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In the Matter of:
Carson City
Churchill County
Elko County
Lander County
Pershing County
White Pine County

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2011-2012 Ratio Study

NOTICE OF DECISION

Appearances

Terry Rubald, Chief, Division of Assessment Standards, and Bruce Bartolowits, Supervisor of the Locally Assessed Section, appeared on behalf of the Department of Taxation.

Dave Dawley, Carson City Assessor, Norma Green, Churchill County Assessor, Celeste Hamilton, Pershing County Assessor, and Robert Bishop, White Pine County Assessor, appeared for their respective counties. Lura Duvall, Lander County Assessor, and Katrinka Russell, Elko County Assessor, made no appearance as required by NRS 361.333(4)(a) and (b).

Summary

The matter of the approval of the 2011-2012 Ratio Study came before the Nevada Tax Commission (Commission) for hearing in Reno and via video conference to Las Vegas, Nevada, on May 16, 2011 after due notice to each Assessor. The Commission reviewed the ratio study and the report of the Department. With regard to the work practices of each county assessor, the Department concluded each assessor has adequate procedures in place to ensure that all property subject to taxation is being assessed in a correct and timely manner. Using statistical tests designed for mass appraisal, all types of property fell within the range required by NRS 361.333.

DECISION

The Commission, having considered all evidence and testimony pertaining to the matter, hereby approves the 2011-2012 Ratio Study as reported by the Department and finds no further action is required pursuant to the authority granted in NRS 361.333.

BY THE NEVADA TAX COMMISSION THIS 26 DAY OF MAY, 2011.

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Christopher G. Nielsen, Interim, Executive Director

cc: County Assessors
Gina Session, Chief Deputy Attorney General



DEPARTMENT OF TAXATION

Division of Assessment Standards

2011-2012 Report of Assessment Ratio Study

DIVISION OF ASSESSMENT STANDARDS

2011-2012 Report of Assessment Ratio Study

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Adopted by the Nevada Tax Commission
May 16, 2011

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2011-12 Report on Ratio Study

Authority, Oversight, and Reporting

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.”¹

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.”² 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.³

¹ 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.”

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

³ Ibid.

Typically, mass appraisal techniques using valuation models for groups and classes of property are used by county assessors to determine taxable value.⁴ Mass appraisal techniques are also assumed to be used by assessors in NRS 361.260(5), which requires the application of land factors to groups of property using statistical analysis.

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 2011-2012 are Carson City, Churchill, Elko, Lander, Pershing, and White Pine Counties.

If inequity or bias is discovered, NRS 361.333 provides the Nevada Tax Commission the authority to apply factors designed to correct inequitable conditions to classes of property or it may order reappraisal, the goal of which is to 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 made equal.

Ratio Study Design Parameters and Standards for Analysis

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 NRS 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 NRS 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

⁴ NRS 361.227(1) defines taxable value as the full cash value of land plus the replacement cost new less statutory depreciation of the improvements.

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.⁵ 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.

⁵ International Association of Assessing Officers, Standard on Ratio Studies, (2007), p.12; 27.

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."⁶ 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 regulation LCB File No. R039-10. The regulation adopted the Standard on Automated Valuation Models, September 2003 edition published by the International Association of Assessing Officers. The Standard on Automated Valuation Models, Section 8.4.2.1, discusses the coefficient of dispersion and Table 2 references Ratio Study Performance Standards with regard to the COD. The IAAO Standard on Ratio Studies states that "the smaller the measure, the better the uniformity, but extremely low measures can signal acceptable causes such as extremely homogeneous properties or very stable markets; or unacceptable causes such as lack of quality control, calculation errors, poor sample representativeness or sales chasing. Note that as market activity changes or as the complexity of properties increases, the measures of variability usually increase, even though appraisal procedures may be equally valid."⁷ The IAAO recommended ratio study performance standards are as follows:

<u>Type of Property</u>	<u>COD</u>
Single-family Residential	
Newer, more homogenous areas	10.0 or less
Older, heterogeneous areas	15.0 or less
Rural residential and seasonal	20.0 or less
Income-producing properties	
Larger, urban jurisdictions	15.0 or less
Smaller, rural jurisdictions	20.0 or less
Vacant land	20.0 or less
Other real and personal property	Varies with local conditions ⁸

⁶ International Association of Assessing Officers, Standard on Ratio Studies, (2007), p. 13.

⁷ International Association of Assessing Officers, Standard on Ratio Studies, (2007), p. 13.

⁸ International Association of Assessing Officers, Standard on Ratio Studies, (2007), p. 17; and Standard on Automated Valuation Models (2003), p. 25 and p. 28.

Ratio Study Conclusions

The 2011-2012 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). See *pages 10-12*. These charts show the aggregate and median ratios and the coefficient of dispersion for the past three study years (2008-2010) across all counties for all properties.

Similar data is shown just for the counties in the 2011 study year beginning at page 14. Here the aggregate and median ratios, the COD, and the median related differential (MRD) are compared across types of property in the six counties. Beginning at page 16, 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 on page 13 is a statistic that tends to indicate regressivity when it is above 1.03 and progressivity when it is below .98. It is an indication of whether high-value properties are appraised higher or lower than low-value properties. The standard is not an absolute when samples are small or when wide variations in prices exist. In that case, other statistical tests may be more useful. This particular test is not required by statute.

The chart on page 13 indicates that of the six counties studied in 2011-2012, regressivity is present for single family, commercial, and rural improvements in White Pine County, and improved land; regressivity for improved and vacant land in Lander County; regressivity for multi-family improvements in Elko County; regressivity for commercial improvements in Carson City; and progressivity is present in Pershing County for commercial improvements. Other counties where progressivity or regressivity occurred in prior years are also listed.

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 commercial improvements in Churchill County, vacant and improved land and multi-family improvements in Lander County, commercial improvements in Carson City, multi-Family improvements in Elko County, and single family, commercial, and rural improvements in White Pine County. A contributing factor to the White Pine County improvements being out of acceptable range was the Tax Commission decision to not accept the recommendation of the Department for the 2010-2011 Improvement Factor.

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, except for commercial improvements in Churchill County, multi-family improvements in Lander County, and rural improvements in White Pine County. (See page 11). 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 Reviews and Performance Audits

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 is conducting Performance Audits and will be conducting Performance Audits in the future to build on the past Procedural Audits / Office Reviews for this determination.

Background

Beginning with the 2007-2008 Report on Assessment Ratio Study four years ago, the Department began a more comprehensive "Procedural Audit" process, also known as an "Office Review" process. In conducting the Procedural Audits / Office Reviews each year, Department staff traveled to the offices of county assessors to review the procedures used to discover, value, and assess all real and personal property within the jurisdiction of the County Assessor. The Department reviewed the resources of the office; reviewed a sample of property files; and interviewed assessors and their staffs. The Procedural Audits / Office Reviews consisted of observations about departures from required or accepted appraisal practices, recommendations to consider for improvement to work practices and procedures, and identification of best practices, defined as practices which efficiently and effectively capture taxable value keeping in mind the limitations of statutes and regulations.

The Procedural Audits / Office Reviews provided a "baseline" of performance over a broad range of topics and resulted in county assessors making adjustments in their operations to improve performance. The Performance Audit Program will narrow the focus of examinations to allow a

more detailed analysis of a particular topic. The Performance Audit Process is described in more detail below under the heading "Performance Audit Program."

This ratio study and future ratio studies will not contain new Procedural Audits / Office Reviews for each county included in the ratio study. Instead, the ratio study will report the current status of prior recommendations for all counties. This will essentially be an update or annual report of the baseline data together with an update or annual report on the Performance Audit Program.

Implementation Status of Procedural Audits / Office Reviews

The following sections report on the results of Procedural Audits / Office Reviews previously conducted and the current status of implementation.

Recommendations

The 2007-2008, 2008-2009, and 2009-2010 Reports of Assessment Ratio Study noted 165 recommendations designed to help each office improve performance. A recommendation does not imply a lack of adequate procedures but provides feedback to assessors for improvement.

The Department will continue to monitor the performance of each county for those recommendations categorized as "Partially Implemented" or "No Action". There will be no enforcement action on these items because they are neither statutory violations nor areas that indicate significant procedural concerns. Recommendations categorized as "Fully Implemented" or "No longer applicable" will be removed from monitoring lists.

Procedural Audit and Office Review Topics: Follow-up

During the "baseline" period (FY07-08, FY08-09, and FY 09-10), the Department determined (pursuant to NRS 361.333 (1)(b)(2)) that in each county, except Mineral County, "the assessor has adequate procedures in place to ensure that all property subject to taxation is being assessed in a correct and timely manner." Even if a particular county met minimum statutory requirements, the Department noted areas for potential performance improvement.

The following table lists the outstanding recommendations that remain on the list.

Topic	Counties with outstanding recommendations
1. <u>Data collection, including geographic and property characteristic data</u>	The Department noted that Nye County has failed to implement a comprehensive building permit system (particularly in northern Nye County), which hinders discovery, appropriate classification of land, and proper taxation in the county. The majority of counties reported that most businesses are reluctant to supply income data, particularly rents.

	Therefore, the majority of counties do not routinely collect this information.
2. <u>Verification of land sales, including sales transaction data, verification procedures, and sold property data</u>	None
3. <u>Stratification</u>	None
4. <u>Analysis of land sales, including alternative methods of land valuation and subdivision discounts</u>	Mineral County has not implemented a formal process to analyze eligibility for subdivision discounts.
5. <u>Cost approach</u>	None
6. <u>Valuation and assessment of agricultural property</u>	None
7. <u>Valuation and assessment of personal property</u>	None
8. <u>Assessment administration, including status of reference material, timely reporting to the state, certification and training of staff, defense of appealed property, appraisal cycle, and billing and collection procedures</u>	Mineral and White Pine Counties do not maintain assessor data on websites. Lincoln County has limited information available online. These County Assessors reported that funding for such projects is limited.

Performance Audit Program

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 topic selected for a performance audit was Land Valuation procedures in each of the 17 counties. This performance audit is nearing completion. The status of Performance Audits undertaken will be summarized annually in future Reports on Assessment Ratio Study. Please call the Department at 775-684-2100 if you would like a complete copy of the Performance Audit Program Definition. This document can also be downloaded from the Taxation website at <http://tax.state.nv.us> .

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 2010-2011 tax year are also available on the Taxation website at <http://tax.state.nv.us> .

2011-2012 Ratio Study Statistical Tables

NEVADA DEPARTMENT OF TAXATION
2011-2012 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	2011	32.9	31.5	34.3	34.9	33.6	33.3	31.1	34.9
CHURCHILL	2011	34.1	34.0	34.4	33.8	33.3	33.5	36.3	35.0
CLARK	2009	32.6	31.3	34.5	34.7	34.7	29.9	33.5	34.9
DOUGLAS	2010	34.1	34.3	33.8	34.6	34.5	33.7	34.3	35.0
ELKO	2011	33.1	33.0	33.5	33.6	33.0	31.8	33.6	34.8
ESMERALDA	2009	35.8	37.2	34.3	33.1	34.5	33.5	38.7	34.7
EUREKA	2009	34.5	34.7	34.2	30.9	34.6	34.2	34.7	35.0
HUMBOLDT	2010	34.1	34.3	34.6	34.3	33.3	32.9	35.0	35.1
LANDER	2011	33.3	34.5	30.6	29.0	33.9	30.0	33.8	34.7
LINCOLN	2009	33.2	32.9	34.4	33.9	33.5	30.7	33.4	35.0
LYON	2010	32.3	32.1	32.9	31.2	31.2	31.4	33.1	35.0
MINERAL	2009	34.2	32.4	38.8	37.3	35.1	38.5	32.4	28.7
NYE	2010	31.9	33.1	30.2	33.2	34.8	31.0	31.3	35.0
PERSHING	2011	34.3	34.2	34.4	34.8	34.1	34.1	34.5	35.1
STOREY	2009	34.9	35.4	33.8	34.8	34.7	36.3	34.9	35.0
WASHOE	2010	33.9	34.0	33.8	33.9	34.5	34.0	33.7	35.0
WHITE PINE	2011	29.5	28.6	32.1	33.6	30.9	33.4	24.6	30.3
STATEWIDE	2011	33.0	32.3	34.0	34.4	34.0	31.2	33.4	32.6

NEVADA DEPARTMENT OF TAXATION
2011-2012 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	2011	34.1	33.4	34.7	35.0	34.0	33.7	33.6	34.9
CHURCHILL	2011	34.5	34.6	34.5	34.4	34.2	33.8	36.3	35.0
CLARK	2009	34.6	34.3	35.0	35.0	34.8	34.0	34.3	35.0
DOUGLAS	2010	34.8	35.0	34.4	35.0	34.9	34.3	34.7	35.0
ELKO	2011	33.3	33.1	34.0	34.0	33.0	32.9	34.0	35.0
ESMERALDA	2009	34.0	34.0	34.1	34.3	33.8	33.9	34.5	35.0
EUREKA	2009	34.7	35.0	34.5	34.4	34.6	34.8	34.9	35.0
HUMBOLDT	2010	34.3	34.1	34.7	34.3	34.3	33.8	33.6	35.0
LANDER	2011	33.3	34.2	34.1	32.1	34.0	29.3	33.3	35.0
LINCOLN	2009	34.6	33.5	34.8	35.0	34.0	32.0	33.6	35.0
LYON	2010	33.2	33.8	33.3	33.3	33.2	33.1	33.1	35.0
MINERAL	2009	35.6	34.2	43.7	35.6	36.3	37.0	34.9	34.9
NYE	2010	34.2	34.7	34.0	34.1	34.5	34.0	33.6	35.0
PERSHING	2011	34.9	33.9	34.8	35.0	33.8	33.4	33.6	35.0
STOREY	2009	34.9	35.0	34.1	35.0	34.8	35.0	33.8	35.0
WASHOE	2010	34.3	34.2	34.6	34.2	34.4	34.1	33.6	34.9
WHITE PINE	2011	32.9	32.5	33.5	34.0	32.2	33.5	32.2	31.8
STATEWIDE	2011	34.5	34.2	34.7	34.6	34.3	33.8	34.0	35.0

NEVADA DEPARTMENT OF TAXATION
2011-2012 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	2011	3.2	4.2	3.3	2.8	2.6	2.7	5.3	0.3
CHURCHILL	2011	4.1	5.5	2.7	5.4	3.7	2.2	3.5	0.1
CLARK	2009	3.1	6.2	1.3	1.5	2.0	4.5	5.0	0.5
DOUGLAS	2010	2.3	2.5	2.9	2.3	2.5	2.2	2.2	0.4
ELKO	2011	3.6	4.4	5.4	2.8	3.2	3.0	4.6	0.6
ESMERALDA	2009	13.2	22.9	2.9	12.2	18.6	2.3	17.2	0.3
EUREKA	2009	4.2	5.6	3.4	5.1	2.9	2.5	8.2	0.9
HUMBOLDT	2010	6.7	8.3	7.0	2.4	2.8	6.1	16.5	1.1
LANDER	2011	11.8	5.6	15.5	20.9	4.8	8.9	7.1	2.0
LINCOLN	2009	11.1	20.8	3.5	5.3	12.1	21.0	14.0	0.1
LYON	2010	8.4	10.6	9.7	9.5	9.5	8.3	7.1	0.0
MINERAL	2009	22.9	13.6	45.9	39.7	14.4	14.2	17.4	15.3
NYE	2010	10.4	4.5	22.2	7.0	6.4	13.1	16.7	0.1
PERSHING	2011	3.0	4.8	2.2	1.9	3.7	4.5	2.5	0.3
STOREY	2009	3.5	7.7	3.1	2.3	3.0	11.1	4.6	0.1
WASHOE	2010	3.1	4.2	3.9	3.3	1.6	3.2	4.5	0.2
WHITE PINE	2011	6.7	9.5	4.9	2.1	5.5	4.1	11.7	20.4
STATEWIDE	2011	6.0	8.2	8.2	7.4	5.7	6.7	9.0	2.6

NEVADA DEPARTMENT OF TAXATION
2011-2012 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	2011	1.03	1.06	1.01	1.00	1.01	1.01	1.08	1.00
CHURCHILL	2011	1.01	1.02	1.00	1.02	1.03	1.01	1.00	1.00
CLARK	2009	1.06	1.09	1.02	1.01	1.00	1.13	1.03	1.00
DOUGLAS	2010	1.02	1.02	1.02	1.01	1.01	1.02	1.01	1.00
ELKO	2011	1.01	1.00	1.01	1.01	1.00	1.04	1.01	1.01
ESMERALDA	2009	0.95	0.91	0.99	1.04	0.98	1.01	0.89	1.01
EUREKA	2009	1.01	1.01	1.01	1.11	1.00	1.02	1.01	1.00
HUMBOLDT	2010	1.00	1.00	1.00	1.00	1.03	1.03	0.96	1.00
LANDER	2011	1.00	0.99	1.11	1.11	1.00	0.98	0.98	1.01
LINCOLN	2009	1.04	1.02	1.01	1.03	1.01	1.04	1.01	1.00
LYON	2010	1.03	1.05	1.01	1.07	1.06	1.06	1.00	1.00
MINERAL	2009	1.04	1.05	1.12	0.96	1.03	0.96	1.08	1.22
NYE	2010	1.07	1.05	1.13	1.03	0.99	1.10	1.07	1.00
PERSHING	2011	1.02	0.99	1.01	1.00	0.99	0.98	0.97	1.00
STOREY	2009	1.00	0.99	1.01	1.00	1.00	0.97	0.97	1.00
WASHOE	2010	1.01	1.00	1.02	1.01	1.00	1.00	1.00	1.00
WHITE PINE	2011	1.11	1.14	1.04	1.01	1.04	1.00	1.31	1.05
STATEWIDE	2011	1.04	1.06	1.02	1.01	1.01	1.08	1.02	1.07

NEVADA DEPARTMENT OF TAXATION

2011-2012 RATIO STUDY

ALL APPRAISAL AREAS

OVERALL (AGGREGATE) RATIO

Subject County	All Property
CARSON CITY	32.9
CHURCHILL	34.1
ELKO	33.1
LANDER	33.3
PERSHING	34.3
WHITE PINE	29.5
ALL COUNTIES	32.8

Class of Property						
Improvements	Improved Land	Vacant Land	Single Family Residence	Multi-Family Residence	Commercial Industrial	Rural Land & Improvements
31.5	34.3	34.9	33.6	33.3	31.1	34.9
34.0	34.4	33.8	33.3	33.5	36.3	35.0
33.0	33.5	33.6	33.0	31.8	33.6	34.8
34.5	30.6	29.0	33.9	30.0	33.8	34.7
34.2	34.4	34.8	34.1	34.1	34.5	35.1
28.6	32.1	33.6	30.9	33.4	24.6	30.3
32.2	33.8	34.4	33.3	33.1	31.7	31.9

MEDIAN RATIO

Subject County	All Property
CARSON CITY	34.1
CHURCHILL	34.5
ELKO	33.3
LANDER	33.3
PERSHING	34.9
WHITE PINE	32.9
ALL COUNTIES	33.8

Class of Property						
Improvements	Improved Land	Vacant Land	Single Family Residence	Multi-Family Residence	Commercial Industrial	Rural Land & Improvements
33.4	34.7	35.0	34.0	33.7	33.6	34.9
34.6	34.5	34.4	34.2	33.8	36.3	35.0
33.1	34.0	34.0	33.0	32.9	34.0	35.0
34.2	34.1	32.1	34.0	29.3	33.3	35.0
33.9	34.8	35.0	33.8	33.4	33.6	35.0
32.5	33.5	34.0	32.2	33.5	32.2	31.8
33.5	34.1	34.5	33.6	33.2	33.7	35.0

**NEVADA DEPARTMENT OF TAXATION
2011-2012 RATIO STUDY
ALL APPRAISAL AREAS
COEFFICIENT OF DISPERSION (COD)**

Subject County	All Property
CARSON CITY	3.2
CHURCHILL	4.1
ELKO	3.6
LANDER	11.8
PERSHING	3.0
WHITE PINE	6.7
ALL COUNTIES	5.4

Class of Property							
Improvements	Improved Land	Vacant Land	Single Family Residence	Multi-Family Residence	Commercial Industrial	Rural Land & Improvements	
4.2	3.3	2.8	2.6	2.7	5.3	0.3	
5.5	2.7	5.4	3.7	2.2	3.5	0.1	
4.4	5.4	2.8	3.2	3.0	4.6	0.6	
5.6	15.5	20.9	4.8	8.9	7.1	2.0	
4.8	2.2	1.9	3.7	4.5	2.5	0.3	
9.5	4.9	2.1	5.5	4.1	11.7	20.4	
6.2	5.3	6.2	4.3	4.2	6.8	3.4	

MEDIAN RELATED DIFFERENTIAL

Subject County	All Property
CARSON CITY	1.03
CHURCHILL	1.01
ELKO	1.01
LANDER	1.00
PERSHING	1.02
WHITE PINE	1.11
ALL COUNTIES	1.03

Class of Property							
Improvements	Improved Land	Vacant Land	Single Family Residence	Multi-Family Residence	Commercial Industrial	Rural Land & Improvements	
1.06	1.01	1.00	1.01	1.01	1.08	1.00	
1.02	1.00	1.02	1.03	1.01	1.00	1.00	
1.00	1.01	1.01	1.00	1.04	1.01	1.01	
0.99	1.11	1.11	1.00	0.98	0.98	1.01	
0.99	1.01	1.00	0.99	0.98	0.97	1.00	
1.14	1.04	1.01	1.04	1.00	1.31	1.05	
1.04	1.01	1.00	1.01	1.01	1.06	1.10	

CARSON CITY
2011-2012 RATIO STUDY

ALL APPRAISAL AREAS

REAL PROPERTY	AGGREGATE RATIO	MEDIAN RATIO	COD MEDIAN	SAMPLE SIZE
COUNTYWIDE TOTAL PROPERTY	32.9%	34.1%	3.2%	131
COUNTYWIDE IMPROVEMENTS	31.5%	33.4%	4.2%	90
COUNTYWIDE IMPROVED LAND	34.3%	34.7%	3.3%	96
COUNTYWIDE VACANT LAND	34.9%	35.0%	2.8%	35
SINGLE FAMILY IMPROVEMENTS	33.1%	33.4%	3.0%	59
SINGLE FAMILY LAND	34.5%	35.0%	3.3%	59
SINGLE FAMILY TOTAL PROPERTY	33.6%	34.0%	2.6%	59
MULTIPLE FAMILY IMPROVEMENTS	33.4%	33.4%	4.9%	15
MULTIPLE FAMILY LAND	33.2%	33.6%	3.7%	15
MULTIPLE FAMILY TOTAL PROPERTY	33.3%	33.7%	2.7%	15
COMMERCIAL/INDUSTRIAL IMPROVEMENTS	29.4%	33.3%	8.2%	15
COMMERCIAL/INDUSTRIAL LAND	34.3%	34.1%	2.9%	15
COMMERCIAL/INDUSTRIAL TOTAL PROPERTY	31.1%	33.6%	5.3%	15
RURAL IMPROVEMENTS	n/a	n/a	n/a	-
RURAL LAND	34.9%	34.9%	0.3%	7
RURAL TOTAL PROPERTY	34.9%	34.9%	0.3%	7
SECURED PERSONAL PROPERTY				
ALL SECURED	34.9%	35.0%	0.2%	11
AIRCRAFT	n/a	n/a	n/a	-
AGRICULTURAL	34.8%	34.8%	0.0%	1
BILLBOARDS	n/a	n/a	n/a	-
COMMERCIAL/INDUSTRIAL	34.9%	35.0%	0.3%	4
MOBILE HOMES	35.0%	35.0%	0.0%	6
UNSECURED PERSONAL PROPERTY				
ALL UNSECURED	34.7%	35.0%	0.4%	18
AIRCRAFT	33.6%	35.0%	1.3%	6
AGRICULTURAL	n/a	n/a	n/a	-
BILLBOARDS	35.0%	35.0%	0.0%	3
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	0.1%	3
MOBILE HOMES	35.0%	35.0%	0.0%	6
TOTAL PERSONAL PROPERTY	34.8%	35.0%	0.4%	29

CHURCHILL COUNTY 2011-2012 RATIO STUDY

ALL APPRAISAL AREAS

REAL PROPERTY	AGGREGATE RATIO	MEDIAN RATIO	COD MEDIAN	SAMPLE SIZE
COUNTYWIDE TOTAL PROPERTY	34.1%	34.5%	4.1%	128
COUNTYWIDE IMPROVEMENTS	34.0%	34.6%	5.5%	85
COUNTYWIDE IMPROVED LAND	34.4%	34.5%	2.7%	95
COUNTYWIDE VACANT LAND	33.8%	34.4%	5.4%	33
SINGLE FAMILY IMPROVEMENTS	33.1%	34.5%	5.1%	63
SINGLE FAMILY LAND	34.1%	34.1%	2.8%	63
SINGLE FAMILY TOTAL PROPERTY	33.3%	34.2%	3.7%	63
MULTIPLE FAMILY IMPROVEMENTS	33.2%	33.7%	3.2%	11
MULTIPLE FAMILY LAND	34.6%	35.0%	2.3%	11
MULTIPLE FAMILY TOTAL PROPERTY	33.5%	33.8%	2.2%	11
COMMERCIAL/INDUSTRIAL IMPROVEMENTS	38.0%	38.1%	4.3%	11
COMMERCIAL/INDUSTRIAL LAND	34.7%	34.3%	2.6%	11
COMMERCIAL/INDUSTRIAL TOTAL PROPERTY	36.3%	36.3%	3.5%	11
RURAL IMPROVEMENTS	n/a	n/a	n/a	-
RURAL LAND	35.0%	35.0%	0.1%	10
RURAL TOTAL PROPERTY	35.0%	35.0%	0.1%	10
SECURED PERSONAL PROPERTY				
ALL SECURED	34.6%	35.0%	1.3%	12
AIRCRAFT	n/a	n/a	n/a	-
AGRICULTURAL	34.2%	35.0%	5.0%	3
BILLBOARDS	n/a	n/a	n/a	-
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	0.0%	3
MOBILE HOMES	35.0%	35.0%	0.0%	6
UNSECURED PERSONAL PROPERTY				
ALL UNSECURED	35.0%	35.0%	0.1%	19
AIRCRAFT	35.0%	35.0%	0.0%	6
AGRICULTURAL	35.0%	35.0%	0.0%	3
BILLBOARDS	35.0%	35.0%	0.0%	1
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	0.2%	3
MOBILE HOMES	35.0%	35.0%	0.0%	6
TOTAL PERSONAL PROPERTY	34.9%	35.0%	0.5%	31

**ELKO COUNTY
2011-2012 RATIO STUDY**

ALL APPRAISAL AREAS

REAL PROPERTY	AGGREGATE RATIO	MEDIAN RATIO	COD MEDIAN	SAMPLE SIZE
COUNTYWIDE TOTAL PROPERTY	33.1%	33.3%	3.6%	132
COUNTYWIDE IMPROVEMENTS	33.0%	33.1%	4.4%	90
COUNTYWIDE IMPROVED LAND	33.5%	34.0%	5.4%	97
COUNTYWIDE VACANT LAND	33.6%	34.0%	2.8%	35
SINGLE FAMILY IMPROVEMENTS	32.8%	32.8%	4.2%	55
SINGLE FAMILY LAND	33.7%	33.9%	4.2%	55
SINGLE FAMILY TOTAL PROPERTY	33.0%	33.0%	3.2%	55
MULTIPLE FAMILY IMPROVEMENTS	32.4%	32.4%	2.2%	13
MULTIPLE FAMILY LAND	29.6%	33.8%	8.0%	13
MULTIPLE FAMILY TOTAL PROPERTY	31.8%	32.9%	3.0%	13
COMMERCIAL/INDUSTRIAL IMPROVEMENTS	33.5%	34.1%	5.5%	20
COMMERCIAL/INDUSTRIAL LAND	34.4%	34.4%	7.9%	20
COMMERCIAL/INDUSTRIAL TOTAL PROPERTY	33.6%	34.0%	4.6%	20
RURAL IMPROVEMENTS	33.5%	33.5%	0.0%	1
RURAL LAND	35.0%	35.0%	0.1%	9
RURAL TOTAL PROPERTY	34.8%	35.0%	0.6%	9
SECURED PERSONAL PROPERTY				
ALL SECURED	28.8%	35.2%	10.3%	6
AIRCRAFT	n/a	n/a	n/a	-
AGRICULTURAL	28.3%	35.0%	19.0%	3
BILLBOARDS	n/a	n/a	n/a	-
COMMERCIAL/INDUSTRIAL	35.4%	35.4%	1.4%	3
MOBILE HOMES	n/a	n/a	n/a	-
UNSECURED PERSONAL PROPERTY				
ALL UNSECURED	34.9%	35.0%	0.7%	23
AIRCRAFT	34.3%	35.0%	2.5%	6
AGRICULTURAL	n/a	n/a	n/a	-
BILLBOARDS	35.0%	35.0%	0.0%	2
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	0.0%	3
MOBILE HOMES	35.0%	35.0%	0.0%	12
TOTAL PERSONAL PROPERTY	32.1%	35.0%	2.7%	29

**LANDER COUNTY
2011-2012 RATIO STUDY**

ALL APPRAISAL AREAS

REAL PROPERTY	AGGREGATE RATIO	MEDIAN RATIO	COD MEDIAN	SAMPLE SIZE
COUNTYWIDE TOTAL PROPERTY	33.3%	33.3%	11.8%	83
COUNTYWIDE IMPROVEMENTS	34.5%	34.2%	5.6%	53
COUNTYWIDE IMPROVED LAND	30.6%	34.1%	15.5%	51
COUNTYWIDE VACANT LAND	29.0%	32.1%	20.9%	32
SINGLE FAMILY IMPROVEMENTS	34.7%	34.5%	3.2%	31
SINGLE FAMILY LAND	30.0%	34.1%	15.2%	31
SINGLE FAMILY TOTAL PROPERTY	33.9%	34.0%	4.8%	31
MULTIPLE FAMILY IMPROVEMENTS	34.1%	34.0%	5.8%	7
MULTIPLE FAMILY LAND	21.4%	25.1%	31.4%	7
MULTIPLE FAMILY TOTAL PROPERTY	30.0%	29.3%	8.9%	7
COMMERCIAL/INDUSTRIAL IMPROVEMENTS	34.2%	33.7%	8.9%	6
COMMERCIAL/INDUSTRIAL LAND	32.9%	34.4%	13.4%	7
COMMERCIAL/INDUSTRIAL TOTAL PROPERTY	33.8%	33.3%	7.1%	7
RURAL IMPROVEMENTS	33.9%	33.9%	2.6%	3
RURAL LAND	34.8%	35.0%	1.6%	6
RURAL TOTAL PROPERTY	34.7%	35.0%	2.0%	6
SECURED PERSONAL PROPERTY				
ALL SECURED	35.2%	35.0%	0.7%	12
AIRCRAFT	n/a	n/a	n/a	-
AGRICULTURAL	35.0%	35.0%	0.1%	3
BILLBOARDS	n/a	n/a	n/a	-
COMMERCIAL/INDUSTRIAL	34.9%	35.0%	0.3%	3
MOBILE HOMES	35.4%	35.4%	0.3%	6
UNSECURED PERSONAL PROPERTY				
ALL UNSECURED	28.4%	35.0%	5.1%	21
AIRCRAFT	35.0%	35.0%	0.0%	6
AGRICULTURAL	34.6%	34.6%	0.6%	3
BILLBOARDS	14.8%	35.0%	20.2%	3
COMMERCIAL/INDUSTRIAL	27.8%	35.2%	13.5%	3
MOBILE HOMES	34.5%	35.0%	0.4%	6
TOTAL PERSONAL PROPERTY	29.0%	35.0%	3.5%	33

**PERSHING COUNTY
2011-2012 RATIO STUDY**

ALL APPRAISAL AREAS

REAL PROPERTY	AGGREGATE RATIO	MEDIAN RATIO	COD MEDIAN	SAMPLE SIZE
COUNTYWIDE TOTAL PROPERTY	34.3%	34.9%	3.0%	81
COUNTYWIDE IMPROVEMENTS	34.2%	33.9%	4.8%	40
COUNTYWIDE IMPROVED LAND	34.4%	34.8%	2.2%	50
COUNTYWIDE VACANT LAND	34.8%	35.0%	1.9%	31
SINGLE FAMILY IMPROVEMENTS	34.0%	33.9%	4.8%	25
SINGLE FAMILY LAND	34.5%	34.7%	2.1%	25
SINGLE FAMILY TOTAL PROPERTY	34.1%	33.8%	3.7%	25
MULTIPLE FAMILY IMPROVEMENTS	34.1%	32.9%	6.5%	7
MULTIPLE FAMILY LAND	34.2%	34.4%	1.8%	7
MULTIPLE FAMILY TOTAL PROPERTY	34.1%	33.4%	4.5%	7
COMMERCIAL/INDUSTRIAL IMPROVEMENTS	34.9%	34.2%	2.9%	7
COMMERCIAL/INDUSTRIAL LAND	33.6%	33.3%	3.0%	7
COMMERCIAL/INDUSTRIAL TOTAL PROPERTY	34.5%	33.6%	2.5%	7
RURAL IMPROVEMENTS	32.9%	32.9%	0.0%	1
RURAL LAND	35.2%	35.0%	0.3%	11
RURAL TOTAL PROPERTY	35.1%	35.0%	0.3%	11
SECURED PERSONAL PROPERTY				
ALL SECURED	35.1%	35.0%	0.2%	12
AIRCRAFT	n/a	n/a	n/a	-
AGRICULTURAL	35.1%	35.0%	0.4%	3
BILLBOARDS	n/a	n/a	n/a	-
COMMERCIAL/INDUSTRIAL	34.9%	35.0%	0.6%	3
MOBILE HOMES	35.0%	35.0%	0.0%	6
UNSECURED PERSONAL PROPERTY				
ALL UNSECURED	34.8%	35.0%	1.9%	21
AIRCRAFT	33.8%	33.1%	4.6%	6
AGRICULTURAL	35.0%	35.0%	0.0%	3
BILLBOARDS	35.0%	35.0%	0.0%	3
COMMERCIAL/INDUSTRIAL	35.0%	35.1%	0.1%	3
MOBILE HOMES	35.0%	35.0%	0.0%	6
TOTAL PERSONAL PROPERTY	34.9%	35.0%	1.3%	33

**WHITE PINE COUNTY
2011-2012 RATIO STUDY**

ALL APPRAISAL AREAS

REAL PROPERTY	AGGREGATE RATIO	MEDIAN RATIO	COD MEDIAN	SAMPLE SIZE
COUNTYWIDE TOTAL PROPERTY	29.5%	32.9%	6.7%	120
COUNTYWIDE IMPROVEMENTS	28.6%	32.5%	9.5%	98
COUNTYWIDE IMPROVED LAND	32.1%	33.5%	4.9%	89
COUNTYWIDE VACANT LAND	33.6%	34.0%	2.1%	31
SINGLE FAMILY IMPROVEMENTS	30.6%	32.1%	7.2%	51
SINGLE FAMILY LAND	32.4%	33.2%	3.7%	51
SINGLE FAMILY TOTAL PROPERTY	30.9%	32.2%	5.5%	51
MULTIPLE FAMILY IMPROVEMENTS	33.5%	33.3%	9.1%	15
MULTIPLE FAMILY LAND	33.0%	32.8%	1.7%	15
MULTIPLE FAMILY TOTAL PROPERTY	33.4%	33.5%	4.1%	15
COMMERCIAL/INDUSTRIAL IMPROVEMENTS	23.8%	32.2%	12.3%	16
COMMERCIAL/INDUSTRIAL LAND	30.8%	33.7%	5.1%	16
COMMERCIAL/INDUSTRIAL TOTAL PROPERTY	24.6%	32.2%	11.7%	16
RURAL IMPROVEMENTS	30.0%	30.9%	21.1%	7
RURAL LAND	32.1%	34.9%	15.0%	7
RURAL TOTAL PROPERTY	30.3%	31.8%	20.4%	7
SECURED PERSONAL PROPERTY				
ALL SECURED	35.0%	35.0%	0.1%	12
AIRCRAFT	n/a	n/a	n/a	-
AGRICULTURAL	35.0%	35.0%	0.1%	3
BILLBOARDS	n/a	n/a	n/a	-
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	0.1%	3
MOBILE HOMES	35.0%	35.0%	0.0%	6
UNSECURED PERSONAL PROPERTY				
ALL UNSECURED	35.1%	35.0%	4.5%	19
AIRCRAFT	35.0%	35.0%	0.0%	6
AGRICULTURAL	35.0%	35.0%	0.1%	3
BILLBOARDS	35.0%	35.0%	0.0%	1
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	2.4%	3
MOBILE HOMES	36.3%	35.0%	12.8%	6
TOTAL PERSONAL PROPERTY	35.0%	35.0%	2.8%	31

**ALL COUNTIES INCLUDED IN
2011-2012 RATIO STUDY**

ALL APPRAISAL AREAS

REAL PROPERTY	AGGREGATE RATIO	MEDIAN RATIO	COD MEDIAN	SAMPLE SIZE
ALL COUNTIES TOTAL PROPERTY	32.8%	33.8%	5.4%	675
ALL COUNTIES IMPROVEMENTS	32.2%	33.5%	6.2%	456
ALL COUNTIES IMPROVED LAND	33.8%	34.1%	5.3%	478
ALL COUNTIES VACANT LAND	34.4%	34.5%	6.2%	197
SINGLE FAMILY IMPROVEMENTS	33.0%	33.4%	5.2%	284
SINGLE FAMILY LAND	33.9%	34.0%	4.9%	284
SINGLE FAMILY TOTAL PROPERTY	33.3%	33.6%	4.3%	284
MULTIPLE FAMILY IMPROVEMENTS	33.3%	33.2%	5.5%	68
MULTIPLE FAMILY LAND	32.3%	33.6%	6.7%	68
MULTIPLE FAMILY TOTAL PROPERTY	33.1%	33.2%	4.2%	68
COMMERCIAL/INDUSTRIAL IMPROVEMENTS	30.6%	33.9%	8.6%	75
COMMERCIAL/INDUSTRIAL LAND	34.2%	33.7%	5.9%	76
COMMERCIAL/INDUSTRIAL TOTAL PROPERTY	31.7%	33.7%	6.8%	76
RURAL IMPROVEMENTS	30.1%	33.2%	13.0%	12
RURAL LAND	34.3%	35.0%	2.5%	50
RURAL TOTAL PROPERTY	31.9%	35.0%	3.4%	50
SECURED PERSONAL PROPERTY				
ALL SECURED	34.5%	35.0%	1.4%	65
AIRCRAFT	n/a	n/a	n/a	-
AGRICULTURAL	32.6%	35.0%	4.7%	16
BILLBOARDS	n/a	n/a	n/a	-
COMMERCIAL/INDUSTRIAL	34.9%	35.0%	0.5%	19
MOBILE HOMES	35.1%	35.0%	0.2%	30
UNSECURED PERSONAL PROPERTY				
ALL UNSECURED	32.5%	35.0%	2.1%	121
AIRCRAFT	34.2%	35.0%	1.7%	36
AGRICULTURAL	34.8%	35.0%	0.3%	12
BILLBOARDS	34.5%	35.0%	4.7%	13
COMMERCIAL/INDUSTRIAL	29.2%	35.0%	2.8%	18
MOBILE HOMES	35.1%	35.0%	1.9%	42
TOTAL PERSONAL PROPERTY	33.5%	35.0%	1.9%	186

**STATEWIDE
2009-2012 RATIO STUDIES**

ALL APPRAISAL AREAS

REAL PROPERTY	AGGREGATE RATIO	MEDIAN RATIO	COD MEDIAN	SAMPLE SIZE
STATEWIDE TOTAL PROPERTY	33.0%	34.3%	6.8%	2,134
STATEWIDE IMPROVEMENTS	32.3%	34.2%	8.2%	1,521
STATEWIDE IMPROVED LAND	34.0%	34.7%	8.2%	1,574
STATEWIDE VACANT LAND	34.4%	34.6%	7.4%	549
SINGLE FAMILY IMPROVEMENTS	33.9%	34.3%	7.2%	770
SINGLE FAMILY LAND	34.2%	34.6%	7.4%	765
SINGLE FAMILY TOTAL PROPERTY	34.0%	34.3%	5.7%	770
MULTIPLE FAMILY IMPROVEMENTS	29.8%	33.9%	7.6%	328
MULTIPLE FAMILY LAND	34.1%	34.4%	7.7%	323
MULTIPLE FAMILY TOTAL PROPERTY	31.2%	33.8%	6.7%	328
COMMERCIAL/INDUSTRIAL IMPROVEMENTS	33.0%	34.0%	10.7%	362
COMMERCIAL/INDUSTRIAL LAND	34.0%	34.3%	10.3%	363
COMMERCIAL/INDUSTRIAL TOTAL PROPERTY	33.4%	34.0%	9.0%	364
RURAL IMPROVEMENTS	29.2%	33.9%	11.7%	24
RURAL LAND	35.1%	35.0%	8.0%	123
RURAL TOTAL PROPERTY	32.6%	35.0%	2.6%	123
SECURED PERSONAL PROPERTY				
ALL SECURED	34.9%	35.0%	1.5%	233
AIRCRAFT	35.0%	35.0%	0.0%	2
AGRICULTURAL	34.3%	35.0%	2.3%	69
BILLBOARDS	34.5%	34.6%	1.2%	2
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	2.2%	67
MOBILE HOMES	35.0%	35.0%	0.4%	93
UNSECURED PERSONAL PROPERTY				
ALL UNSECURED	34.6%	35.0%	1.8%	407
AIRCRAFT	34.9%	35.0%	3.0%	97
AGRICULTURAL	35.0%	35.0%	0.5%	52
BILLBOARDS	34.9%	35.0%	1.7%	36
COMMERCIAL/INDUSTRIAL	32.7%	35.0%	1.0%	88
MOBILE HOMES	35.1%	35.0%	1.9%	134
TOTAL PERSONAL PROPERTY	34.7%	35.0%	1.7%	640

2011-2012 Ratio Study Outlier Reports

**CARSON CITY RATIO STUDY 2011-2012
NARRATIVE**

All land is reappraised each year in Carson City. The Nevada Tax Commission approved the Assessor's¹ request to reappraise all land, rather than apply a land factor in non-reappraisal areas, in 2008. Carson City has conducted a full revaluation of all improvements throughout the county since 2009. The Assessor continues to physically inspect 1/5 of the county each year to capture any new improvements added without a permit within the previous 5 years. This is best practice.

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

Property Type	Sample Size	Samples in Compliance	Samples out of Compliance	Exception Rate
Vacant Land	35	34	1	3%
Single-Family Residential Land	59	58	1	2%
Multi-Family Residential Land	15	14	1	7%
Commercial and Industrial Land	15	15	0	0%
Agricultural Land	7	7	0	0%
Single Family Residential Improvements (Note 1)	59	46	13	22%
Multi-family Residential Improvements (Note 2)	15	12	3	20%
Commercial and Industrial Improvements (Note 3)	15	9	6	40%

¹ All references to the Assessor means the Assessor or the Assessor's staff.

Note 1: Single Family Residential Improvements: Of the 13 outliers listed above, 7 were found in the 4/5 of the county which was not *physically* inspected during the 2011-2012 tax year.

Note 2: Multi-Family Residential Improvements: Of the 3 outliers listed above, all 3 were found in the 4/5 of the county which was not *physically* inspected during the 2011-2012 tax year.

Note 3: Commercial and Industrial Improvements: Of the 6 outliers listed above, 3 were found in the 4/5 of the county which was not *physically* inspected during the 2011-2012 tax year.

Procedures, Issues and Recommendations

Marshall & Swift: The Assessor did not begin using the Zone 3 Seismic Adjustment during work year 2010 but will begin utilizing it during the 2011 work year. Several of the residential outliers are due to the lack of this adjustment. The Assessor is using the zip code default 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.

The Assessor is currently valuing Manufactured Homes as Single Family Residences. Marshall& Swift has had the capability to value a Manufactured Home as such for many years however it has never been implemented in this office. In order to correctly utilize Marshall& Swift, these home types must be valued correctly. The Assessor will re-cost all land use code 220 properties to reflect the proper classification in Marshall & Swift for the 2012/2013 Roll.

The Department recommends adding attached garages to the Marshall& Swift and capturing it into the valuation of the home when the garage is built at the same time as the home and the garage shares both common walls and roof construction.

It was found that the Assessor is identifying raised wood decks as balconies. As per Marshall& Swift, raised decks should be given the appropriate height adjustment for heights exceeding 3 feet. Balconies are improvements *protruding out of* a building and are supported in part by the structure of that building. A deck is *attached* to a building. It is recommended that balconies and decks be accurately identified and valued using the appropriate Marshall& Swift costs as each area is *physically* reappraised.

It was also found that the Assessor is identifying all types of fireplaces as “fireplace” even when DGA’s (decorative gas appliances) are more appropriate. This may be due to the fact that Marshall& Swift did not always have this option available and fireplaces are common in the more established areas. Because DGA’s have become more prevalent in newly constructed homes, it is recommended they be accurately identified and valued as each area is reappraised.

Minor Improvements: Minor improvements are identified by the Assessor and valued from either the Marshall & Swift cost manuals or the Assessor's Handbook of Rural Building Costs. The Assessor employs lump sums for fencing and sprinklers. It is the preferred method that all improvements be valued by what is actually on the parcel, but if lump sum values are used, they must be reflective of what is on the parcel. They have been inconsistent by varying degrees of accurately estimating fencing which has led to both over and under assessment of these improvements. In *most* cases these inconsistencies were not enough to create an outlier on the sample properties, but *can* cause over and under valuation through out the county. While the valuation of concrete is not valued as a lump sum estimate, it is grouped together and valued as one total amount in most of the records. It is recommended that the Assessor record on their Apex sketch the locations of concrete flatwork and other improvements to properly identify where the improvements are located and to make it easier to identify additional improvements that have been added to the property between physical inspections. Hand sketches in some of the files show this was done at one time but eliminated when transferred to Apex. Newer files do not have this historical information making it difficult to know without re-measuring if anything new has been added.

When the year of an improvement is unknown, it is recommended that the Assessor estimate the year built utilizing known information and an effective age in lieu of simply applying the same year of the building to the improvement in question. Physically inspecting 1/5 of the county each year to capture any non permitted improvements added and to confirm the existence of permitted improvements in addition to revaluing annually is best practice.

New Construction Valuation: The Assessor discovers new construction using the county building permits. 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 1st, is included on the roll log. However, many improvements are put in place without the need or use of a county permit and therefore are not discovered until physical reappraisal. It was found that the assessor is correctly valuing and depreciating most new improvements once discovered. A review of several properties with new construction revealed that most of the improvements are being captured and when measured, are done so correctly and valued accurately by the Assessor with the exception of those stated in the minor improvement section above. There were a few properties for which non-permitted minor improvements were not captured in the reappraisal area but were not significant enough to create an outlier.

Obsolescence: The Assessor has applied obsolescence to pocket areas and individual properties as needed. The department reviewed a sampling of the properties within the scope of the Ratio Study and found the Assessor's final improvement value to be supported. Carson City meets standards for best practice in this area. It is recommended that the Assessor create a database or spreadsheet of those parcels or areas which were given obsolescence and how much was applied during each given year in order to keep a running history for defense of values and future trending.

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 recommended that an Adjustments Manual or spreadsheet be developed and updated periodically to reflect changes that affect the adjustments made to areas and/or characteristic types. The Assessor has greatly improved procedures for land valuation since the last Ratio Study and has made it a priority to continue improving on those procedures each year.

Agricultural Properties: There are few agricultural parcels left in Carson City. The ratio study included seven samples and all were within the allowed range of assessed value. The files contained the land classification and the appropriate Agricultural Bulletin was used.

Appraisal Records: Carson City's files are maintained with a minimum of one prior reappraisal cycle for comparison. The county is working towards going paper free so items not found in the files are available through the computer system. Land valuation documentation is also available within the office. Should verification or defense of value be necessary, no re-creation of value is needed. Carson City meets standards for best practice in this area.

Personal Property: Carson City maintains records for Personal Property. 29 accounts with 178 records were examined. After adjusting for rounding errors, there are two outliers caused by incorrect life.

1. All secured Copiers should have a 5 yr life, not a 7 yr life. This change became effective for the 2011-2012 tax year. This has already been corrected and updates are being made.
2. Pagers have a 5 yr life, not a 7 yr life. This error has already been corrected and updates are being made.
3. An incorrect year was found on one unsecured mobile home property which did not cause an outlier but has been corrected.
4. An updated aircraft property statement was found for one of the accounts that reflected a different sale date and purchase price. It was not updated in the computer but when corrected, did not cause an outlier.
5. A purchase price was discovered on one of the aircraft property statements that had been crossed off and changed with no notes or documentation as to the reason for the change and no signature by the owner to confirm either amount. The new Personal Property Appraiser will send an aircraft property statement to both owners in hopes of getting clarification and documentation as to the correct purchase price.
6. Some of the older mobile home files, 30 years and older, do not have proper Dealer Record of Sale (DRS) or purchase price documentation making verification of purchase price impossible. These accounts are fully depreciated and have minimal assessed value. They do not pose a significant problem and attempting to correct this issue is not feasible or cost effective.

**CARSON CITY
OUTLIER REPORT
2011-12 RATIO STUDY**

A.O. Assessor's Office 1/5 county physically inspected or non inspect issues

<i>APN</i>	<i>Land</i>	<i>Imp</i>	<i>Total</i>	<i>Property Type</i>	<i>COMMENTS</i>
002-061-30		27.30	28.45	COM	Below acceptable range. Quality class difference Corrected for 2012-2013 and adjusted for Economic OBS
003-095-06	29.38			MFR	Below acceptable range. Assessor's office (AO) valued using sales from sgl duplex properties not multiples. AO to correct in 2011
003-113-14	38.72		38.72	VAC	Above acceptable range. Property used to have access from 395 but no longer. Streets to be reconfigured in 2011 valuation by AO to make all values on same street of like properties consistent.
004-042-16	47.73		40.55	SFR	Above acceptable range. Land over values for sales AO to correct in 2011
004-124-02		31.66		SFR	Below acceptable range. Seismic Corrected for 2012-2013 Roll
004-245-03		27.68	31.50	COM	Below acceptable range. Age of imp's should be actual not age of house agree to disagree
007-394-02		31.40	31.67	SFR	Below acceptable range. Seismic, additional CFW in rear Corrected for 2012-2013 Roll
007-481-14		31.24	31.68	SFR	Below acceptable range. Seismic Corrected for 2012-2013 Roll
008-172-39		36.73	36.02	SFR	Above acceptable range. MH should be valued as MH in M&S not SFR, additional CFW Corrected for 2012-2013 Roll
009-283-06		29.58	31.10	COM	Below acceptable range. Addition added what appears to be many years ago, never valued Corrected on 2011-2012 Roll
009-591-27		36.35		SFR	Above acceptable range. Clerical Error in RCN of OSP ? 16sq ft valued at \$9,392 Corrected on 2011-2012 Roll

CARSON CITY
RATIO STUDY 2011-2012

APN	TYPE	OUTLIER COMMENTS in reval but not inspect 4/5 area
001-082-03	SFR	Enclosed porch solid walls converted from part of CCP possibly added since last inspection and seismic Corrected for 2012-2013
002-391-37	COM	Quality class and Occupancy difference, Additional asphalt added (AO Imp list and M&S occupancy do not match each other) Changed for 2012-2013
002-611-37	SFR	Large Gazebo and CFW, seismic Corrected 2012-2013
003-033-11	SFR	CFW replaced with brick in sand in both front and rear, Patio cover removed, new fencing replacing part of old in rear and seismic Corrected Brick & Sand & Patio Cover for 2012-2013
003-052-14	SFR	Seismic, Durastone replacing CFW Corrected 2012-2013
003-204-01	COM	2 story FP, CB Slump Stone wall vs. Synthetic Masonry Veneer, incorrect perimeter, incorrect age on most of imps Corrected for 2012-2013
008-181-07	MFR	More fencing than what is valued, Lattice fencing above SBF, CFW not valued, deck missed and not valued Reappraisal year 2012-13 will correct then
008-212-02	SFR	Garage not age weighted with house and seismic Seismic corrected in 2012-2013 Agree to disagree on garage
008-331-15	SFR	Changes to existing imps and additional imps added Added EP to M&S & additional imps added Corrected for 2012-13
008-762-09	SFR	Many changes to property included new garage, all new rear imps and W/C A/C. Property needs full re-inspect and to have existing imps verified for changes in size Permit Still Open so have not been out for New Con yet will do full inspection on property in 2012-2013
008-895-06	MFR	Additions to property and seismic on 2 houses, new siding, needs full re-inspect to capture all changes Reappraisal area next year will do full inspection for 2012-2013
009-086-04	MFR	Seismic and missing rough in Corrected for 2012-2013
009-261-03	COM	Quality Class incorrect, added shed on foundation Corrected for 2012-2013 Economic OBS added

**CHURCHILL COUNTY RATIO STUDY 2011-2012
NARRATIVE**

For administrative purposes, Churchill County is divided into five areas using township, range or section as well as roads, parcel boundaries and development potential. All land is reappraised each year. Beginning in 2010, the Assessor¹ has also elected to perform a current cost reappraisal from the Marshall & Swift cost manuals for all improvements as well, rather than apply the Improvement Factor that is approved by the Nevada Tax Commission. The Assessor will continue to “physically” re-inspect no less than one-fifth of the county each year based on the previous reappraisal area rotation. This is a best-practice for discovery of new improvements where a permit may not have been required.

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

(a) Property Type	(b) Sample Size	(c) Samples in Compliance	(d) Samples out of Compliance	(e) Exception Rate
Vacant Land	33	31	2	6%
Single-Family Residential Land	63	63	0	0%
Multi-Family Residential Land	11	11	0	0%
Commercial and Industrial Land	11	11	0	0%
Agricultural Land	10	10	0	0%
Single Family Residential Improvements	63	55	8	13%
Multi-family Residential Improvements	11	9	2	18%
Commercial and Industrial Improvements	11	1	10	91%

¹ All references to the Assessor means the Assessor or the Assessor’s staff.

Procedures, Issues and Recommendations

Minor Improvements: Churchill County utilizes a consolidated list of various minor improvements compiled into an inter-office reference manual that is updated yearly. 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 Churchill County. These costs were confirmed with a variance study of each of the cost manuals. The Assessor occasionally still utilizes a lump sum method for various yard improvements such as sprinkler/drip systems, patio bricks, flower boxes, etc. As time allows, these items are being valued on an individual basis as this is a more accurate method. Individual analysis is also a best practice.

New Construction Improvement Valuation: The Assessor discovers and tracks the progress of new construction through permit programs, monthly reports and the reappraisal process. All new construction is visited during various phases and valued in a timely manner. Building plans & specifications are used as back up for appraisers to use after an on-site inspection.

Improvement Factor: Churchill County has conducted a full revaluation of all improvements throughout the county beginning with this cycle (2010). Therefore, the Improvement Factor was not applied this year. This was the Assessor's first attempt at a total county revaluation and a major error was detected by the DOAS appraiser. Upon a partial revaluation of the commercial improvements, the proper building classification multipliers were entered into the costing program. When a second valuation was done on all commercial properties (so that none were excluded), it was assumed that the correct multipliers were saved in the program. It was later discovered that the multiplier entry was vacated and the program defaulted to an incorrect multiplier resulting in incorrect values. This was rectified by the Assessor prior to the close of the roll and/or the billing process.

Improvement Discovery / Identification: Churchill County is divided into five separate reappraisal areas. Although the Assessor is now conducting a complete revaluation of all land and improvements throughout the entire county each year, the office will continue to perform some type of a physical inspection (although not mandatory) of all properties within a given reappraisal area on a rotating 5-year cycle. This is considered a best-practice. Some differences were noted while reviewing the appraisal files with regard to definitions of items in Marshall & Swift (such as a "Raised Slab Porch" versus a "Slab Porch") and the application of a lump sum "Yard Improvement" valuation versus individual costs of each minor improvement. It is recommended that the staff make an effort to be more consistent from property to property. The Assessor indicated that they are working toward that goal through continued staff meetings and inner-office standardized procedure manuals for current as well as new(er) employees.

Obsolescence: Due to the recent economic decline, the Assessor has applied obsolescence to improvements in various market areas throughout Churchill County as a

result of an extensive analysis of recent sales data. The Assessor maintains a listing of sales of improved and vacant properties within the county. Once a median land value is established for a given market area, the Assessor's taxable improvement values for these properties are then compared to their total sales prices, and a ratio of taxable value to sales price is calculated for each property. Properties in areas where taxable value exceeds market value can then be identified and the proper lump sum or percentage reduction applied to that market area.

Agricultural Parcels: There were ten samples of agricultural parcels in this year's ratio study. All samples fell within required ratios. The assessor keeps detailed records for agricultural properties, including water rights.

Appraisal Records: The information in the files is complete, correct and up to date, and new computerized sketches of improved properties are replacing old hand-drawn sketches as needed. All information is made available on-line to the general public on the Churchill County Assessor website.

Marshall & Swift: The Department recommends the Assessor utilize all adjustments ("Foundation", "Energy", "Hillside", and "Seismic") and unusual-conditions multipliers as stated in the Marshall & Swift cost manual as needed and deemed appropriate when valuing residential properties within the county. The correct "seismic" adjustment for Nevada is "Zone 3". It was determined from the Marshall & Swift Residential Estimator software that the "wind" adjustment was specific only to hurricane prone coastal areas and not applicable in Nevada. The Churchill County Assessor reviewed the 2009 Ratio Study recommendations prior to the July 14, 2010 receipt of the Department's guidance letter 10-003 mandating the use of the seismic adjustment and the exclusion of the wind adjustment in Nevada. Therefore, the proper "seismic" adjustment is currently being used in the valuation of residential properties in Churchill County in 2010 and forward.

Personal Property: The Personal Property portion of the ratio study examined 31 accounts with a total of 230 records. There were 18 records out of ratio tolerance; however, all were the result of rounding issues or fully depreciated items with minimal values. Hard copy files were reviewed and determined to be well organized. Some of the older mobile home files (30 years and older) do not have the proper Dealer Report of Sale (DRS) documentation making verification of initial purchase price difficult to confirm although these accounts are fully depreciated and have minimal assessed value. Aircraft accounts revealed yearly declarations reported from the respective owners.

**CHURCHILL COUNTY
OUTLIER REPORT
2011-12 RATIO STUDY**

APN	Land	Imp	Total	Property Type	COMMENTS
001-011-23	34.06%	38.32%	37.14%	COM	This outlier was determined to be the result of a clerical error at the assessor's office. The correct building classification multipliers were mistakenly left blank in the assessor's costing system resulting in the system defaulting to incorrect multipliers. This error was discovered as a result of an outlier "pattern" above the ratio tolerance of 36.00% for the entire DOAS commercial sample that included buildings. This was confirmed with the assessor and the proper changes were made to the property record.
001-102-07	35.06%	27.95%	30.81%	SFR	DOAS appraiser discovered and valued a "Quonset" style enameled steel shed and a carport valued as an enameled steel awning. The assessor had discovered these two improvements (appeared on sketch), but had not valued them. These differences were discussed with the assessor and the proper changes were made to the property record.
001-121-03	34.47%	37.84%	36.19%	COM	This outlier was determined to be the result of a clerical error at the assessor's office. The correct building classification multipliers were mistakenly left blank in the assessor's costing system resulting in the system defaulting to incorrect multipliers. This error was discovered as a result of an outlier "pattern" above the ratio tolerance of 36.00% for the entire DOAS commercial sample that included buildings. This was confirmed with the assessor and the proper changes were made to the property record.
001-171-15	35.00%	31.32%	31.93%	SFR	DOAS appraiser discovered and valued a front open wood entry deck and observed that the subject home had stucco siding (assessor had valued hardboard sheet). These differences were discussed with the assessor and the proper changes were made to the property record.
001-251-06	35.92%	38.99%	36.41%	COM	This outlier was determined to be the result of a clerical error at the assessor's office. The correct building classification multipliers were mistakenly left blank in the assessor's costing system resulting in the system defaulting to incorrect multipliers. This error was discovered as a result of an outlier "pattern" above the ratio tolerance of 36.00% for the entire DOAS commercial sample that included buildings. This was confirmed with the assessor and the proper changes were made to the property record.
001-541-28	34.33%	38.89%	37.34%	COM	This outlier was determined to be the result of a clerical error at the assessor's office. The correct building classification multipliers were mistakenly left blank in the assessor's costing system resulting in the system defaulting to incorrect multipliers. This error was discovered as a result of an outlier "pattern" above the ratio tolerance of 36.00% for the entire DOAS commercial sample that included buildings. This was confirmed with the assessor and the proper changes were made to the property record.
001-681-20	35.12%	39.83%	38.78%	COM	This outlier was determined to be the result of a clerical error at the assessor's office. The correct building classification multipliers were mistakenly left blank in the

					assessor's costing system resulting in the system defaulting to incorrect multipliers. This error was discovered as a result of an outlier "pattern" above the ratio tolerance of 36.00% for the entire DOAS commercial sample that included buildings. This was confirmed with the assessor and the proper changes were made to the property record.
001-794-48	11.35%	N/A	11.35%	VAC	This land outlier was discussed with the assessor and her staff because the DOAS appraiser had two other (improved) samples with different land values than this vacant sample in this same development. The assessor explained that a portion of this subdivision was complete with curbs & gutters, etc. (offsite improvements) and they received the base lot value of \$22,500 (as was the case with the two improved samples). The incomplete or undeveloped lots received a reduced base lot value.
006-292-33	34.65%	31.86%	32.64%	SFR	DOAS appraiser discovered and valued the correct floor area square footage of the subject house of 1,310 and noted that it had vinyl exterior siding. The assessor had 1,200 sq ft floor area with a 50 sq ft "Enclosed Porch, Solid Walls" and "hardboard sheets" siding. These differences were discussed with the assessor and the proper changes were made to the property record.
006-732-47	32.56%	30.74%	31.53%	SFR	DOAS appraiser discovered and valued a truck trailer (wheels removed) being used as storage. This unit was determined to be a "fixture" and was therefore valued as a "Conex Box" shed (pursuant to the Department Guidance Letter 10-004 dated 7-14-10). This difference was discussed with the assessor and the proper change was made to the property record.
007-151-40	35.15%	30.65%	32.38%	SFR	DOAS appraiser discovered and valued a truck trailer (wheels removed) being used as storage. This unit was determined to be a "fixture" and was therefore valued as a "Conex Box" shed (pursuant to the Department Guidance Letter 10-004 dated 7-14-10). There were some other small differences with Minor Improvements behind the subject house. These differences were discussed with the assessor and the proper changes were made to the property record.
007-752-15	33.14%	38.13%	34.81%	COM	This outlier was determined to be the result of a clerical error at the assessor's office. The correct building classification multipliers were mistakenly left blank in the assessor's costing system resulting in the system defaulting to incorrect multipliers. This error was discovered as a result of an outlier "pattern" above the ratio tolerance of 36.00% for the entire DOAS commercial sample that included buildings. This was confirmed with the assessor and the proper changes were made to the property record.
008-141-18	35.74%	37.89%	36.30%	COM	This outlier was determined to be the result of a clerical error at the assessor's office. The correct building classification multipliers were mistakenly left blank in the assessor's costing system resulting in the system defaulting to incorrect multipliers. This error was discovered as a result of an outlier "pattern" above the ratio tolerance of 36.00% for the entire DOAS commercial sample that included buildings. This was confirmed with the assessor and the proper changes were made to the property record.
008-191-18	35.77%	31.30%	32.26%	MFR	DOAS appraiser discovered and valued additional Minor Improvements (concrete flat work; more vinyl fencing; and

					a rear patio cover). These differences were discussed with the assessor and the proper changes were made to the property record.
008-361-52	34.13%	38.39%	36.48%	COM	This outlier was determined to be the result of a clerical error at the assessor's office. The correct building classification multipliers were mistakenly left blank in the assessor's costing system resulting in the system defaulting to incorrect multipliers. This error was discovered as a result of an outlier "pattern" above the ratio tolerance of 36.00% for the entire DOAS commercial sample that included buildings. This was confirmed with the assessor and the proper changes were made to the property record.
008-461-09	35.00%	31.20%	32.39%	MFR	DOAS appraiser discovered and valued some Minor Improvement differences (3 evap coolers and shared yard fencing) as well as the removal of some physical and functional obsolescence due to fire damage that has since been repaired. These differences were discussed with the assessor and the proper changes were made to the property record.
008-473-34	32.02%	36.05%	34.65%	COM	This outlier was determined to be the result of a clerical error at the assessor's office. The correct building classification multipliers were mistakenly left blank in the assessor's costing system resulting in the system defaulting to incorrect multipliers. This error was discovered as a result of an outlier "pattern" above the ratio tolerance of 36.00% for the entire DOAS commercial sample that included buildings. This was confirmed with the assessor and the proper changes were made to the property record.
008-492-21	33.33%	29.44%	31.13%	COM	DOAS appraiser discovered and valued the structure as 4,160 sq ft; Rank 2.5; 10.0 E.H. (assessor had 3,600 sq ft; Rank 1.5; 13' E.H.) and 944 sq ft of CFW (assessor had 816 sq ft). Also, there was a clerical error at the assessor's office. The correct building classification multipliers were mistakenly left blank in the assessor's costing system resulting in the system defaulting to incorrect multipliers. This error was discovered as a result of an outlier "pattern" above the ratio tolerance of 36.00% for the entire DOAS commercial sample that included buildings. These differences were confirmed with the assessor and the proper changes were made to the property record.
008-851-28	35.00%	3.14%	6.44%	SFR	DOAS appraiser discovered and valued an entire new(er) house (Certificate of Occupancy of 2009) with attached garage and various Minor Improvements. Most of the previous improvements were razed, although some remained at time of inspection and were valued as well. This property was mistakenly removed from the assessor's "New Construction" list by an appraiser that is no longer with this office. All of these new improvements were discussed with the assessor and added to the property record. Retroactive property tax billing will also be handled within Churchill County.
010-072-03	35.00%	28.73%	31.18%	SFR	DOAS appraiser discovered and valued additional Minor Improvements (concrete curbing and shared yard 6' board fencing). These differences were discussed with the assessor and the proper changes were made to the property record.
010-352-03	35.00%	22.36%	33.04%	SFR	DOAS appraiser discovered and valued additional Minor

					Improvements (post & wire perimeter fencing and 48 lf of 6' chain link fence with top rail and privacy slats). These differences were discussed with the assessor and the proper changes were made to the property record.
010-603-07	40.92%	N/A	40.92%	VAC	This land outlier was discussed with the assessor and her staff because the DOAS appraiser had another vacant sample in this same development and thought that both samples should have the same value; which they did not. Also, prior to this year, both parcels were valued equally (in 2009). The assessor indicated that a more thorough drive by assessment was conducted and it was concluded that an upward adjustment to this parcel was warranted as it backed to a golf course and had river access to the rear.

**ELKO COUNTY RATIO STUDY 2011-2012
NARRATIVE**

All land is reappraised each year in Elko County. The Nevada Tax Commission approved the Assessor's¹ request to reappraise all land, rather than apply a land factor in non-reappraisal areas, in 2006. Elko has conducted a full revaluation of all improvements throughout the county since 2009. The Assessor continues to physically inspect 1/5 of the county each year to capture any new improvements added without a permit within the previous 5 years. This is best practice.

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

Property Type	Sample Size	Samples in Compliance	Samples out of Compliance	Exception Rate
Vacant Land	35	35	0	0%
Single-Family Residential Land	55	54	1	2%
Multi-Family Residential Land	13	12	1	8%
Commercial and Industrial Land	20	19	1	5%
Agricultural Land	9	9	0	0%
Single Family Residential Improvements	55	46	9	16%
Multi-family Residential Improvements	13	11	2	15%
Commercial and Industrial Improvements	20	16	4	20%

¹ All references to the Assessor means the Assessor or the Assessor's staff.

Procedures, Issues, and Recommendations

Marshall & Swift: The Department recommends the Assessor utilize all adjustments (“Foundation”, “Energy”, “Hillside”, and “Seismic”) and unusual-conditions multipliers as stated in the Marshall & Swift cost manual as needed and deemed appropriate when valuing residential properties within the county. The correct “seismic” adjustment for Nevada is “Zone 3”. The Assessor did not begin using the Zone 3 Seismic Adjustment during work year 2010 but will begin utilizing it during the 2011 work year. Most of the residential outliers are due to the lack of this adjustment. The Assessor is using the zip code default 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. Any local costs which differ from values in Marshall & Swift must be sent to the Department for approval prior to use.

Minor Improvements: Minor improvements are identified by the Assessor and valued from either the Marshall & Swift cost manuals or the Assessor’s Handbook of Rural Building Costs.

New Construction Valuation: The Assessor discovers and tracks the progress of new construction through building permits and the reappraisal process. All new construction is visited during various phases and valued in a timely manner. Building plans & specifications are used as back up for appraisers to use after an on-site inspection. New improvements are drawn on Apex providing a clear record and accurate estimate of size. Existing improvements are redrawn as time allows.

Obsolescence: The Assessor has not needed to apply any area wide obsolescence at this time due to the relatively stable market in Elko compared to other areas of the state.

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. There were only 3 land outliers in this year’s study, two of which were condominiums. The Assessor must value common interest communities per NRS 361.233 dividing common area values among the individual units instead of to an association. The parcel numbering system in Elko County has been out of compliance for years and has still not been addressed. This will be detailed in the upcoming Performance Audit prepared by the Department.

Improvements: The Department recommends the Assessor and appraisers review the descriptions of bi-levels, split-levels, and built-in, basement, and attached garages to insure accurate and consistent valuations. The Department also recommends closer attention to accurate story height on commercial improvements.

Agricultural Properties: The agricultural records are well maintained with maps and detailed descriptions of land classifications. There were no outliers for agricultural land in this year's ratio study.

Personal Property: Elko County maintains efficient records for Personal Property. 30 accounts with 190 records were examined. After adjusting for rounding errors, there are seven outliers caused by incorrect life.

1. All secured Copiers should have a 5 yr life, not a 7 yr life. This change became effective for the 2011-2012 tax year. This has already been corrected and updates are being made.
2. Ice machines have a 15 yr life, not a 20 yr life. This error has already been corrected and updates are being made.
3. All of Elko's manufactured homes and mobiles are now unsecured property.
4. Chain saws are 7 yr not 15yr life. The error has been corrected.
5. Computers are 3 yrs life, page 9 in Personal Property Manual.
6. The Assessor should revisit 18863 as to what type of storage tanks are on this account for accurate acquisition cost.
7. Other types of descriptions are too general, like "Honda"
8. RS000066 has the NH tractor crossed off on the hard file, but not deducted from the value, it appears on the electronic file.
9. RS00049 did not have an assted cost for failure to file.

**ELKO COUNTY OUTLIER REPORT
2011-12 RATIO STUDY**

APN	Land	Imp	Total	Property Type	COMMENTS
001-074-005	34.01%	31.79%	32.72%	SFR	This outlier appears to be the result of the seismic adjustment not being applied.
001-181-009	34.64%	31.30%	32.37%	MFR	This outlier appears to be the result of the seismic adjustment not being applied.
001-266-004	35.26%	29.51%	31.09%	COM	County records had incorrect square footage and building description. The Assessor has been notified and the corrections made.
001-273-003	35.00%	26.20%	31.54%	COM	Garage and basement were not included in the county appraisal. Both were present on old drawing. The Assessor has been notified and the corrections made.
001-452-031	34.61%	29.32%	31.96%	SFR	This outlier appears to be the result of the seismic adjustment not being applied.
001-61F-009	35.00%	31.37%	32.26%	SFR	HVAC description.
001-741-043	0	33.34%	33.34%	COM	Common area value was not applied to individual units per NRS 361.233.
001-840-019	33.87%	30.31%	31.58%	SFR	Evaporative cooler discovered by DOAS appraiser.
001-910-006	32.20%	31.50%	31.69%	SFR	This outlier appears to be the result of the seismic adjustment not being applied.
001-928-009	8.87%	32.12%	27.52%	MFR	County land value low based on sales of neighborhood properties.
001-970-028	33.87%	31.33%	31.95%	SFR	This outlier appears to be the result of the seismic adjustment not being applied.
002-084-002	35.00%	38.17%	37.69%	COM	Story height and basement occupancy incorrect. Vault added despite being included in Marshall & Swift cost for this occupancy.
002-171-005	35.92%	26.99%	27.86%	SFR	DOAS appraiser discovered porches and various minor improvements.
002-553-004	32.59%	28.74%	29.03%	COM	Story height incorrect.
002-553-009	34.71%	30.38%	31.68%	MFR	DOAS appraiser discovered carport. Seismic adjustment not applied.
003-514-003	35.20%	21.96%	22.62%	SFR	DOAS appraiser discovered new garage and deck.
010-701-096	6.91%	34.30%	30.80%	SFR	Common area value was not applied to individual units per NRS 361.233.
010-741-061	32.00%	31.77%	31.83%	SFR	This outlier appears to be the result of the seismic adjustment not being applied.
010-750-037	35.66%	31.64%	32.69%	SFR	This outlier appears to be the result of the seismic adjustment not being applied.
010-750-041	35.66%	31.63%	32.71%	SFR	This outlier appears to be the result of the seismic adjustment not being applied.
040-005-021	32.78%	31.70%	31.77%	MFR	This outlier appears to be the result of the seismic adjustment not being applied.
043-002-008	35.00%	31.85%	32.41%	SFR	This outlier appears to be the result of the seismic adjustment not being applied.
043-021-038	35.00%	31.03%	31.64%	SFR	This outlier appears to be the result of the seismic adjustment not being applied.
047-003-007	35.00%	30.45%	31.06%	SFR	Garage description incorrect.

**LANDER COUNTY RATIO STUDY 2011-2012
NARRATIVE**

Lander County comprises 5 distinct Appraisal Groups which are defined by geography and township, range and section boundaries. Of the appraisal groups, four consist of 1 tax district each and the 5th consists of 4 separate tax districts (total of 8 distinct tax districts). Whereas all land is reappraised each year in the county, improved property is revalued according to an appraisal cycle which repeats every 5 years. This results in the application of an improvement factor approved by the Nevada Tax Commission in non-reappraisal areas. The Assessor will continue to “physically” re-inspect no less than one-fifth of the county each year (i.e. one “appraisal group” each year) based on the previous reappraisal area rotation. This is a best practice for discovery of new improvements where a permit may not have been required and to insure accurate records are maintained.

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

Property Type	Sample Size	Samples in Compliance	Samples out of Compliance	Exception Rate
Vacant Land	31	15	16	52%
Single-Family Residential Land	31	20	11	36%
Multi-Family Residential Land	7	3	4	57%
Commercial and Industrial Land	7	4	3	43%
Agricultural Land	6	6	0	0%
Single Family Residential Improvements (Note 1)	31	30	1	3%
Multi-family Residential Improvements (Note 2)	7	6	1	14%
Commercial and Industrial Improvements (Note 3)	7	6	1	14%

Note 1: Single Family Residential Improvements: The single outlier listed above was found in the non-reappraisal area for tax year 2011-2012.

Note 2: Multi-Family Residential Improvements: The single outlier listed above was found in the reappraisal area for tax year 2011-2012.

Note 3: Commercial and Industrial Improvements: The single outlier listed above was found in the reappraisal area for tax year 2011-2012.

Procedures, Issues and Recommendations

Marshall & Swift: The Assessor did not use the zone 3 seismic adjustment during work year 2010 but will begin utilizing it in 2011 since the default seismic adjustment will be updated in Marshall & Swift (M&S). (Note that any open roll changes for the 2011/12 fiscal year will also have the correct zone 3 seismic adjustment).

Assessor relies on the default values for adjustments in M&S. The Assessor is directly entering multipliers within their residential M&S systems and not relying on the ZIP code defaults.

The following issues were observed and discussed regarding the use of M&S:

- Sometimes a slab foundation had been entered as a raised foundation. The Department appraiser suggested to the county appraiser that more attention be paid to this distinction during field work.
- At times the wall height adjustment for a manufactured house would be adjusted upward to account for the added height of a cathedral ceiling. Assessor was advised this is not a correct use of the exterior wall height adjustment.
- Several instances were observed where it appeared the appraiser was “chasing value” by artificially increasing the quality level. In each instance the reason for the higher quality was pointed out (benefit of an interior inspection and/or local knowledge of the elevated quality level of a particular manufacturer/model combination.). The Department appraiser suggested that notes pertaining to the reason for higher than expected quality values be included on the M&S print outs.

Seldom did the above issues result in an outlier, however, eliminating them will result in more accurate valuations and less potential for creating outliers.

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 and/or (most commonly) internally published appraisal categories and property appraisal value tables which are updated annually. 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 Lander

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

Improvement Factor:

The minimal numbers of improvement outliers found among all 3 property types suggests that the improvement factor is working as intended.

New Construction Valuation:

The Assessor discovers and tracks the progress of new construction through the building permit programs, periodic discussions with the building inspector (down the hall) and the reappraisal process. All new construction is visited during various phases; generally at completion or as late as practical prior to closing of the roll in order to capture the maximum value. Visits to outlying rural areas are planned to coincide with scheduled visits to these areas in order to conserve travel expenses. New construction that is discovered after the close of the roll, but before July 1st, is included on the roll log. However, many improvements in the outlying areas are put in place without a building permit and therefore are not discovered until physical reappraisal. There were a few instances in which non-permitted minor improvements were not picked up in the reappraisal area but were not enough to create an outlier.

Obsolescence:

Lander County has not suffered the wide ranging swings in real property valuation over the last few years experienced by many other counties. This is primarily the result of the relatively steady employment levels. As a result the assessor has not had an issue with significant appreciation followed by the need for economic obsolescence in the county. The issue is more related to lack of growth, stagnation and absence of sales.

Land:

Land values continue to be a challenge in Lander County due to a lack of sales and the fact that many of the existing sales are unverified since letters requesting information from buyer and seller are either not returned or there are discrepancies between buyer and seller. Also, many of the vacant land sales occur using a land contract where the actual sale date was (e.g.) 10 years ago but is recently recorded as a sale (i.e. the contract is recently paid off). Assessor is aware that land values need to be reviewed. The Department appraiser discussed having a “big picture” (e.g. colored maps) and with the eminent implementation of their recently acquired GIS there are plans to do just that. The Department appraiser observed what appeared to be inconsistencies between (e.g.) a group of 40 acre parcels in one remote area and another group of 40 acre parcels in a similar remote area that did not have the same general value and with no documented justification for the discrepancy. The recommendation was made that the office generate “big picture” documentation which will be forthcoming after their GIS is implemented. With almost no sales in these remote areas, documentation justifying these disparate

values would be invaluable. Such documentation will be developed by assessor. NOTE: Some of this documentation had been developed in the form of spreadsheets but was lost during a major server crash last year.

The DOAS appraiser's attempts to use sales of comparable vacant properties was impacted by the sparse sales and seemingly inconsistent values between (what appeared to be) similar remote areas with sales of what appeared to be comparable parcels. Land values for improved parcel sales were also difficult due to both lack of sales and the difficulty in determining abstracted land values since in many instances the improvements on the more rural properties were 50 to 100 years old.

The majority of the Lander County land values that were out of ratio in the current Ratio Study were on the low side. Again, Assessor is aware of the need for better land value analysis in order to justify raising values and will be pursuing that goal utilizing GIS capabilities.

Agricultural Parcels: There were six agricultural parcels in the ratio study sample. All were within acceptable parameters.

Appraisal Records: The information in the files is complete, correct and generally up to date. New computerized sketches of improved properties are replacing old hand-drawn sketches as needed. However there is a tendency to manually pencil in updates on previously printed APEX sketches rather than update the electronic copy. 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. All information is made available on-line to the general public on the Lander County Assessor website and a "public access" terminal is maintained in the Recorder's office that provides access to the public access menu within ADS. This is considered a best practice.

Personal Property: Lander County maintains complete records for Personal Property. Twenty-seven accounts comprising 225 items of personal property were examined. After discounting 12 rounding errors there were a total of 27 outliers spread among 7 separate accounts. All were the result of applying an incorrect life. Errors concentrated primarily among quad runners used on farms, generators, portable tools and mining/construction vehicles classified as "heavy duty". All errors were reviewed in detail with the counties personal property appraiser.

**LANDER COUNTY OUTLIER REPORT
2011-12 RATIO STUDY**

VACANT PARCELS

A.O. = Assessor's Office

<i>APN</i>	<i>Land</i>	<i>Imp</i>	<i>Total</i>	<i>Property Type</i>	<i>COMMENTS</i>
003-131-19	39.11%		39.00%	VAC	Based on the sale of 5 near by similar size vacant parcels the assessor's value is slightly high.
003-171-02	32.49%	12.084%	19.97%	VAC	LUC=180. Old foundation (minor improvement) costed as CFW. Should be costed as a concrete block perimeter foundation.
003-202-19	41.01%		41.01%	VAC	Based on the sale of 4 near by similar size vacant parcels the assessor's value is slightly high.
003-202-33	34.98%	40.306%	37.58%	VAC	Minor improvements (some) are located on the adjacent parcel with same owner. A.O. updated records.
004-031-18	17.32%		20.278%	VAC	Sale of near by vacant parcels suggests assessor's land value is low.
007-090-12	19.71%		19.71%	VAC	No recent sales of near by similar vacant or even improved parcels. (This is an undeveloped area). Reviewing sales of all 20 acre rural/undeveloped parcels in Lander and adjacent Eureka county (27 sales) suggests the assessor's land value is low. This value has not been changed in many years and A.O. is aware of the need to review these values.
007-090-17	19.71%		19.71%	VAC	No recent sales of near by similar vacant or even improved parcels. (This is an undeveloped area). Reviewing sales of all 20 acre rural/undeveloped parcels in Lander and adjacent Eureka county (27 sales) suggests the assessor's land value is low. This value has not been changed in many years and A.O. is aware of the need to review these values.
007-110-11	19.71%		19.71%	VAC	No recent sales of near by similar vacant or even improved parcels. (This is an undeveloped area). Reviewing sales of all 20 acre rural/undeveloped parcels in Lander and adjacent Eureka county (27 sales) suggests the assessor's land value is low. This value has not been changed in many years and A.O. is aware of the need to review these values.
007-150-23	19.71%		19.71%	VAC	No recent sales of near by similar vacant or even improved parcels. (This is an undeveloped area). Reviewing sales of all 20 acre rural/undeveloped parcels in Lander and adjacent Eureka county (27 sales) suggests the assessor's land value is low. This value has not been changed in many years and A.O. is aware of the need to review these values.
007-273-02	16.00%		16.00%	VAC	No recent sales of near by similar vacant parcels. (This is an undeveloped area S. and W. of Crescent Valley).). Reviewing sales of all similar acre rural/undeveloped parcels in Lander county (11 sales) suggests the assessor's land value is low. This value has not been changed in many years and A.O. is aware of the need to review these values.
007-274-07	16.00%		16.00%	VAC	No recent sales of near by similar vacant parcels. (This is an undeveloped area S. and W. of Crescent Valley).). Reviewing sales of all similar acre rural/undeveloped parcels in Lander county (11 sales) suggests the assessor's land value is low. This value has not been changed in many years and A.O. is aware of the need to review these values.
007-276-06	16.00%		16.00%	VAC	No recent sales of near by similar vacant parcels. (This is an undeveloped area S. and W. of Crescent Valley).). Reviewing sales of all similar acre rural/undeveloped parcels in Lander county (11 sales) suggests the assessor's land value is low. This value has not been changed in many years and A.O. is aware of the need to review these values.
007-600-12	26.30%		26.30%	VAC	Reviewing the sale of 7 similar vacant parcels plus some analysis (see file notes) suggests the assessor's value is low. A.O. has reviewed this analysis and again is aware of the need to review these values.
007-650-06	19.71%		19.71%	VAC	Sales of vacant parcels suggest the A.O. value is low. See file notes for analysis.

**LANDER COUNTY OUTLIER REPORT
2011-12 RATIO STUDY**

007-650-12	19.71%		19.71%	VAC	No recent sales of near by similar vacant or even improved parcels. (This is an undeveloped area). Reviewing sales of all 20 acre rural/undeveloped parcels in Lander and adjacent Eureka county (27 sales) suggests the assessor's land value is low. This value has not been changed in many years and A.O. is aware of the need to review these values.
010-580-02	23.57%		23.57%	VAC	Reviewing the verified sale of 5 similar near by vacant parcels suggests the assessor's value is low. A.O. has reviewed this analysis and again is aware of the need to review these values. Recent development restrictions in this area has been A.O. reasoning to not raise values.
010-590-03	27.58%		27.58%	VAC	Reviewing sales data from 10 recent sales of 40 to 50 acre vacant parcels in somewhat the same vicinity suggests the assessor's value is low.
011-050-14	28.21%		28.21%	VAC	Reviewing sales of 3 similar near by vacant parcels indicated A.O. value to be low. However subsequent review with A.O. determined a 50% developers discount was in place which has since been removed resulting in A.O. value now being high. (Low value used in ratio calculations.)

SFR

A.O. = Assessor's Office

APN	L	I	T	ENTITY I. D.	COMMENTS (Non-reappraisal area outliers)
001-013-04	42.48%	33.34%	34.75%	SFR	Sales of near by similar size vacant parcels in Austin indicate assessor's value is slightly high
001-144-06	25.77%	32.74%	30.93%	SFR	Abstracted land values of near by/similar improved parcel sales indicate appraisers land value is low. Sale of a similar size vacant parcel in the surrounding area supports this finding.
001-201-04	27.34%	32.38%	31.06%	SFR	Abstracted land values of near by/similar improved parcel sales indicate appraisers land value is low. Sale of a similar size vacant parcel in the surrounding area supports this finding.
002-144-02	22.9%	34.16%	30.48%	SFR	Land values abstracted from near by/similar improved sales as well as from near by/vacant sales indicate assessors land value is low.
002-381-13	26.72%	35.25%	33.68%	SFR	Land values abstracted from 8 near by/similar improved sales indicate assessors land value is low.
002-394-08	34.12%	39.64%	39.01%	SFR	M&S quality issue: A.O. had set as 5. A.O. agreed 5 too high and should be a 4. A.O. will change classification
002-406-10	16.19%	34.96%	28.96%	SFR	Land values abstracted from 7 near by/similar improved sales indicate assessors land value is low.
002-436-04	15.96%	35.90%	27.71%	SFR	Land values abstracted from 6 near by/similar improved sales indicate assessors land value is low.
003-102-41	42.90%	36.00%	37.09%	SFR	Abstracted land values of near by/similar improved parcel sales indicate appraisers land value is high. Sale of several similar size vacant parcels in Kingston supports this finding.
003-202-38	56.48%	34.51%	35.93%	SFR	Abstracted land values of near by/similar improved parcel sales indicate appraisers land value is high. Sale of several similar size vacant parcels in Kingston supports this finding.
010-300-10	24.41%	35.84%	34.70%	SFR	Abstracted land values of near by/similar improved parcels sales indicate appraisers land value is low. Sale of several similar size vacant parcels in the surrounding area supports this finding.
011-072-06	12.52%	35.25%	31.00%	SFR	Sales of near by similar size vacant parcels indicate assessor's value is low.

**LANDER COUNTY OUTLIER REPORT
2011-12 RATIO STUDY**

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 (Non-reappraisal area outliers)</i>
001-077-04	21.12%	34.22%	28.33%	MFR	Sales of 5 similar size vacant parcels in Austin indicate assessor's land value is low. Subject's land value has not been changed in 20+ years. A.O. is aware of this but maintains that 5 sales (some of which are questionable) in this area are not sufficient to change values.
001-105-02	25.12%	34.65%	29.26%	MFR	Land values abstracted from 3 improved property sales (with near by / similar lots) plus 3 vacant sales suggest the appraiser's land value is low.
					COMMENTS (Reappraisal area outliers)
002-064-06	11.46%	35.75%	32.16%	MFR	Land values abstracted from improved property sales in central Battle Mountain indicate appraiser's land value is low. (There are no valid useable sales of similar size/location vacant parcels)
002-082-03	11.46%	33.99%	23.28%	MFR	Land values abstracted from improved property sales in central Battle Mountain indicate appraiser's land value is low. (There are no valid useable sales of similar size/location vacant parcels)
002-103-10	32.56%	26.12%	28.35%	MFR	Land values abstracted from improved property sales in central Battle Mountain indicate appraiser's land value is low. The sale of 2 similar vacant parcels supports this same finding. Screen enclosed porch (shown in old photographs) was never included in the A.O. appraisal

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 (Reappraisal area outliers)</i>
002-012-02	34.68%	47.59%	43.09%	COM	Changed occupancy, added CFW and changed CLF length. This property was in re-appraisal area but changes/additions were not picked up by A.O.
002-078-07	27.26%	34.52%	32.20%	COM	Analysis of 6 vacant sales (residential properties - however this "COM" property is on a residential lot) plus abstracted land values from 4 similar improved parcels all indicate assessor's land value is low.
002-104-04	24.48%	33.93%	32.48%	COM	Analysis (see file notes) indicates assessor's land value for this parcel is low.
002-113-12	21.75%	32.00%	30.59%	COM	Analysis (see file notes) indicates assessor's land value for this parcel is low.

**PERSHING COUNTY RATIO STUDY 2011-2012
NARRATIVE**

Pershing County comprises 5 distinct appraisal areas which are defined by geography and township, range and section boundaries. Whereas all land is reappraised each year in the county, improved property is revalued according to an appraisal cycle which occurs every 5 years. This results in the application of an improvement factor approved by the Nevada Tax Commission in non-reappraisal areas. The Assessor continues to physically inspect 1/5 of the county each year to capture any new improvements added without a permit within the previous 5 years.

Department Findings:

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

Property Type	Sample Size	Samples in Compliance	Samples out of Compliance	Exception Rate
Vacant Land	22	22	0	0%
Single-Family Residential Land	8	8	0	0%
Multi-Family Residential Land	0	0	0	0%
Commercial and Industrial Land	1	1	0	0%
Agricultural Land	11	11	0	0%
Single Family Residential Improvements (Note 1)	25	17	8	32%
Multi-family Residential Improvements (Note 2)	7	4	3	43%
Commercial and Industrial Improvements (Note 3)	7	6	1	14%

Note 1: Single Family Residential Improvements: Of the outliers listed above, 3 were found in the 4/5 of the county which was not *physically* inspected during the 2011-2012 tax year.

Note 2: Multi-Family Residential Improvements: Of the outliers listed above, 2 were found in the 4/5 of the county which was not *physically* inspected during the 2011-2012 tax year.

Note 3: Commercial and Industrial Improvements: Of the outliers listed above, 1 was found in the 4/5 of the county which was not *physically* inspected during the 2011-2012 tax year.

Procedures, Issues and Recommendations

Marshall& Swift: The Assessor did not use the zone 3 seismic adjustment during work year 2010 but will begin utilizing it in 2011. All of the residential outliers are partially due to the lack of this adjustment. The Assessor is using the zip code default 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.

Six residential properties are out of compliance due to the absence of a foundation in the costing. A review of similar single and multi-family, site-built properties indicate the use of a raised subfloor which appears typical for the area. It is recommended that the Assessor review each Marshall Swift Standard Report for residential property to verify the existence of a foundation during reappraisal. Marshall Swift software includes the option to select a raised subfloor, concrete slab or basement foundation as part of the cost estimation.

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 and/or internally published appraisal categories and property appraisal value tables which are updated annually. The DOAS appraiser discovered that when the appraisal value tables are used, the Assessor typically values minor improvements at the lower end of the cost range. It is recommended that the Assessor use interpolation in order to more accurately value the minor improvements taken from the value tables. 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.

New Construction Valuation: The Assessor discovers new construction using county issued building permits. At times improvements are made to a property without the need or use of a county permit and therefore, are not discovered until physical reappraisal. The assessor is correctly valuing and depreciating all new improvements once discovered.

Agricultural Parcels: Eleven agricultural parcels were sampled for this year's ratio study and all were found to be within required ratios. One parcel will be reviewed by the assessor for possible change in land classification.

Appraisal Records: Pershing County's files are efficiently maintained and at least one prior reappraisal cycle file can be found for comparison. Computerized drawings continue to replace previous hand drawn sketches of property improvements. Most assessment information is available on-line to the public via the Pershing County website.

Personal Property: Pershing County maintains proper records for Personal Property. Twenty-eight accounts comprising 260 records were examined. There were three outliers caused by rounding errors having minimal values while two outliers were due to incorrect cost indexes used on unsecured aircraft accounts. An incorrect year was found on one secured agricultural account which appeared to be a typographical data entry.

**PERSHING COUNTY
OUTLIER REPORT
2011-12 RATIO STUDY**

A.O. = Assessor's Office

<i>APN</i>	<i>Land</i>	<i>Imp</i>	<i>Total</i>	<i>Property Type</i>	<i>REAPPRAISAL AREA COMMENTS</i>
001-017-07	34.56%	31.41%	32.60%	SFR	Improvement outlier a result of A.O. not including raised subfloor foundation in cost estimate and not using zone 3 seismic adjustment.
001-034-09	33.33%	31.63%	31.91%	SFR	Improvement outlier a result of A.O. not including raised subfloor foundation in cost estimate and not using zone 3 seismic adjustment.
001-044-06	34.89%	31.18%	32.60%	SFR	Improvement outlier a result of A.O. not including raised subfloor foundation in cost estimate and not using zone 3 seismic adjustment.
001-066-08	33.67%	30.18%	31.40%	MFR	Improvement outlier a result of A.O. not including raised subfloor foundation in cost estimate and not using zone 3 seismic adjustment.
001-201-16	34.74%	31.04%	32.50%	SFR	Improvement outlier a result of A.O. not including raised subfloor foundation in cost estimate and not using zone 3 seismic adjustment.
001-213-27	34.42%	31.81%	32.33%	SFR	Improvement outlier a result of A.O. not including raised subfloor foundation in cost estimate and not using zone 3 seismic adjustment.

**PERSHING COUNTY
OUTLIER REPORT
2011-12 RATIO STUDY**

A.O. = Assessor's Office

<i>APN</i>	<i>Land</i>	<i>Imp</i>	<i>Total</i>	<i>Property Type</i>	<i>NON-REAPPRAISAL AREA COMMENTS</i>
006-025-14	34.58%	39.87%	38.63%	SFR	Improvement outlier a result of difference between current cost and improvement factor and A.O. not using zone 3 seismic adjustment.
006-037-09	33.94%	30.11%	30.82%	MFR	Improvement outlier a result of difference between current cost and improvement factor and A.O. not using zone 3 seismic adjustment.
007-241-54	33.35%	36.83%	36.50%	COM	Improvement outlier a result of difference between current cost and improvement factor.
007-262-08	35.65%	37.80%	37.26%	SFR	Improvement outlier a result of difference between current cost and improvement factor and A.O. not using zone 3 seismic adjustment.
007-490-09	34.38%	37.89%	36.48%	MFR	Improvement outlier a result of difference between current cost and improvement factor and A.O. not using zone 3 seismic adjustment.
009-250-01	35.79%	31.98%	32.55%	SFR	Improvement outlier a result of difference between current cost and improvement factor and A.O. not using zone 3 seismic adjustment.

WHITE PINE COUNTY RATIO STUDY 2011-2012

All land is reappraised each year in White Pine County. The Nevada Tax Commission approved the Assessor’s¹ request to reappraise all land, rather than apply a land factor in non-reappraisal areas, on October 2, 2006.

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

(a) Property Type	(b) Sample Size	(c) Observations in Compliance	(d) Observations out of Compliance	(e) Exception Rate
Vacant Land	31	31	0	0%
Single-Family Residential Land	51	50	1	.02%
Multi-Family Residential Land	15	15	0	0%
Commercial and Industrial Land (Note 1)	16	15	1	.06%
Agricultural Land	7	6	1	14%
Single Family Residential Improvements (Note 2)	51	17	34	67%
Multi-family Residential Improvements (Note 3)	15	10	5	33%
Commercial and Industrial Improvements	16	8	8	50%
Agricultural Improvements	7	3	4	57%

Note 1: Single-family Residential Improvements: Two observations were located in the re-appraisal area and forty-nine in the non-reappraisal area. Thirty-four properties were found to be out of compliance in the non reappraisal area.

Note 2: Multi-family Residential Improvements: There were ten observations located in the re-appraisal area and five in the non-reappraisal area. Five were out of compliance in the non-reappraisal area.

¹ All references to the Assessor means the Assessor or the Assessor’s staff.

Note 3: Commercial and Industrial Improvements: Two observations located in the re-appraisal area and six in the non-reappraisal area were found to be out of compliance.

Note 4: Agricultural Improvements: All seven observations were located in the non reappraisal area. Four were out of compliance.

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. The preferred method is to value all improvements by what is actually on the parcel. Costs from the Rural Building Manual were inappropriately used. The Rural Building Manual is limited to the valuation of structures where unprofessional or unskilled labor was used to build the improvement or do not conform to applicable building code. Costs applied to certain improvements were clearly built by professional labor but valued using the Rural Manual resulting in the under valuation of improvements. After these observations were made, the Assessor addressed the issue and corrections were implemented.

New Construction Valuation: The Assessor discovers nearly all new construction using the county building 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 1st, 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. The Assessor is correctly valuing and depreciating new improvements once discovered with the exception of that listed above. A review of several properties with new construction revealed that the improvements are being captured and when measured and valued, are done so correctly.

Marshall & Swift:

Occupancy type in the Marshall & Swift manual needs to be more closely reviewed when determining quality class. Quality classes are not consistently being used to accurately classify commercial buildings resulting in undervaluation. The Department recommends the Assessor review the quality class of all commercial properties during reappraisal to make accurate identifications, using the information provided in Marshall & Swift.

The seismic and energy adjustments are not being used currently on residential properties. The majority of outliers were due to non use of seismic and energy adjustments in Marshal and Swift. This adjustment on older homes can cause greater discrepancy in value. The assessor had finished costing when the Department's Guidance Letter was received regarding the use of seismic adjustments. It is recommended that the assessor utilize this adjustment as stated in the Department's Guidance Letter and the Marshall & Swift Residential Manual. Energy adjustment is tied to the building code. It is recommended the assessor use the Zone 3 adjustment as stated in the Marshall & Swift Residential Manual and the county building codes.

Obsolescence: It is recommended that the Assessor create a database or spreadsheet of those parcels or areas which are given obsolescence and how much was applied during each given year in order to keep a running history for defense of values and future trending.

Appraisal Records: White Pine County's files are complete, correct and generally up to date and a minimum of one prior reappraisal cycle can be found for comparison. AG records are generally in good order, but care should be taken with land when taken in and out of AG. These must be noted more clearly in the files. Continued Ag use must be documented.

Land Sales coding: The Department recommends the Assessor design a better identification coding system for vacant land sales. Internet sales should be coded for validity but not excluded. In addition, some parcels in the same book have electricity and others do not. The Department recommends adding a code to reference "utilities available" for vacant land. The Assessor has done an effective job compiling sales data in a useable data base.

Exempt Properties: All property in the county is required to be valued in accordance to NRS 361.227 to include exempt properties. This has not been done on government, state or county properties. It is recommended that all property be valued and documentation available.

All outliers have been corrected or addressed by the Assessor .

Personal Property:

Personal Property records were filed efficiently, but require some updating. 25 Accounts with a total of 335 records were examined. After adjusting for rounding there were 33 outliers. All were out due to age/life errors.

It appears many records have not been updated per the Personal Property manual. Common age/life errors found include: cell phones, ice makers, copiers, paging systems, chainsaws and telephone systems. These items changed age/life 2 years ago. It is recommended the assessor compare the previous and current manuals for changes each year to ensure proper application of age/life. Aircraft and large equipment were found to have questionable purchase values. It is recommended that the Assessor require better documentation to support these values. Detailed documentation is necessary on accounts with shared equipment to keep one account from getting the total depreciation and cost. It is recommended the assessor put procedures in place to ensure proper application and depreciation of personal property with shared equipment.

ⁱ Please see Outlier Report for details.

**WHITE PINE COUNTY
OUTLIER REPORT
2011-12 RATIO STUDY**

NON= Non Reappraisal Area A.O. Assessor's Office

<i>APN</i>	<i>Land</i>	<i>Imp</i>	<i>Total</i>	<i>Property Type</i>	<i>COMMENTS</i>
004-055-11	33.80	31.65	31.70	COM	Below acceptable range - Quality class
004-055-27	33.71	22.82	23.37	COM	Below acceptable range - Occupancy
004-134-18	34.73	24.60	25.44	SFR	Below acceptable range. Not all CFW done in 1930, age weighting of 2 additions. Please redraw in APEX 1930 house and additions with separate GAL's on same page. Total sq. ft. is incorrect.
004-153-02	33.04	28.53	29.48	SFR	Below acceptable range - 25% Functional obsolescence, not habitable Seismic & Energy
001-182-09	33.72	31.84	31.92	Non Reap Com	Below acceptable range - Seismic & Energy
001-183-12	33.71	30.70	31.43	Non Reap Com	Below acceptable range - Seismic & Energy
001-281-02	33.74	27.45	28.30	Non Reap Com	Below acceptable range - Priced Rural Man. in town center
010-281-12	32.37	16.19	16.74	Non Reap Com	Below acceptable range - Currant Cost Vs Improvement Factor
010-281-50	33.49	23.99	25.26	Non Reap Com	Below acceptable range - Occupancy and rank
010-281-53	11.11	23.77	21.52	Non Reap Com	Below acceptable range - Government building and land office/garage
001-96-05	33.84	31.08	31.93	Non Reap MFR	Below acceptable range - Seismic & Energy
001-199-01	32.76	30.86	31.16	Non Reap MFR	Below acceptable range - Seismic & Energy
001-335-05	32.75	31.08	31.20	Non Reap MFR	Below acceptable range - Seismic & Energy
010-450-13	32.04	30.77	31.21	Non Reap MFR	Below acceptable range - Seismic & Energy
012-410-04	33.97	60.73	38.93	Non Reap MFR	Reduction recommended, one livable manufactured home, all sheds in poor condition and completely depreciated.
001-146-03	34.61	29.83	31.07	Non Reap SFR	Below acceptable range - Seismic & Energy
001-295-03	33.78	31.35	31.81	Non Reap SFR	Below acceptable range - Seismic & Energy
001-313-03	32.67	29.62	30.13	Non Reap SFR	Below acceptable range - Seismic & Energy
001-318-15	33.88	29.20	30.26	Non Reap SFR	Below acceptable range - Quality class, Seismic & Energy
001-374-11	32.77	30.94	31.54	Non Reap SFR	Below acceptable range - Seismic & Energy
001-385-06	32.75	20.03	22.40	Non Reap SFR	Below acceptable range - Current cost V improvement factor metal side
001-424-10	32.77	28.06	29.37	Non Reap SFR	Below acceptable range - Quality class, Seismic & Energy
001-474-10	32.04	30.75	31.12	Non Reap SFR	Below acceptable range - Seismic & Energy
002-094-05	32.10	29.42	30.53	Non Reap SFR	Below acceptable range - Current cost Vs improvement factor
002-103-02	32.09	30.38	30.94	Non Reap SFR	Below acceptable range - Seismic & Energy
002-191-04	33.53	30.81	31.36	Non Reap SFR	Below acceptable range - Seismic & Energy
002-202-03	32.09	27.55	29.12	Non Reap SFR	Below acceptable range - Current cost Vs improvement factor
003-021-03	34.77	28.23	28.90	Non Reap SFR	Below acceptable range - Current cost Vs improvement factor

**WHITE PINE COUNTY
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003-032-01	35.28	29.01	30.09	Non Reap SFR	Below acceptable range - Current cost Vs improvement factor
003-072-13	33.37	30.27	30.65	Non Reap SFR	Below acceptable range - Current cost Vs improvement factor
003-072-16	33.37	28.21	29.08	Non Reap SFR	Below acceptable range - Current cost Vs improvement factor
010-290-07	35.25	26.30	30.47	Non Reap SFR	Below acceptable range - Current cost Vs improvement factor
010-530-23	34.68	25.82	27.59	Non Reap SFR	Below acceptable range - Current cost Vs improvement factor
010-720-05	34.63	30.54	31.14	Non Reap SFR	Below acceptable range - Current cost Vs improvement factor
010-500-15	34.56	29.49	30.46	Non Reap SFR	Below acceptable range - Current cost Vs improvement factor
011-210-16	12.07	30.19	28.50	Non Reap SFR	Below acceptable range - 10 AC. Non Ag, new construction s.f.dif
010-120-07	34.38	30.22	31.32	Non Reap Ag	Below acceptable range - Interpolation of rural man, seismic and energy
011-210-18	35.18	26.54	26.64	Non Reap Ag	Below acceptable range - Interpolation of rural man, seismic and energy
011-210-19	35.08	30.92	31.79	Non Reap Ag	Below acceptable range - Interpolation of rural man, seismic and energy
012-480-02	0	0	0	Non Reap Ag	No calculation for exempt property