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In the Matter of: )  
Clark County )  
Esmeralda County )  
Eureka County ) **2015-2016 Ratio Study**  
Lincoln County )  
Mineral County )  
Storey County )

**NOTICE OF DECISION**

**Appearances**

Bruce Bartolowits, Supervisor, Locally-Assessed Section, appeared on behalf of the Department of Taxation.

Pursuant to NRS 361.333(4)(a) and (b), Michele Shafe, Clark County Assessor, and Doug Scott, Jeff Payson, and Mary Ann Weidner appeared on behalf of Clark County; Ruth Lee, Esmeralda County Assessor, appeared on behalf of Esmeralda County and Eureka County; Mark Holt, Lincoln County Assessor, and Varlin Higbee, Lincoln County Commissioner, appeared on behalf of Lincoln County; Chris Nepper, Deputy Assessor, and Cliff Cichowlaz, Mineral County Commission Chairman, appeared on behalf of Mineral County; and Jana Seddon, Storey County Assessor, and Hugh Gallagher, Storey County Finance Director, appeared on behalf of Storey County.

**Summary**

The matter of the approval of the 2015-2016 Ratio Study came before the Nevada Tax Commission ("Tax Commission") for hearing in Carson City and via video conference to Las Vegas, Nevada, on May 11, 2015 after due notice to each Assessor and County Commission. The Tax Commission reviewed the ratio study and the report of the Department. Using statistical tests designed for mass appraisal, the Tax Commission found all types of property fell within the range required by NRS 361.333. The Tax Commission adopted the recommendations of the Department with regard to work practices, as follows:

County	Directive	Ratio Study Reference Page No.
Mineral	Taxable values of improvements were inappropriately derived from the Rural Building Manual, resulting in the undervaluation of improvements. The Assessor is directed to use the Rural Building Manual pursuant to NAC 361.128(2) and (3), which limits the application of the Rural Building Manual to certain qualifying buildings.	48
Mineral	Review and update occupancy codes of all commercial properties	48
Mineral	Apply the Seismic 3 adjustment in Marshall and Swift to all properties	48

**DECISION**

The Commission, having considered all evidence and testimony pertaining to the matter, hereby approves the 2015-2016 Ratio Study as reported by the Department and finds no further action is required, except as listed above, pursuant to the authority granted in NRS 361.333.

BY THE NEVADA TAX COMMISSION THIS 13<sup>th</sup> DAY OF MAY, 2015.

*Deonne E. Contine*

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Deonne Contine, Executive Director

cc: County Assessors  
Gina Session, Chief Deputy Attorney General  
Terry E. Rubald, Deputy Executive Director



NEVADA DEPARTMENT OF TAXATION  
Division of Local Government Services

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# 2015-2016 REPORT OF ASSESSMENT RATIO STUDY

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Approved by the Nevada Tax Commission on May 11, 2015

Division of Local Government Services

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2015 - 2016

# Report of Assessment Ratio Study

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2015 - 2016 REPORT OF ASSESSMENT RATIO STUDY

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# INTRODUCTION

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## 2015 - 2016 RATIO STUDY

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### AUTHORITY, OVERSIGHT AND REPORTING

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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 which the Commission considers to determine whether property has been assessed equitably. The first type of information 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 procedural audit which is designed to fulfill the requirements of NRS 361.333(1)(b)(2). The procedural audit examines the work practices of the assessor to determine whether all property 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.

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 2015 - 2016 are Clark, Esmeralda, Eureka, Lincoln, Mineral and Storey Counties.

<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.

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 determine whether all real and personal property is assessed at 35% 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 properties comprising the sample are physically inspected by Department appraisers and valued according to statutory and regulatory requirements. For instance, the Department valued improvements using the Valuation Cost Service published by Marshall Swift, pursuant to NAC 361.128. Land was valued for each sample property by using comparable sales and analyzed pursuant to NAC 361.118. In the event there were insufficient sales of vacant land, Department staff extracted land values using allocation or abstraction methods authorized pursuant to NAC 361.119.

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 improvement, land, and total property values. The classes are further defined as those within the reappraisal area.

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 within the subject jurisdiction and for 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 counties, 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

<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.



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
<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 2015 - 2016 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 charts show the aggregate and median ratios and the coefficient of dispersion for the past three study years (2013 - 2015) across all counties for all properties.

Similar data is shown just for the counties in the 2015-16 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 indicates that of the six counties studied for 2015 - 2016, regressivity is present for multi-family residential in Mineral and Storey Counties; and in improved land in Storey County and Ag property in Lincoln County. Other counties where progressivity or regressivity occurred in prior years are also listed.

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

<sup>7</sup> International Association of Assessing Officers, Standard on Ratio Studies, (2010), p. 17; and Standard on Automated Valuation Models (2003), p. 25 and p. 28.

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, for the subject counties are within the range of 32% to 36% on a composite basis, except improvements at 30.3%, multi-family at 29.9%, and commercial /industrial at 31.8% in Mineral County.

### **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. This is not to say that inequity might not 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.

Based on the median ratio, we can infer the appraisal level for all classes of property in each county included in this study fell between 32% and 36% using the results of the sample taken by the Department. The land, improvement, and the overall ratios of the assessed value established by each county assessor, measured against the taxable value established by the Department, are within statutory limits.

In addition, the COD for each reappraisal area for each county indicate the appraisals are relatively uniform.

## **PROCEDURAL AUDIT/OFFICE REVIEW AND PERFORMANCE AUDIT**

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### **2015 - 2016 RATIO STUDY**

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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. The Department historically used Procedural Audits / Office Reviews to obtain information used in this determination. The Department now conducts Performance Audits to build on the past Procedural Audits / Office Reviews for this determination. However, Department appraisers continue to make observations and recommendations regarding appraisal and assessment methodologies which are included in the Outlier reports.

### **PERFORMANCE AUDIT PROGRAM**

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In January 2010, the Department implemented its Performance Audit Program. The Performance Audit Program is designed to provide a much more in depth analysis of specific areas of the Nevada property tax system. Topics are selected for performance audits based on assessment of risk, current circumstances, significance, and cost/benefit analysis. Performance Audits are performed in compliance with Generally Accepted Government Auditing Standards.

The first performance audit evaluated each of the 17 counties' practices related to valuation of land for property tax assessment, including whether activities were carried out in accordance with applicable state laws, regulations, policies, and procedures. The audit focused on each of the 17 counties' activities for the 2010 - 2011 secured roll cycle beginning in May 2009 and ending October or November 2010. The audits also included activities through June 2011 for certain areas.

Information about the Performance Audit Program, the definition of the program, as well as the actual Performance Audit #1001 on Land Valuation and the associated 2012 Economic and Demographic Report may be downloaded from the Taxation website at <http://tax.state.nv.us> . Select "Publications;" then "Local Government Services Publications"; then "Performance Audit Program."

## **LAND AND IMPROVEMENT FACTORS**

The Department reviews assessments in those areas where land and improvement factors are applied pursuant to NRS 361.260(5) to ensure the factors are appropriately applied. In the last fiscal year no counties in the State used the factor for land values since all counties annually reappraise land in each county. Improvement Factors for the 2015 - 2016 tax year are also available on the Taxation website at <http://tax.state.nv.us> .

2015-2016

REPORT OF ASSESSMENT RATIO STUDY

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STATISTICAL TABLES

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NEVADA DEPARTMENT OF TAXATION  
2015-2016 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	2014	32.5	32.6	33.9	29.9	33.9	34.9	32.3	34.9
CHURCHILL	2014	34.6	34.7	34.1	34.6	34.4	34.6	34.9	35.0
CLARK	2015	34.5	34.7	34.7	33.6	34.7	33.7	34.8	35.0
DOUGLAS	2013	34.3	34.0	34.8	34.1	34.7	34.0	34.2	35.4
ELKO	2014	33.2	32.4	34.7	35.2	32.7	33.9	32.6	35.0
ESMERALDA	2015	33.7	33.6	34.0	34.1	34.0	32.8	32.7	33.9
EUREKA	2015	34.7	34.9	34.0	34.5	34.7	34.6	34.5	35.0
HUMBOLDT	2013	33.7	34.1	32.5	33.9	33.8	33.6	33.6	35.1
LANDER	2014	34.0	34.2	34.4	28.9	34.3	34.2	34.2	33.5
LINCOLN	2015	33.4	33.1	34.3	33.8	33.9	33.2	32.5	33.3
LYON	2013	32.9	33.0	31.9	35.5	34.0	33.5	32.1	35.0
MINERAL	2015	31.7	30.3	34.5	34.9	33.1	29.9	31.8	35.0
NYE	2013	34.2	34.1	34.6	33.6	33.8	34.5	34.2	35.1
PERSHING	2014	34.7	34.8	34.5	33.9	33.5	33.8	35.3	35.0
STOREY	2015	33.7	33.6	32.2	35.0	32.2	32.3	34.5	35.0
WASHOE	2013	34.3	34.6	34.0	33.3	34.1	33.7	34.6	35.1
WHITE PINE	2014	34.3	34.3	34.3	33.5	33.6	34.1	34.4	34.9
STATEWIDE	<b>2015</b>	33.9	34.0	34.0	33.2	34.1	33.8	34.0	34.8

NEVADA DEPARTMENT OF TAXATION  
2015-2016 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	2014	34.4	34.4	34.4	33.9	34.2	34.9	34.0	34.9
CHURCHILL	2014	34.8	35.0	34.0	34.8	34.7	34.7	35.0	35.0
CLARK	2015	34.5	34.7	34.7	34.5	34.8	33.6	34.7	35.0
DOUGLAS	2013	34.8	34.8	34.9	34.9	34.9	34.4	34.8	35.0
ELKO	2014	34.5	33.5	34.9	35.0	33.8	34.3	34.1	35.0
ESMERALDA	2015	34.0	33.7	34.4	34.5	33.8	33.6	33.5	34.3
EUREKA	2015	34.9	35.0	33.9	35.0	34.9	34.8	34.5	35.0
HUMBOLDT	2013	34.2	33.7	34.4	34.7	34.2	33.8	33.9	35.0
LANDER	2014	34.5	34.6	34.6	34.8	34.7	34.1	34.6	32.7
LINCOLN	2015	33.8	33.3	34.2	34.3	33.9	33.4	32.6	35.0
LYON	2013	34.0	33.8	35.0	34.6	34.3	33.9	33.6	35.0
MINERAL	2015	33.5	32.4	35.0	34.5	33.5	32.2	33.1	35.0
NYE	2013	34.3	34.1	34.0	34.6	34.0	34.1	34.1	35.0
PERSHING	2014	34.4	34.5	34.7	34.4	34.0	34.3	35.0	35.0
STOREY	2015	33.9	33.8	34.6	34.6	33.2	33.9	34.5	35.0
WASHOE	2013	34.2	34.0	34.9	34.7	34.2	33.9	34.9	35.0
WHITE PINE	2014	34.2	34.1	34.3	34.0	33.8	33.7	34.4	34.9
STATEWIDE	2015	34.4	34.1	34.7	34.6	34.2	34.0	34.4	35.0

NEVADA DEPARTMENT OF TAXATION  
 2015-2016 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	2014	4.8	5.6	4.0	7.2	2.2	3.5	7.4	0.7
CHURCHILL	2014	1.4	1.5	2.2	1.9	1.5	1.0	0.8	0.0
CLARK	2015	2.6	3.0	2.5	2.1	2.8	1.7	1.8	3.2
DOUGLAS	2013	2.1	3.1	1.6	2.8	1.8	1.8	2.0	0.4
ELKO	2014	3.7	6.0	1.2	0.9	4.1	2.7	6.8	0.0
ESMERALDA	2015	4.2	4.4	3.5	7.2	2.6	3.3	2.6	1.2
EUREKA	2015	1.9	1.8	2.7	1.8	2.1	2.8	1.0	-
HUMBOLDT	2013	5.2	10.1	3.0	3.0	3.4	4.0	10.3	0.2
LANDER	2014	7.7	2.4	2.8	20.3	1.6	1.6	2.4	2.1
LINCOLN	2015	4.4	3.8	2.7	5.3	3.1	2.8	3.5	1.0
LYON	2013	6.3	23.2	4.9	4.8	10.8	3.4	6.3	0.0
MINERAL	2015	8.9	17.2	2.3	3.4	10.2	9.7	10.4	0.2
NYE	2013	4.8	2.9	21.1	8.3	3.4	1.8	5.8	1.1
PERSHING	2014	3.6	5.3	2.3	2.3	4.4	3.3	3.6	0.0
STOREY	2015	5.0	5.6	9.3	3.7	6.2	4.2	3.4	0.1
WASHOE	2013	1.7	1.8	1.7	2.9	1.0	2.3	1.4	0.2
WHITE PINE	2014	3.3	4.5	2.7	3.0	4.1	2.0	3.5	0.4
STATEWIDE	2015	4.1	6.0	4.2	5.1	3.5	3.4	4.9	0.6

NEVADA DEPARTMENT OF TAXATION  
 2015-2016 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	2014	1.06	1.06	1.02	1.13	1.01	1.00	1.05	1.00
CHURCHILL	2014	1.01	1.01	1.00	1.00	1.01	1.00	1.00	1.00
CLARK	2015	1.00	1.00	1.00	1.03	1.00	1.00	1.00	1.00
DOUGLAS	2013	1.02	1.02	1.00	1.02	1.01	1.01	1.02	0.99
ELKO	2014	1.04	1.04	1.00	0.99	1.03	1.01	1.05	1.00
ESMERALDA	2015	1.01	1.00	1.01	1.01	0.99	1.02	1.02	1.01
EUREKA	2015	1.01	1.00	1.00	1.01	1.00	1.01	1.00	1.00
HUMBOLDT	2013	1.02	0.99	1.06	1.02	1.01	1.01	1.01	1.00
LANDER	2014	1.02	1.01	1.01	1.20	1.01	1.00	1.01	0.98
LINCOLN	2015	1.01	1.00	1.00	1.01	1.00	1.01	1.00	1.05
LYON	2013	1.04	1.02	1.09	0.97	1.01	1.01	1.04	1.00
MINERAL	2015	1.06	1.07	1.01	0.99	1.01	1.08	1.04	1.00
NYE	2013	1.00	1.00	0.98	1.03	1.01	0.99	1.00	1.00
PERSHING	2014	0.99	0.99	1.00	1.01	1.01	1.01	0.99	1.00
STOREY	2015	1.01	1.01	1.07	0.99	1.03	1.05	1.00	1.00
WASHOE	2013	1.00	0.98	1.03	1.04	1.00	1.01	1.01	1.00
WHITE PINE	2014	1.00	0.99	1.00	1.01	1.01	0.99	1.00	1.00
STATEWIDE	2015	1.01	1.00	1.02	1.04	1.00	1.01	1.01	1.01



NEVADA DEPARTMENT OF TAXATION  
2015-2016 RATIO STUDY  
ALL APPRAISAL AREAS

OVERALL (AGGREGATE) RATIO

Subject County	All Property
CLARK	34.5
ESMERALDA	33.7
EUREKA	34.7
LINCOLN	33.4
MINERAL	31.7
STOREY	33.7
ALL COUNTIES	34.2

Class of Property							
Improvements	Improved Land	Vacant Land	Family Residence	Multi-Family Residence	Commercial Industrial	Rural Land & Improvements	
34.7	34.7	33.6	34.7	33.7	34.8	35.0	
33.6	34.0	34.1	34.0	32.8	32.7	33.9	
34.9	34.0	34.5	34.7	34.6	34.5	35.0	
33.1	34.3	33.8	33.9	33.2	32.5	33.3	
30.3	34.5	34.9	33.1	29.9	31.8	35.0	
33.6	32.2	35.0	32.2	32.3	34.5	35.0	
34.2	34.2	33.9	34.2	32.6	34.5	34.1	

MEDIAN RATIO

Subject County	All Property
CLARK	34.5
ESMERALDA	34.0
EUREKA	34.9
LINCOLN	33.8
MINERAL	33.5
STOREY	33.9
ALL COUNTIES	34.3

Class of Property							
Improvements	Improved Land	Vacant Land	Family Residence	Multi-Family Residence	Commercial Industrial	Rural Land & Improvements	
34.7	34.7	34.5	34.8	33.6	34.7	35.0	
33.7	34.4	34.5	33.8	33.6	33.5	34.3	
35.0	33.9	35.0	34.9	34.8	34.5	35.0	
33.3	34.2	34.3	33.9	33.4	32.6	35.0	
32.4	35.0	34.5	33.5	32.2	33.1	35.0	
33.8	34.6	34.6	33.2	33.9	34.5	35.0	
34.0	34.6	34.5	34.1	33.5	34.4	35.0	

NEVADA DEPARTMENT OF TAXATION  
 2015-2016 RATIO STUDY  
 ALL APPRAISAL AREAS  
 COEFFICIENT OF DISPERSION (COD)

Subject County	All Property
CLARK	2.6
ESMERALDA	4.2
EUREKA	1.9
LINCOLN	4.4
MINERAL	8.9
STOREY	5.0
ALL COUNTIES	4.4

Class of Property							
Improvements	Improved Land	Vacant Land	Family Residence	Multi-Family Residence	Commercial Industrial	Rural Land & Improvements	
3.0	2.5	2.1	2.8	1.7	1.8	3.2	
4.4	3.5	7.2	2.6	3.3	2.6	1.2	
1.8	2.7	1.8	2.1	2.8	1.0	-	
3.8	2.7	5.3	3.1	2.8	3.5	1.0	
17.2	2.3	3.4	10.2	9.7	10.4	0.2	
5.6	9.3	3.7	6.2	4.2	3.4	0.1	
6.3	3.6	4.3	4.4	4.9	4.5	1.1	

MEDIAN RELATED DIFFERENTIAL

Subject County	All Property
CLARK	1.00
ESMERALDA	1.01
EUREKA	1.01
LINCOLN	1.01
MINERAL	1.06
STOREY	1.01
ALL COUNTIES	1.00

Class of Property							
Improvements	Improved Land	Vacant Land	Family Residence	Multi-Family Residence	Commercial Industrial	Rural Land & Improvements	
1.00	1.00	1.03	1.00	1.00	1.00	1.00	
1.00	1.01	1.01	0.99	1.02	1.02	1.01	
1.00	1.00	1.01	1.00	1.01	1.00	1.00	
1.00	1.00	1.01	1.00	1.01	1.00	1.05	
1.07	1.01	0.99	1.01	1.08	1.04	1.00	
1.01	1.07	0.99	1.03	1.05	1.00	1.00	
0.99	1.01	1.02	1.00	1.03	1.00	1.03	

**CLARK COUNTY**  
**2015-2016 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%	34.5%	2.6%	174
COUNTYWIDE IMPROVEMENTS	34.7%	34.7%	3.0%	132
COUNTYWIDE IMPROVED LAND	34.7%	34.7%	2.5%	139
COUNTYWIDE VACANT LAND	33.6%	34.5%	2.1%	35
SINGLE FAMILY IMPROVEMENTS	34.8%	34.8%	3.3%	83
SINGLE FAMILY LAND	34.4%	34.6%	2.3%	83
SINGLE FAMILY TOTAL PROPERTY	34.7%	34.8%	2.8%	83
MULTIPLE FAMILY IMPROVEMENTS	33.6%	33.6%	2.1%	20
MULTIPLE FAMILY LAND	34.1%	33.9%	2.5%	20
MULTIPLE FAMILY TOTAL PROPERTY	33.7%	33.6%	1.7%	20
COMMERCIAL/INDUSTRIAL IMPROVEMENTS	34.8%	35.0%	1.5%	29
COMMERCIAL/INDUSTRIAL LAND	34.8%	34.7%	2.4%	30
COMMERCIAL/INDUSTRIAL TOTAL PROPERTY	34.8%	34.7%	1.8%	30
RURAL IMPROVEMENTS	n/a	n/a	n/a	n/a
RURAL LAND	35.0%	35.0%	3.2%	6
RURAL TOTAL PROPERTY	35.0%	35.0%	3.2%	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	35.0%	35.0%	0.1%	40
AIRCRAFT	35.0%	35.0%	0.2%	8
AGRICULTURAL	35.0%	35.0%	0.0%	2
BILLBOARDS	35.0%	35.0%	0.0%	8
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	0.1%	8
MOBILE HOMES	35.0%	35.0%	0.0%	14
<b>TOTAL PERSONAL PROPERTY</b>	<b>35.0%</b>	<b>35.0%</b>	<b>0.1%</b>	<b>40</b>

**ESMERALDA COUNTY  
2015-2016 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	33.7%	34.0%	4.2%	93
COUNTYWIDE IMPROVEMENTS	33.6%	33.7%	4.4%	65
COUNTYWIDE IMPROVED LAND	34.0%	34.4%	3.5%	61
COUNTYWIDE VACANT LAND	34.1%	34.5%	7.2%	31
SINGLE FAMILY IMPROVEMENTS	34.0%	33.9%	3.0%	35
SINGLE FAMILY LAND	33.8%	34.4%	2.9%	35
SINGLE FAMILY TOTAL PROPERTY	34.0%	33.8%	2.6%	35
MULTIPLE FAMILY IMPROVEMENTS	33.2%	33.9%	2.6%	10
MULTIPLE FAMILY LAND	31.7%	33.7%	6.9%	10
MULTIPLE FAMILY TOTAL PROPERTY	32.8%	33.6%	3.3%	10
COMMERCIAL/INDUSTRIAL IMPROVEMENTS	32.7%	33.6%	2.8%	10
COMMERCIAL/INDUSTRIAL LAND	33.2%	33.7%	1.8%	9
COMMERCIAL/INDUSTRIAL TOTAL PROPERTY	32.7%	33.5%	2.6%	10
RURAL IMPROVEMENTS	33.3%	33.3%	1.2%	4
RURAL LAND	35.1%	35.0%	0.8%	7
RURAL TOTAL PROPERTY	33.9%	34.3%	1.2%	7
<b>SECURED PERSONAL PROPERTY</b>				
ALL SECURED	34.9%	35.0%	0.4%	17
AIRCRAFT	n/a	n/a	n/a	-
AGRICULTURAL	35.0%	35.0%	0.1%	4
BILLBOARDS	n/a	n/a	n/a	-
COMMERCIAL/INDUSTRIAL	34.9%	34.9%	0.3%	5
MOBILE HOMES	34.8%	35.0%	0.7%	8
<b>UNSECURED PERSONAL PROPERTY</b>				
ALL UNSECURED	34.9%	35.0%	3.4%	19
AIRCRAFT	35.0%	35.0%	0.0%	3
AGRICULTURAL	35.0%	35.0%	0.1%	3
BILLBOARDS	n/a	n/a	n/a	-
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	0.2%	5
MOBILE HOMES	33.7%	35.0%	8.0%	8
<b>TOTAL PERSONAL PROPERTY</b>	<b>34.9%</b>	<b>35.0%</b>	<b>2.0%</b>	<b>36</b>

**EUREKA COUNTY**  
**2015-2016 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	34.7%	34.9%	1.9%	77
COUNTYWIDE IMPROVEMENTS	34.9%	35.0%	1.8%	50
COUNTYWIDE IMPROVED LAND	34.0%	33.9%	2.7%	56
COUNTYWIDE VACANT LAND	34.5%	35.0%	1.8%	21
SINGLE FAMILY IMPROVEMENTS	35.0%	35.1%	1.9%	30
SINGLE FAMILY LAND	33.7%	33.7%	2.5%	30
SINGLE FAMILY TOTAL PROPERTY	34.7%	34.9%	2.1%	30
MULTIPLE FAMILY IMPROVEMENTS	34.7%	35.0%	2.3%	10
MULTIPLE FAMILY LAND	34.1%	34.0%	2.6%	10
MULTIPLE FAMILY TOTAL PROPERTY	34.6%	34.8%	2.8%	10
COMMERCIAL/INDUSTRIAL IMPROVEMENTS	34.6%	35.0%	0.7%	10
COMMERCIAL/INDUSTRIAL LAND	34.0%	33.7%	2.4%	10
COMMERCIAL/INDUSTRIAL TOTAL PROPERTY	34.5%	34.5%	1.0%	10
RURAL IMPROVEMENTS	n/a	n/a	n/a	-
RURAL LAND	35.0%	35.0%	0.0%	6
RURAL TOTAL PROPERTY	35.0%	35.0%	0.0%	6
<b>SECURED PERSONAL PROPERTY</b>				
ALL SECURED	35.0%	35.0%	0.7%	20
AIRCRAFT	n/a	n/a	n/a	-
AGRICULTURAL	35.0%	35.0%	0.0%	6
BILLBOARDS	n/a	n/a	n/a	-
COMMERCIAL/INDUSTRIAL	35.2%	35.0%	2.2%	6
MOBILE HOMES	35.0%	35.0%	0.1%	8
<b>UNSECURED PERSONAL PROPERTY</b>				
ALL UNSECURED	35.1%	35.0%	0.1%	18
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	35.4%	35.0%	0.3%	5
MOBILE HOMES	35.0%	35.0%	0.1%	8
<b>TOTAL PERSONAL PROPERTY</b>	<b>35.0%</b>	<b>35.0%</b>	<b>0.4%</b>	<b>38</b>

**LINCOLN COUNTY**  
**2015-2016 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	33.4%	33.8%	4.4%	106
COUNTYWIDE IMPROVEMENTS	33.1%	33.3%	3.8%	56
COUNTYWIDE IMPROVED LAND	34.3%	34.2%	2.7%	55
COUNTYWIDE VACANT LAND	33.8%	34.3%	5.3%	50
SINGLE FAMILY IMPROVEMENTS	33.8%	33.5%	3.8%	30
SINGLE FAMILY LAND	34.3%	34.1%	2.7%	29
SINGLE FAMILY TOTAL PROPERTY	33.9%	33.9%	3.1%	30
MULTIPLE FAMILY IMPROVEMENTS	32.9%	33.3%	3.2%	10
MULTIPLE FAMILY LAND	34.1%	34.1%	2.2%	10
MULTIPLE FAMILY TOTAL PROPERTY	33.2%	33.4%	2.8%	10
COMMERCIAL/INDUSTRIAL IMPROVEMENTS	32.4%	32.7%	3.9%	10
COMMERCIAL/INDUSTRIAL LAND	34.6%	34.4%	3.0%	10
COMMERCIAL/INDUSTRIAL TOTAL PROPERTY	32.5%	32.6%	3.5%	10
RURAL IMPROVEMENTS	32.8%	32.8%	0.0%	1
RURAL LAND	34.3%	35.0%	0.8%	6
RURAL TOTAL PROPERTY	33.3%	35.0%	1.0%	6
<b>SECURED PERSONAL PROPERTY</b>				
ALL SECURED	35.0%	35.0%	0.1%	17
AIRCRAFT	n/a	n/a	n/a	-
AGRICULTURAL	35.0%	35.0%	0.0%	4
BILLBOARDS	n/a	n/a	n/a	-
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	0.1%	5
MOBILE HOMES	35.0%	35.0%	0.0%	8
<b>UNSECURED PERSONAL PROPERTY</b>				
ALL UNSECURED	35.0%	35.0%	0.1%	20
AIRCRAFT	35.0%	35.0%	0.0%	3
AGRICULTURAL	35.0%	35.0%	0.0%	3
BILLBOARDS	n/a	n/a	n/a	-
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	0.2%	6
MOBILE HOMES	35.0%	35.0%	0.0%	8
<b>TOTAL PERSONAL PROPERTY</b>	<b>35.0%</b>	<b>35.0%</b>	<b>0.1%</b>	<b>37</b>

**MINERAL COUNTY  
2015-2016 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	31.7%	33.5%	8.9%	92
COUNTYWIDE IMPROVEMENTS	30.3%	32.4%	17.2%	71
COUNTYWIDE IMPROVED LAND	34.5%	35.0%	2.3%	77
COUNTYWIDE VACANT LAND	34.9%	34.5%	3.4%	15
SINGLE FAMILY IMPROVEMENTS	32.3%	32.9%	17.5%	30
SINGLE FAMILY LAND	34.8%	35.0%	1.0%	30
SINGLE FAMILY TOTAL PROPERTY	33.1%	33.5%	10.2%	30
MULTIPLE FAMILY IMPROVEMENTS	28.6%	32.0%	14.6%	21
MULTIPLE FAMILY LAND	34.1%	34.5%	3.5%	21
MULTIPLE FAMILY TOTAL PROPERTY	29.9%	32.2%	9.7%	21
COMMERCIAL/INDUSTRIAL IMPROVEMENTS	30.3%	32.3%	18.9%	20
COMMERCIAL/INDUSTRIAL LAND	34.5%	34.5%	3.2%	20
COMMERCIAL/INDUSTRIAL TOTAL PROPERTY	31.8%	33.1%	10.4%	20
RURAL IMPROVEMENTS	n/a	n/a	n/a	-
RURAL LAND	35.0%	35.0%	0.2%	6
RURAL TOTAL PROPERTY	35.0%	35.0%	0.2%	6
<b>SECURED PERSONAL PROPERTY</b>				
ALL SECURED	35.0%	35.0%	0.1%	19
AIRCRAFT	n/a	n/a	n/a	-
AGRICULTURAL	35.0%	35.0%	0.1%	4
BILLBOARDS	35.0%	35.0%	0.1%	2
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	0.1%	5
MOBILE HOMES	35.0%	35.0%	0.0%	8
<b>UNSECURED PERSONAL PROPERTY</b>				
ALL UNSECURED	35.0%	35.0%	0.3%	24
AIRCRAFT	35.0%	35.0%	0.1%	4
AGRICULTURAL	35.3%	35.2%	1.9%	3
BILLBOARDS	35.0%	35.0%	0.0%	4
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	0.1%	5
MOBILE HOMES	35.0%	35.0%	0.1%	8
<b>TOTAL PERSONAL PROPERTY</b>	<b>35.0%</b>	<b>35.0%</b>	<b>0.2%</b>	<b>43</b>

**STOREY COUNTY**  
**2015-2016 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	33.7%	33.9%	5.0%	91
COUNTYWIDE IMPROVEMENTS	33.6%	33.8%	5.6%	57
COUNTYWIDE IMPROVED LAND	32.2%	34.6%	9.3%	61
COUNTYWIDE VACANT LAND	35.0%	34.6%	3.7%	30
SINGLE FAMILY IMPROVEMENTS	33.2%	33.8%	5.8%	35
SINGLE FAMILY LAND	28.5%	34.4%	14.8%	35
SINGLE FAMILY TOTAL PROPERTY	32.2%	33.2%	6.2%	35
MULTIPLE FAMILY IMPROVEMENTS	31.7%	33.9%	6.3%	10
MULTIPLE FAMILY LAND	33.6%	34.7%	2.1%	10
MULTIPLE FAMILY TOTAL PROPERTY	32.3%	33.9%	4.2%	10
COMMERCIAL/INDUSTRIAL IMPROVEMENTS	34.4%	34.3%	4.7%	10
COMMERCIAL/INDUSTRIAL LAND	34.6%	34.7%	1.7%	10
COMMERCIAL/INDUSTRIAL TOTAL PROPERTY	34.5%	34.5%	3.4%	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%	0.0%	2
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	35.0%	35.0%	0.0%	2
<b>UNSECURED PERSONAL PROPERTY</b>				
ALL UNSECURED	35.1%	35.0%	0.5%	17
AIRCRAFT	35.0%	35.0%	0.0%	1
AGRICULTURAL	n/a	n/a	n/a	-
BILLBOARDS	n/a	n/a	n/a	-
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	0.7%	8
MOBILE HOMES	35.1%	35.0%	0.4%	8
<b>TOTAL PERSONAL PROPERTY</b>	<b>35.0%</b>	<b>35.0%</b>	<b>0.5%</b>	<b>19</b>



**ALL COUNTIES INCLUDED IN  
2015-2016 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%	34.3%	4.4%	633
ALL COUNTIES IMPROVEMENTS	34.2%	34.0%	6.3%	431
ALL COUNTIES IMPROVED LAND	34.2%	34.6%	3.6%	449
ALL COUNTIES VACANT LAND	33.9%	34.5%	4.3%	182
SINGLE FAMILY IMPROVEMENTS	34.4%	34.1%	5.6%	243
SINGLE FAMILY LAND	33.5%	34.5%	4.3%	242
SINGLE FAMILY TOTAL PROPERTY	34.2%	34.1%	4.4%	243
MULTIPLE FAMILY IMPROVEMENTS	32.2%	33.5%	6.4%	81
MULTIPLE FAMILY LAND	33.8%	34.0%	3.3%	81
MULTIPLE FAMILY TOTAL PROPERTY	32.6%	33.5%	4.9%	81
COMMERCIAL/INDUSTRIAL IMPROVEMENTS	34.4%	34.5%	6.8%	89
COMMERCIAL/INDUSTRIAL LAND	34.7%	34.3%	2.7%	89
COMMERCIAL/INDUSTRIAL TOTAL PROPERTY	34.5%	34.4%	4.5%	90
RURAL IMPROVEMENTS	33.3%	33.0%	1.1%	5
RURAL LAND	35.0%	35.0%	0.9%	37
RURAL TOTAL PROPERTY	34.1%	35.0%	1.1%	37
<b>SECURED PERSONAL PROPERTY</b>				
ALL SECURED	35.0%	35.0%	0.3%	75
AIRCRAFT	n/a	n/a	n/a	-
AGRICULTURAL	35.0%	35.0%	0.0%	18
BILLBOARDS	35.0%	35.0%	0.1%	2
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	0.8%	21
MOBILE HOMES	34.9%	35.0%	0.2%	34
<b>UNSECURED PERSONAL PROPERTY</b>				
ALL UNSECURED	35.0%	35.0%	0.6%	138
AIRCRAFT	35.0%	35.0%	0.1%	22
AGRICULTURAL	35.0%	35.0%	0.5%	13
BILLBOARDS	35.0%	35.0%	0.0%	12
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	0.3%	37
MOBILE HOMES	34.7%	35.0%	1.3%	54
<b>TOTAL PERSONAL PROPERTY</b>	<b>35.0%</b>	<b>35.0%</b>	<b>0.5%</b>	<b>213</b>

**STATEWIDE  
2013-2016 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	33.9%	34.4%	4.1%	2,003
STATEWIDE IMPROVEMENTS	34.0%	34.1%	6.0%	1,459
STATEWIDE IMPROVED LAND	34.0%	34.7%	4.2%	1,513
STATEWIDE VACANT LAND	33.2%	34.6%	5.1%	488
SINGLE FAMILY IMPROVEMENTS	34.1%	34.1%	6.0%	704
SINGLE FAMILY LAND	34.0%	34.6%	3.5%	703
SINGLE FAMILY TOTAL PROPERTY	34.1%	34.2%	3.5%	704
MULTIPLE FAMILY IMPROVEMENTS	33.6%	33.9%	4.5%	340
MULTIPLE FAMILY LAND	34.2%	34.5%	2.8%	340
MULTIPLE FAMILY TOTAL PROPERTY	33.8%	34.0%	3.4%	340
COMMERCIAL/INDUSTRIAL IMPROVEMENTS	34.0%	34.6%	7.2%	371
COMMERCIAL/INDUSTRIAL LAND	33.9%	34.4%	7.4%	371
COMMERCIAL/INDUSTRIAL TOTAL PROPERTY	34.0%	34.4%	4.9%	372
RURAL IMPROVEMENTS	34.4%	34.8%	2.8%	16
RURAL LAND	35.1%	35.0%	0.5%	99
RURAL TOTAL PROPERTY	34.8%	35.0%	0.6%	99
<b>SECURED PERSONAL PROPERTY</b>				
ALL SECURED	35.0%	35.0%	0.4%	213
AIRCRAFT	35.0%	35.0%	0.0%	2
AGRICULTURAL	35.1%	35.0%	0.4%	59
BILLBOARDS	35.0%	35.0%	0.1%	2
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	0.5%	61
MOBILE HOMES	35.0%	35.0%	0.2%	86
<b>UNSECURED PERSONAL PROPERTY</b>				
ALL UNSECURED	35.0%	35.0%	1.3%	365
AIRCRAFT	35.6%	35.0%	3.0%	80
AGRICULTURAL	35.0%	35.0%	2.8%	48
BILLBOARDS	35.0%	35.0%	0.1%	38
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	0.3%	83
MOBILE HOMES	34.9%	35.0%	0.6%	116
<b>TOTAL PERSONAL PROPERTY</b>	<b>35.0%</b>	<b>35.0%</b>	<b>1.0%</b>	<b>578</b>

2015-2016

REPORT OF ASSESSMENT RATIO STUDY

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OUTLIER REPORTS

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# CLARK COUNTY NARRATIVE

## 2015-16 RATIO STUDY

Clark County annually reappraises all land and improvements. The assessor's website includes the past and current assessed and taxable values for land and improvements, previous sale data, building sketches when applicable, chronological aerial photography with measurement tools, plat maps, and other valuable information for each parcel.

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)*.

(a) Property Type	(b) Sample Size	(c) Samples in Compliance	(d) Samples out of Compliance	(e) Exception Rate
Vacant Land	47	47	0	0%
Single-Family Residential Land	83	83	0	0%
Multi-Family Residential Land	20	20	0	0%
Commercial and Industrial Land	30	30	0	0%
Agricultural Land	6	6	0	0%
Single Family Residential Improvements	83	74	9	11%
Multi-family Residential Improvements	20	20	0	0%
Commercial and Industrial Improvements	30	29	1	3%

## **PROCEDURES, ISSUES AND RECOMMENDATIONS**

### **Improvement Discovery / Identification:**

**Procedure** - County appraisers perform site inspections of improvements prior to occupancy to inspect interiors and current on-site minor improvements including porches, patios, and driveway area. Once an area is built-out, however, the assessor's office relies on building permits and/or annual aerial photography to capture any changes or new improvements to existing properties throughout the county.

**Past Issue** - During the physical inspection portion of this year's study, the department appraiser discovered a vast improvement in the discovery, identification and valuation of the various minor improvements associated with the wide range and amount of properties in Clark County. It is apparent that the assessor's staff has taken steps to improve their review of the aerial photography and other tools available to them. There were only three of the department's samples that were out of ratio tolerance in this year's study as a result of discovery. Both of these properties were re-inspected and the necessary corrections made to the property record.

**Recommendation** - The current procedure is the only realistic method of yearly revaluation of the approximately 750,000 properties in Clark County, and the Department does not disagree. It is encouraging to note that it appears that Clark County is making a diligent effort to improve the discovery and valuation of all improvements within the county. The Department recommends that the county continue this pattern of better "Improvement Discovery and Identification" as mentioned in the last ratio study audit.

### **Depreciation:**

**Procedure** – The next issue discussed in the last ratio study was the assessor's inability to properly depreciate some of the smaller minor improvements through the valuation program that was employed at the time (2011). Upon the discovery of a new improvement on an existing property, the assessor's office would add this improvement to the property card or appraisal record. For example, if it was discovered that a swimming pool was constructed on a subject property, it was valued accordingly and placed in the record. The sums of all of the improvements were calculated and then were depreciated based on the single year construction of the home. For example, if the home was constructed in 1978, but the pool was later added in 2007, the pool would be depreciated based on the 1978 construction year of the home. This was also noted when reviewing county "hand" sketches for older properties where individual improvement construction years were labeled on the sketch, but not accounted for on the appraisal record. The assessor's office had indicated that they did add certain larger site improvements such as detached garages, guest quarters, casitas, and

pool houses on as a separate record from the older house so that it did get proper depreciation; sometimes even pools were added on as separate records if they were done at the same time as some of the other newer structures.

It was generally the smaller things that were added that may not have received proper depreciation, like concrete, patios, fencing, etc., with pools possibly being the biggest item generally that fell into that category.

**Past Issue** - NAC 361.124 reads: Determination of actual age of improvement or newly constructed addition to improvement. ([NRS 360.090](#), [360.250](#), [361.227](#), [361.229](#)) In determining the actual age of:

1. An improvement or newly constructed addition to an existing improvement, the county assessor shall use the actual year of construction, if it is available, or else an estimated year of construction.
2. An improvement that has been constructed over a period of years, the county assessor shall use the weighted average age of the improvement.

**Recommendation** – During the last ratio study (2011), the Department recommended applying depreciation based on the age of each improvement per statute (NAC 361.124 part 1.). The assessor's office had indicated that a new Marshall and Swift costing system would be installed which would be customized into the current CAMA (Computer Assisted Mass Appraisal) system. The new CAMA is now in place and it now allows the appraisers to depreciate individual items on a parcel at different ages. Due to the large number of properties in Clark County, the assessor is unable to go back and make changes on already existing properties that suffered this problem; however, this issue has been corrected going forward with this new cost system.

### **Quality Class:**

**Procedure** - Quality Class is assigned to an individual property by a certified appraiser within the Clark County office. The appraiser's judgment is based on an interior inspection (if available); exterior observation; and on Marshall Swift Guidelines.

**Issue** - There were seven single-family residential properties where a difference of a half-quality class was enough to put the samples out of ratio tolerance.

**Recommendation** - The assignment of Quality Class to a particular property is subjective and minor differences between quality judgments are expected. There is no recommendation at this time; just an observation and explanation of some outliers in this year's study.

**Obsolescence** - Due to the recent economic decline, the assessor has applied economic obsolescence to improvements in various market areas uniformly and equally throughout Clark County as a result of an extensive analysis of recent market sales data. The assessor maintains a listing of sales of improved and

vacant properties within the county. Once a land value is established, a ratio analysis is done by analyzing market areas and a factor for obsolescence is applied to all properties where taxable value exceeds market value within that strata based on the statistical analysis.

**Agricultural Parcels** - The methods used to determine the value of agricultural land are defined in the Nevada Administrative Code (NAC) Chapter 361A.180. The Nevada Tax Commission adopted revised permanent regulations that became effective on December 4, 2003. The Assessor has properly valued the agricultural land in the county.

**Personal Property** - The on-line system provides the ability to review declarations as well as all aspects of the way that the tax was calculated. The county discovers business property from a variety of sources including business licensing agencies, tenant lists and a variety of media publications; for aircraft, from airport tie-down lists, hangar owner records, FAA reports, flight schools, and referrals.

The county requests copies of sales agreements, receipts, and IRS depreciation schedules to estimate the personal property component of the sales price when personal property is purchased with real property for a lump-sum amount. When a declaration is not returned by the taxpayer, the county estimates a value based on cost manuals and comparable businesses. The county is developing benchmarks for certain industries where expected value ranges can be established. When a declaration does not meet benchmarks for the type of business, the county will conduct telephone interviews, internet research, and visit the site, as well as request additional documents to support reported values.

The personal property field portion of the ratio study examined 8 Billboard accounts; 8 Commercial/Industrial accounts; 2 Agricultural accounts; 14 Mobile Home accounts; and 8 Aircraft accounts, with a total of 608 records. There were a minimal amount of records out of ratio tolerance; however, these outliers were the result of rounding issues or items with minimal values. Hard copy documents are scanned into the computer and were reviewed for each account.

**CLARK COUNTY  
OUTLIER REPORT  
2015-16 RATIO STUDY**

APN	L	I	T	ENTITY I. D.	COMMENTS
125-07-817-108	35.00%	38.46%	37.83%	SFR	Assessor records indicate subject valued as Quality Class 3.0 (Average); DLGS appraiser valued as Quality Class 2.5 (Fair / Average). Assessor Response: Quality Class assigned by certified appraiser based on Marshall Swift Guidelines. Quality Class assignment is subjective and minor differences between quality judgments are expected. Assessor will stay at 3.0 (Average).
138-09-717-011	33.97%	36.06%	35.66%	SFR	Assessor records valued "Finished Attached Garage"; DLGS appraiser valued "Finished Built-In Garage". Assessor's sketch also indicates "Finished B.I. Garage". Recommend revalue with the proper garage classification. Assessor Response: Assessor will inspect and correct as necessary for the 2015/2016 supplemental roll. Possible data entry error.
161-11-210-054	33.76%	36.81%	36.27%	SFR	Assessor records indicate subject valued as Quality Class 3.0 (Average); DLGS appraiser valued as Quality Class 2.5 (Fair / Average). Assessor Response: Quality Class assigned by certified appraiser based on Marshall Swift Guidelines. Quality Class assignment is subjective and minor differences between quality judgments are expected. Assessor will stay at 3.0 (Average).
161-21-815-165	33.41%	31.56%	31.83%	SFR	Assessor records indicate subject valued as Quality Class 2.0 (Fair); DLGS appraiser valued as Quality Class 2.5 (Fair / Average). Assessor Response: Quality Class assigned by certified appraiser based on Marshall Swift Guidelines. Quality Class assignment is subjective and minor differences between quality judgments are expected. Assessor will stay at 2.0 (Fair).
162-08-301-007	33.90%	27.98%	30.35%	COM	Assessor's Office valued three buildings (2 Mini-Warehouse / 1 Industrial Flex); DLGS appraiser valued four buildings (3 Mini-Warehouse / 1 Industrial Flex). Recommend re-inspection and revalue of each building individually. Assessor Response: Assessor will inspect and correct as necessary for the 2015/2016 supplemental roll. Possible data entry error.
163-07-210-013	35.35%	36.90%	36.42%	SFR	Assessor records indicate subject valued as Quality Class 3.0 (Average); DLGS appraiser valued as Quality Class 2.5 (Fair / Average). Assessor Response: Quality Class assigned by certified appraiser based on Marshall Swift Guidelines. Quality Class assignment is subjective and minor differences between quality judgments are expected. Assessor will stay at 3.0 (Average).
163-31-411-186	35.00%	37.67%	37.22%	SFR	Assessor records indicate subject valued as Quality Class 3.0 (Average); DLGS appraiser valued as Quality Class 2.5 (Fair / Average). Assessor Response: Quality Class assigned by certified appraiser based on Marshall Swift Guidelines. Quality Class assignment is subjective and minor differences between quality judgments are expected. Assessor will stay at 3.0 (Average).
177-15-315-032	35.95%	31.84%	33.06%	SFR	Assessor records indicate subject valued as Quality Class 2.0 (Fair); DLGS appraiser valued as Quality Class 2.5 (Fair / Average). Assessor Response: Quality Class assigned by certified appraiser based on Marshall Swift Guidelines. Quality Class assignment is subjective and minor differences between quality judgments are expected.





**ESMERALDA COUNTY RATIO STUDY  
2015-2016 NARRATIVE**

All land is reappraised each year in Esmeralda 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 in 2008. Beginning in 2011 the assessor began annual re-costing of all improvements though still physically reviewing 1/5 of the county each year.

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 as determined by the Department through appraisals of individual randomly chosen 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).*

<b>Property Type</b>	<b>Sample Size</b>	<b>Samples in Compliance</b>	<b>Samples out of Compliance</b>	<b>Exception Rate</b>
Vacant Land	30	27	3	10%
Single-Family Residential Land	35	35	0	0%
Multi-Family Residential Land	10	9	1	10%
Commercial and Industrial Land	10	10	0	0%
Agricultural Land	6	6	0	0%
Single Family Residential Improvements	35	34	1	3%
Multi-family Residential Improvements	10	9	1	10%
Commercial and Industrial Improvements (Note 1)	10	9	1	10%

Note 1: All the improvement outliers listed above were found in the non-reappraisal area for tax year 2015-2016

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

## **Procedures, Issues and Recommendations**

**Marshall & Swift:** Annual re-costing of improvements for the 2015-16 tax roll was performed incorrectly by the Esmeralda County Assessor's office for those parcels with improvements that were valued with M&S software (vs. the Rural manual). The M&S calculated improvement value from the 2013-14 tax roll was inadvertently used in the depreciation calculations when determining values for the 2015-16 tax roll. (2015-16 M&S cost calculations had been performed and were in the property file however that was not the value used in the depreciation calculation).

The resulting incorrectly assessed value was placed in the 2015-16 tax roll. (This can be confirmed from the initial 2015-16 depreciation calculation sheets in the assessor's paper files and the initial 2015-16 tax role (printed tax roll booklet) sent to Department by Assessor in December of 2014

Ratio for these parcels were initially calculated as follows:

County Assessor's (incorrect) "assessed improvement value" for 2015-16 was divided by the "DOAS taxable improvement value" for 2015-16 to determine if ratio fell within acceptable levels (32% - 36%). Since the counties' miscalculated improvement value was based on 2013-14 M&S values (and therefore low) the resulting improvement ratios were low (i.e. generally in the 32% - 33% range). This calculation error alone did not result in outliers.

Final Ratio Study values (ratios) for the data base were calculated using the updated County Assessor's "assessed improvement value". The assessor updated the files where necessary as well as the 2015-16 tax roll which was re-published.

There were several instances of dilapidated, falling down "ornate" homes that were assigned low quality levels. Quality level should reflect the original higher quality construction and the depreciated value adjusted accordingly utilizing the M&S Cost Adjustments page. (Note: Assessor did comment that a couple of these buildings were in fact of very low quality (single board construction) despite their facade.

The Assessor is directly entering multipliers and not relying on the M&S ZIP code defaults.

There are instances where covered porches, obviously built as part of the original construction of the building, are not valued with M&S along with the rest of the structure but instead valued on the minor improvement cost sheet. Explanation is that during annual re-costing, the add-on structures in M&S are not picked up. Thus they are costed on the MI sheet which could result in lower costs if the farm labor discount is not removed from the calculation. Advised this is an area for discussion with ADS.

**Minor Improvements.** Minor improvements are identified by the Assessor and valued from either the Marshall Swift cost manuals, the Assessor's Handbook of Rural Building Costs or (most commonly) internally prepared documents summarizing the most commonly used (in Esmeralda County) appraisal categories and minor improvement values. These costs are derived directly from the statutorily approved cost manuals (Marshall & Swift and the Rural Manual), with reference columns that include Unit of Measurement, Total Cost; Base Cost; Section & Page from the corresponding manual, and the proper multipliers assigned to Esmeralda County. These documents are updated annually

The assessor does not employ lump sum costing but instead values minor improvements individually. When practical this is a best practice.

However there are instances where buildings are valued from rural manual data as "General Purpose" buildings (implying built by unskilled labor) even when that does not appear to be the case. Assessor should consider using M&S in these instances and if necessary incorporating an adjustment for very low quality and/or unskilled labor..

There were a few instances in which small minor improvements were not picked up in the reappraisal area but were not enough to create an outlier. In general, these are small decks, patio covers, etc. associated with personal property mobile homes plus perimeter farm wire fencing. (This type of fencing in general is not picked up if its primary purpose is to keep wild animals off the owner's property. In contrast, nicer small sheds and pump houses (<120 SF) were at times valued even when not fastened to a foundation or slab. Usually these did not create an outlier.

**Improvement Factor:** No longer utilized since re-valuing on an annual basis.

**New Construction Valuation:** Esmeralda County does not have an official "building department". New construction is documented as it's discovered (word of mouth, random observation and during the physical re-appraisal of each area. During this ratio study there were 15 parcels in the non-reappraisal areas on which changes, updates, additions etc. were discovered, documented and discussed with the assessor who made the appropriate changes to the property file. In those few instances where the changes are significant the assessor made a note to visit the property prior to the scheduled physical re-appraisal year.

**Land:** Esmeralda County does have a fair number of vacant land sales compared to other rural counties however they are mostly located in Goldfield and to a lesser extent Fish Lake Valley. The assessor is able to utilize these sales in developing base lot values used for valuing land. Assessor does not rely on abstraction since it would not be useful with so little new construction and no newer homogeneous neighborhoods in the county.

In Esmeralda County the assessor generally does not make a distinction in value between residential and commercial vacant land values. In Goldfield this practice is based on a study by the assessor several years ago. Per the assessor and ratio study findings (and the fact there is no zoning) this assumption remains valid based on a review of sales. This facilitates the use of vacant sales (LUC 100) in valuing land throughout the county. Ratio study land values were usually in ratio based on 5 years of sales of similar size parcels without regard to LUC of the subject.

In the past the assessor applied adjustments for topography, utilities and access to vacant parcels where appropriate however there was no written documentation supporting these deductions. The adjustments were based on assessor's "local knowledge" which was probably accurate however it was advised that documentation supporting the adjustments be included in the files. While supporting documentation is not currently in the individual files the assessor has compiled supporting documentation from local contractors as justification for the adjustments noted in the files. These documented adjustment factors (topo, utilities and access) were used to adjust base lot values where appropriate.

There were at least 2 instances where land values from previous tax years differed between the assessor calculations (predicated on base lot value and any adjustments) and those appearing on the counties web site and tax roll entries. In both instances the assessor attributed this to having missed revaluations after lot splits.

Additionally there were at least two cases where the land value posted on the tax roll and county web site varied by \$20 to \$30 from the assessor's calculations (the latter being the correct values). Also there were several instances of \$1 - \$5 variations. The assessor attributed this to clerical errors during the annual re-valuing of land. These types of clerical errors are generally caught during the in-house audit of annual land value updates however they were missed in these cases. Assessor will insure greater care is exercised in the future.

**Appraisal Records:** Esmeralda County parcel files are neat, organized and kept up to date. New computerized sketches of improved properties are replacing old hand-drawn sketches as needed. Minor improvements are generally not included on the APEX sketch however the "Appraiser's Information" sheet provides enough detail to distinguish existing from new minor improvements.

Assessor has made progress in the last few years making property information available to the general public via the Esmeralda County Assessor website. Apex sketches, photos and parcel maps will be available at some point in the future.

**Personal Property:** Esmeralda County maintains proper records for Personal Property. 36 randomly selected accounts comprised of 274 records were examined. After discounting rounding errors there was a total of 3 outliers spread among 3 separate accounts as a result of applying an incorrect life. The 'life' related outliers were immediately corrected by the assessor.

## VACANT PARCELS

A.O. = Assessor's Office

<i>APN</i>	<i>L</i>	<i>I</i>	<i>T</i>	<i>ENTITY I. D.</i>	<i>COMMENTS</i>
001-028-01	21.47%		21.47%	VAC	Based on 2 sales in the last 5 years plus a couple of earlier sales of similar size vacant parcels the assessor agrees the value is low. Assessor also agreed to review the need for a topography adjustment for this essentially flat parcel.
001-137-06	20.91%		20.91%	VAC	Based on sales of 4 similar size vacant parcels over the last 5 years the assessor's agrees the value is low. Assessor also agrees to review the "access" adjustment since the parcel is adjacent to a well maintained gravel road.
001-182-02	14.18%		14.18%	VAC	Based on the sale of 3 similar size vacant parcels over the last 5 years the assessor agrees the value is low. Assessor also agrees to review the "access" and topography adjustment since the parcel is adjacent to a well maintained gravel road and is essentially flat.

## SFR

A.O. = Assessor's Office

<i>APN</i>	<i>L</i>	<i>I</i>	<i>T</i>	<i>ENTITY I. D.</i>	<i>COMMENTS</i>
001-252-05	34.84%	21.95%	26.02%		Assessor valued a "bunk house" as class 3 when it should have been a class 4. Additionally two add-on shed rooms were valued as class 1 when they should have been class 2.

## MFR

A.O. = Assessor's Office

<i>APN</i>	<i>L</i>	<i>I</i>	<i>T</i>	<i>ENTITY I. D.</i>	<i>COMMENTS</i> <i>(Non-reappraisal area outliers)</i>
001-282-11	18.75%	33.51%	29.42%	MFR	Assessor calculated land value based on lot size of 15,000 sf. Actual lot size is 30,000 sf.
007-351-13	34.02%	30.88%	31.41%	MFR	Assessor miss-calculated the square footage and missed the 2 <sup>nd</sup> story on a mobile home addition. Assessor has not had access to this parcel for many years however the 2 story MH addition is visible in one of the photos in the file.

**COM**

A.O. = Assessor's Office

<i>APN</i>	<i>L</i>	<i>I</i>	<i>T</i>	<i>ENTITY I. D.</i>	<i>COMMENTS</i> <i>(Non-Reappraisal area outliers)</i>
007-321-05	32.76%	31.04%	31.12%	COM	Commercial building costed as wood frame construction when in fact it's concrete block. Costs included HVAC though has always been portable electric heat.

**AG**

A.O. = Assessor's Office

<i>APN</i>	<i>L</i>	<i>I</i>	<i>T</i>	<i>ENTITY I. D.</i>	<i>COMMENTS</i> <i>NO AG OUTLIERS</i>

# EUREKA COUNTY NARRATIVE

## 2015-16 RATIO STUDY

Eureka County comprises 5 appraisal areas which are defined by geography, township, range, and section boundaries. The Eureka County Assessor's Office appraises all land and improvements within the county each year<sup>1</sup>. The Assessor continues to physically inspect 1/5 of the county each year to capture any new improvements added within the previous 5 years.

**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	21	21	0	0%
Single-Family Residential Land	0	0	0	0%
Multi-Family Residential Land	0	0	0	0%
Commercial and Industrial Land	0	0	0	0%
Agricultural Land	6	6	0	0%
Single Family Residential Improvements	30	30	0	0%
Multi-family Residential Improvements	10	10	0	0%
Commercial and Industrial Improvements	10	10	0	0%

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



## PROCEDURES, ISSUES AND RECOMMENDATIONS

**Marshall & Swift:** The Assessor values real property using software developed by Advanced Data Systems, a Computer Assisted Mass Appraisal (CAMA) application that incorporates Marshall & Swift Valuation Service (Marshall Swift) cost tables, pursuant to NAC 361.128. This system uses “current cost” and “local conditions” multipliers that trend the published costs to a current date and adjust the costs by location.

These location multipliers vary by area and are based upon the United States Postal Service, Zone Improvement Plan (ZIP) Codes. The Assessor is using the zip code multipliers within the CAMA system for all classes of improved property. These multipliers have been confirmed correct by the Department.

There are also multipliers within the CAMA system that adjust the base cost of a structure to account for climate, hillside location, foundation and proximity to areas of seismic activity.

The proper seismic category for the State of Nevada is Zone 3. A review of the Assessor’s files indicates that the seismic adjustment is currently being used in the valuation of single family and multi-family residential properties. By default commercial properties are not modified with a seismic adjustment multiplier. Pursuant to NRS 360.215(2), the Department issued each County Assessor Guidance Letter 10-003 dated July 14, 2010. This letter served to assist the Assessor with the correct application of the of seismic cost adjustment when using the Marshall and Swift Residential Cost Handbook or Marshall Valuation Service.

**Minor Improvements:** Eureka County utilizes a comprehensive list of various minor improvements referred to as computer cost additives which include but are not limited to: flatwork, curbs, outdoor lighting, porches, decks and awnings. A variance study was conducted to determine whether the computer additive costs were comparable to similar component costs published in the Marshall Swift cost manuals, and the Department has validated these costs.

Certain minor improvements are published within cost tables that indicate a unit cost based on a specific area that is usually expressed in square footage. These tables typically require interpolation to derive a proper unit cost for the area being valued. Interpolation is the process of finding the value that lies between two other values. When the area of the subject falls between two areas in the cost tables, the cost for the subject area is interpolated from the known data. A review of the county’s appraisal records reveals that interpolation is being properly applied when applicable. Eureka County has used interpolation since it was recommended in the previous ratio study.

## **PROCEDURES, ISSUES AND RECOMMENDATIONS**

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**New Construction Improvement Valuation:** Eureka County does not have a building department therefore the Assessor discovers new construction while performing field inspections during the physical, annual reappraisal. Every two weeks the Assessor reviews changes in ownership by examining instruments particular to the transfer of property. The Department has determined that the Assessor is appropriately valuing new improvements upon discovery.

**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 will be digitally converted in the future. All assessment and tax information is made available on-line to the general public via the Eureka County Assessor's Office website.

**Mining Claims:** The Assessor's Office has identified patented mining claims via mapping. This was in response to Performance Audit #1001 – Land Valuation, published March 9, 2012. This audit outlined the responsibilities of the County Assessor pursuant to NRS 362.020 through 362.095, and NAC 362.410 when assessing the surface of patented mines and mining claims.

**Personal Property:** The personal property portion of the ratio study examined 28 accounts comprising 359 records. Nine outliers were discovered to be the result of number rounding. One outlier was due to a numerical entry error by the Assessor's Office.

**LINCOLN COUNTY RATIO STUDY  
2015-2016 NARRATIVE**

All land is reappraised each year in Lincoln 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 in 2007. Beginning in 2012 the assessor began annual re-costing of all improvements though still reappraising 1/5 of the county physically each year. Reappraisal area for this ratio study is County Tax District 3 (Caliente)

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).*

<b>Property Type</b>	<b>Sample Size</b>	<b>Samples in Compliance</b>	<b>Samples out of Compliance</b>	<b>Exception Rate</b>
Vacant Land	50	46	4	8%
Single-Family Residential Land	30	30	0	0%
Multi-Family Residential Land	10	10	0	0%
Commercial and Industrial Land	10	9	1	10%
Agricultural Land	6	6	0	0%
Single Family Residential Imps. (Note 1)	30	26	4	13%
Multi-family Residential Imps. (Note 2)	10	8	2	20%
Commercial and Industrial Imps. (Note 3)	10	7	3	30%

Note 1: SFR Improvements: Of the 4 outlier listed above, 3 were found in the non-reappraisal areas for tax year 2015-2016 and 1 in the reappraisal area (Caliente).

Note 2: MFR Improvements: Of the 2 outliers listed above, both were found in the -reappraisal areas for tax year 2015-2016.

Note 3: Commercial and Industrial Improvements: Of the 3 outlier listed above 2 found in the non-reappraisal area for tax year 2015-2016 and 1 in the reappraisal area.

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

## **Procedures, Issues and Recommendations**

**Marshall & Swift:** Assessor uses the ADS version of M&S for costing residential properties and the standalone version of M&S for costing commercial properties.

In the past there was a tendency for the Quality class to be on the high side though assessor has been making a concerted effort and noticeable progress to bring quality more in line with recommendations in the Residential Cost Handbook.

There is a tendency to value improvements based on previous assessor's (Bill Lloyd's) drawings despite repeated instances where these sketches were determined to be inaccurate. Assessor is aware that, as time allows, drawing measurements need to be verified and new APEX sketches created in order to produce valid M&S cost estimates. This has become less of an issue with each passing ratio study

Additionally, there has been a tendency to miss small brick fire places, retaining walls and to incorrectly classify roofing materials (e.g. comp shingles vs. preformed metal roofing). Generally these oversights have not resulted in outliers and the misclassifications are becoming less of an issue but still noticeable. Note this does not include those instances where an item or upgrade is obviously new since the last physical re-appraisal. There were 6 instances where new construction and/or upgrades were noted in non-reappraisal areas and communicated to the assessor.

**Minor Improvements.** Minor improvements are identified by the Assessor and valued from the Marshall Swift cost manuals, the Assessor's Handbook of Rural Building Costs and (most commonly) internally prepared tables summarizing the most commonly used (in Lincoln County) appraisal categories and property appraisal value tables. These documents are updated annually. These costs are derived directly from the statutorily approved cost manuals (Marshall & Swift and the Rural Manual), and the values include the appropriate local multipliers.

Based on field observations, more attention should be paid to the distinction between mobile home hookups and trailer hookups.

There were a few instances in which small minor improvements were not picked up in the reappraisal area but were not enough to create an outlier. In general, these are small decks, patio covers, etc. associated with personal property mobile homes plus older perimeter farm wire fencing. Closer attention should be paid to these types of improvements.

The assessor does not employ lump sum costing but instead values minor improvements individually. When practical this is a best practice.

**New Construction Valuation:** Lincoln Counties Building Department generally does not work closely with the Assessor's Office. For the most part new construction is discovered by word of mouth, random observation, inspections during the physical re-appraisal of each area and occasionally from information provided by the building department. Other than new construction in the 4 towns in Lincoln Co. (Pioche, Panaca, Caliente and Alamo) most property owners do not go thru the permit process for improvements. Recommend attempting to improve the working relationship between the two offices (could be mutually beneficial to both offices). The new assessor Mr. Holt has indicated this is one of his priorities.

**Land:** Lincoln Co. has a moderate number of vacant sales (recorded transfers) of vacant parcels however the majority are not considered valid sales as they are land contracts, trades, 'sales' between family members, etc.. Many of the vacant sales are multiple parcel developer sales and (per the assessor) there are many "paper sales" to friends, business partners, etc. in an attempt to raise the perceived value of the parcels. This practice is especially prevalent in the Rachel area.

In Rachel the assessor has developed a base lot formula predicated on the sale of 5 acre parcels (which are relatively numerous). \$1500/acre up to 5 acres plus \$500/acre over 5 acres. While this works well for 5 acre parcels (and slightly larger) the formula is also used for larger parcels (10, 20, 30 acre parcels, etc.). This practice was implemented to prevent (e.g.) a 20 acre parcel having a taxable value less than a 5 acre parcel based on sales data alone. However there is no evidence (i.e. sales) that the resulting taxable value for larger parcels is in fact accurate (due to a lack of valid sales data).

Sales in "similar" (based on topography, proximity to town, and desirability) areas in different parts of the county and even surrounding counties may be used as a check to verify values on these larger parcels.

Vacant land (lots) in Pioche, Panaca, Caliente and Alamo have adequate sales to support assessor's values though most are not recent sales

Assessor is directed to develop documentation supporting topography, utility, and access discounts applied to land. In general, existing discounts may very well be logically accurate based on local knowledge however there is no written documentation supporting these reductions in value.

**Appraisal Records:** Lincoln Co. assessor and staff are in the process of converting paper files to electronic records. Any request for data normally found in the paper file has always been available thru the assessor's office via ADS or their mapping and GIS software.

Note there is a GIS link on the assessor website that has never worked properly. Assessor's office is aware of the problem.

The 2015-2016 Tax Roll was created and published without including the exempt parcels. This occurred thru an oversight during the transition from the past assessor to the current assessor. The problem was identified during the ratio study and subsequently corrected. Updated tax roll received by the Department on 2/3/2015.

**Personal Property:** Lincoln County maintains proper records for Personal Property. 28 accounts comprising 201 records were examined. After discounting rounding errors there were no actual outliers based on the numbers alone. However, of the 28 accounts there were 9 with no valid source of cost information; e.g. DRS, DEC, bill of sale, comparable sales, etc. The majority of these are MH accounts. One additional (Exempt) account was being valued using a 24 year old DEC that was also incomplete. Assessor is required to provide some form of documentation justifying the cost used in the tax calculation.

## VACANT PARCELS

A.O. = Assessor's Office

<i>APN</i>	<i>L</i>	<i>I</i>	<i>T</i>	<i>ENTITY I. D.</i>	<i>COMMENTS</i>
001-092-29	16.53%		16.53%	VAC	Assessor's value for this parcel is low based on 2 sales in the last 5 years plus 3 additional older sales. Assessor reduced value based on slope however no documentation exists to justify reduction. This has been an issue with land values in this area since prior to last ratio study.
010-081-01	23.74%		23.74%	VAC	Assessor's value for this parcel is low based on sales of similar (District 5 and General County) VAC parcels. Discussed with assessor the use of sales of similar properties outside of Rachel. Since no valid sales history for Rachel, assessor developed a base lot value of \$1500/ac up to 5 acres plus \$500/ac over 5 acres. Thus calculated base lot taxable value for this parcel would be \$9125 and assessor's taxable value is \$6289 so parcel remains an outlier.
010-124-04	17.50%		17.50%	VAC	Assessor's value for this parcel is low. There is no valid sales history for lots this size in Rachel and nothing similar in General County. Thus using assessor's base lot value of \$1500/ac up to 5 acres plus \$500/ac over 5 acres, the calculated taxable base lot value for this parcel would be \$3765. Assessor's posted taxable value is considerably lower at \$1883.
010-141-04	27.18%		27.18%	VAC	Assessor's value for this parcel is low based on sales of similar (District 5 and General County) VAC parcels. Discussed with assessor the use of sales of similar properties outside of Rachel. Since no valid sales history for Rachel assessor has developed a base lot value of \$1500/ac up to 5 acres plus \$500/ac over 5 acres. Calculated base lot value for this parcel would be \$10800 and assessor's taxable value is \$7909 so parcel remains an outlier

## SFR

A.O. = Assessor's Office

<i>APN</i>	<i>L</i>	<i>I</i>	<i>T</i>	<i>ENTITY I. D.</i>	<i>COMMENTS</i>
001-057-09	32.84%	31.41%	31.54%	SFR	Assessor's value is low based on not picking up 2 large concrete block walls that are obviously not new. Additionally a large concrete perimeter foundation (been there a while) was not picked up
001-057-12	35.63%	30.98%	31.34%	SFR	Assessor's value is low based on having valued a double wide manufactured home as a single wide. Additionally a concrete retaining wall was not picked up.
003-094-02	33.97%	30.92%	31.37%	SFR	Assessor's value is low based on significant M&S omissions plus oversights on the minor improvements. None of the missed items were new construction or recent upgrades.
004-062-07	34.96%	30.64%	31.50%	SFR	Assessor's value is low based on significant M&S omissions plus oversights on the minor improvements. None of the missed items were new construction or recent upgrades.

## MFR

A.O. = Assessor's Office

<i>APN</i>	<i>L</i>	<i>I</i>	<i>T</i>	<i>ENTITY I. D.</i>	<i>COMMENTS</i>
003-142-03	32.44%	30.58%	30.96%	MFR	This property has a new room addition. Assessor was aware of the upgrade since early summer 2014 but failed to add the additional square footage to the 2015-16 tax roll.
003-143-11	34.16%	31.15%	31.76%	MFR	Assessor's value is low based on significant M&S omissions plus oversights on the minor improvements. None of the missed items were new construction or recent upgrades.

## COM

A.O. = Assessor's Office

<i>APN</i>	<i>L</i>	<i>I</i>	<i>T</i>	<i>ENTITY I. D.</i>	<i>COMMENTS</i> <i>(Non-reappraisal area outliers)</i>
002-122-27	35.48 %	31.12%	31.54%	COM	Assessor's value is low based on significant M&S omissions plus oversights on the minor improvements. None of the missed items were new construction or recent upgrades.
003-073-04	34.98%	30.14%	30.50%	COM	Assessor's value is low based on significant M&S omissions plus oversights on the minor improvements. None of the missed items were new construction or recent upgrades. Additionally this exempt property was initially omitted from the 2015-16 tax roll.
004-041-21	34.92%	30.98%	31.25%	COM	Assessor's value is low based on significant M&S omissions plus oversights on the minor improvements. None of the missed items were new construction or recent upgrades. Additionally this exempt property was initially omitted from the 2015-16 tax roll.



# MINERAL COUNTY NARRATIVE

## 2015-16 RATIO STUDY

All land is reappraised each year in Mineral 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).

(a) Property Type	(b) Sample Size	(c) Observations in Compliance	(d) Observations out of Compliance	(e) Exception Rate
Vacant Land	15	15	0	0%
Single-Family Residential Land	30	30	0	0%
Multi-Family Residential Land	20	18	2	10%
Commercial and Industrial Land	20	20	0	0%
Agricultural Land	6	6	0	0%
Single Family Residential Improvements	30	17	12	40%
Multi-family Residential Improvements	20	13	7	35%
Commercial and Industrial Improvements	20	12	8	40%

### PROCEDURES, ISSUES AND RECOMMENDATIONS

**Minor Improvements:** Minor improvements were identified by the assessor and valued from either the Marshall & Swift cost manuals or the Rural Building Cost Manual.

**Use of Rural Building Manual:** Costs from the Rural Building Manual were inappropriately used. The Rural Building Manual provides information regarding the valuation of structures where unprofessional or unskilled labor was used to build the improvement; Marshall-Swift Costing Service should be used when a building or structure is built with professional labor. We observed costs from the Rural Building Manual were applied to certain improvements which were built by professional labor, resulting in the under valuation of improvements. After these observations were made, the Assessor addressed the issue and corrections were implemented. **NAC 361.1073 “Accrued depreciation” defined.** ([NRS 360.090](#), [360.250](#)) “Accrued depreciation” means the amount of loss in the value of an improvement relative to its replacement cost, reproduction cost or original cost as a result of physical deterioration, functional obsolescence or economic obsolescence.(Added to NAC by Tax Comm’n by R039-10, 8-13-2010, eff. 7-1-2012) Obsolescence should applied by the assessor instead of using the rural manual to obtain a lower value.

**New Construction Valuation:** The Assessor discovers nearly all new construction using information from the county building inspector and permits. New construction that is discovered before the close of the roll in December is included at that time. New construction that is discovered after the close of the roll, but before July 1<sup>st</sup>, is included on the supplemental roll. 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. A review of several properties with new construction revealed that the improvements are being captured and when measured and valued, are done so correctly, with the exception of those stated in the Use of the Rural Building Manual section above.

**Occupancy** is not consistently being used to accurately classify commercial buildings, resulting in undervaluation. Recently Marshal and Swift have discontinued many of the occupancies and added new ones. The Assessor must take care to find the new occupancy most closely suited to the property. The Department recommends the Assessor review the occupancy and class of all commercial properties during reappraisal to make accurate identifications, using the information provided in Marshall & Swift.

**Single Family Residence:** The sketches in file should be redone in the APEX drawing program. This will eliminate errors in total square footage. The assessor should re-sketch any property in the reappraisal area from this point into the future. Three properties in the reappraisal area had differences in square foot totals. The Assessor is directed to use the Seismic 3 adjustment from Marshal and Swift. This was directed in a Guidance letter 10-003. (From 2010).Two properties were out for lack of this adjustment. If using the Rural Manual in town 25% must be added for labor cost. Six properties were out of ratio for misuse of Rural Manual. Age weighting and quality class are two other areas of concern.

**Multi Family Residence:** The assessor needs to be aware of rehabilitated properties and value them accordingly. There were ten properties out of ratio do to seismic, age weighting and number of plumbing fixtures. Please see outlier report.

**Commercial Property: Proper** use of Rural Manual, wall height, quality class and Apex should be used for all commercial properties.

**Appraisal Records:** Files are efficiently maintained and a minimum of one prior reappraisal cycle can be found for comparison. Agricultural property records are in general good order, but care should be taken with land taken in and out of agricultural use.

**Land Sales coding:** The value of commercial land is more difficult to establish due to the small number of commercial properties sold in the county. To better adjust sold and assessed value, square foot cost should be used. Internet sales should be coded for validity and not excluded. The Department recommends coding be added to reference “utilities available” for vacant land.

All outliers have been corrected or addressed by the Assessor .

**Personal Property:** The Assessor organizes Personal Property records efficiently. Accounts with a total of 256 records were examined. After adjusting for rounding there were 0 outliers.

There is a record keeping problem with the filing of Declarations of Value. A signature is required. NRS 361.265. Electronic signatures are accepted per NRS 719.100. Deactivated properties need to be removed from record returned to state.

<sup>i</sup> Please see Outlier Report for details.

# MINERAL COUNTY OUTLIER REPORT

## 2014-15 RATIO STUDY

APN	L	I	T	ENTITY I. D.	COMMENTS
001-034-11	35.13	11.06	15.80	COM	Must be done on commercial M&S storage warehouse. Check wall height. No commercial print out in file. Quality Class.
001-092-07	34.68	24.54	31.17	COM	Conflicting data in 092- 07 and 092-08 files. Cost to be split. Cannot use Rural Manual for this property.
001-092-08	34.68	24.54	31.17	COM	Conflicting data in 092- 08 and 092-07 files. Cost to be split. Cannot use Rural Manual for this property.
001-164-21	33.44	28.85	30.80	COM	Age weighting , wall height several additions, fabric awning
001-224-03	35.94	18.50	27.78	COM	Equipment cost last done 2008, must update
001-042-08	36.26	28.02	29.80	MFR	Rehab, needs up dated cost, re-cost as low rise multiple, Land out of ratio
001-081-09	36.42	19.61	24.28	MFR	Mobile ran as Storage. Livable, Seismic Multiplier not used, Land is out of ratio.
001-102-06	35.84	27.93	30.67	MFR	Paperwork does not match. 5 plumbing units or 12? Seismic, re-cost
001-102-21	34.56	19.04	23.07	MFR	Should have been revalued when split.10-11 Dwelling done as shed 440 S.F .Seismic
001-114-09	35.84	28.09	30.81	MFR	Several trailers combined to make 2 residences. 33% labor cost to be added to bunk cost. Seismic
001-273-02	35.24	24.19	26.86	MRF	Last updated no weighted age. No seismic., no plumbing fixtures noted
001-325-14	32.76	17.64	19.82	MFR	Studio cannot be done as storage .Studio w/storage dif s.f. Dif CFW redraw in apex redraw plat map to show Studio on correct parcel.
001-032-10	34.68	31.77	33.25	SFR	No seismic fully depreciated
001-044-11	35.07	30.40	32.02	SFR	Chain link gates +50 of 6 ft chlk, quality class, seismic
001-071-08	35.00	14.85	19.79	SFR	Not completed under construction new siding
001-071-10	35.00	45.71	43.47	SFR	improper age weighting, s.f. totals use Apex
001-084-07	34.68	12.9.	21.09	SFR	Last done 2012 now stucco re-cost
001-102-20	35.00	46.07	42.56	SFR	Quality class, must reappraise, not Plywood. add swamp cooler
001-111-16	32.46	26.68	29.19	SFR	Re-measure and draw in apex. S.f. difference
001-142-15	34.68	30.64	32.38	SFR	Repurposed Babbit* house, S.F. Difference, Use APEX to redraw.
001-114-01	35.53	26.83	33.52	SFR	Babbit* house, fencing, RM not adding 33%
001-102-14	35.00	30.86	32.79	SFR	Need updated cost, Seismic and SF dif. Must use Apex

\*Babbit Houses. Prior to the facility becoming contractor-operated, it was staffed primarily by [civil service](#) workers and military personnel, who were housed on government owned property neighboring Hawthorne, including the now-extinct town of [Babbitt](#) and military housing known as Schweer Drive. The housing in Babbitt was made up of large buildings created to be duplexes. The system of trusses allowed all interior walls to be removed without compromising their structure.

### **NON RE APPRAISAL AREA 2014-15 RATIO STUDY**

APN	L	I	T	ENTITY I. D.	COMMENTS
001-255-21	34.19	16.45	18.45	COM	Use Industrial Flex for this building, No Rural Manual
003-043-06	32.11	21.64	24.28	COM	Incorrect square footage, recalculate with 33% labor cost. In town of Mina. Interpolate Rural Manual. No sketch or Photo in file.
001-192-05	31.25	25.23	26.43	MFR	Re-cost as duplex, Seismic, Land under ratio

001-231-04	35.22	25.04	29.82	MFR	Missed basement on one house miss plumbing fixtures on both houses re-cost, seismic
003-094-12	34.48	108.31	73.88	SFR	Confusing data plat map Mina. Must show work for bunk house 33% Labor cost Interpolate Rural Manual.
001-304-08	32.92	27.58	32.43	MFR	Wire fencing still there. Hook ups have no price listed
001-242-04	35.50	11.59	34.59	COM	Abandon lot with wire fencing

**STOREY COUNTY RATIO STUDY  
2015-2016  
NARRATIVE**

All land is reappraised each year in Storey 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, in 2008. Storey County conducts a full physical reappraisal of all improvements in 1/5 of the county each year and has been working towards full revaluation each year. They applied the NTC approved improvement factor in the Industrial Area only this year and revalued the remaining portions of the county. An independent contractor is responsible for the valuation of the Industrial Area of Storey County each year for land and new construction and every 5 years for re-appraisal of improvements.

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).*

<b>Property Type</b>	<b>Sample Size</b>	<b>Samples in Compliance</b>	<b>Samples out of Compliance</b>	<b>Exception Rate</b>
Vacant Land	30	28	2	7%
Single-Family Residential Land	35	27	8	23%
Multi-Family Residential Land	10	10	0	0%
Commercial and Industrial Land	10	10	0	0%
Agricultural Land/Mining	6	6	0	0%
Single Family Residential Improvements (Note 1)	35	24	11	31%
Multi-family Residential Improvements (Note 2)	10	8	2	20%
Commercial and Industrial Imp. (Note 3)	10	7	3	30%

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

**Note 1: Single Family Residential Improvements:** Of the 11 outliers listed above, 9 were found to be in the portion of the county which was revalued but not re-inspected for the 2015-2016 tax year. 5 of those were located in the Mark Twain or Lockwood areas which are in the 2016-2017 re-inspection cycle.

**Note 2: Multi-Family Residential Improvements:** Of the 2 outliers found both were in the 4/5 of the county which was revalued but not re-inspected for the 2015-2016 tax year.

**Note 3: Commercial and Industrial Improvements:** Of the 3 outliers listed above, 1 was in the 4/5 of the county which was revalued but not re-inspected for the 2015-2016 tax year and 2 were a result of current cost vs. improvement factor applied in the Industrial area.

### **Procedures, Issues and Recommendations**

**Staffing:** The Assessor's Office has recently been approved to fill the position vacated by the current Assessor upon taking office in 2011. A replacement has been hired thus bringing the staffing level back to a full staff. The office currently has one appraiser and the Assessor who are both certified in real and personal property, one new appraiser who has just started working under a 2 year Temporary Certification until the required tests and training are successfully completed and an Office Manager, who answers the phone, assists the public with general inquiries and conducts DMV transactions.

**Mapping:** The Assessor's Office has contracted under the Douglas County IT program to improve their parcel maps. Some of the maps still reflect hand changes to parcels but those maps that were illegible have been redone and the parcel maps in their entirety have been vastly improved for both the public and office use. The hand changed maps are in the process of being redone electronically.

**Marshall & Swift:** The Assessor's Office began using the Zone 3 Seismic Adjustment during work year 2011 and it was expected to be a full reappraisal cycle (5yrs) before all property in the county reflected the Zone 3 adjustment however because the Assessor's Office was able to convert all real property minor improvements from hand calculations on the Marshall & Swift forms into the computer system, all Marshall & Swifts have been redone and all real property has been classified with Zone 3 ahead of schedule. They are now able to re-cost annually. It was discovered that Climate 2 is not being used on commercial property in all areas with the exception of the Industrial area. The Assessor will consult with ADS to determine how to make it a standard entry so that all property will be corrected when re-costing is done. The Assessor's Office is using the Reno multipliers within the ADS system for Residential properties.

These multipliers are verified correct by the Assessor prior to implementation and have been confirmed correct by the Department.

**Minor Improvements:** Minor improvements are identified by the Assessor's Office and valued from either the Marshall & Swift cost manuals or the Assessor's Handbook of Rural Building Costs. The Assessor has implemented an electronic program for small improvements and depreciation which had already been implemented by many other counties throughout the state. The result will be the elimination of errors caused by hand calculations. All real property has now been entered into this program with the exception of personal property mobile homes which will be completed in the spring of 2015. It was expected to take a full reappraisal cycle (5yrs) to have all properties entered but this project has been completed ahead of schedule. *Physically* inspecting 1/5 of the county each year to capture any non permitted improvements added or removed is best practice and is being done by the Assessor's Office.

**New Construction Valuation:** The Assessor's Office discovers new construction using the county building permits, taxpayer notification and physical inspection. Nearly all new construction is discovered in this manner. New construction that is discovered before the close of the roll in December is included at that time. New construction that is discovered after the close of the roll, but before July 1<sup>st</sup>, is included on the roll log. However, it was found in the sampling of properties that improvements requiring permits were escaping taxation. When investigated by the Assessor it was discovered that the Assessor's Office did not receive notification of the new property through the process in place. It is recommended that the Assessor meet with the Building Department to put enhanced procedures in place that will trigger a notification to the Assessor's Office to ensure new construction does not escape taxation. Property put in place without the need and/or use of a county permit is typically not discovered until physical reappraisal which could be as long as 4 years. It was found that the assessor is correctly valuing and depreciating new improvements once discovered.

**Obsolescence:** The Assessor has applied obsolescence in several areas throughout the county. The Department reviewed a sampling of the properties within the scope of the Ratio Study and found the Assessor's obsolescence factor in most of the areas to be supported. The Assessor's Office has created a procedure of documenting those parcels or areas which are given obsolescence and how much was applied during each given year and is able to produce documentation quantifying those adjustments as directed in the last Ratio Study. Rainbow Bend was the only area that had a differing obsolescence factor than that determined by the Department. It created a few outliers in this area but was not significant enough to be problematic.

**Land:** In order to properly adjust land for various positive or negative characteristics, all adjustments must be supported by market data and documented in the property record. It is directed that the Assessor's Office create a procedure of documenting and quantifying adjustments to the land and updating them periodically to reflect changes to the market that affect the adjustments made to areas and/or characteristic types.



It is recommended that a manual or spreadsheet be maintained of all general adjustments made throughout the county in addition to specific adjustments within individual property records.

The Assessor's Office does not have complete documentation in office to support how values were arrived at in the Industrial area. It is important that all information pertaining to the valuation of and adjustments to land in any contracted area be obtained and maintained each year within the Assessor's Office in the event that the contractor is not able to be reached when the need arises.

The Assessor's Office did not maintain discernible records of how base land values were developed in the past. It is difficult for the Assessor to set values without a useable sales/valuation database and historical information of past sales and values set in the areas of the county where there have been no sales in recent years. The Assessor has established a system of land valuation that documents how values are arrived at for the various market areas as directed by the Department during the last Ratio Study. The Assessor's Office has not yet been able gather what historical information they can find and organize it in such a manner as to enable them to utilize it as a tool for additional support of values arrived at using authorized methods but is optimistic that this will begin to take place soon. This will assist in establishing accurate data for allocation, finding sales and trending patterns, maintaining a historical record of sales and/or values for understanding market area changes as well as use in training new staff to understand the various markets within the county.

The only area in the county that is of concern is Rainbow Bend. Sales prices have steadily increased since the Department last conducted its study but land values have decreased creating a significant disparity between the Department arrived values and the Assessor's Office values. The Assessor feels the land values are correct and that more weight should be applied to the foreclosure sales, many of which were foreclosed on by the HOA, and the sale of the 2 remaining vacant parcels in Rainbow Bend. The Department feels that the large number of non-distressed sales give a much better picture of the market area and while still taking into account the foreclosures, more weight should be applied to the majority of the sales which are not foreclosures. The Assessor will be doing an in depth land and improvement study in this area this year to equalize the disparity between the land values and applied obsolescence and will look at the land values again at that time.

The Assessor will meet with the department to obtain additional training and resources in the use of alternative methods of valuation in order to most accurately develop land values in the future.

It is the intent of the Assessor to conduct a classification verification of all parcels in the Virginia City Highlands and Virginia Ranch area to ensure all land is classified correctly, attributes and impediments are properly identified for adjustments and both are properly documented and taking these items into account, all property is correctly valued. This has not been done since the inception of this area.

**Appraisal Records:** The Assessor's office has made great strides in improving their appraisal records. Hand sketches are being replaced by APEX drawings, all small improvements with the exception of personal property mobile home parcels, which will be completed in the spring, have been converted to computer input sheets.

Marshall & Swift valuations have all be recalculated to remove items depreciated at a different rate than the structure and added to the small improvement sheet thus eliminating the possibility of human error caused by manual depreciation.

The current process for receiving information from the independent contractor responsible for appraising the Industrial area has been in place for many years. The information is currently obtained by contacting contractor by email or phone and can take several days to obtain information should the need arise but can take longer if the contractor can not immediately be reached. With the growing expectation of transparency this process in no longer feasible. It is directed that the Assessor put procedures in place with the contracted appraiser to receive copies of all valuation and support documentation for any improvements, land and adjustments to values set to ensure full compliance with **NAC 361.146**. The Assessor is ultimately responsible for ensuring that the values are complete and correct for all properties in the county. It is important to have all documents available within the office should the need arise to defend a value and the contracted appraiser is not available to produce or defend their work in a timely manner. This will also allow the Assessor to better understand the Industrial area market and values.

**Personal Property:** 17 accounts with 222 records were examined. After adjusting for outliers caused by rounding, there was one valid outlier in the manufactured home accounts. The SRP listed in the database did not match the SRP on the paperwork in the file. The staff was unable to determine where that value originated from as the account is 35 years old and there were no notes in the file. The resulting outlier was 36.13% which is just out of ratio.

APN	L	I	T	ENTITY ID	COMMENTS
01-043-03	34.65%	37.41%	36.42%	COM	Incorrect perimeter calculation Will make correction
01-148-03	34.46%	23.84%	27.06%	SFR	DBL taxed on deck and Detached Garage not valued-- escaping taxation Did not receive permit for garage. Will pick up in spring NC. Deck corrected
02-031-07	35.26%	26.77%	28.39%	SFR	Raised deck valued as std deck, CFW has been replaced with brick pavers, More fencing has been added, Garage/Basement not valued correctly Non permitted work done after last phy. Appr. Will pick up during Spring NC
02-062-73	35.00%	31.79%	32.71%	MFR	Plumbing Fixtures not valued in small house 2nd Res has been in renovation for a while- last time we could see in it was just a shell
03-051-02	34.29%	31.74%	32.04%	SFR	Evap w Ducts not valued Will check during Spring NC
03-131-10	28.00%	n/a	28.10%	VAC	low land value possible result of incorrect land classification We will finish this Spring putting all improvements into the appraisal system. The next big project will be to re-classify the land during the re-appraisal periods. Unless we can get to it sooner
03-161-55	28.00%	n/a	28.00%	VAC	low land value possible result of incorrect land classification We will finish this Spring putting all improvements into the appraisal system. The next big project will be to re-classify the land during the re-appraisal periods. Unless we can get to it sooner
03-281-08	35.06%	28.38%	30.88%	SFR	Shop Addition on Garage not valued- escaping taxation Mark Twain is our 2015 re-appraisal area, and we have not received permits for these. Will reinspect and make corrections
03-281-12	35.30%	26.32%	32.11%	SFR	CLF not valued Mark Twain is our 2015 re-appraisal area, permit not required. Will reinspect and make corrections
03-284-14	35.06%	30.73%	31.14%	SFR	Evap w Ducts, DV Gas FP, Rough-in, Conex Box, Electric gate, SBF, Lattice RPO not valued- escaping taxation Mark Twain is our 2015 re-appraisal area, and we have not received permits for these. Will reinspect and make corrections

APN	L	I	T	ENTITY ID	COMMENTS
03-285-03	35.92%	39.16%	38.39%	SFR	Foundation not valued and Vinyl vs hardboard lap siding <b>Mark Twain is our 2015 re-appraisal area, permit not required. Will reinspect and make corrections</b>
03-361-03	33.25%	31.21%	31.52%	SFR	OBS should be 0 and sq ft difference on 2nd floor <b>Corrected size of res</b>
03-522-22	15.41%	34.61%	28.04%	SFR	Land value way too low, Not enough OBS should be 15% not 10%, Foundation and addl CFW missing but did not create outlier
03-524-01	15.44%	34.94%	27.54%	SFR	Land value way too low, Not enough OBS should be 15% not 10%, Sgl 1st FP and Foundation not valued but did not create outlier
03-532-12	15.44%	34.25%	29.32%	SFR	Land value way too low, Not enough OBS should be 15% not 10%, house need to be age weighted and skirting added but did not create outlier
03-534-13	17.50%	38.70%	30.32%	SFR	Land value way too low, OBS should be 15% not 10% created outlier
03-542-15	15.44%	37.19%	29.85%	SFR	Land value way too low, OBS should be 15% not 10% created outlier
03-544-17	15.44%	34.82%	28.04%	SFR	Land value way too low, Not enough OBS should be 15% not 10%, skirting not valued
03-545-01	15.44%	36.84%	29.29%	SFR	Land value way too low, Not enough OBS should be 15% not 10%, Foundation not value and slight sq ft difference
03-552-13	15.44%	35.80%	28.70%	SFR	Land value way too low, OBS should be 15%
Book 3 Pages 522-552	I do not believe that my land values are too low. I spoke extensively with the original developer of Rainbow Bend Subdivision, which is still the main Realtor with an onsite office at Rainbow Bend. She agreed that how the land is valued today has definately changed from the early years of Rainbow Bend. Originally there were 4 distinct differences in properties, today there are only 3. And she believes as I, that the land has a much lower value overall now than it originally did. She believes that the 2 land sales in 2014 for Rainbow Bend are a good indicator of value for land. She does not believe that they are to low or to high due to them being the last 2 lots available.				
04-121-37	32.48%	21.79%	27.02%	MFR	Property improvements valued as an RV Park not a MH Park and addl paving and fencing not valued <b>Lockwood is our 2015 re-appraisal area Will make corrections</b>
05-071-38	33.76%	38.68%	37.18%	COM	Current Cost vs Improvement Factor
05-131-04	34.79%	31.47%	31.96%	COM	Current Cost vs Improvement Factor