKA	2018	2.4	3.6	2.4	1.8	3.2	2.1	2.0	-
HUMBOLDT	2019	3.8	3.9	6.2	2.9	3.8	2.1	7.1	0.1
LANDER	2017	2.8	3.8	1.9	2.9	3.1	2.0	2.7	1.2
LINCOLN	2018	3.0	5.3	2.5	1.7	4.6	4.2	2.5	0.1
LYON	2019	6.8	7.3	5.0	15.8	4.1	3.4	8.2	0.6
MINERAL	2018	17.8	34.0	16.1	29.9	13.7	21.1	13.0	0.1
NYE	2019	4.4	5.7	3.5	1.8	2.9	2.3	7.0	1.4
PERSHING	2017	4.1	5.4	8.7	2.4	3.2	5.2	6.0	0.1
STOREY	2018	2.9	3.7	4.0	1.7	2.9	4.5	5.8	0.0
WASHOE	2019	2.3	2.7	2.4	3.3	1.2	2.0	2.2	0.9
WHITE PINE	2017	3.8	4.5	2.9	3.4	4.0	2.1	4.4	3.3
STATEWIDE	2019	3.7	5.2	4.1	4.7	3.3	3.2	4.8	1.2

NEVADA DEPARTMENT OF TAXATION  
2019-2020 RATIO STUDY  
MEDIAN RELATED DIFFERENTIALS

SUBJECT COUNTY	STUDY YEAR	ALL PROPERTY	IMPROVEMENTS	IMPROVED LAND	VACANT LAND	SINGLE FAMILY RESIDENCE	MULTI-FAMILY RESIDENCE	COMMERCIAL INDUSTRIAL	RURAL LAND & IMPROVEMENTS
CARSON CITY	2017	1.00	0.98	1.01	1.04	1.00	0.99	0.99	0.98
CHURCHILL	2017	1.00	1.01	1.00	1.12	1.01	1.00	0.99	1.00
CLARK	2018	1.01	1.00	1.02	1.02	1.01	1.00	1.00	1.00
DOUGLAS	2019	1.00	1.00	1.00	1.02	1.00	1.00	1.01	0.99
ELKO	2017	1.02	1.01	1.02	0.98	1.00	1.02	1.01	1.00
ESMERALDA	2018	1.05	1.05	1.00	1.00	1.07	1.00	1.05	1.00
EUREKA	2018	1.01	1.00	1.01	1.01	1.01	1.01	1.00	1.00
HUMBOLDT	2019	1.00	1.01	0.99	1.00	1.01	1.00	0.99	1.00
LANDER	2017	1.01	1.00	1.01	1.02	0.99	1.01	1.01	1.05
LINCOLN	2018	1.02	0.99	1.10	1.00	1.05	1.00	0.99	1.00
LYON	2019	1.02	1.01	1.01	0.88	1.03	1.01	0.98	1.00
MINERAL	2018	0.95	0.90	1.02	0.60	1.00	0.92	0.89	1.00
NYE	2019	0.99	0.97	1.01	1.01	1.00	1.02	0.99	1.00
PERSHING	2017	1.01	0.99	0.96	0.97	1.00	0.97	1.04	1.00
STOREY	2018	0.89	0.87	0.98	1.00	1.00	0.98	0.88	1.00
WASHOE	2019	1.00	1.00	1.02	0.99	1.00	1.00	0.99	1.04
WHITE PINE	2017	0.99	1.00	1.00	0.98	1.00	1.00	0.99	1.02
STATEWIDE	2019	0.98	0.96	1.02	1.02	1.00	1.00	0.95	1.02

NEVADA DEPARTMENT OF TAXATION  
 2019-2020 RATIO STUDY  
 ALL APPRAISAL AREAS  
 OVERALL (AGGREGATE) RATIO

Subject County	All Property
DOUGLAS	34.5
HUMBOLDT	34.2
LYON	33.8
NYE	34.5
WASHOE	34.3
ALL COUNTIES	34.2

Class of Property							
Improvements	Improved Land	Vacant Land	Single Family Residence	Multi-Family Residence	Commercial Industrial	Rural Land & Improvements	
35.0	34.1	34.2	34.2	34.9	34.7	35.0	
33.8	35.2	34.5	34.1	34.3	34.2	35.0	
33.7	33.4	39.1	33.6	33.6	33.6	35.0	
35.1	34.2	33.6	34.8	33.7	34.3	37.7	
34.5	34.2	33.8	34.7	34.0	34.2	33.7	
34.4	34.1	34.5	34.4	34.2	34.1	34.9	

MEDIAN RATIO

Subject County	All Property
DOUGLAS	34.7
HUMBOLDT	34.3
LYON	34.3
NYE	34.3
WASHOE	34.4
ALL COUNTIES	34.4

Class of Property							
Improvements	Improved Land	Vacant Land	Single Family Residence	Multi-Family Residence	Commercial Industrial	Rural Land & Improvements	
35.0	34.0	34.8	34.3	34.9	35.0	34.7	
34.2	34.7	34.5	34.4	34.2	34.1	35.0	
33.9	33.8	34.5	34.6	33.9	32.9	35.0	
34.2	34.7	34.0	34.8	34.4	34.0	37.7	
34.3	34.9	33.6	34.8	34.2	33.7	35.0	
34.4	34.6	34.2	34.7	34.3	34.0	35.0	

NEVADA DEPARTMENT OF TAXATION  
 2019-2020 RATIO STUDY  
 ALL APPRAISAL AREAS  
 COEFFICIENT OF DISPERSION (COD)

Subject County	All Property
DOUGLAS	2.1
HUMBOLDT	3.8
LYON	6.8
NYE	4.4
WASHOE	2.3
ALL COUNTIES	3.8

Class of Property							
Improvements	Improved Land	Vacant Land	Single Family Residence	Multi-Family Residence	Commercial Industrial	Rural Land & Improvements	
2.8	2.8	2.7	2.0	1.4	2.4	0.9	
3.9	6.2	2.9	3.8	2.1	7.1	0.1	
7.3	5.0	15.8	4.1	3.4	8.2	0.6	
5.7	3.5	1.8	2.9	2.3	7.0	1.4	
2.7	2.4	3.3	1.2	2.0	2.2	0.9	
4.4	4.0	5.1	2.6	2.4	5.5	2.3	

MEDIAN RELATED DIFFERENTIAL

Subject County	All Property
DOUGLAS	1.00
HUMBOLDT	1.00
LYON	1.02
NYE	0.99
WASHOE	1.00
ALL COUNTIES	1.00

Class of Property							
Improvements	Improved Land	Vacant Land	Single Family Residence	Multi-Family Residence	Commercial Industrial	Rural Land & Improvements	
1.00	1.00	1.02	1.00	1.00	1.01	0.99	
1.01	0.99	1.00	1.01	1.00	0.99	1.00	
1.01	1.01	0.88	1.03	1.01	0.98	1.00	
0.97	1.01	1.01	1.00	1.02	0.99	1.00	
1.00	1.02	0.99	1.00	1.00	0.99	1.04	
1.00	1.01	0.99	1.01	1.00	1.00	1.00	

**DOUGLAS COUNTY**  
**2019-2020 RATIO STUDY**

**ALL APPRAISAL AREAS**

<b>REAL PROPERTY</b>	<b>AGGREGATE RATIO</b>	<b>MEDIAN RATIO</b>	<b>COD MEDIAN</b>	<b>SAMPLE SIZE</b>
COUNTYWIDE TOTAL PROPERTY	34.5%	34.7%	2.1%	55
COUNTYWIDE IMPROVEMENTS	35.0%	35.0%	2.8%	37
COUNTYWIDE IMPROVED LAND	34.1%	34.0%	2.8%	43
COUNTYWIDE VACANT LAND	34.2%	34.8%	2.7%	12
SINGLE FAMILY IMPROVEMENTS	34.7%	34.6%	2.1%	16
SINGLE FAMILY LAND	33.7%	33.6%	2.9%	16
SINGLE FAMILY TOTAL PROPERTY	34.2%	34.3%	2.0%	16
MULTIPLE FAMILY IMPROVEMENTS	35.0%	35.1%	1.8%	11
MULTIPLE FAMILY LAND	34.8%	34.2%	2.7%	11
MULTIPLE FAMILY TOTAL PROPERTY	34.9%	34.9%	1.4%	11
COMMERCIAL/INDUSTRIAL IMPROVEMENTS	35.1%	35.5%	4.3%	10
COMMERCIAL/INDUSTRIAL LAND	33.8%	33.8%	2.7%	10
COMMERCIAL/INDUSTRIAL TOTAL PROPERTY	34.7%	35.0%	2.4%	10
RURAL IMPROVEMENTS	n/a	n/a	n/a	-
RURAL LAND	35.0%	34.7%	0.9%	6
RURAL TOTAL PROPERTY	35.0%	34.7%	0.9%	6
<b>SECURED PERSONAL PROPERTY</b>				
ALL SECURED	35.0%	35.0%	0.0%	8
AIRCRAFT	n/a	n/a	n/a	-
AGRICULTURAL	35.0%	35.0%	0.0%	2
BILLBOARDS	n/a	n/a	n/a	-
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	0.0%	2
MOBILE HOMES	35.0%	35.0%	0.0%	4
<b>UNSECURED PERSONAL PROPERTY</b>				
ALL UNSECURED	35.0%	35.0%	0.2%	19
AIRCRAFT	35.0%	35.0%	0.0%	3
AGRICULTURAL	35.0%	35.0%	0.0%	2
BILLBOARDS	n/a	n/a	n/a	-
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	0.3%	10
MOBILE HOMES	34.9%	35.0%	0.3%	4
<b>TOTAL PERSONAL PROPERTY</b>	<b>35.0%</b>	<b>35.0%</b>	<b>0.2%</b>	<b>27</b>



**HUMBOLDT COUNTY  
2019-2020 RATIO STUDY**

**ALL APPRAISAL AREAS**

<b>REAL PROPERTY</b>	<b>AGGREGATE RATIO</b>	<b>MEDIAN RATIO</b>	<b>COD MEDIAN</b>	<b>SAMPLE SIZE</b>
COUNTYWIDE TOTAL PROPERTY	34.2%	34.3%	3.8%	50
COUNTYWIDE IMPROVEMENTS	33.8%	34.2%	3.9%	34
COUNTYWIDE IMPROVED LAND	35.2%	34.7%	6.2%	40
COUNTYWIDE VACANT LAND	34.5%	34.5%	2.9%	10
SINGLE FAMILY IMPROVEMENTS	34.0%	34.6%	5.1%	16
SINGLE FAMILY LAND	34.4%	34.7%	2.4%	16
SINGLE FAMILY TOTAL PROPERTY	34.1%	34.4%	3.8%	16
MULTIPLE FAMILY IMPROVEMENTS	34.4%	34.3%	2.4%	8
MULTIPLE FAMILY LAND	34.0%	34.3%	3.8%	8
MULTIPLE FAMILY TOTAL PROPERTY	34.3%	34.2%	2.1%	8
COMMERCIAL/INDUSTRIAL IMPROVEMENTS	33.5%	34.0%	2.5%	10
COMMERCIAL/INDUSTRIAL LAND	35.8%	33.5%	17.5%	10
COMMERCIAL/INDUSTRIAL TOTAL PROPERTY	34.2%	34.1%	7.1%	10
RURAL IMPROVEMENTS	n/a	n/a	n/a	-
RURAL LAND	35.0%	35.0%	0.1%	6
RURAL TOTAL PROPERTY	35.0%	35.0%	0.1%	6
<b>SECURED PERSONAL PROPERTY</b>				
ALL SECURED	35.0%	35.0%	0.1%	15
AIRCRAFT	n/a	n/a	n/a	-
AGRICULTURAL	35.0%	35.0%	0.0%	3
BILLBOARDS	n/a	n/a	n/a	-
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	0.3%	3
MOBILE HOMES	35.0%	35.0%	0.0%	9
<b>UNSECURED PERSONAL PROPERTY</b>				
ALL UNSECURED	35.0%	35.0%	0.2%	19
AIRCRAFT	34.8%	34.8%	0.5%	2
AGRICULTURAL	35.0%	35.0%	0.0%	2
BILLBOARDS	n/a	n/a	n/a	-
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	0.0%	7
MOBILE HOMES	35.0%	35.0%	0.5%	8
<b>TOTAL PERSONAL PROPERTY</b>	<b>35.0%</b>	<b>35.0%</b>	<b>0.2%</b>	<b>34</b>

**LYON COUNTY**  
**2019-2020 RATIO STUDY**

**ALL APPRAISAL AREAS**

<b>REAL PROPERTY</b>	<b>AGGREGATE RATIO</b>	<b>MEDIAN RATIO</b>	<b>COD MEDIAN</b>	<b>SAMPLE SIZE</b>
COUNTYWIDE TOTAL PROPERTY	33.8%	34.3%	6.8%	57
COUNTYWIDE IMPROVEMENTS	33.7%	33.9%	7.3%	41
COUNTYWIDE IMPROVED LAND	33.4%	33.8%	5.0%	47
COUNTYWIDE VACANT LAND	39.1%	34.5%	15.8%	10
SINGLE FAMILY IMPROVEMENTS	34.2%	34.6%	3.2%	18
SINGLE FAMILY LAND	32.6%	33.8%	8.5%	18
SINGLE FAMILY TOTAL PROPERTY	33.6%	34.6%	4.1%	18
MULTIPLE FAMILY IMPROVEMENTS	33.6%	34.1%	4.7%	12
MULTIPLE FAMILY LAND	33.7%	33.6%	2.6%	12
MULTIPLE FAMILY TOTAL PROPERTY	33.6%	33.9%	3.4%	12
COMMERCIAL/INDUSTRIAL IMPROVEMENTS	33.6%	32.8%	16.2%	11
COMMERCIAL/INDUSTRIAL LAND	33.8%	33.5%	3.0%	11
COMMERCIAL/INDUSTRIAL TOTAL PROPERTY	33.6%	32.9%	8.2%	11
RURAL IMPROVEMENTS	n/a	n/a	n/a	-
RURAL LAND	35.0%	35.0%	0.6%	6
RURAL TOTAL PROPERTY	35.0%	35.0%	0.6%	6
<b>SECURED PERSONAL PROPERTY</b>				
ALL SECURED	35.0%	35.0%	0.0%	5
AIRCRAFT	n/a	n/a	n/a	-
AGRICULTURAL	35.0%	35.0%	0.0%	2
BILLBOARDS	n/a	n/a	n/a	-
COMMERCIAL/INDUSTRIAL	n/a	n/a	n/a	-
MOBILE HOMES	35.0%	35.0%	0.0%	3
<b>UNSECURED PERSONAL PROPERTY</b>				
ALL UNSECURED	35.0%	35.0%	0.9%	25
AIRCRAFT	35.0%	35.0%	0.0%	2
AGRICULTURAL	35.0%	35.0%	0.2%	3
BILLBOARDS	34.6%	34.6%	0.0%	1
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	0.3%	7
MOBILE HOMES	35.0%	35.0%	1.6%	12
<b>TOTAL PERSONAL PROPERTY</b>	<b>35.0%</b>	<b>35.0%</b>	<b>0.8%</b>	<b>30</b>

**NYE COUNTY**  
**2019-2020 RATIO STUDY**

**ALL APPRAISAL AREAS**

<b>REAL PROPERTY</b>	<b>AGGREGATE RATIO</b>	<b>MEDIAN RATIO</b>	<b>COD MEDIAN</b>	<b>SAMPLE SIZE</b>
COUNTYWIDE TOTAL PROPERTY	34.5%	34.3%	4.4%	60
COUNTYWIDE IMPROVEMENTS	35.1%	34.2%	5.7%	40
COUNTYWIDE IMPROVED LAND	34.2%	34.7%	3.5%	48
COUNTYWIDE VACANT LAND	33.6%	34.0%	1.8%	12
SINGLE FAMILY IMPROVEMENTS	34.8%	34.1%	3.6%	18
SINGLE FAMILY LAND	34.7%	35.0%	2.1%	18
SINGLE FAMILY TOTAL PROPERTY	34.8%	34.8%	2.9%	18
MULTIPLE FAMILY IMPROVEMENTS	33.7%	34.7%	3.3%	10
MULTIPLE FAMILY LAND	33.8%	34.1%	2.0%	10
MULTIPLE FAMILY TOTAL PROPERTY	33.7%	34.4%	2.3%	10
COMMERCIAL/INDUSTRIAL IMPROVEMENTS	34.4%	33.8%	10.4%	12
COMMERCIAL/INDUSTRIAL LAND	33.8%	34.2%	2.5%	12
COMMERCIAL/INDUSTRIAL TOTAL PROPERTY	34.3%	34.0%	7.0%	12
RURAL IMPROVEMENTS	n/a	n/a	n/a	-
RURAL LAND	37.7%	37.7%	1.4%	8
RURAL TOTAL PROPERTY	37.7%	37.7%	1.4%	8
<b>SECURED PERSONAL PROPERTY</b>				
ALL SECURED	35.0%	35.0%	0.0%	9
AIRCRAFT	n/a	n/a	n/a	-
AGRICULTURAL	n/a	n/a	n/a	-
BILLBOARDS	n/a	n/a	n/a	-
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	0.0%	1
MOBILE HOMES	35.0%	35.0%	0.0%	8
<b>UNSECURED PERSONAL PROPERTY</b>				
ALL UNSECURED	35.4%	35.0%	0.4%	29
AIRCRAFT	34.8%	34.9%	0.3%	2
AGRICULTURAL	n/a	n/a	n/a	-
BILLBOARDS	35.0%	35.0%	0.0%	2
COMMERCIAL/INDUSTRIAL	36.0%	35.0%	0.6%	10
MOBILE HOMES	35.0%	35.0%	0.3%	15
<b>TOTAL PERSONAL PROPERTY</b>	<b>35.3%</b>	<b>35.0%</b>	<b>0.3%</b>	<b>38</b>

**WASHOE COUNTY**  
**2019-2020 RATIO STUDY**

**ALL APPRAISAL AREAS**

<b>REAL PROPERTY</b>	<b>AGGREGATE RATIO</b>	<b>MEDIAN RATIO</b>	<b>COD MEDIAN</b>	<b>SAMPLE SIZE</b>
COUNTYWIDE TOTAL PROPERTY	34.3%	34.4%	2.3%	81
COUNTYWIDE IMPROVEMENTS	34.5%	34.3%	2.7%	67
COUNTYWIDE IMPROVED LAND	34.2%	34.9%	2.4%	66
COUNTYWIDE VACANT LAND	33.8%	33.6%	3.3%	15
SINGLE FAMILY IMPROVEMENTS	34.6%	34.5%	1.7%	30
SINGLE FAMILY LAND	35.1%	35.3%	2.1%	30
SINGLE FAMILY TOTAL PROPERTY	34.7%	34.8%	1.2%	30
MULTIPLE FAMILY IMPROVEMENTS	33.8%	34.0%	3.5%	15
MULTIPLE FAMILY LAND	34.3%	34.3%	2.2%	15
MULTIPLE FAMILY TOTAL PROPERTY	34.0%	34.2%	2.0%	15
COMMERCIAL/INDUSTRIAL IMPROVEMENTS	34.5%	33.8%	3.2%	15
COMMERCIAL/INDUSTRIAL LAND	33.8%	33.6%	2.2%	15
COMMERCIAL/INDUSTRIAL TOTAL PROPERTY	34.2%	33.7%	2.2%	15
RURAL IMPROVEMENTS	32.5%	33.6%	4.1%	2
RURAL LAND	35.0%	35.0%	0.1%	6
RURAL TOTAL PROPERTY	33.7%	35.0%	0.9%	6
<b>SECURED PERSONAL PROPERTY</b>				
ALL SECURED	n/a	n/a	n/a	-
AIRCRAFT	n/a	n/a	n/a	-
AGRICULTURAL	n/a	n/a	n/a	-
BILLBOARDS	n/a	n/a	n/a	-
COMMERCIAL/INDUSTRIAL	n/a	n/a	n/a	-
MOBILE HOMES	n/a	n/a	n/a	-
<b>UNSECURED PERSONAL PROPERTY</b>				
ALL UNSECURED	34.5%	35.0%	3.0%	34
AIRCRAFT	35.0%	35.0%	0.0%	3
AGRICULTURAL	35.0%	35.0%	0.0%	1
BILLBOARDS	35.0%	35.0%	0.0%	1
COMMERCIAL/INDUSTRIAL	32.4%	35.0%	3.1%	17
MOBILE HOMES	34.8%	35.0%	4.1%	12
<b>TOTAL PERSONAL PROPERTY</b>	<b>34.5%</b>	<b>35.0%</b>	<b>3.0%</b>	<b>34</b>

**ALL COUNTIES INCLUDED IN  
2019-2020 RATIO STUDY**

**ALL APPRAISAL AREAS**

<b>REAL PROPERTY</b>	<b>AGGREGATE RATIO</b>	<b>MEDIAN RATIO</b>	<b>COD MEDIAN</b>	<b>SAMPLE SIZE</b>
ALL COUNTIES TOTAL PROPERTY	34.2%	34.4%	3.8%	303
ALL COUNTIES IMPROVEMENTS	34.4%	34.4%	4.4%	219
ALL COUNTIES IMPROVED LAND	34.1%	34.6%	4.0%	244
ALL COUNTIES VACANT LAND	34.5%	34.2%	5.1%	59
SINGLE FAMILY IMPROVEMENTS	34.5%	34.6%	3.0%	98
SINGLE FAMILY LAND	34.1%	34.9%	3.8%	98
SINGLE FAMILY TOTAL PROPERTY	34.4%	34.7%	2.6%	98
MULTIPLE FAMILY IMPROVEMENTS	34.1%	34.6%	3.5%	56
MULTIPLE FAMILY LAND	34.3%	34.1%	2.7%	56
MULTIPLE FAMILY TOTAL PROPERTY	34.2%	34.3%	2.4%	56
COMMERCIAL/INDUSTRIAL IMPROVEMENTS	34.2%	34.0%	7.6%	58
COMMERCIAL/INDUSTRIAL LAND	34.0%	33.8%	5.2%	58
COMMERCIAL/INDUSTRIAL TOTAL PROPERTY	34.1%	34.0%	5.5%	58
RURAL IMPROVEMENTS	32.5%	33.6%	4.1%	2
RURAL LAND	35.1%	35.0%	2.1%	32
RURAL TOTAL PROPERTY	34.9%	35.0%	2.3%	32
<b>SECURED PERSONAL PROPERTY</b>				
ALL SECURED	35.0%	35.0%	0.0%	37
AIRCRAFT	n/a	n/a	n/a	-
AGRICULTURAL	35.0%	35.0%	0.0%	7
BILLBOARDS	n/a	n/a	n/a	-
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	0.2%	6
MOBILE HOMES	35.0%	35.0%	0.0%	24
<b>UNSECURED PERSONAL PROPERTY</b>				
ALL UNSECURED	35.0%	35.0%	1.2%	126
AIRCRAFT	35.0%	35.0%	0.1%	12
AGRICULTURAL	35.0%	35.0%	0.1%	8
BILLBOARDS	35.0%	35.0%	0.3%	4
COMMERCIAL/INDUSTRIAL	35.1%	35.0%	1.3%	51
MOBILE HOMES	34.9%	35.0%	1.5%	51
<b>TOTAL PERSONAL PROPERTY</b>	<b>35.0%</b>	<b>35.0%</b>	<b>0.9%</b>	<b>163</b>

**STATEWIDE  
2017-2020 RATIO STUDIES**

**ALL APPRAISAL AREAS**

<b>REAL PROPERTY</b>	<b>AGGREGATE RATIO</b>	<b>MEDIAN RATIO</b>	<b>COD MEDIAN</b>	<b>SAMPLE SIZE</b>
STATEWIDE TOTAL PROPERTY	35.3%	34.4%	3.9%	1,256
STATEWIDE IMPROVEMENTS	35.8%	34.2%	5.2%	854
STATEWIDE IMPROVED LAND	34.2%	34.8%	4.1%	943
STATEWIDE VACANT LAND	34.0%	34.6%	4.7%	308
SINGLE FAMILY IMPROVEMENTS	34.2%	34.3%	4.4%	385
SINGLE FAMILY LAND	34.1%	34.6%	4.4%	384
SINGLE FAMILY TOTAL PROPERTY	34.2%	34.3%	3.3%	386
MULTIPLE FAMILY IMPROVEMENTS	34.4%	34.4%	5.4%	214
MULTIPLE FAMILY LAND	34.3%	34.7%	3.4%	214
MULTIPLE FAMILY TOTAL PROPERTY	34.4%	34.3%	3.2%	214
COMMERCIAL/INDUSTRIAL IMPROVEMENTS	36.4%	34.0%	6.1%	238
COMMERCIAL/INDUSTRIAL LAND	34.3%	34.6%	5.4%	240
COMMERCIAL/INDUSTRIAL TOTAL PROPERTY	35.9%	34.0%	4.8%	243
RURAL IMPROVEMENTS	32.6%	32.4%	4.0%	5
RURAL LAND	34.7%	35.0%	1.0%	105
RURAL TOTAL PROPERTY	34.5%	35.0%	1.2%	105
<b>SECURED PERSONAL PROPERTY</b>				
ALL SECURED	35.0%	35.0%	0.9%	211
AIRCRAFT	35.0%	35.0%	0.0%	1
AGRICULTURAL	35.0%	35.0%	0.9%	49
BILLBOARDS	34.7%	35.0%	16.0%	3
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	1.3%	56
MOBILE HOMES	35.0%	35.0%	0.2%	102
<b>UNSECURED PERSONAL PROPERTY</b>				
ALL UNSECURED	35.0%	35.0%	1.1%	405
AIRCRAFT	35.0%	35.0%	0.1%	60
AGRICULTURAL	35.0%	35.0%	0.8%	46
BILLBOARDS	35.0%	35.0%	0.1%	31
COMMERCIAL/INDUSTRIAL	35.1%	35.0%	2.3%	128
MOBILE HOMES	35.0%	35.0%	0.6%	140
<b>TOTAL PERSONAL PROPERTY</b>	<b>35.0%</b>	<b>35.0%</b>	<b>1.0%</b>	<b>616</b>

2019-2020

REPORT OF ASSESSMENT RATIO STUDY

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COUNTY ABSTRACTS  
AND FINDINGS

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# DOUGLAS COUNTY NARRATIVE

## 2019-20 RATIO STUDY

Douglas County annually reappraises all land and improvements. The assessor's website includes the previous year and current assessed and taxable values for land and improvements, previous sale data, a photograph of the property when applicable, plat maps, and other valuable information for each parcel. Detailed computerized building sketches are also available at the assessor's office.

NRS 361.333 requires the Department to determine the ratio of the assessed value of each type or class of property for which the county assessor has the responsibility of assessing in each county to the taxable value of that type or class of property within that county determined by the Department through appraisals of individual parcels. The ratio is in compliance with statute if the ratio of assessed value to taxable value is more than 32 percent or less than 36 percent. See NRS 361.333(5)(c).

Property Type	Sample Size	Samples in Compliance	Samples out of Compliance	Exception Rate
Vacant Land	12	12	0	0%
Single-Family Residential Land	16	16	0	0%
Multi-Family Residential Land (Note 1)	11	10	1	9%
Commercial and Industrial Land	10	10	0	0%
Agricultural Land	6	6	0	0%
Single Family Residential Improvements	16	16	0	0%
Multi-family Residential Improvements	11	11	0	0%
Commercial and Industrial Improvements (Note 2)	10	8	2	20%

**Note 1: Multi-Family Residential Land:** The one outlier listed above was found in the 1/5 of the county which was *physically* inspected during the 2019-2020 tax year.

**Note 2: Commercial and Industrial Improvements:** Of the two outliers listed above both found in the 4/5 of the county which was *not physically* inspected during the 2017-2018 tax year.



## PROCEDURES, ISSUES AND RECOMMENDATIONS

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**New Construction Valuation:** Building permits filed with the Building Department are shared with the Assessor's office. Permits are entered into a database and the associated file is pulled. Each appraiser pulls files in their assigned area as the permits are completed and processed. Aerial photography is used to find unpermitted improvements.

**Commercial/Industrial Economic Obsolescence:** North County - 15% economic obsolescence (E.O.) was applied based on vacancy rates and a limited number of sales. Vacancy rates and sales were provided for Carson Valley Center and Indian Hills Plaza. It is recommended the Assessor continue to annually review sales and vacancies to adjust E.O. as necessary.

Town - 10% economic obsolescence (E.O.) was applied based on vacancy rates, sales and current listings. The Assessor has also reviewed income information and spoken with realtors and property owners. It is recommended the Assessor continue to annually review sales and vacancies to adjust E.O. as necessary.

**Personal Property:** Douglas County maintains Personal Property documents in physical files at their office. 27 accounts with 382 records were examined. After adjusting for rounding, there were no outliers. Two of the eight mobile home accounts within the sample do not have Dealer Report of Sale (DRS), suggested retail price (SRP) or purchase price documentation from when they were first acquired, making verification of original purchase price impossible. This does not pose a significant problem and attempting to correct this issue is not feasible or cost effective.

**Marshall & Swift:** Per Marshall & Swift (M&S), subdivision costs are recommended when paved areas exceed 3,000 square feet. A Commercial/Industrial Improvement outlier of over 8,000 square feet indicated the use of a higher cost for large paved areas. The Assessor conducts studies by contacting local contractors to verify that M&S costs are in line with true local costs. It is recommended the Assessor continues to confirm that the costs are in line with Marshall & Swift, and the market, annually by contacting local contractors and applying for cost exception approval if costs do not conform to M&S guidelines.

# HUMBOLDT COUNTY NARRATIVE

## 2019-20 RATIO STUDY

All land is reappraised and all improvements re-valued each year in Humboldt County. In the 1/5 of the county, previously designated as the reappraisal area, a physical inspection or aerial review is done to most accurately capture property escaping taxation.

### Department Findings:

NRS 361.333 requires the Department to determine the ratio of the assessed value of each type or class of property for which the county assessor has the responsibility of assessing in each county to the taxable value of that type or class of property within that county determined by the Department through appraisals of individual parcels. The ratio is in compliance with statute if the ratio of assessed value to taxable value is more than 32 percent or less than 36 percent. See NRS 361.333(5)(c).

(a) Property Type	(b) Sample Size	(c) Observations in Compliance	(d) Observations out of Compliance	(e) Exception Rate
Vacant Land	10	10	0	0%
Single-Family Residential Land(Note 1)	16	15	1	6%
Multi-Family Residential Land (Note 2)	8	7	1	12.5%
Commercial and Industrial Land (Note 3)	10	8	2	20%
Agricultural Land	6	6	0	0%
Single Family Residential Improvements (Note 4)	16	14	2	12.5%
Multi-family Residential Improvements	8	8	0	0%
Commercial and Industrial Improvements	10	10	0	0%
Agricultural Improvements	6	6	0	0%

**Note 1: Single-family Residential Land:** Of the sixteen samples, fifteen were in the reappraisal area and one outlier was found in the non-reappraisal area.

**Note 2: Multi-family Residential Land:** The one outlier was located in the non-reappraisal area.

**Note 3: Commercial and Industrial Land:** Of the two outliers listed above, both were located in the appraisal area. The use of older sales appears to be the cause. The assessor is aware and is reviewing the data for corrections.

**Note 4: Single Family Residential Improvements:** Of the two outliers above, one was in the reappraisal area and one in the non-reappraisal. Both have been corrected.

## PROCEDURES, ISSUES AND RECOMMENDATIONS

**Staffing:** The Assessor's Office experienced an unusually high rate of turnover within the last year, resulting in the need to go back into areas, previously inspected and appraised, to correct valuation records. This made physical inspection in the designated 1/5 of the county difficult. Re-costing occurred county-wide and that area will be looked at more closely in the coming year to further discover property escaping taxation.

**Minor Improvements:** Minor improvements are identified by the assessor and valued from either the Marshall & Swift cost manuals or the Rural Building Cost Manual. The Assessor employs the preferred method of valuing all improvements based on what is actually on the parcel. However some commercial properties have improvements valued under a different parcel number as a courtesy to the owner. This should only be reflected in paperwork to the owner, not in the county record. Improvements and their value should appear on the correct parcel number.

**Land Values:** Rural counties have difficulty finding enough sales for the sales comparison approach. Although there were no vacant land outliers, the assessor should use the most recent sales for this analysis. Some areas within the county have many sales, while other areas may go years before a sale is recorded. The assessor factors in Internet sales of unsophisticated buyers, who may skew the data, when making valuation decisions, to determine the most accurate value possible. The assessor is working to create a new map, with neighborhoods, to group parcels in contiguous/similar locales to help with the valuation of land.

**New Construction Valuation:** The Assessor discovers nearly all new construction using the county building permits. However, many improvements are put in place by property owners without the need or use of a county permit and therefore are not discovered until reappraisal.

**Marshall & Swift:** Occupancy type in the Marshall& Swift manual needs to be more closely reviewed when determining the quality class of improvements. All outliers have been corrected or addressed by the Assessor.

**Personal Property:** The Assessor organizes Personal Property records efficiently. 34 accounts with a total of 385 records were examined. After adjusting for rounding, there were 6 outliers resulting from incorrect life assignments. Only one of those effected value as the rest were fully depreciated under both the correct and incorrect life.

Description line items need to be described in more detail. Example: Account EQ000962, not just “machinery & equipment”. The proper description is needed to apply the appropriate life for depreciation. If detailed information is not provided, taxpayer contact is needed. Incorrect life assignments on chain saws, cell phones and sewing machines were found to be incorrect within the sample. The Department recommends doing a query search to correct and ensure proper life assignments county-wide. Personal generators should be assigned a 15-year life. Larger generators, like those found on a mine site are 20 year. This has been corrected within the sample but the Department recommends doing a query search to ensure proper assignment county-wide. Five of the seventeen mobile home accounts within the sample do not have a Dealer Report of Sale (DRS), suggested retail price (SRP) or purchase price documentation from the time they were first acquired, making verification of original purchase price impossible. These homes are older, fully depreciated and have minimal assessed value. They do not pose a significant problem and attempting to correct this issue is not feasible or cost effective

# LYON COUNTY NARRATIVE

## 2019-20 RATIO STUDY

Lyon County revalues land, re-costs all improvements annually and conducts an aerial review of improvements in the 1/5 of the county, designated as the reappraisal area, each year to determine if a physical inspection is needed.

NRS 361.333 requires a comparison of the assessed value of each type or class of property determined by the county assessor to the taxable value of that type or class of property within that county determined by the Department through appraisals of individual parcels. The comparison, or "ratio," is in compliance with statutory requirements if the ratio of assessed value to taxable value is 35%. Ratios less than 32% or more than 36% are considered to be under-or-over assessed. See *NRS 361.333(5)(c)*.

Property Type	Sample Size	Samples in Compliance	Samples out of Compliance	Exception Rate
Vacant Land	10	7	3	30%
Single-Family Residential Land	18	13	5	28%
Multi-Family Residential Land	12	12	0	0%
Commercial and Industrial Land	11	11	0	0%
Agricultural Land/Mining	6	6	0	0%
Single Family Residential Improvements (Note 1)	18	15	3	17%
Multi-family Residential Improvements (Note 2)	12	8	4	33%
Commercial and Industrial Improvements (Note 3)	11	6	5	45%

**Note 1: Single Family Residential Improvements:** Of the 3 outliers listed above, 2 were found in the reappraisal area and resulted from property escaping taxation and 1 was in the 4/5 of the county which was revalued but not physically inspected.

**Note 2: Multi-Family Residential Improvements:** Of the 4 outliers listed above, all were found to be in the 4/5 of the county which was revalued but not physically inspected. 3 resulted from an incorrectly calculated weighted age.

**Note 3: Commercial and Industrial Improvements:** Of the 5 outliers listed above, 4 were found to be in the 4/5 of the county which was revalued but not physically inspected. 1 was found in the reappraisal area. 3 resulted from property escaping taxation, 1 from a quality class difference of opinion and 1 a combination of both determinations.

## PROCEDURES, ISSUES AND RECOMMENDATIONS

**New Construction Valuation:** The assessor discovers new construction using the county building permits. Many improvements are put in place without the need or use of a county permit and therefore are not discovered until reappraisal. It was found that the assessor is correctly valuing and depreciating new improvements once discovered. There were several outliers in the sample caused by property escaping taxation as a result of new improvements not yet appearing on, or unable to be determined using aerial imagery.

**Obsolescence:** The Assessor's Office is still applying obsolescence in a small number of areas of the county, is reviewing them annually and removing or changing them as needed. The assessor has made all real property appraisers responsible for obsolescence in the areas they are assigned in order to improve the accuracy of data produced. There were no parcels within the sample receiving obsolescence.

**Land:** The assessor has made all real property appraisers responsible for land valuations in the areas they are assigned. Studying annual changes in land value, since the last Ratio Study, indicate that the staff is consistently analyzing and adjusting land values throughout the county. Lyon County is experiencing a rapidly changing market. The county continues efforts to keep up with market fluctuations.

**Marshall & Swift:** In review of the quality classes on commercial properties noted in the previous Ratio Studies, it was found that the Assessor's Office is continuing to improve the determination of what class to apply thus more accurately valuing commercial improvements. There were two commercial improvement outliers resulting from quality class differences of opinion. The Department recommends that staff review long ago established quality classes for compliance with Marshall & Swift quality class specifications and adjust as needed.

**Personal Property:** Lyon County scans Personal Property documents so they are digitally maintained. 30 accounts with 240 records were examined. After adjusting for rounding, there were no outliers.

Nine of the fifteen mobile home accounts within the sample do not have Dealer Report of Sale (DRS), suggested retail price (SRP) or purchase price documentation from when they were first acquired, making verification of original purchase price impossible. All but one of these homes are older, fully depreciated and have minimal assessed value. They do not pose a significant problem and attempting to correct this issue is not feasible or cost effective

# NYE COUNTY NARRATIVE

## 2019-20 RATIO STUDY

All land is reappraised each year in Nye County. The Nevada Tax Commission approved the Assessor's<sup>1</sup> request to reappraise all land, rather than apply a land factor in non-reappraisal areas on June 25, 2007. The Assessor is physically reappraising 1/5 of the county each year. Reappraisal area for this ratio study is County Reappraisal Group 3 (Tax Districts 2, 3, 4 and 6.1). Aerial photographs are used for review where ever possible throughout the remainder of the county.

NRS 361.333 requires a comparison of the assessed value of each type or class of property determined by the county Assessor to the taxable value of that type or class of property within that county determined by the Department through appraisals of individual parcels. The comparison, or "ratio," is in compliance with statutory requirements if the ratio of assessed value to taxable value is 35%. Ratios less than 32% or more than 36% are considered to be under-or-over assessed. See NRS 361.333(5)(c).

Property Type	Sample Size	Samples in Compliance	Samples out of Compliance	Exception Rate
Vacant Land	12	12	0	0%
Single-Family Residential Land	18	18	0	0%
Multi-Family Residential Land	10	10	0	0%
Commercial and Industrial Land	12	12	0	0%
Agricultural Land <b>NOTE 1</b>	8	1	7	88%
Single Family Residential Improvements <b>NOTE 2</b>	18	16	2	11%
Multi-family Residential Improvements <b>NOTE 3</b>	10	8	2	20%
Comm. & Industrial Improvements. <b>NOTE 4</b>	12	8	4	33%

<sup>1</sup> All references to the Assessor means the Assessor or the Assessor's staff.



**NOTE 1: Agricultural Land:** Outliers due to the 2019-20 AG values not being updated. The one in compliance had a minimal change in value from the previous year.

**NOTE 2: Single Family Residential Improvements:** Of the 2 outliers listed above, both were in the 4/5 of the county which the improvement factor was applied.

**NOTE 3: Multi-family Residential Improvements:** Of the 2 outliers listed above, both were in the 4/5 of the county which the improvement factor was applied.

**NOTE 4: Commercial & Industrial Improvements:** Of the 4 outliers listed above, all were in the 4/5 of the county which the improvement factor was applied.

## PROCEDURES, ISSUES AND RECOMMENDATIONS

### **Marshall & Swift:**

While manufactured homes can be valued using the Regional Multipliers for Manufactured Homes found in Marshall & Swift (M&S), it is best practice to use the local cost multiplier (LCM) based on the state or county. The Assessor is directly entering Regional Multipliers not the LCM. The Department recommends the county utilize the LCM as recommended in the M&S cost manual.

**New Construction Valuation:** Nye County does not have a building permit system in place except in Pahrump Valley where the use of permits is relatively new and not always adhered to by taxpayers nor enforced by the building department. (Note that the “building department” is not actually a county agency but a private group that contracts with the county).

**Appraisal Records:** The Nye County property information website includes all the general parcel file information, including APEX drawings. In addition, the county provides on-line access to their GIS along with recent aerial photos.

**Personal Property:** Nye County maintains physical account folders for Personal Property. The responsibility for maintaining them is divided between the two Assessor's offices. Files for personal property manufactured homes located outside of Pahrump Valley are maintained in the Tonopah office. All other personal property files are maintained in the Pahrump office.

Thirty-eight accounts comprising 208 records were examined. After adjusting for rounding, there was a total of 1 outlier. An item deleted on the declaration form was still active in ADS but has been deactivated by staff.

Fourteen of the twenty-three mobile home accounts within the sample do not have Dealer Report of Sale (DRS), suggested retail price (SRP) or purchase price documentation from when they were first acquired, making verification of original purchase price impossible. All, but one of these homes, are older, fully depreciated and have minimal assessed value. They do not pose a significant problem and attempting to correct this issue is not feasible or cost effective.

## **FINDINGS AND RECOMMENDATIONS**

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### **Finding No. NY 2019-01**

#### **Criteria**

Agricultural Land Valuation must be calculated in accordance with NRS 361A.140(2) which states that the county assessors shall classify agricultural real property utilizing the definitions and applying the appropriate values published in the Tax Commission's bulletin.

#### **Condition**

Nye County applied the per acre value from the 2018-2019 Agricultural Land Bulletin to the 2019-2020 agricultural land values.

#### **Cause**

The Assessor agreed that 2019-2020 land values had not been updated in ADS.

#### **Effect**

The per acre percentage increase change between the 2018-2019 and 2019-2020 tax years, including all AG land categories and classifications, range from -9.8% to 0% averaging -5.5%. This resulted in an over valuation of agricultural land. Because of the various agricultural land categories, the classifications within each category and the varying rates, the overall financial impact is unknown.

#### **Recommendation**

The Assessor has been made aware of this error and corrected it. All values now reflect the 2019-2020 Tax Commission's bulletin. The Department recommends that the Assessor's staff verify that agricultural land values have been properly transferred and calculated within the parcel accounts.

## **Finding No. NY 2019-02**

### **Criteria**

Guidance Letter 10-003, discusses the appropriate use of seismic and wind cost adjustments when using the Marshall and Swift Residential Cost Handbook or Marshall Valuation Service. The costing of residential properties must be valued in accordance with NRS 360.215(2), which states the Department shall consult and assist county assessors to develop and maintain standard assessment procedures to be applied and used in all of the counties of the State, to ensure that assessments of property by county assessors are made equal in each of the several counties of this state.

### **Condition**

Per Guidance Letter 10-003, the seismic adjustment level 3 should be applied in all counties when costing residential properties. An exception can occur if the local building department indicates a different seismic level in the building codes for the county and documentation is provided to the Department of Taxation for approval.

### **Cause**

The decision was made, by a previous assessor, to apply the seismic adjustment level 2. Documentation for exception was not provided to the Department for approval.

### **Effect**

Applying the seismic adjustment level 2 creates an under valuation of residential properties. An adjustment from level 2 to level 3 results in an increase of value, ranging from \$1.05/sf to \$1.39/sf, averaging \$1.23/sf. The value change varies based on property location and type. Because of the various property components involved and total number of residential parcels, the overall financial impact is unknown.

### **Recommendation**

The Assessor has been made aware of this error. The Department has recommended that the Assessor's staff change all properties to Seismic Level 3 for the 2020-21 tax year.

# WASHOE COUNTY NARRATIVE

## 2019-20 RATIO STUDY

The Washoe County Assessor's Office appraises all real property within the County each year<sup>1</sup>. Historically, the County comprised five appraisal areas which are no longer valid due to annual re-appraisal of the entire County.

**Department Findings:** NRS 361.333 requires a comparison of the assessed value of each type or class of property determined by the county assessor to the taxable value of that type or class of property within that county determined by the Department through appraisals of individual parcels. The comparison, or "ratio," is in compliance with statutory requirements if the ratio of assessed value to taxable value is 35%. Ratios less than 32% or more than 36% are considered to be under-or-over assessed. See NRS 361.333(5)(c).

Property Type	Sample Size	Samples in Compliance	Samples out of Compliance	Exception Rate
Vacant Land	17	17	0	0%
Single-Family Residential Land	30	30	0	0%
Multi-Family Residential Land	15	15	0	0%
Commercial and Industrial Land	15	15	0	0%
Agricultural Land	6	6	0	0%
Single Family Residential Improvements	30	30	0	0%
Multi-family Residential Improvements	15	15	0	0%
Commercial and Industrial Improvements	15	15	0	0%

<sup>1</sup> All references to the Assessor means the Assessor or the Assessor's staff.

## PROCEDURES, ISSUES AND RECOMMENDATIONS

**Minor Improvement Valuation:** Washoe County utilizes a comprehensive list of various minor improvements referred to as extra features and out buildings (XFOB), which include but are not limited to: flatwork, outdoor lighting, porches,

decks, and sheds. The Assessor also employs lump sum values for certain yard item costs that typically include fencing, walls, and/or lawn sprinkler areas. A variance study was conducted to determine whether the costs were comparable to similar component costs published in the Marshall Swift cost manuals, and the Department has validated these minor improvement costs.

**New Construction Improvement Valuation:** The Assessor discovers and follows the progress of new construction using a tracking system developed by the Washoe County Assessor's Office. Construction permits are received on a monthly basis from Washoe County, the City of Reno and the City of Sparks. The progress of property under construction is physically examined at a minimum of once per year. Higher quality properties are visited more frequently.

**Improvement Discovery/Identification:** Since physical re-inspection of property is not mandatory, Washoe County relies on aerial photography and their in-house permit tracking system to capture new improvements. These methods have adequately reduced property escaping taxation within the Ratio Study sample.

**Appraisal Records:** The information contained within the Assessor's files is complete, correct and up to date. Most improved property files having sketches have been scanned and are available via computer imaging. The remaining hand-drawn sketches are continually being digitally converted.

**Personal Property Valuation:** The Assessor values personal property using a Tangible Data Entry (TDE) system supported by Thomson Reuters. Taxpayers have the ability to file personal property declarations on-line via an e-Dec system or by mail. The personal property portion of the ratio study examined 33 accounts comprising 432 records. After adjusting for rounding, there were no outliers.

Three of the twelve the mobile home accounts within the sample, do not have a Dealer Report of Sale (DRS), suggested retail price (SRP) or purchase price documentation from when they were first acquired, making verification of original purchase price impossible. These homes are older, fully depreciated and have minimal assessed value. They do not pose a significant problem and attempting to correct this issue is not feasible or cost effective