

NEVADA TAX COMMISSION
May 24, 2009

TOPIC: Approval of the 2010-2011 Report of Assessment Ratio Study

AUTHORITY: Nevada Revised Statute 361.333 requires the Nevada Tax Commission to equalize property under its jurisdiction based on required information.

EXPLANATION: 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.

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.

RECOMMENDATIONS: The Department recommends the adoption of the 2010-2011 Report of Assessment Ratio Study by the Nevada Tax Commission.



DEPARTMENT OF TAXATION

Division of Assessment Standards

2010-2011 Report of Assessment Ratio Study

DIVISION OF ASSESSMENT STANDARDS

2010-2011 Report of Assessment Ratio Study

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2010-11 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 2010-2011 are Douglas, Humboldt, Lyon, Nye, and Washoe Counties.

If inequity or bias is discovered, NRS 361.333 provides the Nevada Tax Commission the authority to apply factors designed to correct inequitable conditions to classes of property or it may order reappraisal, the goal of which is to 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 mean, median, or aggregate ratio, is a single number or value that describes

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.

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.

There is no range of acceptability stated in statute or regulations for the COD measure, although the State Board of Equalization adopted permanent regulations which reference the Ratio Study Standard of the International Association of Assessing Officers (IAAO).⁷ The IAAO 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."⁸ 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	5.0 to 10.0
Older, heterogeneous areas	5.0 to 15.0
Rural residential and seasonal	5.0 to 20.0
Income-producing properties	
Larger, urban jurisdictions	5.0 to 15.0
Smaller, rural jurisdictions	5.0 to 20.0
Vacant land	5.0 to 25.0
Other real and personal property	Varies with local conditions ⁹

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

⁷ See LCB File No. R153-09A, adopted by the State Board of Equalization on March 1, 2010.

⁸ International Association of Assessing Officers, Standard on Ratio Studies, (2007), p. 13.

⁹ International Association of Assessing Officers, Standard on Ratio Studies, (2007), p. 17.

Ratio Study Conclusions

The 2010-2011 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 25-27. 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 2010 study year beginning at page 29. Here the aggregate and median ratios, the COD, and the median related differential (MRD) are compared across types of property in the five counties. Beginning at page 31, 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 28 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 28 indicates that of the five counties studied in 2010-2011, regressivity is present for all property in Nye County and particularly improved land (1.07 and 1.13, respectively); regressivity for improvements and vacant land in Lyon County (1.05 and 1.07, respectively); and progressivity is present in Humboldt County for commercial and industrial property. 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 Humboldt County at 36.1%, which is minimally over the range. In addition, the aggregate ratio for single family residential land in Lyon County is low at 26.6%, multiple family improvements at 30.5% and total multiple family property at 31.4%. Agricultural personal property is also too low at 29.3%, however, there was only one observation in the sample and is insufficient data from which to draw any conclusion.

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. (See page 29). In other words, the ratio of the assessed value established by each county assessor, measured against the taxable value established by the Department, is within statutory limits.

In addition, the COD for each reappraisal area for each county indicate the appraisals are relatively uniform, except Nye County where the COD appears high for certain categories of improved land.

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 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 three years ago, the Department began a more comprehensive "Procedural Audit" process, also known as an "Office Review" process. During each of the past three years, Department staff conducted Procedural Audits / Office Reviews on approximately 1/3 of the counties. Therefore, Procedural Audits / Office Reviews have now been completed for all counties. 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 three-year Procedural Audit / Office Review reports noted two departures from required practice (both in Mineral County), 165 recommendations for improvement, and 97 instances of "best practices" achieved by various counties. The status of these items is noted in the following section entitled "Implementation Status of Procedural Audits / Office Reviews." A detailed explanation of these items, sorted by topic, is noted in the following section entitled "Procedural Audit / Office Review Topics."

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 Department is now embarking on a Performance Audit Program to build upon the Procedural Audit / Office Review baseline information. 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 conducted over the past three years. These sections also include the results of the Department’s follow up processes on these Procedural Audits / Office Reviews.

Departures from Required Practice

The 2007-2008, 2008-2009, and 2009-2010 Reports of Assessment Ratio Study noted two departures from required or accepted appraisal practices. Both of these departures were in Mineral County.

The 2009-2010 Report of Assessment Ratio Study under the Mineral County section (page 19) states that “*There is no longer a certified Personal Property Appraiser in this office. This is a violation of statute¹⁰.*”

Follow-up: Since this condition was reported, Mineral County has corrected the situation. Mineral County now has one employee (the Assessor) certified in both real and personal property, one employee certified in personal property only and one uncertified data collector.

The 2009-2010 Report of Assessment Ratio Study under the Mineral County section (page 19) states that “*A web page for assessor’s data for public review is required by statute¹¹.*”

Follow-up: Since this condition was reported, Mineral County has investigated the cost of providing this service and is attempting to implement a web site, subject to funding. In the interim, the Department of Taxation posts the Mineral County property tax roll

¹⁰ NRS 361.221 through 361.224

¹¹ NRS 361.0445(3)

on its website for compliance with NRS 361.0445(3). In addition, Lincoln County has a web site with some mapping capabilities but no access to property data or assessment rolls. White Pine County does not have a website and therefore has no access to maps, property data, or assessment rolls. In the interim, the Department of Taxation posts the property tax roll on its website for compliance.

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 recommendations are summarized below by county, together with the results of the Department's follow-up on the recommendations.

Table I.

County	Report Year	Total	Fully Implemented	Partially Implemented	No Action	No Longer Applicable
All Counties	N/A	165	93	55	10	7
Carson City	2008-2009	5	3	2		
Churchill	2008-2009	1	1			
Clark	2009-2010	2	1		1	
Douglas	2007-2008	12	11	1		
Elko	2008-2009	9	4	4		1
Esmeralda	2009-2010	7	6			1
Eureka	2009-2010	9	8	1		
Humboldt	2007-2008	14	7	5		2
Lander	2007-2008	6	4	2		
Lincoln	2009-2010	6	4	2		
Lyon	2007-2008	19	12	7		
Mineral	2009-2010	15		12	3	
Nye	2007-2008	22	7	10	5	
Pershing	2008-2009	6	4	1		1
Storey	2009-2010	6	2	3		1
Washoe	2007-2008	19	16	3		
White Pine	2008-2009	7	3	2	1	1

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.

Best Practices

The 2007-2008, 2008-2009, and 2009-2010 Reports of Assessment Ratio Study noted 97 areas in which the Department noted high performance or demonstration of "Best Practices" in performance. See *Table II*.

Table II.

County	Report Year	Number	County	Report Year	Number
Carson City	2008-2009	3	Lincoln	2009-2010	7
Churchill	2008-2009	12	Lyon	2007-2008	5
Clark	2009-2010	6	Mineral	2009-2010	4
Douglas	2007-2008	4	Nye	2007-2008	5
Elko	2008-2009	4	Pershing	2008-2009	7
Esmeralda	2009-2010	4	Storey	2009-2010	3
Eureka	2009-2010	5	Washoe	2007-2008	14
Humboldt	2007-2008	6	White Pine	2008-2009	4
Lander	2007-2008	4	All Counties	N/A	97

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.*" In each of the prior three ratio studies during the "baseline" period, even if a particular county met minimum statutory requirements, the Department noted areas for potential performance improvement. The following three-year summary results in a "baseline" in which minimum practices and best practices can be identified.

The topics included in the procedural audits / office reviews were:

1. Data collection, including geographic and property characteristic data

An effective property tax information system requires the accurate collection of data on parcels of land and property characteristics. Audit questions were designed to elicit information about the mapping program, criteria used to determine a parcel of land, what factors affecting value are tracked, and how the assessor went about data collection.

Parcel systems: The definition of a parcel of land for assessment purposes is "*a contiguous area of land under one ownership and in one general use*¹²." It is identified using an assessor's parcel number (APN). All parcel combinations and splits are required to have unique parcel numbers assigned in a timely manner¹³. The Procedural Audits / Office

¹² See Nevada Property Tax: Elements and Application published by the Nevada Department of Taxation, p. 3.

¹³ NRS 361.215

Reviews indicate that all counties are properly assigning parcel numbers based on this definition.

The parcel numbering systems used by all counties meet standards and have been approved by the Nevada Tax Commission. The standard model used by the majority of counties was adapted from California's map-book and page system¹⁴. Clark and Douglas Counties use approved, alternative parcel numbering systems.

The Department recognized the numbering system of Douglas County as "best practice." The 12-digit parcel identifier used in Douglas County permits direct reference to the location of the parcel within a township-range-section¹⁵ (T-R-Sec). The T-R-Sec has general meaning and can be referenced on any map with township-range-section designations, rather than to a map book which can only be referenced from an index maintained in the assessor's office. For example, parcel number 1221-10-000-012 in Douglas County reveals that the parcel is located in Township 12 North Range 21 East based on the first four digits (1221: The first two digits for township and the next two digits for range). The next two digits (10) reveal that the parcel is located in Section 10 of Township 12 North, Range 21 East. The next three digits reference fractions of a section. In this example, the seventh, eighth and ninth digits (000) reveal that the parcel is located on a "page" representing the entire section 10. And finally, the last three digits are the parcel on the "page" within the Douglas County assessor parcel maps.

The Department also recognized the numbering system of Clark County as "best practice" because it is based on the T-R-Sec system. However, the system in Clark County requires use of an index maintained in the assessor's office to reference the Township and Range. The 11-digit parcel identifier used in Clark County indexes Township and Range to a "Book number." For example, parcel number 162-35-113-001 reveals that the parcel is in Book 162 of the assessor parcel records. A user would need to obtain the index to determine that the parcel is located in Township 21 South Range 61 East. Like the Douglas County system, the next two digits (35) reveal that this parcel is located in section 35 of Township 21 South Range 61 East. Similar to the Douglas County system, Clark County consistently uses the next digit (1 through 8) to assign a page number based on the ½ of a ¼ section of land (80 acres) (or 0 if an entire section). The next two digits represent individual subdivisions, if any, on the map or identify un-subdivided land. And finally, the last three digits reference the parcel on the "page" within the Clark County assessor parcel maps.

Recommendations were made to Elko, Esmeralda and White Pine counties to consider changing to the 12-digit system as a best practice.

¹⁴ Nevada Property Tax: Elements and Application published by Nevada Department of Taxation, Page 3

¹⁵ Land surveyed under the authority of the United States may be described by township, range, section or fractional section. See NRS 361.195. Also see the United State Bureau of Land Management website at: www.nv.blm.gov/LandRecords

The Department recognizes that significant costs are involved in changing parcel numbering systems.

Follow-up Parcel Systems: Any change to a parcel numbering system must be approved by the Nevada Tax Commission. No applications were filed with the Nevada Tax Commission requesting a change in the parcel numbering system. Elko, Esmeralda, and White Pine Counties reported that the costs to implement a new numbering system exceed the benefits of such implementation. The Department classified these recommendations as "No Longer Applicable" however, the Department intends to recommend the Douglas County model for any future requests to change parcel numbering systems and encourages Counties to continue to examine the feasibility of a uniform numbering system throughout all 17 counties, based on the Douglas County model.

Mapping programs: The mapping systems maintained by all counties meet standards. The criteria for determining minimum compliance are described in NRS 360.280(1)(d) which states that *"The County Assessor shall ... maintain a complete set of maps to accurately describe and illustrate all parcels of land as provided in chapter 361 of NRS."* Legal description of lands for purposes of assessment is described in NRS 361.189 through 361.220. Maintenance of certain types of data in a parcel record is required in order to comply with the statutes and regulations including (1) chain of title, including copies or access to recorded deeds with the correct legal descriptions, (2) record of survey, (3) ancillary legal documents and surveys, (4) deed recording numbers and dates, (5) assessment map work, and (6) date of map development. Maintenance of additional data may facilitate performance in this area.

The Department recognized the GIS mapping systems used in Clark, Douglas, Lyon, and Washoe as "best practice." Staff noted that map information is clear, accurate and well-presented with the use of GIS software. Maps are drawn on appropriate scales using standardized layouts, linework, and symbols. Digital maps are available on both the intranet and external web pages. As maps are retired, they are scanned and stored digitally offsite as historic maps.

The standards do not require a computerized mapping system. The Department did not make specific recommendations to specific counties to implement GIS systems for mapping and integration of GIS systems with appraisal, assessment, billing, imaging, and internet applications. However, many counties are transitioning from manual systems to computerized systems because of the many advantages that computerization and systems integration provide. A few of the advantages include (1) the ability to produce maps of various scales relatively quickly, (2) the ability to share data or transfer data, thereby increasing efficiency, (3) the ability to provide public information in a user friendly format, (4) to facilitate interactive internet access to information, (5) to improve quality of maps through standardization of elements and (6) the ability to overlay various forms of data to aid in visualizing patterns or analysis of data. The Department recognizes that

costs are involved in computerizing mapping systems and analysis of costs versus benefits would be needed.

Follow-up Mapping Systems: Assessors, in general, reported that they understand the benefits of computerized mapping and GIS systems but are also conscious of the costs to implement and maintain such systems.

Property characteristics: The data collection and maintenance systems for property characteristics in all 17 counties meet standards¹⁶.

Collection and maintenance of information on applicable attributes of property is the cornerstone of appraisal. Positive and negative factors that influence value must be collected and maintained. Markets vary dramatically between counties in Nevada and within various areas of each county. Assessors must determine which factors to track based on market analysis.

Factors that may influence land values include the real property rights conveyed, financing terms, conditions of sale, market conditions, location, physical characteristics, size, zoning or use, and governmental restrictions and nonrealty components of value¹⁷. Other factors that may influence land values include lot size and shape, topography, zoning, utilities, golf courses, rivers, lakes, mountains, greenbelts, road frontage, view, traffic, and soil type.

Factors that may influence improvement values include quality of design and construction, size, number of rooms, plumbing, fireplaces, appliances, basements, porches, breezeways, garages, yard improvements, and energy saving features. The State of Nevada uses the Marshall and Swift Publication Company cost manuals, including appropriate multipliers, to value improvements under the cost method¹⁸. Inspection and drawing of interiors of new construction is critical in making determinations of value. Systems to track personal property characteristics¹⁹ are required.

In order to use the income approach to value²⁰, income and rent data must be collected and maintained on income producing properties. This data can be valuable either as the primary determination of value or in reconciliation of various approaches to value.

¹⁶ NAC 361.118(1)(b): The elements of comparison between the comparable properties and the subject property that may be used by the county assessor include, without limitation, the real property rights conveyed, financing terms, conditions of sale, market conditions, location, physical characteristics, size, zoning or use, governmental restrictions and nonrealty components of value.

¹⁷ NAC 361.118(1)(b)

¹⁸ NAC 361.128(2)(b) and (3)

¹⁹ NAC 361.1345 through NAC 361.139

²⁰ NAC 361.318

A visual inspection and reappraisal of each property must be done at least every five years.²¹ The primary purpose of the visual inspection is maintaining property attribute databases, including discovery of property.

Statutory depreciation²² and, in some cases, market depreciation²³ information is required to appropriately establish taxable value. Computerized systems are not required by statute and regulations but computerized systems are needed for practical application of this requirement.

The Department recognized the “best practice” procedures used in Churchill, Clark, Humboldt, Lincoln, and Pershing Counties to re-measure existing properties to verify questionable data and to routinely inspect and draw the interiors of new construction to aid in the determination of quality class and to identify improvements that should be included in the Marshall/Swift cost analysis.

The Department recognized the “best practice” procedures used in Washoe and Lyon County for use of aerial photography to identify new improvements. Washoe County was further recognized for its practice of maintaining comprehensive computerized property characteristics records, including building data, special features, factors affecting land value such as zoning and flood hazards, sales transfer information and building permits. Washoe County routinely collects zoning data and records the zoning data on maps.

The Department recognized the “best practice” procedures used in Churchill County for use of GIS and ortho photography for data collection to enhance accuracy. Churchill County also routinely collects information, particularly rents, for commercial, industrial, and multi-family residence properties to aid in the identification of obsolescence and market trends.

The Procedural Audits / Office Reviews contained recommendations to Douglas, Mineral, Nye, Washoe, and White Pine counties to consider routine inspection of new construction to aid in the determination of quality class and to identify improvements that should be included in the Marshall/Swift cost analysis.

The Department made recommendations to Humboldt, Lander, Mineral, Nye and White Pine counties to consider improving data collection techniques by use of aerial photography.

The Department noted that Nye County has failed to implement a comprehensive building permit system (particularly in northern Nye

²¹ NRS 361.260(6)

²² NRS 361.227

²³ NAC 361.119

County), which hinders discovery, appropriate classification of land, and proper taxation in the county. Similarly, lack of zoning control requirements in Nye County hinders the work of the assessor, particularly in the actively developed areas of the county. Zoning data provide an important comparison tool related to land use and the valuation of land, but is not available for analysis. Zoning is the prerogative of the county commission, which has yet to adopt a comprehensive and enforced zoning control program. The Department also recommended that Nye County consider routinely capturing data on land attributes to determine whether land value has been appropriately adjusted for positive or negative situs factors.

The Procedural Audits / Office Reviews revealed that ten²⁴ of the 17 counties do not routinely collect information, particularly rents, for commercial, industrial, and multi-family residence properties to aid in the identification of obsolescence and market trends. The Department recommended that all counties consider routine collection of this information. This data can be used as a valuation method or in the reconciliation of various valuation methods.

Follow-up Property Characteristics: Since the recommendations were originally made, Humboldt County has implemented Pictometry and Mineral County uses aerial photography maintained in the Mineral County GIS department. Lander County is considering aerial photography, subject to cost and availability of vendors. White Pine County reported that the costs of aerial photography exceeded the benefits.

Since the recommendations were originally made, the Nye County Commission has not adopted comprehensive building and zoning regulations. Nye County has implemented building and zoning regulations in Pahrump only.

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. Verification of land sales, including sales transaction data, verification procedures, and sold property data

Sales data are required for virtually all the assessments made by the local assessor. Sales data are also required to conduct the ratio studies that measure various aspects of appraisal performance. Sales data must be carefully screened to ensure accuracy. Audit questions were designed to examine how thoroughly sales are verified.

Collection of Sales Data: Because of significant variation in the quantity of sales that occur in each county, methods used to record sales vary in each county. For example, Clark County uses computerized systems in which the Recorder audits the sale and inputs it into the computer

²⁴ Carson, Douglas, Elko, Esmeralda, Eureka, Humboldt, Lyon, Nye, Storey, Washoe

system for subsequent verification by Sales Analysts in the Assessor's Office. In other counties, sales data is recorded in excel spreadsheets from copies of deeds or other source documents. In other counties, the sales data is maintained manually. Despite differences in methods used to records sales data, each county adequately records information about sales. The Department determined that each county meets standards²⁵ for collection of sales data.

The following typical data elements should be collected: (1) total amount paid for the property, (2) terms of sale, (3) names and contact information of buyer and seller, (4) relationship of buyer and seller, (5) legal description, address, and APN of property, (6) information regarding the arm's length nature of the sale, (7) length of time on the market, (8) extent of interest transferred to the buyer, (9) the nature of non-realty items, and (10) the date of transfer. This information is generally obtained from deeds, title company records, real property transfer tax declarations, multiple listing services, newspaper/magazine ads, and other miscellaneous sources (e.g. rental information)²⁶.

Humboldt and Lyon County were recognized for their "best practice" of including information about sales as well as property characteristics in their computerized systems. The Department encouraged Humboldt and Lyon County to improve functionality between the assessor data system maintained on their AS-400 computers with the spreadsheets maintained on personal computer networks.

Washoe County was recognized for its "best practice" of including information about verification in the data base. Washoe County was encouraged to add methods to record the length of time the property was on the market prior to sale.

The Department made recommendations to Mineral and Nye County to begin tracking sales in a spreadsheet. The Department made the following recommendation to Lincoln County: *"The lack of MLS data and hard zoning in Lincoln County contributes to less than full data. The assessor relies on data contained in the real property transfer tax declaration of value. The sales file does not include information regarding the arm's length nature of the sale, the length of time the property is on the market, the extent of interest transferred to the buyer, or the nature of non-realty items"*²⁷.

Follow-up Collection of Sales Data: Mineral County now records sales in the ADS sales program. Nye County is currently implementing a spreadsheet system. Lincoln County implemented additional procedures to obtain the required information. This subject will be investigated in more detail

²⁵ NAC 361.118(2) the county assessor must acquire sufficient sales data concerning the comparable property.

²⁶ NAC 361.118(3)(d) the elements of comparison used and adjustments made by the county assessor must be identifiable and supported by verifiable market data.

²⁷ 2009-2010 Report on Assessment Ratio Study, Page 15

during the Land Valuation Performance Audit currently in progress.

Sales Verification Procedures: Sales data must be carefully screened to ensure accuracy before using the information in valuation processes. NAC 361.118 (3): "The county assessor may determine the accuracy of the sales data acquired pursuant to subsection 2 by: (a) contacting the buyer, seller, title company or other knowledgeable participant in the transaction, (b) using sales questionnaires, (c) conducting personal interviews, or (d) reviewing declarations of value."

Ten²⁸ of the 17 counties use questionnaires to verify sales. Counties not using questionnaires cited high costs and low response rates as reasons for not using questionnaires. The Department made recommendations to all counties to consider use, or improvement in the use, of questionnaires to improve the accuracy of sales data.

Churchill County was recognized for its "best practice" to verify and review sales data and to conduct sales ratio studies on groups of properties. Esmeralda County was recognized for its "best practice" of routinely verifying sale information from a second source (title company, buyers, sellers, etc.) besides the declaration of value to promote accuracy of information.

The Department made a recommendation to Douglas County to use a second source, in addition to the declaration of value, to verify sales data.

Some counties invalidated sales that did not contain all the information rather than following up and obtaining the information needed to properly validate the sale. The Department recommended that assessors conduct appropriate follow up and document the procedures in the records.

Follow-up Sales Verification Procedures: Douglas County now uses both questionnaires and title company information in its sales verification processes. This subject will be investigated in more detail during the Land Valuation Performance Audit currently in progress.

Sold Property Data: Each sale is associated with particular property characteristics that existed at the time of sale. To preserve comparability of sales data, a "snapshot" of property characteristics associated with a sale is required. For instance, if a property sells in January, and a garage is added in August, the production file should reflect the garage, but the sales file should reflect the property with no garage. This data is also important for improved sales used with abstraction or allocation methods of land valuation.

²⁸ Churchill, Eureka, Humboldt, Lander, Lincoln, Mineral, Nye, Pershing, Washoe, White Pine

The Department made recommendations to Douglas, Eureka, Humboldt, Lander, Lyon, and Nye Counties to improve systems to retain property characteristics with sales data.

Follow-up Sold Property Data: Douglas, Eureka, Humboldt, Lander, Lyon, and Nye Counties have developed systems to allow for appropriate comparison of property characteristics at the time of sale.

3. Stratification

Questions about how assessors stratify data were included in the audit to discover the extent of use of the stratification tool in pursuing equitable assessments. Sales data is normally sorted (stratified) by neighborhood and/or market area to aid in the development of accurate valuation models.

Twelve²⁹ of the 17 counties were recognized for their “best practice” related to stratification processes. This indicates that the majority of counties are using market indications of value to determine proper comparative sales. The remaining five counties are adequately stratifying sales for use in valuation, but some recommendations for improvement were made, primarily relating to formalizing written stratification criteria and using additional strata to reflect market influences.

Follow-up Stratification: It appears that all counties are adequately defining strata to reflect market influences. This subject will be investigated in more detail during the Land Valuation Performance Audit currently in progress.

4. Analysis of land sales, including alternative methods of land valuation and subdivision discounts

An effective appraisal system depends on accurate land values. Audit questions were designed to discover how assessors use the sales comparison approach, alternative methods of land valuation, and how they determine and apply subdivision discounts.

Analysis of Land Sales: Fourteen³⁰ of the 17 counties were recognized for their “best practice” of routinely plotting land sales on maps by price per unit to help visualize patterns in land sales. The Department made recommendations to five counties to adjust sales used in the valuation analysis to the valuation date (time adjustment) to produce a more accurate estimate of property values at a given point in time. The Department also made recommendations to five counties to consider developing standards, in writing, for the valuation of triangular,

²⁹ Carson, Churchill, Clark, Douglas, Elko, Esmeralda, Eureka, Lander, Lincoln, Pershing, Storey, and Washoe.

³⁰ Carson, Churchill, Elko, Esmeralda, Eureka, Humboldt, Lander, Lincoln, Lyon, Mineral, Pershing, Storey, Washoe, White Pine

trapezoidal, or other irregularly shaped lots, verified by market analysis. The Department also recommended that four counties conduct local sales ratio studies by property type, geographic area, and key property attributes.

Follow-up Analysis of Land Sales: All counties appear to have adequate procedures in place to analyze sales data and to apply the analysis to parcels in a mass appraisal environment. This subject will be examined in more detail during the Land Valuation Performance Audit currently in progress.

Alternative Methods of Land Valuation: Churchill County was recognized for the “best practice” of using abstraction, allocation, land residual technique, capitalization of ground rents, and costs of development methods, when necessary, due to lack of vacant land sales. Douglas County was recognized for the “best practice” of estimating market value of improvements for use in the abstraction method, and/or limiting the use of the abstraction method to newer homogeneous subdivisions.

Many counties reported that they do not use alternative methods of valuation because sufficient vacant land sales exist for valuation. The Department recommended that eleven counties consider developing information to accurately estimate the market value (including market depreciation) of improvements for use in the abstraction method as either a tool in the reconciliation of values or as the primary valuation method.

Follow-up Alternative Methods of Land Valuation: It appears that the majority of counties have sufficient vacant land sales for valuation purposes. This subject will be investigated in more detail during the Land Valuation Performance Audit currently in progress

Subdivision Discounts: Nye County was recognized for its “best practice” of using a Subdivision Analysis Questionnaire to document eligibility for the subdivision discount pursuant to NAC 361.129-1295. The Department noted that Mineral County did not have a formal process for analyzing eligibility for subdivision discounts and advised Mineral County that a process will be required for a new subdivision in the planning phases. Two other counties were asked to consider collection of information about the subdivision through a questionnaire that includes information about the number of lots, the number of lots sold, the number of lots sold per phase, raw land costs, purchase date, development costs, time period for completion of development, estimated sales per year, estimated sellout date, and other pertinent information.

Follow-up Subdivision Discounts: Mineral County has not implemented a formal process to analyze eligibility for subdivision discounts. This subject will be examined in more detail during the Land Valuation Performance Audit currently in progress.

5. Cost approach

Even though statutes and regulations are specific about how the cost approach is applied, there are choices to be made in the use of the Marshall/Swift cost manual. Audit questions were designed to find out how assessors apply the cost approach.

Churchill County was recognized for its “best practice” of using all available multipliers for the Marshall Swift costing service. The Procedural Audits / Office Reviews revealed that thirteen³¹ of the 17 counties were not using all of the multipliers available for the Marshall Swift costing service, generally resulting in undervaluation. The Department made recommendations to these counties to use the proper multipliers.

Eleven³² of the 17 counties were recognized for “best practice” of individually costing minor improvements using Marshall Swift to obtain a more accurate valuation. Three³³ counties used the lump sum approach for minor improvements. The lump sum values approach generally resulted in material undervaluation in the samples selected by the Department. The Department recommended using the individual costing of minor improvements using Marshall Swift.

The Procedural Audit / Office Review of Storey County noted that age weighting of fully depreciated properties was not being calculated per NRS 361.124. These properties were being depreciated at the actual age of each addition. The Department recommended that Storey County calculate and depreciate the weighted average age of all improvements per statute on all properties in the county, and not exclude those which currently receive the 75% depreciation.

Follow-up Cost Approach: It appears that Storey County has corrected this issue. This issue may be reviewed for all counties in a future Performance Audit.

6. Valuation and assessment of agricultural property

Questions were designed to find out how assessors qualify land for agricultural assessment and how land is removed from agricultural assessment.

Ten³⁴ of the 17 counties were recognized for “best practice” in their procedures for processing applications for agricultural assessment and following up for continued eligibility for agricultural assessment. The

³¹ Douglas, Elko, Esmeralda, Eureka, Humboldt, Lander Lincoln, Lyon, Mineral, Nye, Pershing, Washoe, and White Pine

³² Carson City, Elko, Eureka, Humboldt, Lander Lincoln, Mineral, Nye, Pershing, Storey, and White Pine

³³ Douglas, Lyon, Washoe

³⁴ Churchill, Clark, Elko, Esmeralda, Eureka, Lincoln, Mineral, Pershing, Washoe, White Pine

Department recommended that two counties develop processes to support the minimum income required by NRS 361A.030 (\$5000) in the context of whether the income is from a business venture for profit. The business profit must be consistent with the size of the operation and the capacity and viability of the land to produce food and fiber. Data should be routinely collected regarding the items in NAC 361A.160(2)(b) and (c) as support for the decision that the income (profit) is consistent with the capacity and viability of the land.

Three³⁵ counties were recognized for “best practice” in maintaining files each year of the deferred tax versus reconstruction of the deferred tax upon a change in use. The Department recommended that two³⁶ counties adopt this “best practice.”

Seven³⁷ counties did not have complete processes to identify water rights on agricultural properties. The Department made recommendations to these seven counties to develop processes for assessment of water rights on agricultural properties.

Follow-up Valuation and Assessment of Agricultural Property: It appears that counties, in general, have adequate procedures to apply the statutes and regulations regarding agricultural properties. This subject will be examined in more detail in the Land Valuation Performance Audit currently in progress.

7. Valuation and assessment of personal property

Questions centered on discovery procedures, whether accounts were audited, and the procedures used to value personal property when declarations are not returned by taxpayers.

Washoe County was recognized for its “best practices” of (1) on-line reporting of personal property assets, digitized supporting documentation, and other on-line resources to encourage reporting by taxpayers and (2) hiring outside auditors to audit large corporate personal property accounts.

The Department recommended that five³⁸ counties improve processes for obtaining more backup data regarding purchase prices for aircraft and/or agricultural equipment, especially items over \$10,000. The Department recommended that these counties develop processes to verify the taxpayer’s declared value against aircraft blue book or insured values or some reliable receipt such as a bill of sale.

³⁵ Humboldt, Lyon, Nye

³⁶ Douglas, Washoe

³⁷ Elko, Esmeralda, Eureka, Lander, Mineral, Pershing, and White Pine

³⁸ Douglas, Humboldt, Lyon, Nye, and Washoe

The Department made recommendations to ten³⁹ of the 17 counties to either implement or expand audit programs for personal property accounts, including establishing benchmarks by business type to identify typical amounts of personal property.

Mineral County did not have an employee certified in Personal Property at the time of the Procedural Audit / Office Review. Mineral County now has the proper certifications.

Follow-up Valuation and Assessment of Personal Property:

Assessors have implemented some limited auditing programs. Mineral County now has a certified personal property appraiser. This subject may be reviewed in more detail in a future Performance Audit, subject to priorities of other issues.

8. 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

The property tax process does not stop with valuation. This section of the audit investigated how assessors address maintaining reference material, how timely reports are returned to the department, appraisal cycle, and billing and collection procedures.

Reference Material: The Department determined that all counties have appropriate reference material readily available to personnel in the office. The reference materials include current statutes and administrative code, current Rural Building Manual, current Personal Property Manual, current Agricultural Bulletin, Department letter regarding current improvement factor, Department letter regarding current land improvement factor (if applicable), and the Nevada Tax Commission letter regarding the minimum billing costs.

Follow-up Reference Material: It appears that Assessors generally have the appropriate reference materials available.

Timely Reports: In general, all counties timely report to the Department as required by statute during the periods covered in previous Office Reviews.

Follow-up Timely Reports: The Department records indicate that assessors, in general, are timely filing reports.

Appraisal Cycle: Assessors are required to reappraise property at least once every five years. During the prior Office Reviews, the Department determined that all counties have adequate processes for reappraisal areas to satisfy this requirement.

Follow-up Appraisal Cycle: Assessors are reappraising land annually and improvements at least once every five years.

³⁹ Churchill, Elko, Esmeralda, Lincoln, Lyon, Mineral, Nye, Pershing, Storey, Washoe

Certification and Training of Staff: With the exception of Mineral County, all counties had the appropriate certification and training of employees.

Follow-up Certification and Training of Staff: The Department maintains records on certifications. These records indicate that all counties have sufficient, certified employees.

Defense of Appealed Property: Taxpayers can appeal the assessed value of their property in several different ways. The first is to discuss the situation with the Assessor and the situation may be resolved. The Department refers to these as "Resolved in-office." The next level of appeal for a taxpayer is the County Board of Equalization. If a taxpayer is still not satisfied with the result, the taxpayer may appeal to the State Board of Equalization. The Department reviewed the processes in place for counties to prepare for defense of appeals. The Department found that all counties have adequate procedures in place for defense of appeals.

Follow-up Defense of Appealed Property: Nothing has come to the attention of the Department that changes this determination.

Billing and Collection Procedures: The Procedural Audits / Office Reviews were limited to review of the Assessor's Office. In practice, the billing and collection functions are often handled outside of the Assessor's Office. The County Treasurer is required by statute to bill and collect the secured roll. The County Commission may also designate the County Treasurer to bill and collect the unsecured roll. Practice varies in each county. The Department made no recommendations in this area since the issues were beyond the scope of the Assessor's Office.

Follow-up Billing and Collection Procedures: The Department may consider a performance audit at a future date to fully document and test billing and collection procedures.

Other: Mineral County does not maintain assessor data on website as required by statute⁴⁰.

Follow-up: The Mineral County Assessor reported that funding for this project is limited. The Mineral County Assessor intends to continue efforts to launch and maintain a site for assessor data. Staff also noted that White Pine County does not have a web site for assessor data. Lincoln County has a web site but does not provide access to assessor data.

9. Software

The Department does not require use of particular software or hardware for the Nevada property tax system. In December 2009, the Department also conducted a software and hardware survey of the various counties.

⁴⁰ NRS 361.0445(3)

Most of the Counties use the systems developed by Advanced Data Systems. These systems are integrated with other systems used for accounting, collection, record indexing, etc. Clark and Washoe County use different systems that have been developed for integration of other resources within the respective counties.

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 will be selected for performance audits based on assessment of risk, current circumstances, significance, and cost/benefit analysis. Performance Audits will be performed in compliance with Generally Accepted Government Auditing Standards.

The topic of the first performance audit will be Land Valuation procedures in each of the 17 counties. 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 2009-2010 tax year are also available on the Taxation website at <http://tax.state.nv.us> .

2010-2011 Ratio Study Statistical Tables

NEVADA DEPARTMENT OF TAXATION
2010-2011 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	2008	33.9	33.5	33.4	33.5	34.4	34.4	33.0	35.1
CHURCHILL	2008	34.2	32.2	33.8	34.2	34.2	34.3	34.0	34.6
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	2008	33.4	33.6	32.7	33.8	34.3	34.2	32.5	34.7
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	2008	33.9	34.1	33.6	33.0	35.2	33.5	30.1	35.1
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	2008	33.6	33.4	34.0	34.3	33.7	33.1	33.3	33.7
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	2008	32.6	31.6	34.2	34.4	35.0	37.3	27.4	35.1
STATEWIDE	2010	33.1	32.3	34.0	34.1	34.3	31.3	33.4	33.6

NEVADA DEPARTMENT OF TAXATION
2010-2011 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	2008	34.2	35.4	33.3	33.7	34.5	34.3	33.2	35.0
CHURCHILL	2008	34.2	34.6	33.3	35.0	34.2	34.1	33.9	34.9
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	2008	33.9	34.4	33.8	33.3	34.4	33.8	33.2	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	2008	34.8	35.1	33.8	34.5	35.3	33.9	34.5	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	2008	33.7	33.3	34.0	34.8	33.5	33.3	33.3	33.4
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	2008	34.7	35.3	33.9	34.4	34.7	34.9	35.0	35.1
STATEWIDE	2010	34.5	34.5	34.5	34.6	34.5	34.0	34.0	35.0

NEVADA DEPARTMENT OF TAXATION
2010-2011 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	2008	4.2	9.6	2.4	4.4	4.2	3.1	4.1	0.4
CHURCHILL	2008	2.5	4.0	2.2	2.3	2.5	3.3	1.2	1.7
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	2008	3.7	5.0	3.5	3.0	3.0	2.3	6.0	0.7
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	2008	6.6	6.6	3.6	8.1	4.7	3.9	10.8	0.2
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	2008	2.9	3.8	2.8	2.0	2.8	1.8	2.3	3.9
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	2008	5.1	8.4	2.6	2.9	3.7	15.4	10.4	0.3
STATEWIDE	2010	6.0	8.1	7.4	6.7	5.2	6.6	8.9	1.9

NEVADA DEPARTMENT OF TAXATION
2010-2011 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	2008	1.01	1.06	1.00	1.01	1.00	1.00	1.00	1.00
CHURCHILL	2008	1.00	1.07	0.99	1.02	1.00	0.99	1.00	1.01
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	2008	1.01	1.02	1.03	0.99	1.00	0.99	1.02	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	2008	1.02	1.03	1.00	1.05	1.00	1.01	1.14	1.00
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	2008	1.00	1.00	1.00	1.01	0.99	1.01	1.00	0.99
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	2008	1.07	1.12	0.99	1.00	0.99	0.94	1.28	1.00
STATEWIDE	2010	1.04	1.07	1.01	1.01	1.00	1.09	1.02	1.04

**NEVADA DEPARTMENT OF TAXATION
2010-2011 RATIO STUDY
ALL APPRAISAL AREAS**

OVERALL (AGGREGATE) RATIO

Subject County	All Property
DOUGLAS	34.1
HUMBOLDT	34.1
LYON	32.3
NYE	31.9
WASHOE	33.9
ALL COUNTIES	33.5

Class of Property							
Improvements	Improved Land	Vacant Land	Single Family Residence	Multi-Family Residence	Commercial Industrial	Rural Land & Improvements	
34.3	33.8	34.6	34.5	33.7	34.3	35.0	
34.3	34.6	34.3	33.3	32.9	35.0	35.1	
32.1	32.9	31.2	31.2	31.4	33.1	35.0	
33.1	30.2	33.2	34.8	31.0	31.3	35.0	
34.0	33.8	33.9	34.5	34.0	33.7	35.0	
33.7	33.2	33.9	33.9	33.0	33.6	35.0	

MEDIAN RATIO

Subject County	All Property
DOUGLAS	34.8
HUMBOLDT	34.3
LYON	33.2
NYE	34.2
WASHOE	34.3
ALL COUNTIES	34.3

Class of Property							
Improvements	Improved Land	Vacant Land	Single Family Residence	Multi-Family Residence	Commercial Industrial	Rural Land & Improvements	
35.0	34.4	35.0	34.9	34.3	34.7	35.0	
34.1	34.7	34.3	34.3	33.8	33.6	35.0	
33.8	33.3	33.3	33.2	33.1	33.1	35.0	
34.7	34.0	34.1	34.5	34.0	33.6	35.0	
34.2	34.6	34.2	34.4	34.1	33.6	34.9	
34.6	34.3	34.1	34.4	34.1	33.8	35.0	

**NEVADA DEPARTMENT OF TAXATION
2010-2011 RATIO STUDY
ALL APPRAISAL AREAS
COEFFICIENT OF DISPERSION (COD)**

Subject County	All Property
DOUGLAS	2.3
HUMBOLDT	6.7
LYON	8.4
NYE	10.4
WASHOE	3.1
ALL COUNTIES	6.2

Class of Property							
Improvements	Improved Land	Vacant Land	Single Family Residence	Multi-Family Residence	Commercial Industrial	Rural Land & Improvements	
2.5	2.9	2.3	2.5	2.2	2.2	0.4	
8.3	7.0	2.4	2.8	6.1	16.5	1.1	
10.6	9.7	9.5	9.5	8.3	7.1	0.0	
4.5	22.2	7.0	6.4	13.1	16.7	0.1	
4.2	3.9	3.3	1.6	3.2	4.5	0.2	
6.2	9.1	5.1	4.5	6.6	9.7	0.4	

MEDIAN RELATED DIFFERENTIAL

Subject County	All Property
DOUGLAS	1.02
HUMBOLDT	1.00
LYON	1.03
NYE	1.07
WASHOE	1.01
ALL COUNTIES	1.02

Class of Property							
Improvements	Improved Land	Vacant Land	Single Family Residence	Multi-Family Residence	Commercial Industrial	Rural Land & Improvements	
1.02	1.02	1.01	1.01	1.02	1.01	1.00	
1.00	1.00	1.00	1.03	1.03	0.96	1.00	
1.05	1.01	1.07	1.06	1.06	1.00	1.00	
1.05	1.13	1.03	0.99	1.10	1.07	1.00	
1.00	1.02	1.01	1.00	1.00	1.00	1.00	
1.03	1.03	1.01	1.01	1.03	1.01	1.00	

**DOUGLAS COUNTY
2010-2011 RATIO STUDY**

ALL APPRAISAL AREAS

REAL PROPERTY	AGGREGATE RATIO	MEDIAN RATIO	COD MEDIAN	SAMPLE SIZE
COUNTYWIDE TOTAL PROPERTY	34.1%	34.8%	2.3%	128
COUNTYWIDE IMPROVEMENTS	34.3%	35.0%	2.5%	90
COUNTYWIDE IMPROVED LAND	33.8%	34.4%	2.9%	98
COUNTYWIDE VACANT LAND	34.6%	35.0%	2.3%	30
SINGLE FAMILY IMPROVEMENTS	35.0%	35.3%	2.5%	30
SINGLE FAMILY LAND	34.2%	34.5%	3.4%	30
SINGLE FAMILY TOTAL PROPERTY	34.5%	34.9%	2.5%	30
MULTIPLE FAMILY IMPROVEMENTS	33.5%	34.9%	2.0%	30
MULTIPLE FAMILY LAND	33.8%	34.4%	2.6%	30
MULTIPLE FAMILY TOTAL PROPERTY	33.7%	34.3%	2.2%	30
COMMERCIAL/INDUSTRIAL IMPROVEMENTS	34.7%	35.0%	2.7%	30
COMMERCIAL/INDUSTRIAL LAND	33.6%	34.0%	2.5%	30
COMMERCIAL/INDUSTRIAL TOTAL PROPERTY	34.3%	34.7%	2.2%	30
RURAL IMPROVEMENTS	n/a	n/a	n/a	-
RURAL LAND	35.0%	35.0%	0.4%	8
RURAL TOTAL PROPERTY	35.0%	35.0%	0.4%	8
SECURED PERSONAL PROPERTY				
ALL SECURED	35.0%	35.0%	0.1%	19
AIRCRAFT	n/a	n/a	n/a	-
AGRICULTURAL	35.0%	35.0%	0.1%	6
BILLBOARDS	n/a	n/a	n/a	-
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	0.0%	6
MOBILE HOMES	35.0%	35.0%	0.0%	7
UNSECURED PERSONAL PROPERTY				
ALL UNSECURED	35.0%	35.0%	0.7%	25
AIRCRAFT	35.0%	35.0%	0.0%	6
AGRICULTURAL	35.0%	35.0%	0.1%	6
BILLBOARDS	35.0%	35.0%	0.0%	2
COMMERCIAL/INDUSTRIAL	34.9%	35.0%	3.4%	5
MOBILE HOMES	35.0%	35.0%	0.0%	6
TOTAL PERSONAL PROPERTY	35.0%	35.0%	0.4%	44

HUMBOLDT COUNTY 2010-2011 RATIO STUDY

ALL APPRAISAL AREAS

REAL PROPERTY	AGGREGATE RATIO	MEDIAN RATIO	COD MEDIAN	SAMPLE SIZE
COUNTYWIDE TOTAL PROPERTY	34.1%	34.3%	6.7%	134
COUNTYWIDE IMPROVEMENTS	34.3%	34.1%	8.3%	102
COUNTYWIDE IMPROVED LAND	34.6%	34.7%	7.0%	100
COUNTYWIDE VACANT LAND	34.3%	34.3%	2.4%	31
SINGLE FAMILY IMPROVEMENTS	33.3%	34.4%	3.6%	31
SINGLE FAMILY LAND	33.6%	33.5%	4.5%	31
SINGLE FAMILY TOTAL PROPERTY	33.3%	34.3%	2.8%	31
MULTIPLE FAMILY IMPROVEMENTS	32.8%	33.7%	8.0%	31
MULTIPLE FAMILY LAND	33.6%	34.4%	3.1%	29
MULTIPLE FAMILY TOTAL PROPERTY	32.9%	33.8%	6.1%	31
COMMERCIAL/INDUSTRIAL IMPROVEMENTS	36.1%	33.4%	15.0%	31
COMMERCIAL/INDUSTRIAL LAND	35.2%	35.0%	14.0%	31
COMMERCIAL/INDUSTRIAL TOTAL PROPERTY	35.0%	33.6%	16.5%	32
RURAL IMPROVEMENTS	34.5%	34.6%	1.4%	4
RURAL LAND	35.5%	35.0%	0.8%	9
RURAL TOTAL PROPERTY	35.1%	35.0%	1.1%	9
SECURED PERSONAL PROPERTY				
ALL SECURED	34.8%	35.0%	1.1%	19
AIRCRAFT	35.0%	35.0%	0.0%	2
AGRICULTURAL	34.7%	35.0%	3.6%	6
BILLBOARDS	n/a	n/a	n/a	-
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	0.0%	6
MOBILE HOMES	35.0%	35.0%	0.0%	5
UNSECURED PERSONAL PROPERTY				
ALL UNSECURED	35.0%	35.0%	3.4%	30
AIRCRAFT	34.9%	35.0%	11.2%	9
AGRICULTURAL	35.0%	35.0%	0.1%	6
BILLBOARDS	35.0%	35.0%	0.0%	3
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	0.0%	6
MOBILE HOMES	35.0%	35.0%	0.0%	6
TOTAL PERSONAL PROPERTY	34.9%	35.0%	2.5%	49

**LYON COUNTY
2010-2011 RATIO STUDY**

ALL APPRAISAL AREAS

REAL PROPERTY	AGGREGATE RATIO	MEDIAN RATIO	COD MEDIAN	SAMPLE SIZE
COUNTYWIDE TOTAL PROPERTY	32.3%	33.2%	8.4%	126
COUNTYWIDE IMPROVEMENTS	32.1%	33.8%	10.6%	90
COUNTYWIDE IMPROVED LAND	32.9%	33.3%	9.7%	96
COUNTYWIDE VACANT LAND	31.2%	33.3%	9.5%	30
SINGLE FAMILY IMPROVEMENTS	32.5%	34.3%	9.4%	30
SINGLE FAMILY LAND	26.6%	32.2%	17.5%	30
SINGLE FAMILY TOTAL PROPERTY	31.2%	33.2%	9.5%	30
MULTIPLE FAMILY IMPROVEMENTS	30.5%	34.4%	10.7%	30
MULTIPLE FAMILY LAND	33.9%	33.2%	9.0%	30
MULTIPLE FAMILY TOTAL PROPERTY	31.4%	33.1%	8.3%	30
COMMERCIAL/INDUSTRIAL IMPROVEMENTS	32.9%	32.4%	11.2%	30
COMMERCIAL/INDUSTRIAL LAND	33.7%	33.3%	3.2%	30
COMMERCIAL/INDUSTRIAL TOTAL PROPERTY	33.1%	33.1%	7.1%	30
RURAL IMPROVEMENTS	n/a	n/a	n/a	-
RURAL LAND	35.0%	35.0%	0.0%	6
RURAL TOTAL PROPERTY	35.0%	35.0%	0.0%	6
SECURED PERSONAL PROPERTY				
ALL SECURED	34.8%	35.0%	0.7%	28
AIRCRAFT	n/a	n/a	n/a	-
AGRICULTURAL	35.0%	35.0%	0.1%	13
BILLBOARDS	n/a	n/a	n/a	-
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	0.0%	2
MOBILE HOMES	34.4%	35.0%	1.3%	13
UNSECURED PERSONAL PROPERTY				
ALL UNSECURED	34.8%	35.0%	4.7%	30
AIRCRAFT	33.8%	35.0%	9.3%	11
AGRICULTURAL	29.3%	29.3%	0.0%	1
BILLBOARDS	34.9%	34.9%	0.2%	3
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	0.1%	7
MOBILE HOMES	36.1%	35.0%	2.4%	8
TOTAL PERSONAL PROPERTY	34.8%	35.0%	2.7%	58

**NYE COUNTY
2010-2011 RATIO STUDY**

ALL APPRAISAL AREAS

REAL PROPERTY	AGGREGATE RATIO	MEDIAN RATIO	COD MEDIAN	SAMPLE SIZE
COUNTYWIDE TOTAL PROPERTY	31.9%	34.2%	10.4%	126
COUNTYWIDE IMPROVEMENTS	33.1%	34.7%	4.5%	92
COUNTYWIDE IMPROVED LAND	30.2%	34.0%	22.2%	96
COUNTYWIDE VACANT LAND	33.2%	34.1%	7.0%	30
SINGLE FAMILY IMPROVEMENTS	34.9%	35.0%	2.6%	30
SINGLE FAMILY LAND	34.7%	34.2%	15.8%	30
SINGLE FAMILY TOTAL PROPERTY	34.8%	34.5%	6.4%	30
MULTIPLE FAMILY IMPROVEMENTS	34.5%	34.4%	2.8%	30
MULTIPLE FAMILY LAND	26.0%	33.3%	24.9%	30
MULTIPLE FAMILY TOTAL PROPERTY	31.0%	34.0%	13.1%	30
COMMERCIAL/INDUSTRIAL IMPROVEMENTS	32.0%	34.6%	8.2%	30
COMMERCIAL/INDUSTRIAL LAND	30.2%	32.6%	31.1%	30
COMMERCIAL/INDUSTRIAL TOTAL PROPERTY	31.3%	33.6%	16.7%	30
RURAL IMPROVEMENTS	n/a	n/a	n/a	-
RURAL LAND	35.0%	35.0%	0.1%	6
RURAL TOTAL PROPERTY	35.0%	35.0%	0.1%	6
SECURED PERSONAL PROPERTY				
ALL SECURED	38.0%	37.5%	4.7%	16
AIRCRAFT	n/a	n/a	n/a	-
AGRICULTURAL	37.8%	38.2%	2.8%	4
BILLBOARDS	n/a	n/a	n/a	-
COMMERCIAL/INDUSTRIAL	38.7%	38.6%	1.9%	6
MOBILE HOMES	34.7%	35.0%	0.3%	6
UNSECURED PERSONAL PROPERTY				
ALL UNSECURED	35.0%	35.0%	2.2%	42
AIRCRAFT	35.8%	35.0%	3.1%	6
AGRICULTURAL	35.0%	35.0%	0.1%	3
BILLBOARDS	35.0%	35.0%	0.0%	3
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	0.1%	6
MOBILE HOMES	35.0%	35.0%	3.1%	24
TOTAL PERSONAL PROPERTY	35.9%	35.0%	3.3%	58

**WASHOE COUNTY
2010-2011 RATIO STUDY**

ALL APPRAISAL AREAS

REAL PROPERTY	AGGREGATE RATIO	MEDIAN RATIO	COD MEDIAN	SAMPLE SIZE
COUNTYWIDE TOTAL PROPERTY	33.9%	34.3%	3.1%	132
COUNTYWIDE IMPROVEMENTS	34.0%	34.2%	4.2%	97
COUNTYWIDE IMPROVED LAND	33.8%	34.6%	3.9%	102
COUNTYWIDE VACANT LAND	33.9%	34.2%	3.3%	30
SINGLE FAMILY IMPROVEMENTS	34.7%	34.6%	2.2%	36
SINGLE FAMILY LAND	34.3%	34.6%	2.6%	36
SINGLE FAMILY TOTAL PROPERTY	34.5%	34.4%	1.6%	36
MULTIPLE FAMILY IMPROVEMENTS	33.8%	33.5%	5.1%	30
MULTIPLE FAMILY LAND	34.3%	34.2%	3.3%	30
MULTIPLE FAMILY TOTAL PROPERTY	34.0%	34.1%	3.2%	30
COMMERCIAL/INDUSTRIAL IMPROVEMENTS	33.9%	33.4%	5.2%	30
COMMERCIAL/INDUSTRIAL LAND	33.4%	34.5%	6.8%	30
COMMERCIAL/INDUSTRIAL TOTAL PROPERTY	33.7%	33.6%	4.5%	30
RURAL IMPROVEMENTS	n/a	n/a	n/a	-
RURAL LAND	35.0%	34.9%	0.2%	6
RURAL TOTAL PROPERTY	35.0%	34.9%	0.2%	6
SECURED PERSONAL PROPERTY				
ALL SECURED	n/a	n/a	n/a	-
AIRCRAFT	n/a	n/a	n/a	-
AGRICULTURAL	n/a	n/a	n/a	-
BILLBOARDS	n/a	n/a	n/a	-
COMMERCIAL/INDUSTRIAL	n/a	n/a	n/a	-
MOBILE HOMES	n/a	n/a	n/a	-
UNSECURED PERSONAL PROPERTY				
ALL UNSECURED	35.0%	35.0%	0.0%	52
AIRCRAFT	35.0%	35.0%	0.0%	11
AGRICULTURAL	35.0%	35.0%	0.1%	11
BILLBOARDS	35.0%	35.0%	0.0%	4
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	0.1%	14
MOBILE HOMES	35.0%	35.0%	0.0%	12
TOTAL PERSONAL PROPERTY	35.0%	35.0%	0.0%	52

**ALL COUNTIES INCLUDED IN
2010-2011 RATIO STUDY**

ALL APPRAISAL AREAS

REAL PROPERTY	AGGREGATE RATIO	MEDIAN RATIO	COD MEDIAN	SAMPLE SIZE
ALL COUNTIES TOTAL PROPERTY	33.5%	34.3%	6.2%	646
ALL COUNTIES IMPROVEMENTS	33.7%	34.6%	6.2%	471
ALL COUNTIES IMPROVED LAND	33.2%	34.3%	9.1%	492
ALL COUNTIES VACANT LAND	33.9%	34.1%	5.1%	151
SINGLE FAMILY IMPROVEMENTS	34.1%	34.9%	4.1%	157
SINGLE FAMILY LAND	33.6%	34.0%	8.8%	157
SINGLE FAMILY TOTAL PROPERTY	33.9%	34.4%	4.5%	157
MULTIPLE FAMILY IMPROVEMENTS	32.9%	34.5%	5.8%	151
MULTIPLE FAMILY LAND	33.1%	34.2%	8.6%	149
MULTIPLE FAMILY TOTAL PROPERTY	33.0%	34.1%	6.6%	151
COMMERCIAL/INDUSTRIAL IMPROVEMENTS	34.1%	34.1%	8.9%	151
COMMERCIAL/INDUSTRIAL LAND	33.0%	34.0%	11.7%	151
COMMERCIAL/INDUSTRIAL TOTAL PROPERTY	33.6%	33.8%	9.7%	152
RURAL IMPROVEMENTS	34.5%	34.6%	1.4%	4
RURAL LAND	35.1%	35.0%	0.4%	35
RURAL TOTAL PROPERTY	35.0%	35.0%	0.4%	35
SECURED PERSONAL PROPERTY				
ALL SECURED	35.0%	35.0%	1.7%	82
AIRCRAFT	35.0%	35.0%	0.0%	2
AGRICULTURAL	34.9%	35.0%	1.9%	29
BILLBOARDS	n/a	n/a	n/a	-
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	3.2%	20
MOBILE HOMES	34.6%	35.0%	0.6%	31
UNSECURED PERSONAL PROPERTY				
ALL UNSECURED	35.0%	35.0%	2.0%	179
AIRCRAFT	35.0%	35.0%	5.2%	43
AGRICULTURAL	35.0%	35.0%	0.7%	27
BILLBOARDS	35.0%	35.0%	0.1%	15
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	0.5%	38
MOBILE HOMES	35.1%	35.0%	1.7%	56
TOTAL PERSONAL PROPERTY	35.0%	35.0%	1.9%	261

**STATEWIDE
2008-2011 RATIO STUDIES**

ALL APPRAISAL AREAS

REAL PROPERTY	AGGREGATE RATIO	MEDIAN RATIO	COD MEDIAN	SAMPLE SIZE
STATEWIDE TOTAL PROPERTY	33.1%	34.4%	6.3%	2,216
STATEWIDE IMPROVEMENTS	32.3%	34.5%	8.1%	1,580
STATEWIDE IMPROVED LAND	34.0%	34.5%	7.4%	1,630
STATEWIDE VACANT LAND	34.1%	34.6%	6.7%	573
SINGLE FAMILY IMPROVEMENTS	34.5%	34.7%	6.8%	813
SINGLE FAMILY LAND	34.1%	34.3%	6.6%	808
SINGLE FAMILY TOTAL PROPERTY	34.3%	34.5%	5.2%	813
MULTIPLE FAMILY IMPROVEMENTS	30.0%	34.2%	7.8%	336
MULTIPLE FAMILY LAND	34.2%	34.3%	6.8%	331
MULTIPLE FAMILY TOTAL PROPERTY	31.3%	34.0%	6.6%	336
COMMERCIAL/INDUSTRIAL IMPROVEMENTS	33.2%	34.0%	10.6%	375
COMMERCIAL/INDUSTRIAL LAND	33.9%	34.3%	9.1%	374
COMMERCIAL/INDUSTRIAL TOTAL PROPERTY	33.4%	34.0%	8.9%	377
RURAL IMPROVEMENTS	22.3%	34.6%	7.2%	26
RURAL LAND	35.4%	35.0%	7.6%	117
RURAL TOTAL PROPERTY	33.6%	35.0%	1.9%	117
SECURED PERSONAL PROPERTY				
ALL SECURED	34.9%	35.0%	1.8%	266
AIRCRAFT	35.0%	35.0%	0.0%	2
AGRICULTURAL	34.6%	35.0%	1.8%	82
BILLBOARDS	34.5%	34.6%	1.2%	2
COMMERCIAL/INDUSTRIAL	35.0%	35.0%	3.6%	82
MOBILE HOMES	35.2%	35.0%	0.4%	98
UNSECURED PERSONAL PROPERTY				
ALL UNSECURED	34.9%	35.0%	2.1%	429
AIRCRAFT	34.9%	35.0%	4.5%	86
AGRICULTURAL	34.7%	35.0%	0.7%	67
BILLBOARDS	35.0%	35.0%	0.2%	36
COMMERCIAL/INDUSTRIAL	34.8%	35.0%	1.1%	107
MOBILE HOMES	34.2%	35.0%	2.5%	133
TOTAL PERSONAL PROPERTY	34.9%	35.0%	2.0%	695

2010-2011 Ratio Study Outlier Reports

**RATIO STUDY 2010-2011
DOUGLAS COUNTY OUTLIER REPORT**

All land is reappraised each year in Douglas 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 February 4, 2008. In addition, for 2008 and 2009, the Assessor conducted a full reappraisal of all improvements throughout the county using Marshall & Swift cost manuals.

Department Findings:

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

(a) Property Type	(b) Sample Size	(c) Observations in Compliance	(d) Observations out of Compliance
Vacant Land	30	30	0
Single-Family Residential Land	30	30	0
Multi-Family Residential Land	30	30	0
Commercial and Industrial Land	30	30	0
Agricultural Land	8	8	0
Single Family Residential Improvements	30	24	6
Multi-family Residential Improvements	30	27	3
Commercial and Industrial Improvements	30	28	2

Issues and Recommendations

Appraisal Records: The information in the appraisal files is complete and contains electronically generated sketches of structures for all improved properties. Most information is made available on-line to the public on the Douglas County Assessor's website.

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

Marshall & Swift and ADS: The Assessor values property using Marshall Swift Valuation Service (Marshall Swift) software pursuant to NAC 361.128. Marshall Swift software is incorporated into the computerized assessment system.²

Upon a review of assessment data, the Department found several properties for which the quality class rankings are not being used consistently to accurately classify the quality of the building structures. In several instances the Assessor used quarter classifications, for example, 1.25 as opposed to 1.50, to rank the property structure. The Department recommends the Assessor review the quality class of all properties using Marshall Swift to determine the most appropriate class and rank identifications.

The Assessor does not value central air conditioning systems for residential properties. A review of thirty single family and thirty multi-family property samples used in this study revealed no accounting for central air conditioning which results in a material property characteristic escaping taxation. The Department recommends the Assessor identify residential properties that have central air conditioning systems when performing reappraisal field inspections and cost those systems accordingly.

Marshall Swift utilizes quarterly "current cost" and "local conditions" multipliers that trend the published costs to a current date and adjust the costs by location. There are also multipliers that adjust the base cost of a structure to account for climate, hillside location, foundation and proximity to areas of seismic activity. The seismic adjustment is currently not being used in the valuation of single family and multi-family residential properties. The Department recommends the Assessor utilize all available adjustments for foundation, energy, hillside and seismic categories. The correct seismic category for the State of Nevada is Zone 3.

Minor Improvements: The Assessor values minor improvements from either the Marshall Swift Valuation Service cost manuals or the Rural Building Manual. The county has also compiled a list of various minor improvements that include paving, decks, porches, fencing, spas, mobile home amenities, well and septic costs, storage buildings, garages and carports, barns, tennis courts and residential elevators that reflect costs unique and local to Douglas County. This minor improvement list is included in the property appraisal record.

The Assessor also uses lump sum visual site inspection (vsi) values for certain minor improvements. These lump sum amounts reflect a base amount of \$1,000 and are valued on increment ranks that range from 0.5 to 6.0, therefore a lump sum having a rank of 1.5 would be valued at \$1,500. This method does not accurately reflect the costs of certain minor improvements such as fencing, paving and landscaping. The Department recommends that the Assessor list those improvements which are subject to lump sum costing for each property being valued so that a more accurate visual site inspection costing may be performed.

Personal Property:

The Douglas County Assessor's office maintains Personal Property records efficiently. 45 accounts with 454 records were examined. After adjusting for rounding errors, there is one outlier.

Suggestions for Improvement:

² The computerized assessment system is ADS (Advanced Data Systems).

- Account CP000288 (standard non-digital camera) should be a 7-year life, not 15 years.
- Verify the parcel number for account number MH007243
- Assure that cell phones are provided 3-year lives

**DOUGLAS COUNTY
OUTLIER REPORT
2010-11 RATIO STUDY**

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

APN	LAND	IMP	TOTAL	TYPE	COMMENTS
1022-09-002-081	34.84%	36.08%	35.40%	SFR	Improvement outlier a result of quality class difference; Douglas County has 1.75, DOAS has 1.50.
1219-15-002-075	34.88%	37.00%	36.05%	SFR	Improvement outlier a result of quality class difference, Douglas County has 3.75, DOAS has 3.50.
1220-10-110-004	32.06%	30.88%	31.42%	COM	Improvement outlier a result of HVAC difference. Douglas County has entire building having space heaters while DOAS has both space heaters and refrigerated cooling pack. AO subsequently revisited site and made changes as appropriate.
1220-16-311-001	34.92%	36.42%	35.97%	MFR	Improvement outlier a result of quality class difference; Douglas County has 2.75, DOAS has 2.50.
1220-16-510-032	33.74%	36.80%	35.66%	SFR	Improvement outlier a result of quality class difference; Douglas County has 2.75, DOAS has 2.50.
1318-23-710-076	35.95%	36.50%	36.10%	SFR	Improvement outlier a result of quality class difference; Douglas County has 3.75, DOAS has 3.50.
1320-33-402-074	32.43%	36.03%	33.76%	SFR	Improvement outlier a result of roof cover and minor improvement differences; Douglas County has galvanized metal roof and 600 square foot garage; DOAS has formed seam metal roof and 480 square foot garage. AO subsequently revisited site and made changes as appropriate.
1419-26-310-013	32.44%	37.22%	34.93%	COM	Improvement outlier a result of occupancy and exterior wall differences; Douglas County has occupancy as office building with wood siding walls, DOAS has clubhouse occupancy with wood siding and stone veneer walls. Note for the record - AO revisited site 6 months after DOAS visit to find building currently being used as a sales office. During DOAS inspection the building use had apparently been temporarily changed.
1420-08-313-012	34.81%	36.44%	36.02%	SFR	Improvement outlier a result of quality class, HVAC and minor improvement differences; Douglas County has 3.25 class and forced air HVAC while DOAS has 3.50 class and warm & cooled air HVAC.
1420-26-301-011	33.55%	29.53	30.21	MFR	Improvement outlier a result of exterior wall difference for building A; Douglas County has wood siding and masonry veneer, DOAS has rustic log and masonry veneer; style difference for building B; Douglas County has one story, DOAS has 1 ½ story; minor improvement differences; Douglas County has wood porch with roof as minor improvement costing, DOAS has wood porch with roof included in building B structure cost, Douglas County has fencing and outbuildings as visual site improvements, DOAS has fencing and outbuildings cost as minor improvements. AO subsequently revisited site and made changes as appropriate.
1420-32-001-016	35.58%	36.95%	36.48%	MFR	Improvement outlier a result of quality class difference; Douglas County has 3.75 for building A while DOAS has 3.5 for building A.

**RATIO STUDY 2010-2011
HUMBOLDT COUNTY OUTLIER REPORT**

All land is reappraised each year in Humboldt 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.

Department Findings:

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

(a) Property Type	(b) Sample Size	(c) Observations in Compliance	(d) Observations out of Compliance
Vacant Land	30	30	0
Single-Family Residential Land	30	29	1
Multi-Family Residential Land	30	29	1
Commercial and Industrial Land (Note 1)	30	26	4
Agricultural Land	6	6	0
Single Family Residential Improvements (Note 2)	30	29	1
Multi-family Residential Improvements (Note 3)	30	27	3
Commercial and Industrial Improvements	30	25	5
Agricultural Improvements	30	30	0

Note 1: Commercial and Industrial Land: The four observations found to be out of compliance were located in the non-reappraisal area.

Note 2: Single-family Residential Improvements: Ten observations were located in the re-appraisal area and twenty in the non-reappraisal area. One property in the reappraisal area had improvements out of compliance. Twenty were found to be in compliance in the non-reappraisal area.

Note 3: Multi-family Residential Improvements: Two observations were located

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

in the re-appraisal area and twenty eight in the non-reappraisal area. The improvements for two observations were found to be out of compliance in the reappraisal area and one was found to be out of compliance in the non-reappraisal area.

Commercial and Industrial Improvements: Two observations were located in the re-appraisal area and twenty eight in the non-reappraisal area. One was found to be out of compliance in the reappraisal area and four were found to be out of compliance in the non-reappraisal area.

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 Assessor employs lump sums for many small improvements, however, the records are currently being updated to reflect actual improvements. The preferred method is to value all improvements by what is actually on the parcel, but if lump sum values are used, they must be reflective of what is on the parcel.

Use of Rural Building Manual: 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; however, the costs were applied to certain improvements which were built by professional labor, resulting in the under valuation of improvements and certain lump sum values. 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. A review of several properties with new construction revealed that the improvements are being captured and when measured and valued, are done so correctly, with the exception of those stated in the minor improvement section above. There were a few properties for which non-permitted minor improvements were not captured in the reappraisal area, but the omission was not significant enough to create an outlier.

Marshall & Swift:

- (1) 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.

- (2) The seismic adjustment is not being used currently on residential properties. It is recommended that the assessor utilize this adjustment as stated in the Marshall & Swift Residential Manual to Zone 3.

Appraisal Records: Humboldt County's files are efficiently maintained and a minimum of one prior reappraisal cycle can be found for comparison. It was however discovered that in a small number of files, improvements were shown in the file that were missing in the most current valuation. This is an area that needs to be addressed as inaccuracies such as these lead to property escaping taxation.

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 coding should be added to reference "utilities available" for vacant land.

All outliers have been corrected or addressed by the Assessor.

Personal Property:

The Assessor organizes Personal Property records efficiently. 50 Accounts with a total of 456 records were examined. After adjusting for rounding there was one outlier.

Some of the older files do not have the proper Dealer Record of Sale (DRS) in hard-copy files. For example, MH000218 has minimal documentation.

**RATIO STUDY 2010-2011
LYON COUNTY OUTLIER REPORT**

All land is reappraised each year in Lyon 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 September 8, 2008.

Department Findings:

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

(a) Property Type	(b) Sample Size	(c) Samples in Compliance	(d) Samples out of Compliance
Vacant Land	30	22	8
Single-Family Residential Land	30	18	12
Multi-Family Residential Land	30	21	9
Commercial and Industrial Land	30	28	2
Agricultural Land	6	6	0
Single Family Residential Improvements (Note 1)	30	23	7
Multi-family Residential Improvements (Note 2)	30	22	8
Commercial and Industrial Improvements (Note 3)	30	28	2

Note 1: Single-family Residential Improvements: Of the thirty improved single-family residential properties studied, four were located in the re-appraisal area and twenty six in the non-reappraisal area. No improvements were found to be out of

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

ratio in the reappraisal area and seven were found to be out of ratio in the non-reappraisal area.

Note 2: Multi-family Residential Improvements: Of the thirty improved multi-family residential properties studied, two were located in the re-appraisal area and twenty eight in the non-reappraisal area. No improvements were found to be out of ratio in the reappraisal area and eight were found to be out of ratio in the non-reappraisal area.

Note 3: Commercial and Industrial Improvements: Of the thirty improved commercial and industrial properties included in the study, two were located in the re-appraisal area and twenty eight in the non-reappraisal area. Two were found to be out of ratio in the reappraisal area and three were found to be out of ratio in the non-reappraisal area.

Issues and Recommendations

Minor Improvements: Minor improvements were 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 many small improvements. The Department recommends the Assessor not use lump sums for valuing concrete. The preferred method is to value all improvements by what is actually on the parcel, but if lump sum values are used, they must be reflective of what is on the parcel. The Assessor inconsistently utilizes lump sum and actual square feet on concrete which results in unequal valuation of this improvement type. Both concrete and fencing have been inaccurately valued leading to both over and under taxation of these improvements.

Use of Rural Building Manual: 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; however, the costs were applied to certain improvements which were built by professional labor, resulting in the under valuation of improvements and certain lump sum values. After these observations were made, the Assessor addressed the issue and corrections were implemented.

Proper Identification of Improvement Types: Raised wood decks were inappropriately identified as balconies. As per Marshall & Swift, if the improvement has stairs and is supported by beams it should be valued as a raised deck and given the appropriate height adjustment. Balconies are improvements built off the building, do not have stairs leading down and do not have supports extending to the ground. This type of improvement must be accurately identified and valued.

All types of fireplaces were identified as "fireplace" even when decorative gas appliance (DGA) is more appropriate. This may be because Marshall & Swift did not always have this option available. However, the option is now available and must be used where appropriate, particularly since the DGA has become more prevalent in newly constructed homes.

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. A review of several properties with new construction revealed that the improvements are being captured and when measured and valued, are done so correctly, with the exception of those stated in the minor improvement section above. There were a few properties for which non-permitted minor improvements were not captured in the reappraisal area, but the omission was not significant enough to create an outlier. An error was found in the way the Assessor was age weighting properties with additions. This has been discussed with the Assessor and corrections have already been implemented.

Improvement Factors: The Assessor uses the improvement factor approved by the Tax Commission. Each parcel is factored and depreciated individually. No properties are depreciated beyond the 75% maximum. Of the eighty two improved parcels within the non-reappraisal area sample, thirteen were found to be out of ratio strictly due to the improvement factor not being reflective of the current cost. Although these are outliers, the Assessor applied the improvement factor approved by the Nevada Tax Commission therefore these properties are not being considered an outlier due to any action or inaction on the part of the Assessor.

Obsolescence: The Assessor has applied obsolescence to two (2) areas in Lyon County, Fernley 40% and a portion of Dayton 25%. The Department reviewed the data on these parcels and found the Assessor's final land value was unsupported by the sales data. While the percentages applied were supported in a few of the newer neighborhoods, in most, the obsolescence applied was too high. In some of the older neighborhoods, selling prices have remained stable and no obsolescence was needed. The Assessor should break the reappraisal areas into sections by neighborhood market areas as opposed to entire reappraisal areas and apply approved appraisal methodology to determine the proper obsolescence to each neighborhood market. A review of the Assessor's analysis of obsolescence and land value reduction showed an average reduction resulting in a 27% ratio, which is outside the parameters required by NRS 361.333 (see chart above). Other outliers were caused by applying too much of a factor for obsolescence, even after consideration of the results of applying the low improvement factor approved by the Tax Commission.

As a matter of record keeping, the Department recommends the Assessor note in the improvement section of the website or other appropriate location, those parcels which were given obsolescence and how much was applied during each given year in order to track the parcel valuation history.

Marshall & Swift:

- (1) 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.

- (2) The seismic adjustment is not being used currently on residential properties. The Department recommends the Assessor utilize this adjustment as stated in the Marshall & Swift Residential Manual to Zone 3.
- (3) The Assessor currently averages the Commercial Current Cost Multipliers together to develop one multiplier which is used on all commercial properties. This could create an over or under valuation situation as these multipliers are adjusted annually for changing costs within each building type.

Appraisal Records: Lyon County's files are efficiently maintained and a minimum of one prior reappraisal cycle can be found for comparison. It was, however, discovered that in a small number of files, improvements were shown in the file that were missing in the most current valuation. This is an area that needs to be addressed as inaccuracies such as these lead to property escaping taxation.

Personal Property Records:

Lyon County keeps efficient records for Personal Property. 59 accounts with a total of 264 records were examined. There were 5 outliers.

Recommendations:

- (1) SAG AG048102 010-481-29 SSL OFFICE COMPUTER 3
2003 4,000 74 0.3491 This account be coded "OFC"
- (2) Check to see if cellular phone life of 3-years has been entered. For example account LY008916 needs 3-year life. The probable cause is not making changes to the life schedules after changes in the personal property manual mandated these.
- (3) Some mobile homes do not have year of acquisition entered.

o MH002246	o MH009874
o MH003553	o MH010162
o MH008450	o MH002184
o MH008962	o MH003877
- (4) Double check account MH010162 – the ratio does not comply with statutory requirements, but would comply if the year of acquisition was 1995.

**LYON COUNTY
OUTLIER REPORT
2010-11 RATIO STUDY**

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

<i>APN</i>	<i>LAND</i>	<i>IMP</i>	<i>TOTAL</i>	<i>TYPE</i>	<i>COMMENTS</i>
001-032-08	15.37	NON	32.47	SFR	Land sales do not support AO value
001-094-12	25.63	35.01	32.13	MFR	Land sales do not support AO value
001-142-08	20.51	NON	32.66	MFR	Land sales do not support AO value
001-171-10	31.50	22.01	23.57	COM	Missing 1280 sq ft addition, sheds gone and asphalt needs to be verified. No sales to dictate one way or another value change. Study of COM paired land sales countywide indicates values holding or increasing. This is non-re-appraisal area but permit required improvement therefore included as recordable outlier No building permit in AO records will correct during reappraisal this year
001-212-06	22.04	NON	36.13	MFR	Land sales do not support AO value
001-221-17	30.00	NON	33.34	MFR	Land sales do not support AO value
001-224-02	29.69	NON	32.96	MFR	Land sales do not support AO value
004-321-06	32.21	22.79 NON	26.13	SFR	Fencing valued too low, Didn't value Asphalt and Metal RPO car cover but are indicated in file. This is non-re-appraisal area but due to omission from valuation included as recordable outlier AO will correct during this years reappraisal
006-072-07	33.81	26.77	28.55	COM	Did not value mezzanine but is indicated in file CFW valued way too low. This is non-re-appraisal area but due to omission from valuation included as recordable outlier AO to correct immediately
012-361-33	23.66	NA	23.66	VAC	No sales to dictate AO value set value to those prior to housing spike
016-181-18	34.11	28.43	29.53	COM	Did not value asphalt and story height incorrect. This is non-re-appraisal area but due to omission from valuation included as recordable outlier. AO will correct asphalt immediately & measure story height w/ new construction in the spring
016-271-25	30.20	NA	30.20	VAC	Sales do not support AO value
018-042-03	24.60	NA	24.60	VAC	Sales do not support AO value AO used

**LYON COUNTY
OUTLIER REPORT
2010-11 RATIO STUDY**

					historical trends
018-151-09	35.98	31.55	32.82	COM	Incorrect Age Weighting and Quality class difference AO corrected Age weighting issue
018-311-05	32.18	30.11	30.52	COM	Incorrect perimeter AO Will correct immediately
019-855-15	18.75	28.85 NON	26.61	SFR	CFW & fencing in the front and rear of property valued too low. CCP in rear not valued. Too Much Obs applied Land Values not supported by sales No permit issued for CCP addition, AO fixing CFW however imp differences not reason for outlier
019-865-09	16.75	30.89 NON	28.01	SFR	Too much Obs on imp, sales do not support AO value
019-952-05	16.75	30.99 NON	27.90	SFR	Too much Obs on imp, sales do not support AO value
020-031-12	28.60	20.63 NON	24.71	MFR	NO Obs needed to be added, sales do not support AO value
020-113-10	35.51	19.36 NON	27.73	MFR	No OBS should have been given unless income approach substantiates, 2 sheds w/ CFW foundation not valued however imp differences not reason for outlier
020-223-09	28.90	NON	31.79	SFR	Land sales do not support AO value
020-262-02	27.57	23.70 NON	25.05	SFR	Too much Obs on imp, Need to re-inspect --- many additions not included may have been added since last re-appraised. Imp differences not cause of outlier ---, sales do not support AO value
020-401-05	35.57	30.62 NON	31.65	MFR	Too much OBS applied and Stg sheds should not be included in living area should be valued as sheds
020-401-17	32.57	30.20 NON	30.58	MFR	Too much OBS applied, stairway shouldn't be counted as living space and RWOD w/height adjustment not balcony. Imp differences not cause outlier.
020-875-02	16.15	23.55 NON	21.82	SFR	CFW too low, and need to value pumphouse AO to revisit during new construction however imp differences not cause of outlier, Too much Obs on imp, sales do not support AO value
020-982-16	25.40	26.53 NON	26.39	MFR	Too much Obs on imp, sales do not support AO value
020-983-01	23.80	26.56 NON	26.22	MFR	Too much Obs on imp, sales do not support AO value

**LYON COUNTY
OUTLIER REPORT
2010-11 RATIO STUDY**

020-995-13	26.27	NON	33.11	SFR	Sales do not support AO value
021-071-12	31.75	NON	31.62	COM	Value not supported
021-103-23	29.64	NON	32.27	MFR	Sales do not support AO value
021-311-32	22.50	21.59 NON	21.93	SFR	NO Obs needed to be added, sales do not support AO value
022-063-12	24.70	NA	24.70	VAC	Sales do not support AO value
022-121-08	17.85	NON	29.00	SFR	Sales do not support AO value
022-324-16	16.15	NA	16.15	VAC	Sales do not support AO value after subdivision discount
022-403-17	23.13	NA	23.13	VAC	Sales do not support AO value even with Sub Discount applied
022-561-04	35.00	20.96 NON	21.55	MFR	No data to show OBS needs to be applied unless AO qualified using income approach , Asphalt and CLF costs too low AO correcting CFW issue and will check asphalt however, imp differences not reason for outlier
022-562-01	35.05	20.92 NON	21.59	MFR	No data to show OBS needs to be applied unless AO qualified using income approach , Asphalt and CLF costs too low AO correcting CFW issue and will check asphalt however, imp differences not reason for outlier
029-282-01	28.90	NA	28.90	VAC	Sales do not support AO value
029-332-08	28.90	NON	34.35	SFR	Sales do not support AO value
029-383-12	16.51	NON	31.59	SFR	Sales do not support AO value
029-493-10	24.41	NA	24.41	VAC	Sales do not support AO value... spoke to AO was computer error will correct AO corrected

**RATIO STUDY 2010-2011
 NYE COUNTY OUTLIER REPORT**

All land is reappraised each year in Nye 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 June 25, 2007.

Department Findings:

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

(a) Property Type	(b) Sample Size	(c) Samples in Compliance	(d) Samples out of Compliance
Vacant Land	30	24	6
Single-Family Residential Land	30	18	12
Multi-Family Residential Land	30	16	14
Commercial and Industrial Land	30	11	19
Agricultural Land	6	6	0
Single Family Residential Improvements (Note 1)	30	27	3
Multi-family Residential Improvements (Note 2)	30	27	3
Commercial and Industrial Improvements (Note 3)	30	18	12

Note 1: Single-family Residential Improvements: Six observations were located in the re-appraisal area and twenty four in the non-reappraisal area. No improvement observations were found to be out of compliance in the reappraisal area and three were found to be out of compliance in the non-reappraisal area.

Note 2: Multi-family Residential Improvements: Seven observations were

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

located in the re-appraisal area and twenty three in the non-reappraisal area. No improvement observations were found to be out of compliance in the reappraisal area and three were found to be out of compliance in the non-reappraisal area.

Note 3: Commercial and Industrial Improvements: Eleven observations were located in the re-appraisal area and nineteen in the non-reappraisal area. Six (see exception note under "Marshall & Swift" below) were found to be out of compliance in the reappraisal area and six were found to be out of compliance in the non-reappraisal area.

Issues and Recommendations

Marshall & Swift:

- (1) The "Appliance Allowance" in Marshall Swift (M&S) (or individual appliance values) is not being utilized, but the value is captured as personal property. This practice is inconsistent with most other counties and an incorrect use of M&S.
- (2) Six commercial properties in the re-appraisal area were outliers by omission of the default architect fee provided for in the M&S software. The fee was omitted in order to obtain a lower value more reflective of sales data. However, the appropriate way to lower values using M&S is to use the recommended percentage decreases and increases for several variables as documented in the M&S manuals (and referenced below).

Regarding the use of multipliers other than the LCM and CCM, the Department recommends the Assessor re-affirm with the appraisers that any reductions (or increases) deemed necessary in the calculated M&S replacement values are adjusted up or down using the M&S recommended percentage reductions/increases depending on the nature of the change (e.g. amateur workmanship, repair/remodels, the use of architect fees, etc.). This information is documented in the Cost Multiplier sections of both the commercial and residential sections of the M&S hand books and is considered the "proper" method of adjusting values rather than using a more obscure (and not always transparent) method.

- (3) The seismic adjustment is currently not being used in the valuation of single family and multi-family residential properties in Nye County. The Department recommends the Assessor utilize all available adjustments for foundation, energy, hillside and seismic categories. The correct seismic category for the State of Nevada is Zone 3.

New Construction Valuation: Nye County does not have a building permit system in place except in Pahrump Valley where the use of permits is relatively new. There was one instance (Winery on Kellogg Dr.) where significant new construction had occurred since the last re-appraisal and property file had not yet been updated. When brought to the Assessor's attention the office was aware of the new construction but only after the fact due to a delay in the communication between the

building department and the assessor's office. The Department recommends the Assessor be as proactive as possible following up with the issuance of permits by the building department prior to the end of the tax year as well as estimating the completion date for follow up on a completed project. In addition the Assessor should develop a list of building/minor improvements that can be erected without permits in order to alert field appraisers of improvements to watch for when in the field.

There has been relatively little new construction in Nye Co. the last 2 or 3 years so currently this is not too much of a problem in the Pahrump area, however, discovery of new construction (major or minor) in the rest of the county continues to be problematic.

Improvement Factors: The Assessor uses the improvement factor approved by the Tax Commission. Each parcel is factored and depreciated individually. No properties are depreciated beyond the 75% maximum. Of the sixty-six improved parcels within the non-reappraisal area sample, ten were found to be out of ratio strictly due to the improvement factor not being reflective of the current cost. Although these are outliers, the Assessor applied the improvement factor approved by the Nevada Tax Commission therefore these properties are not being considered an outlier due to any action or inaction on the part of the Assessor. They are noted in a separate section of the outlier report.

Obsolescence: The Assessor elected to apply 30% obsolescence to all residential improvements (SFR & MFR) in the Pahrump Valley for the 2010-2011 tax roll. 30% was the result of a sales ratio study conducted by the Assessor and reviewed as part of the ratio study. A 30% reduction was applied to the DOAS calculated taxable improvement value for these properties prior to calculating the ratio of county assessed improvement value to DOAS taxable improvement value.

Per the Assessor, the 30% reduction in these improvement values will be carried over to the 2011-2012 tax year. Given that the 30% reduction reflects the conditions existing in the current year, the Department recommends that the Assessor again conduct a similar sales ratio study for the 2011-2012 tax year to confirm that the 30% obsolescence (or a revised number) should in fact be carried forward.

As a matter of record keeping, the Department recommends the Assessor note in the improvement section of the website or other appropriate location, those parcels which were given obsolescence and how much was applied during each given year in order to track the parcel valuation history.

Appraisal Records: In several instances (primarily northern Nye County) the Department found the "Multiplier" column on this sheet was used to reduce the replacement value because of obsolescence (poor condition). In cases where this was encountered there were no notes or other evidence in the file documenting the reason for the obsolescence or other reduction. The Department recommends the Assessor clearly document the reason for modifications to calculated replacement costs.

Sales Data: Nye County sales data files that are sent to the Department on an annual basis are in the process of being "cleaned up" in conjunction with help from

outside consulting services. The lack of "clean" sales data has made it difficult for the Department to independently value land. The Assessor and Deputy Assessor are working to standardize the data and both have been very helpful in providing additional information as needed to back up land value calculations. Assessor is aware that the Department is in the process of developing a standardized statewide format for sales data for future use.

Personal Property: The Nye County Assessor has two offices. As part of the Personal Property Ratio study, both offices were visited. 58 Accounts were examined, with a total of 409 Records. After adjusting for rounding 11 items were out of ratio.

Recommendations:

- Use color coding for hardcopy files in the system to avoid misfiling, and rapid location of files that are filed improperly.
- Train staff to understand that accessories should be combined into the base value.
- AC Accounts are not properly displayed on the web interface, but are properly coded and displayed on the AS/400, which is used for billing. The vendor has been advised of this discrepancy, and should be able to remediate the issue.

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

APN	LAND	IMPS	TOTAL	TYPE	COMMENTS
002-172-06	21.18	NA	21.18	VAC	Sales do not support AO value
008-371-43	30.08	NA	30.08	VAC	Sales do not support AO value
019-171-17	24.83	NA	24.83	VAC	Sales do not support AO value
019-731-62	26.57	NA	26.57	VAC	Sales do not support AO value
027-201-14	29.55	NA	29.55	VAC	Sales do not support AO value
032-392-02	48.50	NA	48.50	VAC	No recent sales however even the late '06 sales (at market peak) are lower than AO current value.
002-241-03	26.42	NON	33.99	SFR	Sales do not support AO value
028-461-05	93.26	NON	52.03	SFR	Sales do not support AO value
028-485-04	41.67	NON	39.45	SFR	Sales do not support AO value
029-271-06	28.64	NON	31.84	SFR	Sales do not support AO value
029-292-16	28.64	NON	33.28	SFR	Sales do not support AO value
029-491-23	27.39	NON	31.44	SFR	Sales do not support AO value
036-311-15	20.74	32.44	25.62	SFR	Sales do not support AO value
036-442-12	43.19	NON	39.78	SFR	Sales do not support AO value
039-521-11	39.52	NON	35.33	SFR	Sales do not support AO value
043-023-03	30.25	NON	33.41	SFR	Sales do not support AO value
044-201-25	26.55	NON	31.65	SFR	Sales (& abstracted land values) do not support AO value
046-071-10	47.27	NON	39.16	SFR	Sales do not support AO value
007-661-05	26.63	NON	32.05	MFR	Sales do not support AO value
018-288-09	46.14	NON	37.56	MFR	Sales do not support AO value/Recalculated/NC
018-313-02	29.49	NON	33.10	MFR	Sales do not support AO value
018-331-02	13.54	NON	20.66	MFR	Sales do not support AO value
027-411-42	25.20	NON	31.88	MFR	Sales do not support AO value
029-383-07	69.09	NON	59.17	MFR	Sales do not support AO value
029-433-01	69.09	NON	51.59	MFR	Sales do not support AO value
036-261-27	40.41	35.10	37.44	MFR	Sales do not support AO value
038-351-05	9.52	34.48	22.72	MFR	Sales do not support AO value
038-522-20	5.08	35.20	18.79	MFR	Sales do not support AO value
039-551-08	7.89	NON	20.82	MFR	Sales do not support AO value
040-032-14	28.31	NON	33.71	MFR	Sales do not support AO value
042-111-27	44.03	NON	36.14	MFR	Sales do not support AO value/Recalculated

**NYE COUNTY
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044-771-32	27.43	NON	28.85	MFR	Sales do not support AO value
045-101-16	25.62	NON	26.31	MFR	Sales do not support AO value
008-065-01	25.14	NON	28.38	COM	Sales do not support AO value
008-139-01	17.30	NON	32.24	COM	Sales do not support AO value
008-291-18	11.95	NON	31.56	COM	Sales do not support AO value
010-361-04	13.74	NON	23.53	COM	Sales do not support AO value
018-245-04	49.12	NON	43.30	COM	Sales do not support AO value/Recalculated/NC
018-314-03	23.65	NON	30.35	COM	Sales do not support AO value
019-471-10	20.74	35.42	34.43	COM	Sales do not support AO value/Recalculated
028-211-19	62.32	NON	48.81	COM	Sales do not support AO value
035-073-08	26.64	34.55	30.15	COM	Sales do not support AO value
035-331-39	41.05	37.44	39.49	COM	Sales do not support AO value ADS/M&S LCM discrepancy
035-331-73	59.86	38.43	51.25`	COM	Sales do not support AO value ADS/M&S LCM discrepancy
035-381-25	26.67	NON	28.30	COM	Sales do not support AO value
038-213-37	32.09	41.19	37.60	COM	ADS/M&S LCM discrepancy
038-213-43	36.59	41.96	40.23	COM	Sales do not support AO value ADS/M&S LCM discrepancy
038-213-51	34.93	6.96	11.86	COM	ADS/M&S LCM discrepancy
038-291-10	30.78	39.06	34.02	COM	Sales do not support AO value ADS/M&S LCM discrepancy
042-114-07	17.91	NON	22.79	COM	Sales do not support AO value
042-391-04	10.34	NON	12.34	COM	Sales do not support AO value
042-391-09	16.73	25.54 NON	22.97	COM	Sales do not support AO value AO incorrectly valued the improvements. See notes in file
042-562-01	35.20	22.23 NON	23.16	COM	AO incorrectly valued the improvements. See notes in file
045-191-03	23.14	NON	28.23	COM	Sales do not support AO value
047-061-15	75.21	NON	43.37	COM	Sales do not support AO value. NOTE: assessed value changed as of 2/16/10 per Nye Co. BOCC meeting.

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APN	TYPE	IMPROVEMENT OUTLIER COMMENTS (properties not in re-appraisal area)
002-411-02	SFR	Current Cost Versus Improvement Factor (37.59%)
008-431-04	COM	Current Cost Versus Improvement Factor (36.53%)
018-331-02	MFR	Current Cost Versus Improvement Factor (36.39%)
028-485-04	SFR	Current Cost Versus Improvement Factor (36.96%)
029-433-01	MFR	Current Cost Versus Improvement Factor (31.76%)
035-381-25	COM	Current Cost Versus Improvement Factor (30.12%)
036-442-12	SFR	Current Cost Versus Improvement Factor (37.58%)
042-761-04	MFR	Current Cost Versus Improvement Factor (36.38%)
044-541-03	COM	Current Cost Versus Improvement Factor (28.31%) (Old storage buildings)

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APN	TYPE	NOT OUTLIERS BUT NEED ADDRESSING
039-203-14	SFR	Discovered additional asphalt
041-134-10	SFR	AO used quality class 4.0 on MH. Structure does not meet M&S guidelines for that qualify level. Revalued using 3.5 but I suspect that a closer (inside?) inspection would result in an even lower class.
042-111-27	MFR	Discovered 4 new asphalt driveways. Note address inconsistency: File reflects 2510 E. Bedrock. Buildings display 1971 (A&B) – on Teepee Rd.?
042-114-07	COM	Discovered that the day shade, fencing and metals walls have been removed. Fuel tank and bollards have been added. (Billboard = personal property?)
042-391-04	COM	Discovered 2 CFW pads and 2 day shades added since last re-appraisal. (This parcel has a history of adding improvements without permits).
042-631-19	SFR	Discovered additional 5' CLF w/TR from house to rear property line
043-023-03	SFR	Review value placed on in ground pool. AO value is low versus M&S value.
043-101-11	SFR	AO valued this house with a quality level of 2.0/Fair. AO should review the structure against M&S guidelines and consider raising quality to a 3.0/Average (at a minimum).
045-191-03	COM	Discovered n new construction in progress since last re-appraisal and AO notified. AO confirmed that files needed to be updated (based on permit info they had on file). Non re-appraisal area so DOAS valued as per existing AO records.

**RATIO STUDY 2010-2011
WASHOE COUNTY OUTLIER REPORT**

All land is reappraised each year in Washoe 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 November 3, 2008. Except for the current year, Washoe County has conducted a full reappraisal of all improvements throughout the county since 2005. However in 2009, the Assessor elected to apply the Improvement Factor of 1.00 approved by the Nevada Tax Commission to all improved properties rather than perform a current cost reappraisal from Marshall & Swift cost manuals.

Department Findings:

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

(a) Property Type	(b) Sample Size	(c) Samples in Compliance	(d) Samples out of Compliance
Vacant Land	30	30	0
Single-Family Residential Land	36	30	0
Multi-Family Residential Land	30	30	0
Commercial and Industrial Land	30	25	5
Agricultural Land	6	6	0
Single Family Residential Improvements	36	35	1
Multi-family Residential Improvements	30	22	8
Commercial and Industrial Improvements	30	17	13

Minor Improvements: Washoe County utilizes a consolidated list of various minor improvements referred to as "additives". A variance study was conducted to

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

determine whether the county specific costs fell within the "range" provided for the individual components in the Marshall & Swift cost manuals. The Assessor employs lump sum "Yard Improvements" values for some fencing, walls, and/or lawn sprinkler areas; however, the "additive" list covers a comprehensive range of small improvements that are identified and valued in a separate column on the property record card.

New Construction Improvement Valuation: The Assessor tracks progress of new construction using an in-office permit tracking system and review of building inspection information from the permitting agencies, where available. With this analysis, interior inspections of new construction properties are conducted at the optimal point in completion. The Assessor also has staff work on new construction just prior to the lien date in an attempt to discover and value all of the existing improvements. These new construction parcels are placed on the proper roll by using the reopened roll log option available to the assessor.

Improvement Factor:

As stated above, Washoe County has conducted a full reappraisal of all improvements throughout the county since 2005. In 2009, the Assessor elected to apply the Improvement Factor of 1.00 (factor approved by the Nevada Tax Commission) to all improved properties rather than perform a current cost reappraisal from the Marshall & Swift cost manuals.

NRS 361.260 (6.) states "The county assessor shall reappraise all real property at least once every 5 years". While Washoe County has met this criteria with a full reappraisal of all improvements throughout the county since 2005, the Department recommends that this complete reappraisal continue to take place annually in order to more accurately keep all improvements up to current costs reflected in the Marshall & Swift cost manuals as applicable. Reliance on factors, even though approved by the Tax Commission, is less accurate than actual reappraisal as this Ratio Study has shown. Because the Department uses these current costs to value improvements in the Ratio Study, several outliers resulted when compared to the county Improvement Factored valuations. Of the 96 improved samples in this years study, seven were found to be out of ratio due to the improvement factor not being reflective of the current cost.

Improvement Discovery / Identification:

In past years, Washoe County was divided into 5 separate reappraisal areas. On a rotating 5-year cycle, one specific area experienced full reappraisal of both land and improvements which included some form of a physical inspection (although not mandatory) of all properties within the given reappraisal area. The remaining four areas, or factored areas, received land factors developed by the Assessor and/or an improvement factor developed by the Department. Both factors were approved by the Nevada Tax Commission. As land valuation became increasingly difficult with a "boom and bust" in the local economy, land factors were abandoned in favor of full county land reappraisal each year. Washoe County had already elected to employ full county improvement reappraisal in 2005; and since "physical" re-inspections are no longer mandatory, this task was accomplished with aerial photography and the capture of new improvements via the permit system. The Department appraiser observed somewhat of a loss in "attention to detail" when conducting physical inspections of sample properties for this years Ratio Study. When compared with the

county record cards, it is concluded that these small details could add up.

Although the Assessor is now faced with yearly "mass appraisal" of all land and improvements throughout Washoe County, the Department recommends that the appraisal staff continue to perform some type of physical re-inspection of all properties on a rotating basis in order to minimize property escaping taxation.

Obsolescence: Due to the recent economic decline, the assessor has applied obsolescence to improvements in various market areas throughout Washoe 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 with a taxable value that exceeds their sales price can then be identified and the proper lump sum or percentage reduction applied to that market area.

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 Washoe County Assessor website.

Marshall & Swift:

The "Seismic" adjustment is currently not being used in the valuation of residential properties in Washoe County.

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.

Personal Property:

The Personal Property portion of the ratio study examined 53 accounts with a total of 778 records. Washoe County currently has two computer systems that are used for Personal Property purposes.

Recommendations:

- The values for some Billboard accounts were not properly displayed in the county's eDoc system. However, they are properly calculated and billed in the Pentamation system that is being used for billing. It's possible that a taxpayer might be confused. This issue was explained to several people and is being resolved. The probable cause is an inappropriate table lookup in the eDocs system.
- (Notation) Account number 2161788 has a tax calculation that is approximate because it dates back to 1944, and the tables used for calculations do not go back that far.

**WASHOE COUNTY
OUTLIER REPORT
2010-11 RATIO STUDY**

<i>APN</i>	<i>LAND</i>	<i>IMP</i>	<i>TOTAL</i>	<i>TYPE</i>	<i>COMMENTS</i>
004-151-51	33.41	36.90	36.40	MFR	Outlier a result of siding difference (DOAS: 100% Plywood; Washoe: 100% Hardboard); there is no 484 sq ft of Open Slab Porch (POR1) on this unit; and various cost differences from M & S (i.e. wood stairs).
007-101-10	34.01	30.90	33.14	MFR	Outlier a result of current cost by DOAS vs. application of 1.00 improvement factor by Washoe County and DOAS discovered "Raised" Slab Porch with Roof (Assessor had Slab Porch (POR1) with Roof (PRF1)).
007-183-03	33.82	30.99	31.87	Com	Outlier a result of current cost by DOAS vs. application of 1.00 improvement factor by Washoe County and DOAS discovered 575 sq ft of CFW not on Washoe County record card.
007-303-13	35.76	31.85	34.52	Com	Outlier a result of current cost by DOAS vs. application of 1.00 improvement factor by Washoe County.
008-084-23	33.54	28.68	30.59	MFR	Outlier a result of current cost by DOAS vs. application of 1.00 improvement factor by Washoe County and DOAS valued subject as "Masonry Walls: Common Brick" while Assessor has "Wood Frame: Brick Veneer".
008-182-04	35.76	31.07	33.22	Com	Outlier a result of incorrect ceiling height (sketch indicates 18'; Washoe County record card indicates 15'); and top rail & barbed wire needs to be added to the cost of the chain link fencing.
011-011-12	34.62	31.42	33.68	Com	Outlier a result of DOAS discovery of 5,000+/- sq ft of asphalt paving; "Raised" CCP; 90 lf of privacy slats on the rear chain link fencing; and 1 plumbing rough-in (on M & S cost sheet). These items are not on the Washoe County record card.
013-331-22	34.94	48.09	45.49	Com	Outlier a result of incorrect perimeter indicated on the Washoe County record card (key-stroke error). Assessor's office was notified 12/22/09; change to be made open roll.
014-022-01	34.18	31.57	32.98	MFR	Outlier a result of DOAS discovered "Raised" Slab Porch (rear) and "Raised" Slab Porch with Roof (front) while Washoe County had Slab Porch (POR1) and Porch Roof (PRF1); and DOAS discovered 60% vinyl siding & 40% brick veneer while Washoe County had 100% Asph Shingle.
014-192-26	32.41	28.47	30.47	MFR	Outlier a result of current cost by DOAS vs. application of 1.00 improvement factor by Washoe County; DOAS discovered "Raised" Slab Porch with Roof (front only) while Washoe County had Slab Porch (POR1) with Roof (PRF1); and DOAS valued subject as "Masonry Walls: Common Brick" while Washoe County has "Wood Frame: Brick Veneer".
014-280-08	35.73	28.99	30.87	Com	Outlier a result of DOAS discovery of "finished" basement area where county indicates "unfinished" and a difference in exterior wall siding. Washoe County needs to physically reinspect this property to confirm finish of basement area.
016-581-29	16.84	34.17	29.18	Com	Land outlier a result of too few consistent sales in subject neighborhood (market area). The county assessor provided an extensive analysis in defense of their valuation. This was acceptable and a hard copy was matched to the file.

**WASHOE COUNTY
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027-265-09	35.64	31.90	33.82	MFR	Outlier a result of current cost by DOAS vs. application of 1.00 improvement factor by Washoe County.
033-244-01	35.64	31.95	34.30	MFR	Outlier a result of Washoe County having 30% Forced Air heating and 40% Wall Furnace while DOAS valued 60% Forced Air heating and 40% Wall Furnace.
034-450-07	34.42	30.38	31.79	Com	Outlier a result of incorrect ceiling height (DOAS discovered 18'; Washoe County record card indicates 14').
035-074-02	21.49	32.86	27.99	Com	Land outlier a result of too few consistent sales in subject neighborhood (market area). The county assessor provided an extensive analysis in defense of their valuation. This was acceptable and a hard copy was matched to the file.
085-461-66	35.14	31.38	34.05	MFR	Outlier a result of siding difference (DOAS: 100% Vinyl Siding; Washoe: 100% Siding); and DOAS discovered two "Raised" Slab Porch with Roof, while Washoe County had Slab Porch (POR1) and no roof (PRF1).
088-201-15	38.90	32.46	33.85	Com	Land outlier a result of too few consistent sales in subject neighborhood (market area). The county assessor provided an extensive analysis in defense of their valuation. This was acceptable and a hard copy was matched to the file.
090-150-08	38.91	33.73	35.19	Com	Land outlier a result of too few consistent sales in subject neighborhood (market area). The county assessor provided an extensive analysis in defense of their valuation. This was acceptable and a hard copy was matched to the file.
132-211-13	32.48	40.55	37.50	SFR	Outlier a result of quality class difference; Washoe County has 4.5; DOAS has 3.5.
132-222-16	35.93	30.85	33.41	Com	Outlier a result of current cost by DOAS vs. application of 1.00 improvement factor by Washoe County.
200-590-09	37.84	33.53	34.55	Com	Land outlier a result of too few consistent sales in subject neighborhood (market area). The county assessor provided an extensive analysis in defense of their valuation. This was acceptable and a hard copy was matched to the file.