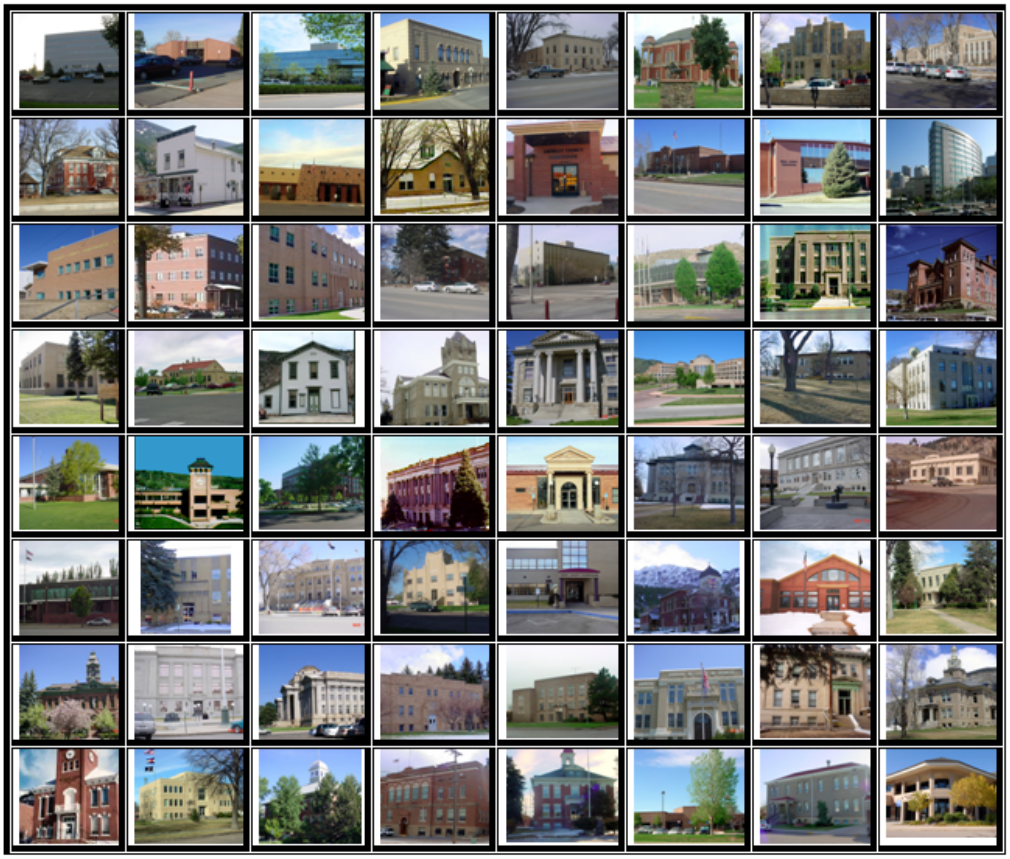
2010
SUMMIT COUNTY
PROPERTY ASSESSMENT
STUDY



WILDROSE
APPRAISAL, INCORPORATED
Audit Division

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September 15, 2010

Mr. Mike Mauer
Director of Research
Colorado Legislative Council
Room 029, State Capitol Building
Denver, Colorado 80203

RE: Final Report for the 2010 Colorado Property Assessment Study

Dear Mr. Mauer:

Wildrose Appraisal Inc.-Audit Division is pleased to submit the Final Reports for the 2010 Colorado Property Assessment Study.

These reports are the result of two analyses: A procedural audit and a statistical audit.

The procedural audit examines all classes of property. It specifically looks at how the assessor develops economic areas, confirms and qualifies sales, develops time adjustments and performs periodic physical property inspections. The audit reviews the procedures for determining subdivision absorption and subdivision discounting. Valuation methodology is examined for residential properties and commercial properties. Procedures are reviewed for producing mines, oil and gas leaseholds and lands producing, producing coal mines, producing earth and stone products, severed mineral interests, and non-producing patented mining claims.

Statistical audits are performed on vacant land, residential properties, commercial/industrial properties and agricultural land. A statistical analysis is performed for personal property compliance on the eleven largest counties: Adams, Arapahoe, Boulder, Denver, Douglas, El Paso, Jefferson, Larimer, Mesa, Pueblo and Weld. The remaining counties receive a personal property procedural study.

Wildrose Appraisal Inc. – Audit Division appreciates the opportunity to be of service to the State of Colorado. Please contact us with any questions or concerns.

Harry J. Fuller
Project Manager
Wildrose Appraisal Inc. – Audit Division

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INTRODUCTION

Colorado

The State Board of Equalization (SBOE) reviews assessments for conformance to the Constitution. The SBOE will order revaluations for counties whose valuations do not reflect the proper valuation period level of value.

The statutory basis for the audit is found in C.R.S. 39-1-104 (16)(a)(b) and (c).

The legislative council sets forth two criteria that are the focus of the audit group:

To determine whether each county assessor is applying correctly the constitutional and statutory provisions, compliance requirements of the State Board of Equalization, and the manuals published by the State Property Tax Administrator to arrive at the actual value of each class of property.

To determine if each assessor is applying correctly the provisions of law to the actual values when arriving at valuations for assessment of all locally valued properties subject to the property tax.

The property assessment audit conducts a two-part analysis: A procedural analysis and a statistical analysis.

The procedural analysis includes all classes of property and specifically looks at how the assessor develops economic areas, confirms and qualifies sales, and develops time adjustments. The audit also examines the procedures for adequately discovering, classifying and valuing agricultural outbuildings, discovering subdivision build-out and subdivision discounting procedures. Valuation methodology for vacant land, improved residential properties and commercial properties is examined. Procedures for producing mines, oil and gas leaseholds and lands producing, producing coal mines, producing earth and stone products, severed mineral interests and non-producing patented mining claims are also reviewed.

Statistical analysis is performed on vacant land, residential properties, commercial industrial properties, agricultural land, and personal property. The statistical study results are compared with State Board of Equalization compliance requirements and the manuals published by the State Property Tax Administrator.

Wildrose Audit has completed the Property Assessment Study for 2010 and is pleased to report its findings for Summit County in the following report.

REGIONAL / HISTORICAL SKETCH OF SUMMIT COUNTY

Regional Information

Summit County is located in the Western Slope region of Colorado. The Western Slope of Colorado refers to the region west of the Rocky Mountains. It includes Archuleta, Delta, Dolores, Eagle, Garfield, Grand, Gunnison, Hinsdale, Jackson, La Plata, Mesa, Moffat, Montezuma, Montrose, Ouray, Pitkin, Rio Blanco, Routt, San Juan, San Miguel, and Summit counties.

Historical Information

Summit County has a population of approximately 27,239 people with 38.7 people per square mile, according to the U.S. Census Bureau's 2009 estimated population data.

Summit County was organized as one of the seventeen original Colorado counties by the First Territorial Legislature on November 1, 1861. It was named for the many mountain summits in the county. Until February 2, 1874, its boundaries included the area now comprising Summit County, Grand County, Routt County, Moffat County, Garfield County, Eagle County, and Rio Blanco County.

In 1874, the northern half of the original Summit County was split off to form Grand County. With the creation of Garfield and Eagle counties in 1883, Summit County arrived at its present boundaries.

Established in 1859, the historic Town of Breckenridge is a Home Rule Municipality and is the county seat. The town of Breckenridge was formally created in November 1859 by General George E. Spencer. Spencer chose the name "Breckinridge" after the United States' Vice President of the time, John C. Breckinridge of Kentucky in the hopes of flattering the government and gaining a post office. Spencer succeeded in his plan and a post office was built in Breckinridge. When the Civil War broke out in 1861, however, the former vice president sided with the Confederates (as a brigadier general) and the pro-Union citizens of Breckinridge decided to change the town's name. The first "i" was changed to an "e" and the town's name has been spelled Breckenridge ever since.

Prospectors entered what is now Summit County (then part of Utah Territory) during the Pikes Peak Gold Rush of 1859 and soon after that, the placer gold discoveries farther east at Idaho Springs. Breckenridge was founded to serve the miners working rich placer gold deposits discovered along Georgia Gulch. Placer gold mining was soon joined by hard rock mining, as prospectors followed the gold to its source veins in the hills.

Summit county is rich in activities for locals and visitors. It is home to Copper Mountain, Breckenridge, Keystone and Arapahoe Ski Resorts. Winter activities include skiing, snowboarding, ice-skating, cross-country skiing, dog sleigh, and snowmobiling. Summer activities include hiking, biking, fishing, and trail running.
(www.wikipedia.org)

RATIO ANALYSIS

Methodology

All significant classes of properties were analyzed. Sales were collected for each property class over the appropriate sale period, which was typically defined as the 18-month period between January 2007 and June 2008. Counties with less than 30 sales typically extended the sale period back up to 5 years prior to June 30, 2008 in 6-month increments. If there were still fewer than 30 sales, supplemental appraisals were performed and treated as proxy sales. Residential sales for all counties using this method totaled at least 30 per county. For commercial sales, the total number analyzed was allowed, in some cases, to fall below 30. There were no sale quantity issues for counties requiring vacant land analysis or condominium analysis. Although it was required that we examine the median and coefficient of dispersion for all counties, we also calculated the weighted mean and price-related differential for each class of property. Counties were not passed or failed by these latter measures, but were counseled if there were anomalies noted during our analysis. Qualified sales were based on the qualification code used by each county, which were typically coded as either "Q" or "C." The ratio analysis included all sales. The data was trimmed for counties with obvious outliers using IAAO standards for data analysis. In every case, we examined the loss in data from trimming to ensure that only true outliers were excluded. Any county with a significant portion of sales excluded by this trimming method was examined further. No county was allowed to pass the audit if more than 5% of the sales were "lost" because of trimming. For the largest 11 counties, the residential ratio statistics were broken down by economic area as well.

Conclusions

For this final analysis report, the minimum acceptable statistical standards allowed by the State Board of Equalization are:

ALLOWABLE STANDARDS RATIO GRID		
Property Class	**Unweighted Median Ratio**	**Coefficient of Dispersion**
Commercial/Industrial	Between .95-1.05	Less than 20.99
Condominium	Between .95-1.05	Less than 15.99
Single Family	Between .95-1.05	Less than 15.99
Vacant Land	Between .95-1.05	Less than 20.99

The results for Summit County are:

Summit County Ratio Grid					
Property Class	Number of Qualified Sales	Unweighted Median Ratio	Price Related Differential	Coefficient of Dispersion	Time Trend Analysis
Commercial/Industrial	84	0.949	1.020	9	Compliant
Condominium	1,727	0.975	1.008	5.8	Compliant
Single Family	1,305	1.000	1.019	6	Compliant
Vacant Land	753	0.974	1.151	18.1	Compliant

After applying the above described methodologies, it is concluded from the sales ratios that Summit County is in compliance with SBOE, DPT, and Colorado State Statute valuation guidelines.

Recommendations

None

Random Deed Analysis

An additional analysis was performed as part of the Ratio Analysis. Ten randomly selected deeds with documentary fees were obtained from the Clerk and Recorder. These deeds were for sales that occurred from January 1, 2007 through June 30, 2008. These sales were then checked for inclusion on the Assessor's qualified or unqualified database.

Conclusions

After comparing the list of randomly selected deeds with the Assessor's database, Summit County has accurately transferred sales data from the recorded deeds to the qualified or unqualified database.

Recommendations

None

TIME TRENDING VERIFICATION

Methodology

While we recommend that counties use the inverted ratio regression analysis method to account for market (time) trending, some counties have used other IAAO-approved methods, such as the weighted monthly median approach. We are not auditing the methods used, but rather the results of the methods used. Given this range of methodologies used to account for market trending, we concluded that the best validation method was to examine the sale ratios for each class across the appropriate sale period. To be specific, if a county has considered and adjusted correctly for market trending, then the sale ratios should remain stable (i.e. flat) across the sale period. If a residual market trend is detected, then the county may or may not have addressed market trending adequately, and a further examination is warranted. This validation methodology also considers the number of sales and the length of the sale period. Counties with few sales across the sale period were carefully examined to determine if the statistical results were valid.

Conclusions

After verification and analysis, it has been determined that Summit County has complied with the statutory requirements to analyze the effects of time on value in their county. Summit County has also satisfactorily applied the results of their time trending analysis to arrive at the time adjusted sales price (TASP).

Recommendations

None

SOLD / UNSOLD ANALYSIS

Methodology

Summit County was tested for the equal treatment of sold and unsold properties to ensure that "sales chasing" has not occurred. The auditors employed a multi-step process to determine if sold and unsold properties were valued in a consistent manner.

All qualified residential and commercial class properties were examined using the unit value method, where the actual value per square foot was compared between sold and unsold properties. A class was considered qualified if it met the criteria for the ratio analysis. The median value per square foot for both groups was compared from an appraisal and statistical perspective. If no significant difference was indicated, then we concluded that no further testing was warranted and that the county was in compliance in terms of sold/unsold consistency.

If either residential or commercial differences were significant using the unit value method, or if data limitations made the comparison invalid, then the next step was to perform a ratio analysis comparing the 2009 and 2010 actual values for each qualified class of property. All qualified vacant land classes were tested using this method. The sale property ratios were arrayed using a range of 0.8 to 1.5, which theoretically excluded changes between years that were due to other unrelated changes in the property. These ratios were also stratified at the appropriate level of analysis. Once the percent change was determined for each appropriate class and sub-class, the next step was to select the unsold sample. This sample was at least 1% of the total population of unsold properties and excluded any sale properties. The unsold sample was filtered based on the attributes of the sold dataset to closely correlate both groups. The ratio analysis was then performed on the unsold properties and stratified. The median and mean ratio distribution was then compared between the sold and unsold group. A non-parametric test such as the Mann-Whitney test for differences between independent samples was undertaken to determine whether any observed differential was significant. If this test determined that the unsold properties were treated in a manner similar to the sold properties, it was concluded that no further testing was warranted and that the county was in compliance.

If a class or sub-class of property was determined to be significantly different by this method, the final step was to perform a multi-variate mass appraisal model that developed ratio statistics from the sold properties that were then applied to the unsold sample. This test compared the measures of central tendency and confidence intervals for the sold properties with the unsold property sample. If this comparison was also determined to be significantly different, then the conclusion was that the county had treated the unsold properties in a different manner than sold properties.

These tests were supported by both tabular and chart presentations, along with saved sold and unsold sample files.

Sold/Unsold Results	
Property Class	**Results**
Commercial/Industrial	Compliant
Condominium	Compliant
Single Family	Compliant
Vacant Land	Compliant

Conclusions

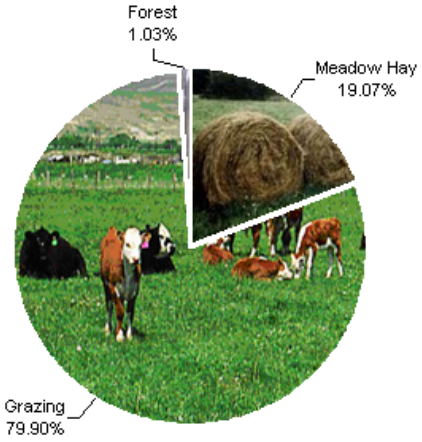
After applying the above described methodologies, it is concluded that Summit County is reasonably treating its sold and unsold properties in the same manner.

Recommendations

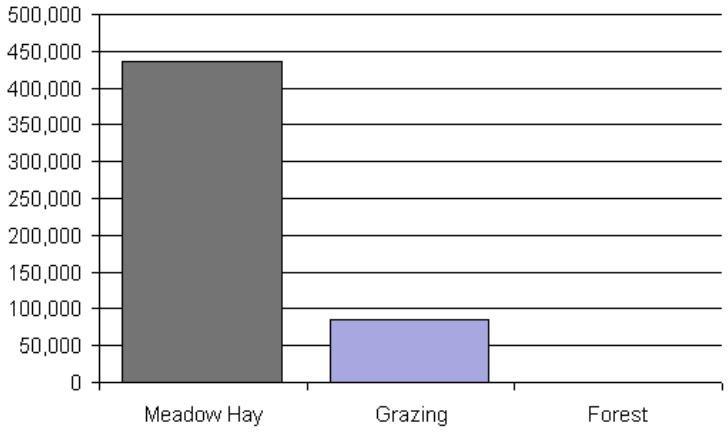
None

AGRICULTURAL LAND STUDY

Acres By Subclass



Value By Subclass



Agricultural Land

County records were reviewed to determine major land categories such as irrigated farm, dry farm, meadow hay, grazing and other lands. In addition, county records were reviewed in order to determine if: Aerial photographs are available and are being used; soil conservation guidelines have been used to classify lands based on productivity; crop rotations have been documented; typical commodities and yields have been determined; orchard lands have been properly classified and valued; expenses reflect a ten year average and are typical landlord expenses; grazing lands have been properly classified and valued; the number of acres in each class and subclass have been determined; the capitalization rate was properly applied. Also, documentation was required for the valuation methods used and any locally developed yields, carrying capacities, and expenses. Records were also checked to ensure that the commodity prices and expenses, furnished by the Property Tax Administrator (PTA), were applied properly. (See Assessor Reference Library Volume 3 Chapter 5.)

Conclusions

An analysis of the agricultural land data indicates an acceptable appraisal of this property type. Directives, commodity prices and expenses provided by the PTA were properly applied. County yields compared favorably to those published by Colorado Agricultural Statistics. Expenses used by the county were allowable expenses and were in an acceptable range. Grazing lands carrying capacities were in an acceptable range. The data analyzed resulted in the following ratios:

Summit County Agricultural Land Ratio Grid						
Abstract Code	Land Class	Number Of Acres	County Value Per Acre	County Assessed Total Value	WRA Total Value	Ratio
4137	Meadow Hay	5,611	77.82	436,660	436,660	1.00
4147	Grazing	23,503	3.64	85,478	85,478	1.00
4177	Forest	303	2.24	680	680	1.00
Total/Avg		**29,417**	**17.77**	**522,817**	**522,817**	**1.00**

Recommendations

None

Agricultural Outbuildings

Methodology

Data was collected and reviewed to determine if the guidelines found in the Assessor's Reference Library (ARL) Volume 3, pages 5.74 through 5.77 were being followed.

Conclusions

Summit County has substantially complied with the procedures provided by the Division of Property Taxation for the valuation of agricultural outbuildings.

Recommendations

None

SALES VERIFICATION

According to Colorado Revised Statutes:

A representative body of sales is required when considering the market approach to appraisal.

(8) In any case in which sales prices of comparable properties within any class or subclass are utilized when considering the market approach to appraisal in the determination of actual value of any taxable property, the following limitations and conditions shall apply:

(a)(I) Use of the market approach shall require a representative body of sales, including sales by a lender or government, sufficient to set a pattern, and appraisals shall reflect due consideration of the degree of comparability of sales, including the extent of similarities and dissimilarities among properties that are compared for assessment purposes. In order to obtain a reasonable sample and to reduce sudden price changes or fluctuations, all sales shall be included in the sample that reasonably reflect a true or typical sales price during the period specified in section 39-1-104 (10.2). Sales of personal property exempt pursuant to the provisions of sections 39-3-102, 39-3-103, and 39-3-119 to 39-3-122 shall not be included in any such sample.

(b) Each such sale included in the sample shall be coded to indicate a typical, negotiated sale, as screened and verified by the assessor. (39-1-103, C.R.S.)

The assessor is required to use sales of real property only in the valuation process.

(8)(f) Such true and typical sales shall include only those sales which have been determined on an individual basis to reflect the selling price of the real property only or which have been adjusted on an individual basis to reflect the selling price of the real property only. (39-1-103, C.R.S.)

Part of the Property Assessment Study is the sales verification analysis. WRA has used the above-cited statutes as a guide in our study of the county's procedures and practices for verifying sales.

WRA reviewed the sales verification procedures in 2010 for Summit County. This study was conducted by checking selected sales from the master sales list for the Jan 1, 2007 - June 30, 2008 valuation period. Specifically WRA selected 35 sales listed as unqualified.

All but one of the sales selected in the sample gave reasons that were clear and supportable. One sale had insufficient documentation.

Conclusions

Summit County appears to be doing a good job of verifying their sales. There are no recommendations.

Recommendations

None

ECONOMIC AREA REVIEW AND EVALUATION

Methodology

Summit County has submitted a written narrative describing the economic areas that make up the county's market areas. Summit County has also submitted a map illustrating these areas. Each of these narratives have been read and analyzed for logic and appraisal sensibility. The maps were also compared to the narrative for consistency between the written description and the map.

Conclusions

After review and analysis, it has been determined that Summit County has adequately identified homogeneous economic areas comprised of smaller neighborhoods. Each economic area defined is equally subject to a set of economic forces that impact the value of the properties within that geographic area and this has been adequately addressed. Each economic area defined adequately delineates an area that will give "similar values for similar properties in similar areas."

Recommendations

None

NATURAL RESOURCES

Earth and Stone Products

Methodology

Under the guidelines of the Assessor's Reference Library (ARL), Volume 3, Natural Resource Valuation Procedures, the income approach was applied to determine value for production of earth and stone products. The number of tons was multiplied by an economic royalty rate determined by the Division of Property Taxation to determine income. The income was multiplied by a recommended Hoskold factor to determine the actual value. The Hoskold factor is determined by the life of the reserves or the lease. Value is based on two variables: life and tonnage. The operator determines these since there is no other means to obtain production data through any state or private agency.

Conclusions

The County has applied the correct formulas and state guidelines to earth and stone production.

Recommendations

None

VACANT LAND

Subdivision Discounting

Subdivisions were reviewed in 2010 in Summit County. The review showed that subdivisions were discounted pursuant to the Colorado Revised Statutes in Article 39-1-103 (14) and by applying the recommended methodology in ARL Vol 3, Chap 4. Subdivision Discounting in the intervening year was accomplished by reducing the absorption period by one year. In instances where the number of sales within an approved plat was less than the absorption rate per year calculated for the plat, the absorption period was left unchanged.

Conclusions

Summit County has implemented proper procedures to adequately estimate absorption periods, discount rates, and lot values for qualifying subdivisions.

Recommendations

None

POSSESSORY INTEREST PROPERTIES

Possessory Interest

Possessory interest property discovery and valuation is described in the Assessor's Reference Library (ARL) Volume 3 section 7 in accordance with the requirements of Chapter 39-1-103 (17)(a) (II) C.R.S. Possessory Interest is defined by the Property Tax Administrator's Publication ARL Volume 3, Chapter 7: A private property interest in government-owned property or the right to the occupancy and use of any benefit in government-owned property that has been granted under lease, permit, license, concession, contract, or other agreement.

Summit County has been reviewed for their procedures and adherence to guidelines when assessing and valuing commercial and ski area possessory interest properties. The county has also been queried as to their confidence that the possessory interest properties have been discovered and placed on the tax rolls.

Conclusions

Summit County has implemented a discovery process to place possessory interest properties on the roll. They have also correctly and consistently applied the correct procedures and valuation methods in the valuation of possessory interest properties.

Recommendations

None

PERSONAL PROPERTY AUDIT

Summit County was studied for its procedural compliance with the personal property assessment outlined in the Assessor's Reference Library (ARL) Volume 5, and in the State Board of Equalization (SBOE) requirements for the assessment of personal property. The SBOE requires that counties use ARL Volume 5, including current discovery, classification, documentation procedures, current economic lives table, cost factor tables, depreciation table, and level of value adjustment factor table.

The personal property audit standards narrative must be in place and current. A listing of businesses that have been audited by the assessor within the twelve-month period reflected in the plan is given to the auditor. The audited businesses must be in conformity with those described in the plan.

Aggregate ratio will be determined solely from the personal property accounts that have been physically inspected. The minimum assessment sample is one percent or ten schedules, whichever is greater, and the maximum assessment audit sample is 100 schedules.

For the counties having over 100,000 population, WRA selected a sample of all personal property schedules to determine whether the assessor is correctly applying the provisions of law and manuals of the Property Tax Administrator in arriving at the assessment levels of such property. This sample was selected from the personal property schedules audited by the assessor. In no event was the sample selected by the contractor less than 30 schedules. The counties to be included in this study are Adams, Arapahoe, Boulder, Denver, Douglas, El Paso, Jefferson, Larimer, Mesa, Pueblo, and Weld. All other counties received a procedural study.

Summit County is compliant with the guidelines set forth in ARL Volume 5 regarding discovery procedures, using the following methods to discover personal property accounts in the county:

- Public Record Documents
- Local Telephone Directories, Newspapers or Other Local Publications
- Personal Observation, Physical Canvassing or Word of Mouth
- Questionnaires, Letters and/or Phone Calls to Buyer, Seller and/or Realtor
- Website listings
- Data on business licenses
- Lodging permits from incorporated towns

The county uses the Division of Property Taxation (DPT) recommended classification and documentation procedures. The DPT's recommended cost factor tables, depreciation tables and level of value adjustment factor tables are also used.

Summit County submitted their personal property written audit plan and was current for the 2010 valuation period. The number and listing of businesses audited was also submitted and was in conformance with the written audit plan. The following audit triggers were used by the county to select accounts to be audited:

- Businesses in a selected area
- Accounts with obvious discrepancies
- New businesses filing for the first time
- Incomplete or inconsistent declarations
- Accounts with omitted property
- Same business type or use

- Non-filing Accounts - Best Information Available
- Accounts protested with substantial disagreement

Conclusions

Summit County has employed adequate discovery, classification, documentation, valuation, and auditing procedures for their personal property assessment and is in statistical compliance with SBOE requirements.

Recommendations

None

WILDROSE AUDITOR STAFF

Harry J. Fuller, *Audit Project Manager*

Suzanne Howard, *Audit Administrative Manager*

Steve Kane, *Audit Statistician/Field Analyst*

Carl W. Ross, *Agricultural/Natural Resource Analyst*

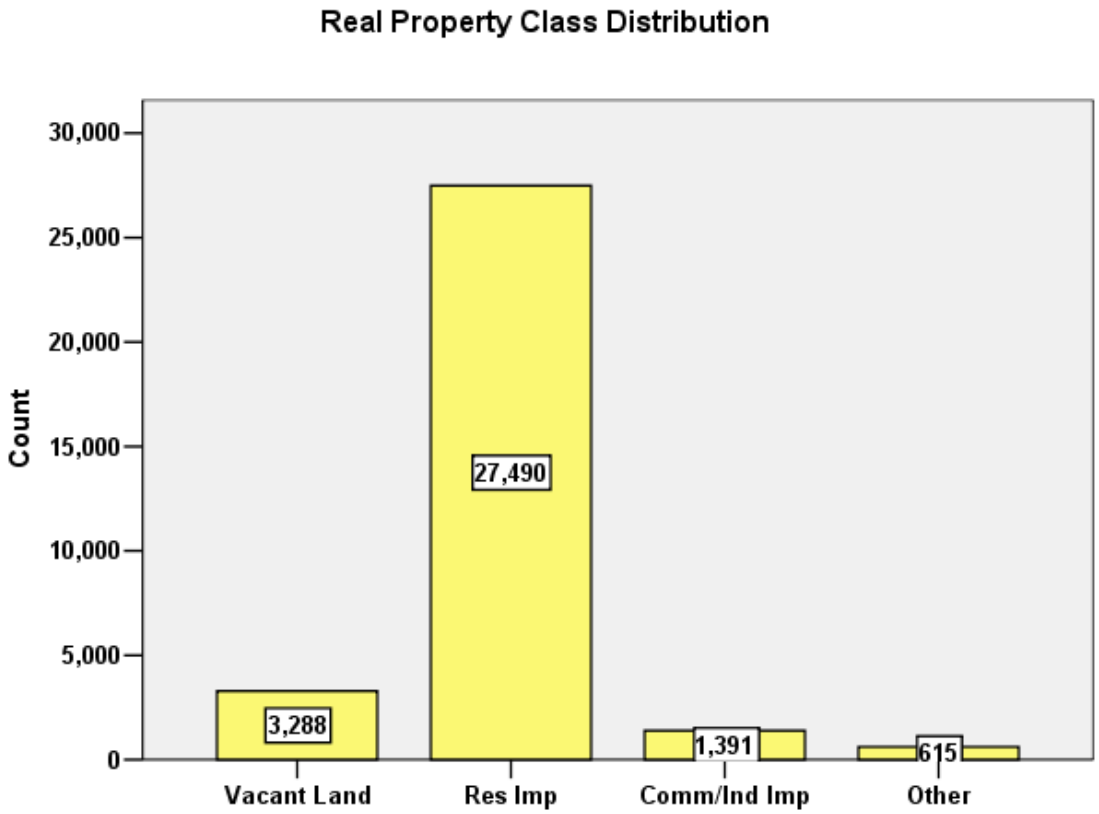
J. Andrew Rodriguez, *Field Analyst*

APPENDICES

STATISTICAL COMPLIANCE RESULTS
FOR SUMMIT COUNTY
2010

I. OVERVIEW

Summit County is located in central Colorado. The county has a total of 32,784 real property parcels, according to data submitted by the county assessor's office in 2010. The following provides a breakdown of property classes for this county:



The vacant land class of properties was dominated by residential land. Residential lots (coded 100) accounted for 53% of all vacant land parcels.

For residential improved properties, single family properties accounted for 32% of all residential properties. Residential condominiums, coded as 1230, accounted for 47% of all residential properties. Based on the guidelines of the 2010 audit, we will analyze residential condominiums separately in the following analysis.

Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial sales accounted for 4% of all such properties in this county.

II. DATA FILES

The following sales analyses were based on the requirements of the 2010 Colorado Property Assessment Study. Information was provided by the Summit Assessor's Office in April 2010. The data included all 5 property record files as specified by the Auditor.

III. RESIDENTIAL SALES RESULTS

The following steps were taken to analyze the residential sales:

1. Select improved sales (non-duplicate)	3,274
2. Select residential sales only	3,178
3. Sales between January 1, 2007 and June 30, 2008	3,155

We stratified our sales ratio analysis by residential non-condominiums and condominiums. The sales ratio analysis results were as follows:

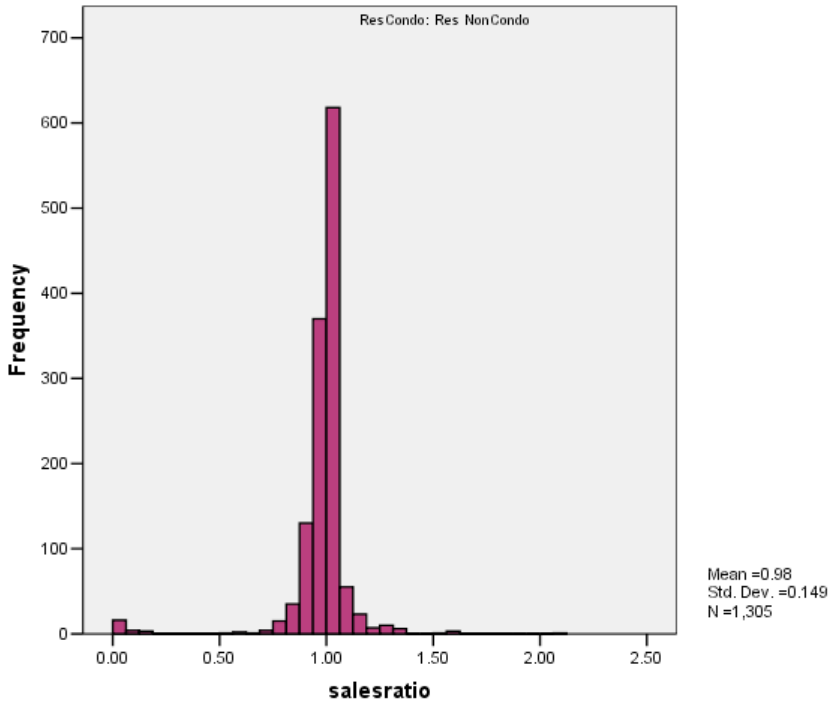
Residential Non-Condo = 1,305

Median	**1.000**
Price Related Differential	**1.019**
Coefficient of Dispersion	**.060**

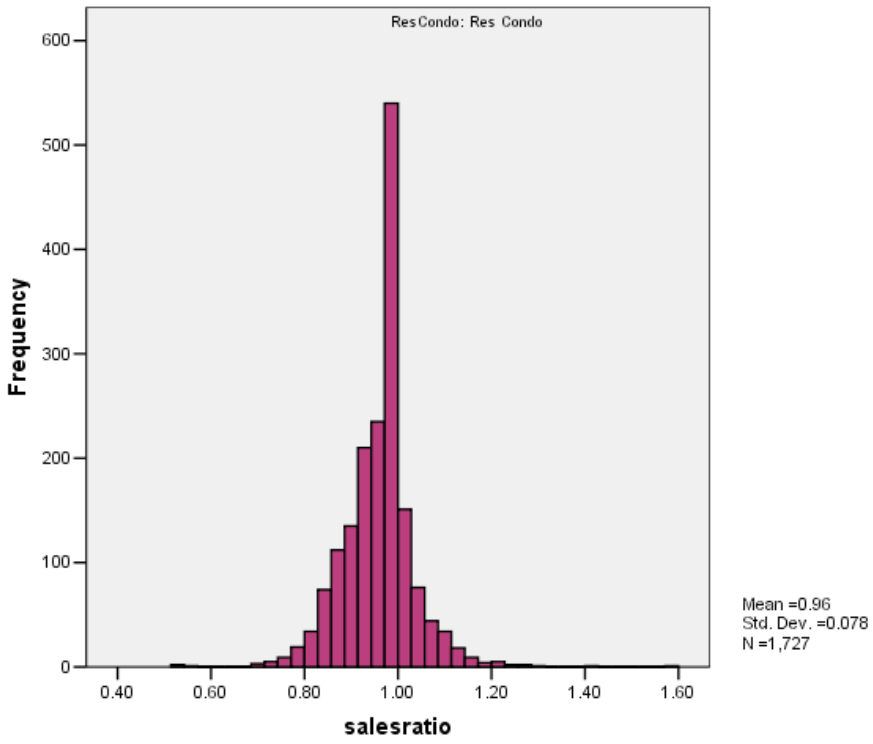
Residential Condo = 1,727

Median	**0.975**
Price Related Differential	**1.008**
Coefficient of Dispersion	**.058**

The above ratio statistics were in compliance with the standards set forth by the Colorado State Board of Equalization (SBOE) for the overall residential sales. The following graphs describe further the sales ratio distribution for these properties:


ResCondo: Res NonCondo
Frequency
salesratio
Mean =0.98
Std. Dev. =0.149
N =1,305


ResCondo: Res NonCondo
Residential Sale Price by Sales Ratio
salesratio
TASP


ResCondo: Res Condo
Frequency
600
500
400
300
200
100
0
0.40
0.60
0.80
1.00
1.20
1.40
1.60
salesratio
Mean =0.96
Std. Dev. =0.078
N =1,727


ResCondo: Res Condo
Residential Sale Price by Sales Ratio
salesratio
1.60
1.40
1.20
1.00
0.80
0.60
0.40
$0
$500,000
$1,000,000
$1,500,000
$2,000,000
$2,500,000
TASP

The above graphs indicate that the distribution of the sale ratios was within state mandated limits. No sales were trimmed.

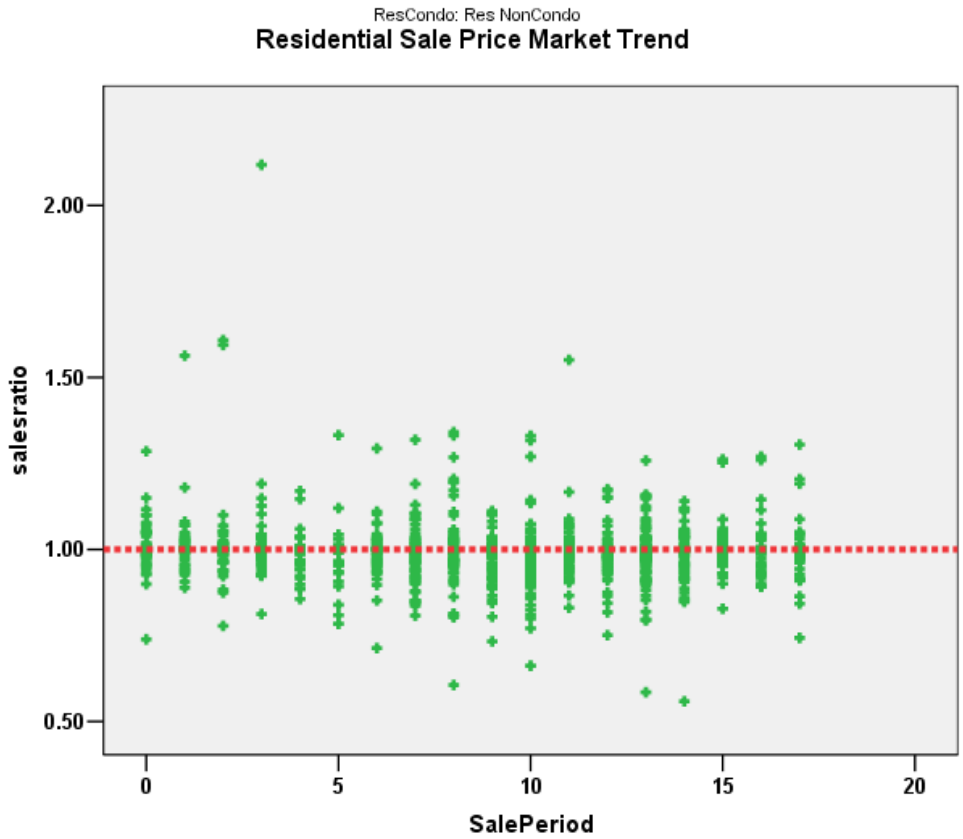
Residential Market Trend Analysis

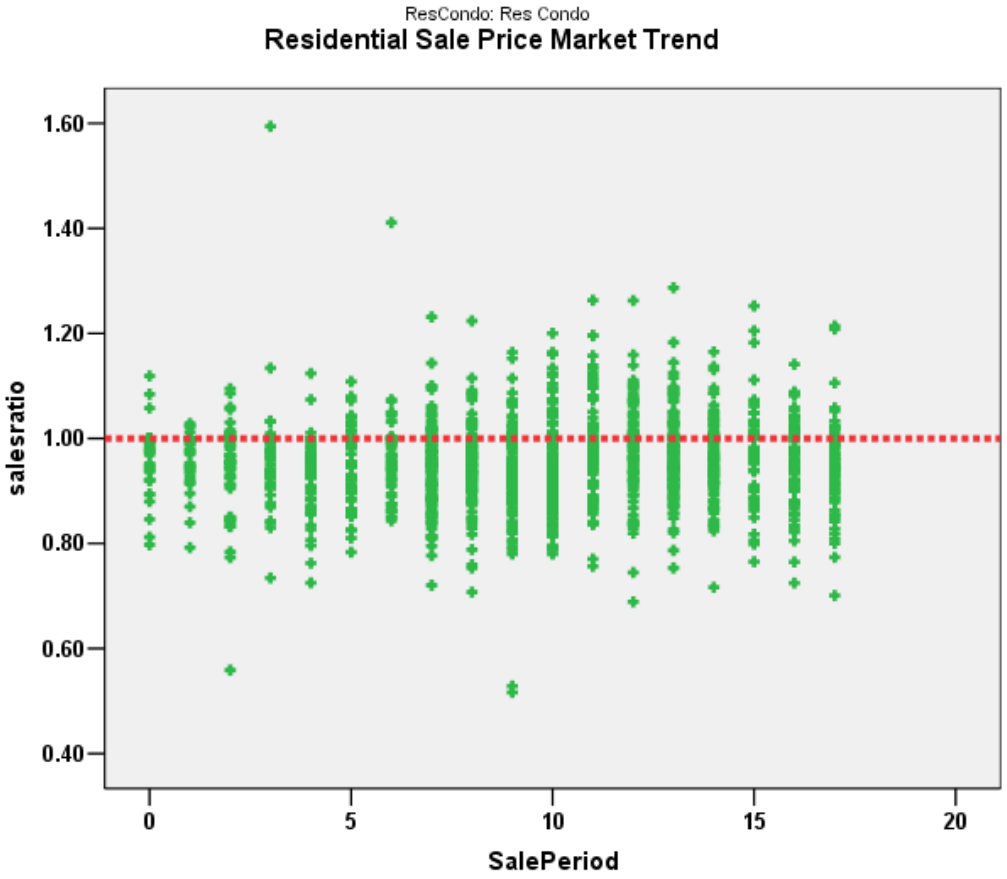
We next analyzed the residential dataset using the 18-month sale period for any residual market trending. We again stratified the analysis between residential non-condominiums and condominiums, with the following results:

Coefficients[a]

ResCondo	Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
Res NonCondo	1	(Constant)	1.003	.005		197.207	.000
		SalePeriod	-.001	.000	-.056	-1.995	.046
Res Condo	1	(Constant)	.959	.004		222.940	.000
		SalePeriod	.000	.000	.023	.969	.333

a. Dependent Variable: salesratio





While the residential non-condominium sales indicated a marginally significant market trend in the sales ratios, the magnitude of this trend (at -0.1% per month) was not significant. With no significant market trend evident in the sales ratio data, the above analysis indicated that the assessor has adequately addressed market trending in the valuation of residential properties.

Sold/Unsold Analysis

In terms of the valuation consistency between sold and unsold residential properties, we compared the median actual value per square foot for 2010 between each group stratified by residential non-condominiums and condominiums, as follows:

Residential Type	Group	N	Median	Mean
Residential Non-Condo	**Unsold**	13,163	$389	$420
	Sold	1,280	$387	$430
Residential Condo	**Unsold**	11,138	$381	$413
	Sold	1,727	$398	$431
Total	**Unsold**	24,301	$386	$417
	Sold	3,007	$393	$431

The above results indicate that sold and unsold residential properties were valued in a consistent manner.

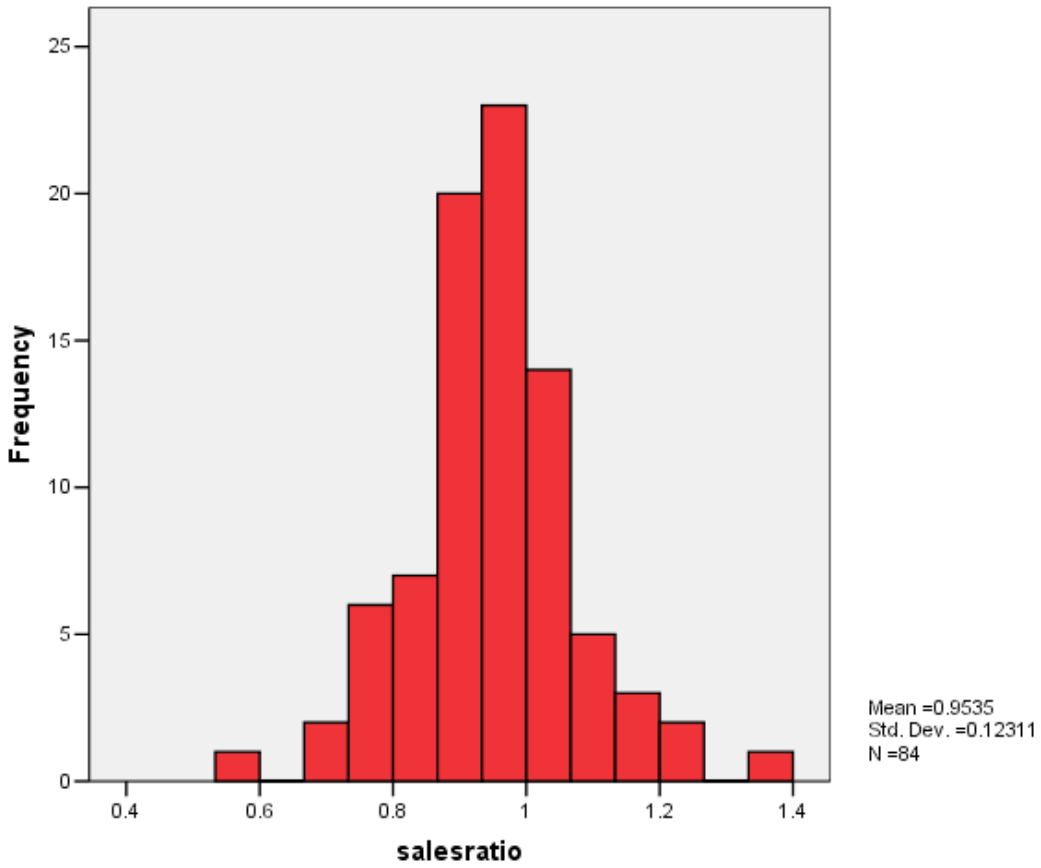
IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

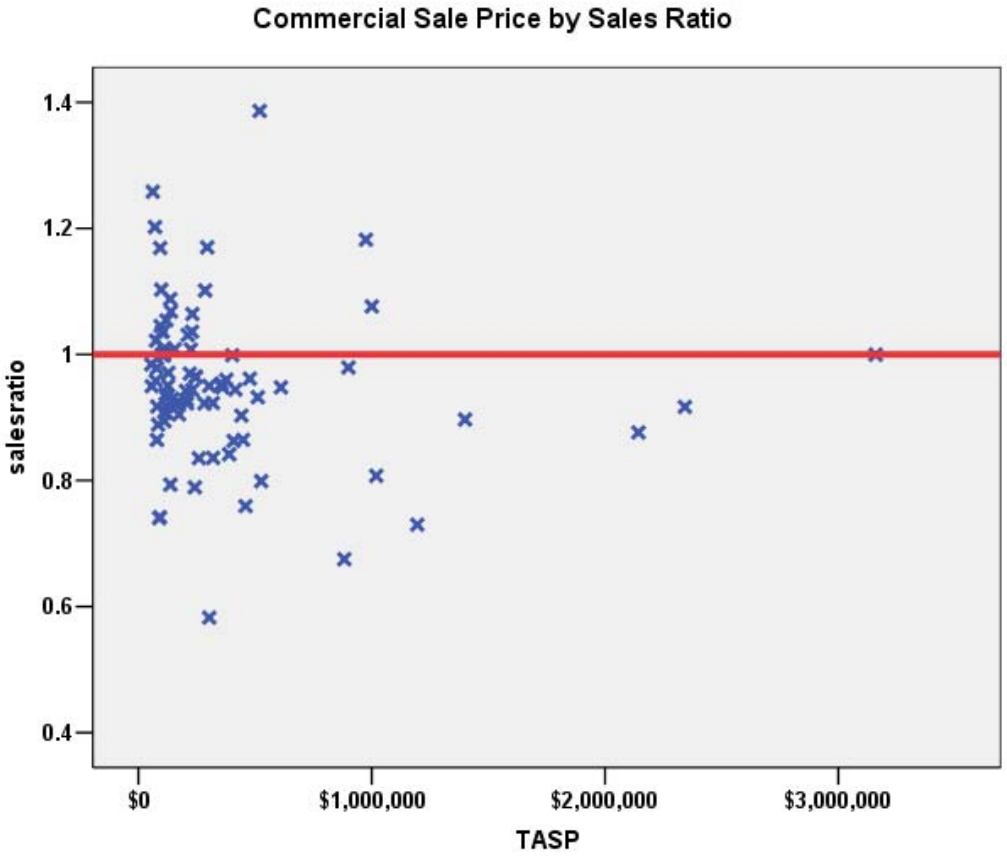
1. Select improved sales (non-duplicate)	3,274
2. Select commercial/industrial sales	494
3. Select commercial/industrial sales between Jan 07 & Jun 08	121
4. Exclude sales with multiple parcels	90
5. Exclude extreme outliers and three embedded land sales	84

The sales ratio analysis resulted in the following ratio statistics:

Median	**0.949**
Price Related Differential	**1.020**
Coefficient of Dispersion	**.090**

The above tables indicate that the Summit County commercial/industrial sale ratios were in compliance with the SBOE standards, **although the median sales ratio was at the lowest threshold for passing** The following histogram and scatter plot describe the sales ratio distribution further:





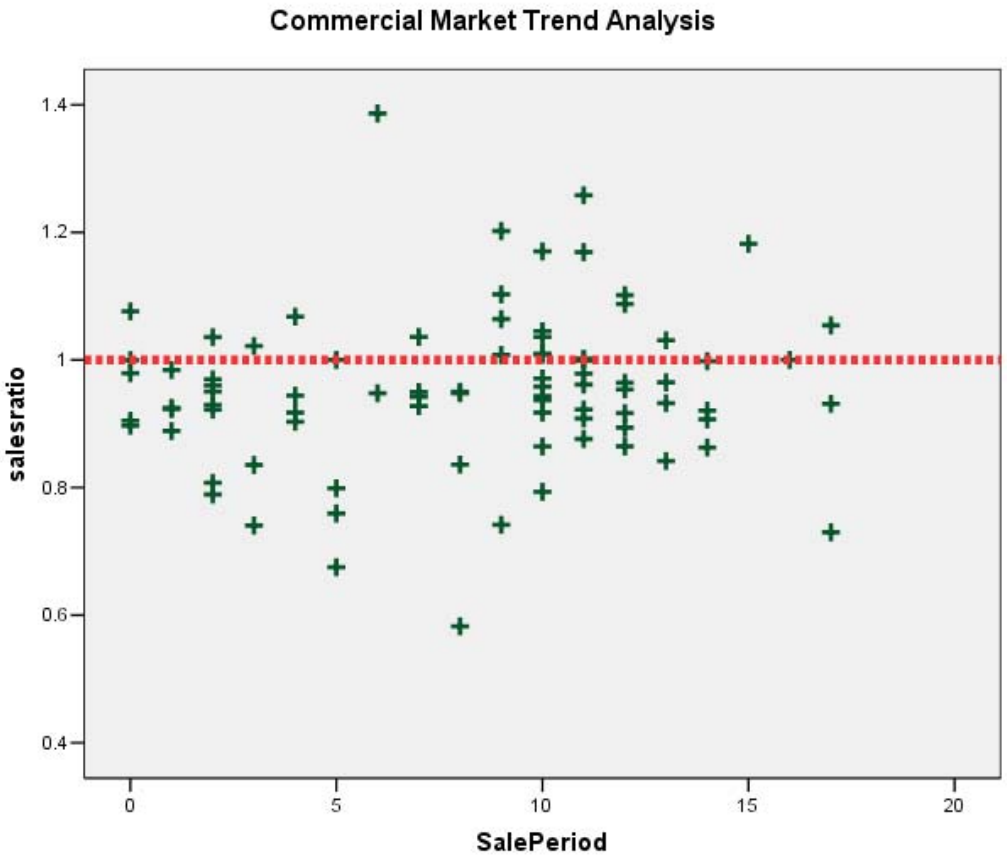
Commercial Market Trend Analysis

The 94 commercial/industrial sales were next analyzed by subclass for any residual market trending, examining the sale ratios across the 18-month sale period with the following results:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.927	.027		34.785	.000
	SalePeriod	.003	.003	.125	1.136	.259

a. Dependent Variable: salesratio



The market trend results indicated no statistically significant residual market trend. We concluded that the assessor adequately considered market trending in their valuation of commercial/industrial properties.

Sold/Unsold Analysis

For the sold/unsold analysis of commercial properties, we compared the median actual value per square foot between sold and unsold commercial properties to determine if the assessor was valuing each group consistently, as follows:

Subclass	Group	No.	Median	Mean
Total	**Unsold**	1,330	$207	$224
	Sold	57	$225	$229

Based on the results of these comparisons, we concluded that the Summit County assessor was valuing sold and unsold commercial properties consistently.

V. VACANT LAND SALE RESULTS

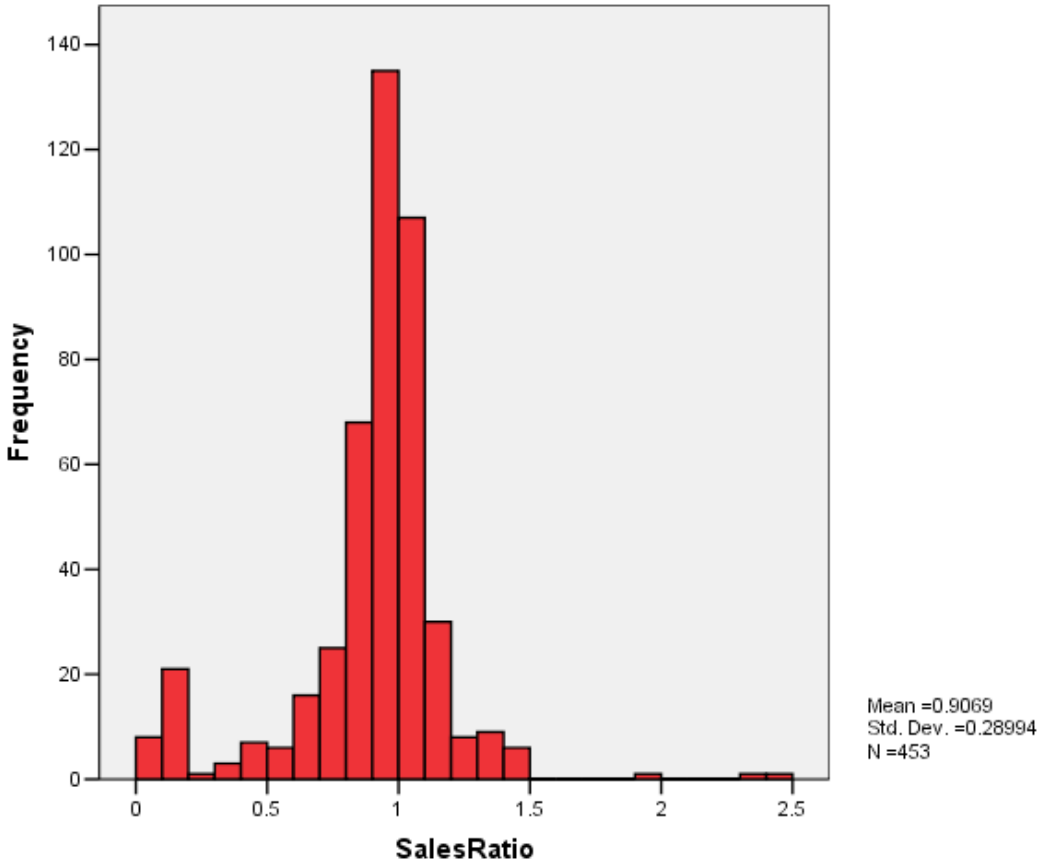
The following steps were taken to analyze vacant land sales:

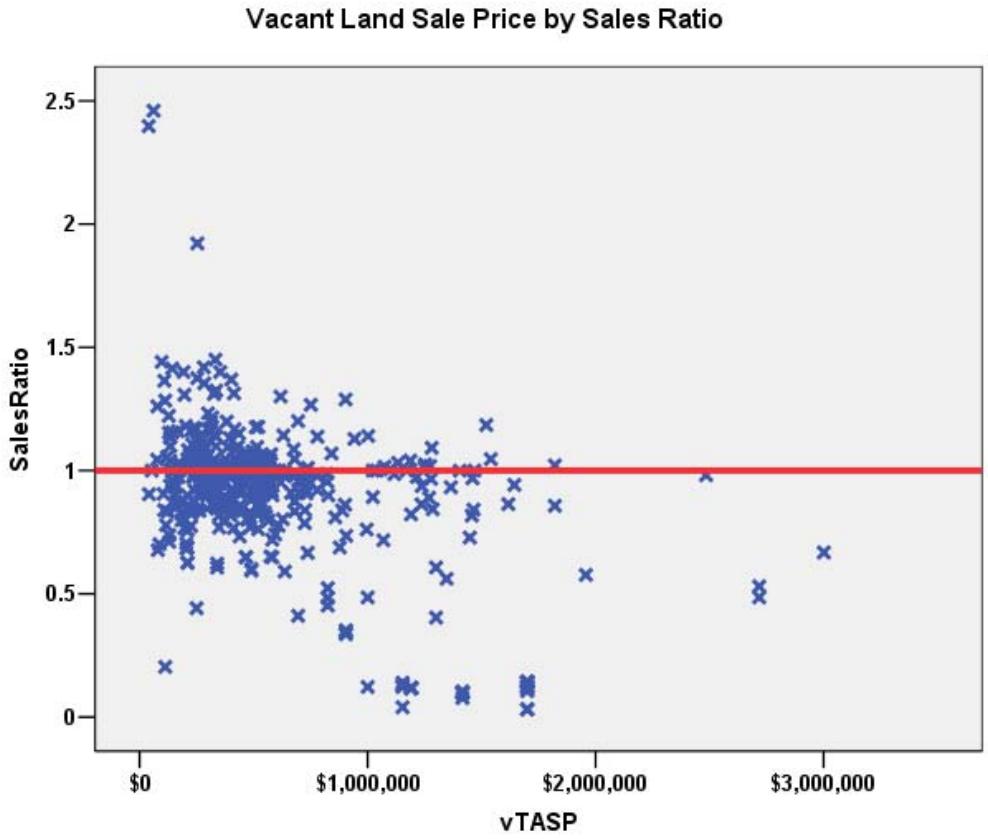
1. Select vacant land sales (non-duplicate)	457
2. Select non-agricultural sales	453

The sales ratio analysis resulted in the following ratio statistics:

Median	**0.974**
Price Related Differential	**1.151**
Coefficient of Dispersion	**.181**

The above tables indicate that the Summit County vacant land sale ratios were in compliance with the SBOE standards. The following histogram and scatter plot describe the sales ratio distribution further:





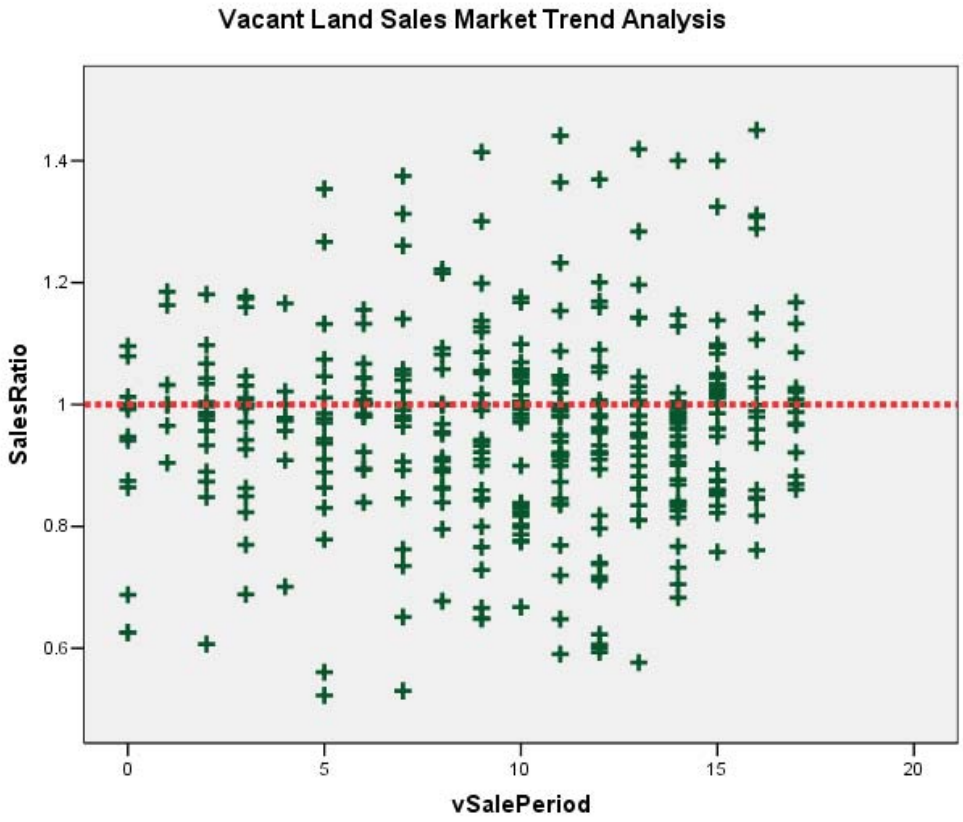
Vacant Land Market Trend Analysis

The assessor did not apply any market trend adjustments to the vacant land dataset. The 453 vacant land sales were analyzed, examining the sale ratios across the 18 month sale period with the following results:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.953	.018		54.183	.000
	vSalePeriod	.001	.002	.043	.863	.389

a. Dependent Variable: SalesRatio



The market trend results indicated no statistically significant trend. We concluded that the assessor has adequately considered market tending in Summit County's vacant land valuation for 2010.

Sold/Unsold Analysis

We compared the median change in actual value between 2008 and 2010 for vacant land properties to determine if sold and unsold properties were valued consistently, as follows:

SUBDIVNO	Group	N	Median	Mean
Total	**Unsold**	2,896	1.29	2.07
	Sold	449	1.49	1.78

The above results indicated that sold and unsold vacant land properties were valued consistently overall.

V. AGRICULTURAL IMPROVEMENTS ANALYSIS

The final statistical verification concerned the assigned actual values for agricultural residential improvements. We compared the actual value per square foot rate for this group and compared it to rates assigned to residential single family improvements in Summit County.

The following indicates that agricultural residential improvements were valued in a manner similar to the single family residential improvements in this county:

Descriptives

	ABSTRIMP			Statistic	Std. Error
ImpValSF	1212	Mean		$251.00	$1.386
		95% Confidence Interval for Mean	Lower Bound	$248.29	
			Upper Bound	$253.72	
		5% Trimmed Mean		$241.68	
		Median		$222.22	
		Variance		16752.611	
		Std. Deviation		$129.432	
		Minimum		$1	
		Maximum		$1,951	
		Range		$1,950	
		Interquartile Range		$136	
		Skewness		1.600	.026
		Kurtosis		6.352	.052
	4277	Mean		$291.75	$33.196
		95% Confidence Interval for Mean	Lower Bound	$224.29	
			Upper Bound	$359.22	
		5% Trimmed Mean		$269.81	
		Median		$253.66	
		Variance		38568.844	
		Std. Deviation		$196.390	
		Minimum		$17	
		Maximum		$1,053	
		Range		$1,036	
		Interquartile Range		$149	
		Skewness		2.176	.398
		Kurtosis		6.538	.778

VI. Conclusions

Based on this statistical analysis, there were no significant compliance issues concluded for Summit County as of the date of this report.

STATISTICAL ABSTRACT

Residential

Ratio Statistics for CURRTOT / TASP

Mean		.969
95% Confidence Interval for Mean	Lower Bound	.965
	Upper Bound	.973
Median		.993
95% Confidence Interval for Median	Lower Bound	.988
	Upper Bound	.997
	Actual Coverage	95.2%
Weighted Mean		.958
95% Confidence Interval for Weighted Mean	Lower Bound	.947
	Upper Bound	.968
Price Related Differential		1.012
Coefficient of Dispersion		.060
Coefficient of Variation	Mean Centered	11.8%

The confidence interval for the median is constructed without any distribution assumptions. The actual coverage level may be greater than the specified level. Other confidence intervals are constructed by assuming a Normal distribution for the ratios.

Commercial/Industrial

Ratio Statistics for CURRTOT / TASP

Mean		.954
95% Confidence Interval for Mean	Lower Bound	.927
	Upper Bound	.980
Median		.949
95% Confidence Interval for Median	Lower Bound	.928
	Upper Bound	.970
	Actual Coverage	96.2%
Weighted Mean		.935
95% Confidence Interval for Weighted Mean	Lower Bound	.896
	Upper Bound	.975
Price Related Differential		1.020
Coefficient of Dispersion		.090
Coefficient of Variation	Mean Centered	12.9%

The confidence interval for the median is constructed without any distribution assumptions. The actual coverage level may be greater than the specified level. Other confidence intervals are constructed by assuming a Normal distribution for the ratios.

Vacant Land

Ratio Statistics for CURRLND / vTASP

Mean		.907
95% Confidence Interval for Mean	Lower Bound	.880
	Upper Bound	.934
Median		.974
95% Confidence Interval for Median	Lower Bound	.955
	Upper Bound	.985
	Actual Coverage	95.2%
Weighted Mean		.788
95% Confidence Interval for Weighted Mean	Lower Bound	.741
	Upper Bound	.834
Price Related Differential		1.151
Coefficient of Dispersion		.181
Coefficient of Variation	Mean Centered	32.0%

The confidence interval for the median is constructed without any distribution assumptions. The actual coverage level may be greater than the specified level. Other confidence intervals are constructed by assuming a Normal distribution for the ratios.

Residential Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	LT $25K	1	.0%
	$25K to $50K	1	.0%
	$50K to $100K	2	.1%
	$100K to $150K	50	1.6%
	$150K to $200K	162	5.3%
	$200K to $300K	464	15.3%
	$300K to $500K	1063	35.1%
	$500K to $750K	655	21.6%
	$750K to $1,000K	313	10.3%
	Over $1,000K	321	10.6%
Overall		3032	100.0%
Excluded		0	
Total		3032	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LT $25K	1.000	1.000	.000	.
$25K to $50K	.916	1.000	.000	.
$50K to $100K	.795	1.000	.022	3.1%
$100K to $150K	.998	1.002	.043	6.2%
$150K to $200K	.982	.999	.065	9.1%
$200K to $300K	1.000	1.000	.057	12.4%
$300K to $500K	.990	1.001	.061	12.1%
$500K to $750K	.994	.999	.055	11.3%
$750K to $1,000K	.995	1.000	.054	10.3%
Over $1,000K	.983	1.030	.071	13.3%
Overall	.993	1.012	.060	11.8%

Subclass

Case Processing Summary

		Count	Percent
PredUse	1112	724	23.9%
	1113	140	4.6%
	1114	284	9.4%
	1117	33	1.1%
	1118	27	.9%
	1119	8	.3%
	1140	4	.1%
	1150	2	.1%
	1170	5	.2%
	1229	20	.7%
	1230	1727	57.0%
	1234	58	1.9%
Overall		3032	100.0%
Excluded		0	
Total		3032	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1112	1.000	1.010	.049	10.1%
1113	1.000	1.013	.052	8.5%
1114	.998	1.005	.032	5.0%
1117	1.032	1.002	.015	2.3%
1118	1.032	1.003	.021	3.5%
1119	1.032	1.005	.025	4.6%
1140	.169	1.908	1.363	303.3%
1150	.779	1.005	.283	40.1%
1170	.910	1.358	.302	50.3%
1229	.038	3.153	2.867	793.2%
1230	.975	1.008	.058	8.1%
1234	1.000	.995	.044	9.5%
Overall	.993	1.012	.060	11.8%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	0	5	.2%
	LE 500 sf	188	6.2%
	500 to 1,000 sf	1031	34.0%
	1,000 to 1,500 sf	963	31.8%
	1,500 to 2,000 sf	444	14.6%
	2,000 to 3,000 sf	266	8.8%
	3,000 sf or Higher	135	4.5%
Overall		3032	100.0%
Excluded		0	
Total		3032	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation: Median Centered
0	.158	.822	.322	54.1%
LE 500 sf	.967	1.074	.147	30.8%
500 to 1,000 sf	.983	1.004	.054	7.6%
1,000 to 1,500 sf	.994	1.010	.052	8.2%
1,500 to 2,000 sf	1.000	1.009	.046	7.5%
2,000 to 3,000 sf	1.000	1.012	.051	9.4%
3,000 sf or Higher	1.000	1.025	.065	13.9%
Overall	.993	1.012	.060	11.8%

Improvement Quality

Case Processing Summary

		Count	Percent
Qual	2	6	.2%
	3	108	3.6%
	4	727	24.0%
	4	1	.0%
	5	2127	70.3%
	6	1	.0%
	6	56	1.9%
	7	1	.0%
Overall		3027	100.0%
Excluded		5	
Total		3032	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
2	.973	1.007	.033	3.8%
3	.974	1.007	.074	14.1%
4	.993	1.007	.053	7.9%
4	1.331	1.000	.000	.
5	.993	1.001	.060	12.1%
6	1.002	1.000	.000	.
6	1.000	1.000	.041	6.2%
7	.984	1.000	.000	.
Overall	.993	1.003	.058	11.2%

Commercial Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	$50K to $100K	16	19.0%
	$100K to $150K	19	22.6%
	$150K to $200K	4	4.8%
	$200K to $300K	16	19.0%
	$300K to $500K	15	17.9%
	$500K to $750K	4	4.8%
	$750K to $1,000K	4	4.8%
	Over $1,000K	6	7.1%
Overall		84	100.0%
Excluded		0	
Total		84	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation: Median Centered
$50K to $100K	.981	1.005	.111	15.0%
$100K to $150K	.971	1.001	.061	7.5%
$150K to $200K	.923	1.001	.029	5.5%
$200K to $300K	.964	.997	.071	9.9%
$300K to $500K	.923	.997	.077	12.1%
$500K to $750K	.940	1.003	.160	28.8%
$750K to $1,000K	1.028	.992	.147	22.0%
Over $1,000K	.886	.968	.075	10.7%
Overall	.949	1.020	.090	13.0%

Subclass

Case Processing Summary

		Count	Percent
PredUse	2112	5	6.0%
	2115	27	32.1%
	2120	3	3.6%
	2130	4	4.8%
	2135	1	1.2%
	2245	44	52.4%
Overall		84	100.0%
Excluded		0	
Total		84	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation: Median Centered
2112	.979	1.005	.066	11.3%
2115	.998	1.005	.081	11.3%
2120	.876	1.009	.077	12.6%
2130	.862	1.052	.238	37.6%
2135	1.076	1.000	.000	.
2245	.943	1.012	.074	11.0%
Overall	.949	1.020	.090	13.0%

Vacant Land Median Ratio Stratification

Case Processing Summary

		Count	Percent
vPredUse	100	206	45.5%
	190	17	3.8%
	200	13	2.9%
	401	60	13.2%
	491	15	3.3%
	521	2	.4%
	532	1	.2%
	541	2	.4%
	551	1	.2%
	1112	131	28.9%
	1115	3	.7%
	1170	1	.2%
	2112	1	.2%
Overall		453	100.0%
Excluded		0	
Total		453	

Ratio Statistics for CURRLND / vTASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
100	.960	1.137	.180	30.6%
190	.141	1.049	1.951	347.6%
200	.666	1.183	.360	42.9%
401	.999	1.013	.096	14.4%
491	.985	1.102	.188	31.9%
521	.998	.919	.094	13.3%
532	1.001	1.000	.000	.
541	.859	1.094	.152	21.5%
551	1.201	1.000	.000	.
1112	.987	1.069	.150	25.3%
1115	1.000	.984	.079	16.5%
1170	.717	1.000	.000	.
2112	1.000	1.000	.000	.
Overall	.974	1.151	.181	30.6%