Boulder County Colorado

2016
BOULDER COUNTY
PROPERTY ASSESSMENT
STUDY

WILDROSE
APPRAISAL, INCORPORATED
Audit Division

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APPRAISAL, INCORPORATED
Audit Division

September 15, 2016

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

RE: Final Report for the 2016 Colorado Property Assessment Study

Dear Mr. Mauer:

Wildrose Appraisal Inc.-Audit Division is pleased to submit the Final Reports for the 2016 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.

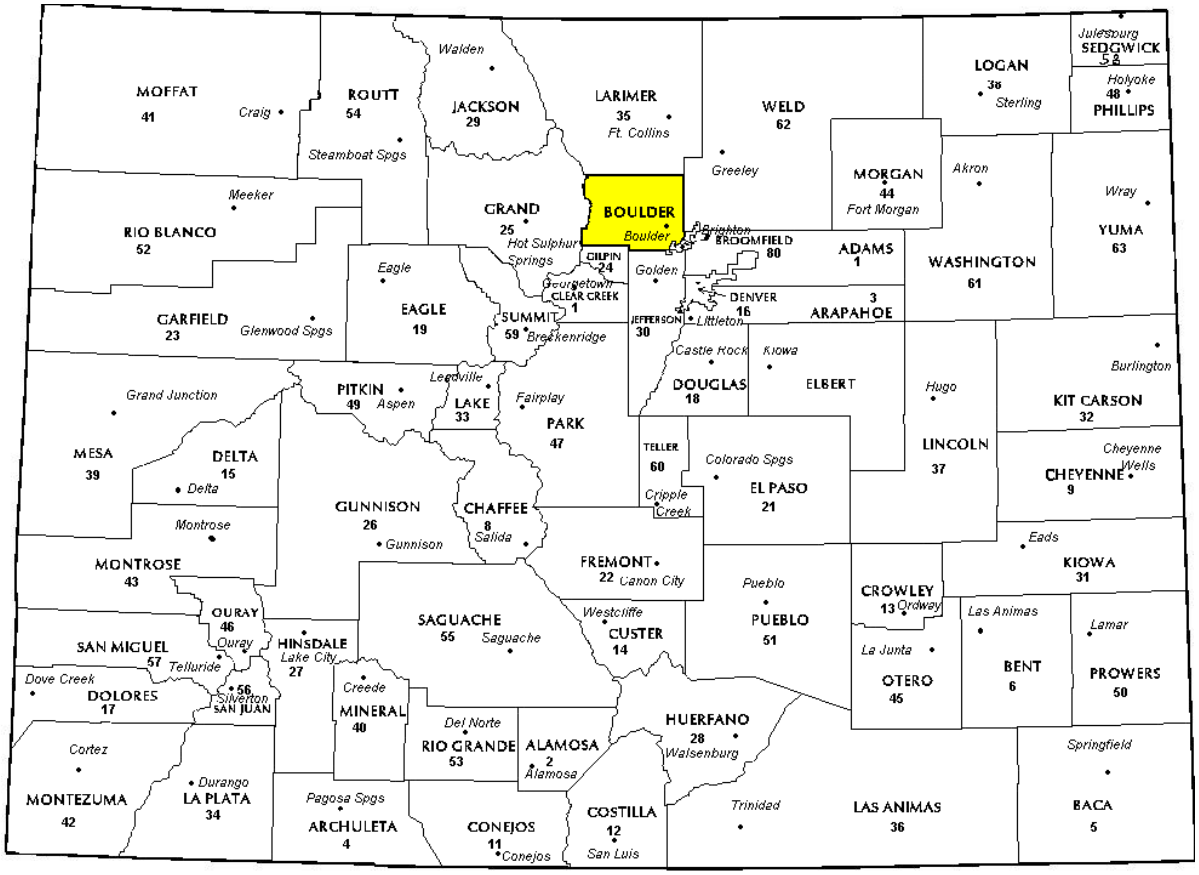
Statistical analysis is performed on vacant land, residential properties, commercial/industrial properties, agricultural land, and personal property. The statistical study results are compared with State Board of Equalization compliance requirements and the manuals published by the State Property Tax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

Wildrose Audit has completed the Property Assessment Study for 2016 and is pleased to report its findings for Boulder County in the following report.

REGIONAL/HISTORICAL SKETCH OF BOULDER COUNTY

Regional Information

Boulder County is located in the Front Range region of Colorado. The Colorado Front Range is a colloquial geographic term for the populated areas of the State that are just east of the foothills of the Front Range. It includes Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, El Paso, Jefferson, Larimer, Pueblo, and Weld counties.



Historical Information

Boulder County had an estimated population of approximately 313,333 people with 406 people per square mile, according to the U.S. Census Bureau's 2014 estimated census data. This represents a 6.4 percent change from April 1, 2010 to July 1, 2014.

Boulder County was one of the original 17 counties created by the Territory of Colorado on January 11,1861. The county was named for Boulder City and Boulder Creek, so named because of the abundance of boulders in the area. Boulder County retains essentially the same borders as in 1861, although a small portion of its southeastern corner became part of the City and County of Broomfield in 2001.

In the early to mid 1800s, the nomadic Southern Arapaho Native American tribe frequently wintered at the base of the foothills in the Boulder area. Chief Niwot and his band called the site their home. Other nomadic tribes included the Utes, Cheyennes, Comanches, and Sioux.

The first recorded European settlers in the area were gold prospectors who arrived in 1858, when Boulder was part of the Nebraska Territory (The former boundary between Nebraska and Kansas territories is the present Baseline Road in Boulder). The "Boulder City Town Company" was founded on February 10, 1859. Boulder's first school house was built in 1860, followed by the creation of the Colorado Territory in 1861. In 1871 'Boulder City' was incorporated. In 1873 the railroad was extended to Boulder and, in 1890, the Boulder Railroad Depot was constructed to serve as a station for the Union Pacific Railroad. In 1876 Colorado was granted statehood, and in that same year the University of Colorado at Boulder opened.

Mining gold, silver, and coal continued to be a prominent part of the local economy until the mid 1900s. A coal miners strike lasted from 1910 to 1915, causing a military presence in nearby Louisville. Mining's relevance in the local economy declined in the 1940s, when the city began actively recruiting clean industry, such as the National Bureau of Standards, which today is the National Institute of Standards and Technology, home of the atomic clock.
(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 2013 and June 2014. Counties with less than 30 sales typically extended the sale period back up to 5 years prior to June 30, 2014 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 Boulder County are:

Boulder County Ratio Grid					
Property Class	Number of Qualified Sales	Unweighted Median Ratio	Price Related Differential	Coefficient of Dispersion	Time Trend Analysis
Commercial/Industrial	225	0.969	1.039	8.1	Compliant
Condominium	N/A	N/A	N/A	N/A	N/A
Single Family	10,596	0.996	1.009	7.1	Compliant
Vacant Land	160	1.000	1.091	13.9	Compliant

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
1	.999	1.012	.067
2	1.000	1.019	.099
3	.990	1.021	.106
4	.993	1.006	.064
5	.999	1.012	.075
30	.989	1.008	.064
31	.980	1.009	.068
32	.991	1.008	.058
33	.995	1.002	.066
40	1.008	.939	.137
Overall	.996	1.009	.071

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

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 method 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 Boulder County has complied with the statutory requirements to analyze the effects of time on value in their county. Boulder 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

Boulder 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.

We test the hypothesis that the assessor has valued unsold properties consistent with what is observed with the sold properties based on several units of comparison and tests. The units of comparison include the actual value per square foot and the change in value from the previous base year period to the current base year. The first test compares the actual value per square foot between sold and unsold properties by class. The median and mean value per square foot is compared and tested for any significant difference. This is tested using non-parametric methods, such as the Mann-Whitney test for differences in the distributions or medians between sold and unsold groups. It is also examined graphically and from an appraisal perspective. Data can be stratified based on location and subclass. The second test compares the difference in the median change in value from the previous base year to the current base year between sold and unsold properties by class. The same combination of non-parametric and appraisal testing is used as with the first test. A third test employing a valuation model testing a sold/unsold binary variable while controlling for property attributes such as location, size, age and other attributes. The model determines if the sold/unsold variable is statistically and empirically significant. If all three tests indicate a significant difference between sold and unsold properties for a given class, the Auditor may meet with the county to determine if sale chasing is actually occurring, or if there are other explanations for the observed difference.

If the unsold properties have a higher median value per square foot than the sold properties, or if the median change in value is greater for the unsold properties than the sold properties, the analysis is stopped and the county is concluded to be in compliance with sold and unsold guidelines. All sold and unsold properties in a given class are first tested, although properties with extreme unit values or percent changes can be trimmed to stabilize the analysis. The median is the primary comparison metric, although the mean can also be used as a comparison metric if the distribution supports that type of measure of central tendency.

The first test (unit value method) is applied to both residential and commercial/industrial sold and unsold properties. The second test is applied to sold and unsold vacant land properties. The second test (change in value method) is also applied to residential or commercial sold and unsold properties if the first test results in a significant difference observed and/or tested between sold and unsold properties. The third test (valuation modeling) is used in instances where the results from the first two tests indicate a significant difference between sold and unsold properties. It can also be used when the number of sold and unsold properties is so large that the non-parametric testing is indicating a false rejection of the hypothesis that there is no difference between the sold and unsold property values.

These tests were supported by both tabular and graphics presentations, along with written documentation explaining the methodology used.

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

Conclusions

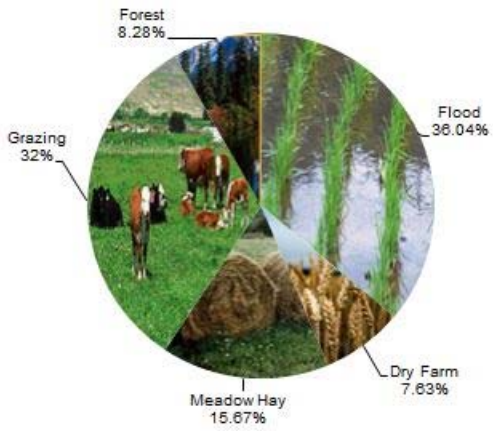
After applying the above described methodologies, it is concluded that Boulder County is reasonably treating its sold and unsold properties in the same manner.

Recommendations

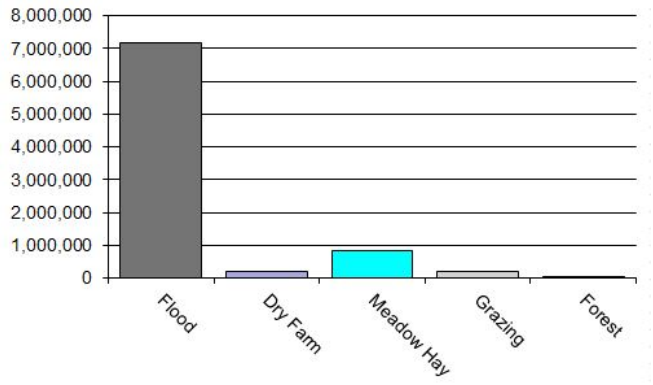
None

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:

Boulder County Agricultural Land Ratio Grid						
Abstract Code	Land Class	Number Of Acres	County Value Per Acre	County Assessed Total Value	WRA Total Value	Ratio
4117	Flood	23,284	310.93	7,239,621	7,160,196	1.01
4127	Dry Farm	4,932	36.93	182,156	190,187	0.96
4137	Meadow Hay	10,125	84.45	855,009	855,009	1.00
4147	Grazing	20,914	9.40	200,339	196,590	1.02
4177	Forest	5,348	4.00	21,392	20,090	1.06
Total/Avg		**64,603**	**131.55**	**8,498,517**	**8,422,073**	**1.01**

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

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

Recommendations

None

Agricultural Land Under Improvements

Methodology

Data was collected and reviewed to determine if the guidelines found in the Assessor's Reference Library (ARL) Volume 3, pages 5.19 and 5.20 were being followed.

Conclusions

Boulder County has used the following methods to discover land under a residential improvement on a farm or ranch that is determined to be not integral under 39-1-102, C.R.S.:

- Questionnaires
- Field Inspections
- Phone Interviews
- In-Person Interviews with Owners/Tenants
- Written Correspondence other than Questionnaire
- Personal Knowledge of Occupants at Assessment Date
- Aerial Photography/Pictometry

Boulder County has used the following methods to discover the land area under a residential improvement that is determined to be not integral under 39-1-102, C.R.S.:

- Property Record Card Analysis
- Questionnaires
- Field Inspections
- Phone Interviews
- In-Person Interviews with Owners/Tenants
- Written Correspondence other than Questionnaire
- Personal Knowledge of Occupants at Assessment Date
- Aerial Photography/Pictometry

Boulder County has substantially complied with the procedures provided by the Division of Property Taxation for the valuation of land under residential improvements that may or may not be integral to an agricultural operation.

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 2016 for Boulder County. This study was conducted by checking selected sales from the master sales list for the current valuation period. Specifically WRA selected 56 sales listed as unqualified.

All but two of the sales selected in the sample gave reasons that were clear and supportable. Two sales had insufficient reason for disqualification.

For residential, commercial, and vacant land sales with considerations over $500, the contractor has examined and reported the ratio of qualified sales to total sales by class and performed the following analyses of unqualified sales:

> The contractor has examined the manner in which sales have been classified as qualified or unqualified, including a listing of each step in the sales verification process, any adjustment procedures, and the county official responsible for making the final decision on qualification.
>
> The contractor has reviewed with the assessor any analysis indicating that sales data are inadequate, fail to reflect typical properties, or have been disqualified for insufficient cause. In addition, the contractor has reviewed the disqualified sales by assigned code.

If there appears to be any inconsistency in the coding, the contractor has conducted further analysis to determine if the sales included in that code have been assigned appropriately.

Conclusions

Boulder County appears to be doing a good job of verifying their sales.

Recommendations

None

ECONOMIC AREA REVIEW AND EVALUATION

Methodology

Boulder County has submitted a written narrative describing the economic areas that make up the county's market areas. Boulder 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 Boulder 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

Producing Oil and Gas

Methodology

Assessors Reference Library (ARL) Volume 3, Chapter 6: Valuation of Natural Resources

STATUTORY REFERENCES

Section § 39-1-103, C.R.S., specifies that producing oil or gas leaseholds and lands are valued according to article 7 of title 39, C.R.S.

Actual value determined - when.

(2) The valuation for assessment of leaseholds and lands producing oil or gas shall be determined as provided in article 7 of this title.

§ 39-1-103, C.R.S.

Article 7 covers the listing, valuation, and assessment of producing oil and gas leaseholds and lands.

Valuation:

Valuation for assessment.

(1) Except as provided in subsection (2) of this section, on the basis of the information contained in such statement, the assessor shall value such oil and gas leaseholds and lands for assessment, as real property, at an amount equal to eighty-seven and one-half percent of:

(a) The selling price of the oil or gas sold there from during the preceding calendar year, after excluding the selling price of all oil or gas delivered to the United States government or any agency thereof, the state of Colorado or any agency thereof, or any political subdivision of the state as royalty during the preceding calendar year;

(b) The selling price of oil or gas sold in the same field area for oil or gas transported from the premises which is not sold during the preceding calendar year, after excluding the selling price of all oil or gas delivered to the United States government or any agency thereof, the state of Colorado or any agency thereof, or any political subdivision of the state as royalty during the preceding calendar year.

§ 39-7-102, C.R.S.

Conclusions

The county applied approved appraisal procedures in the valuation of oil and gas.

Recommendations

None

VACANT LAND

Subdivision Discounting

Subdivisions were reviewed in 2016 in Boulder 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

Boulder 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.

Boulder County has been reviewed for their procedures and adherence to guidelines when assessing and valuing agricultural, 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

Boulder 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

Boulder 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.

Boulder 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
- MLS Listing and/or Sold Books
- Chamber of Commerce/Economic Development Contacts
- 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
- Secretary of State Business Search
- Leasing Copany Info
- Boulder County Business Report
- Web Search by Business Type

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.

Boulder County submitted their personal property written audit plan and was current for the 2016 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

- Accounts with greater than 10% change
- Incomplete or inconsistent declarations
- Accounts with omitted property
- Same business type or use
- Businesses with no deletions or additions for 2 or more years
- Non-filing Accounts - Best Information Available
- Accounts close to the $7,300 actual value exemption status
- Lowest or highest quartile of value per square foot
- Accounts protested with substantial disagreement

Boulder County's median ratio is .99. This is in compliance with the State Board of Equalization (SBOE) compliance requirements which range from .90 to 1.10 with no COD requirements.

Conclusions

Boulder 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

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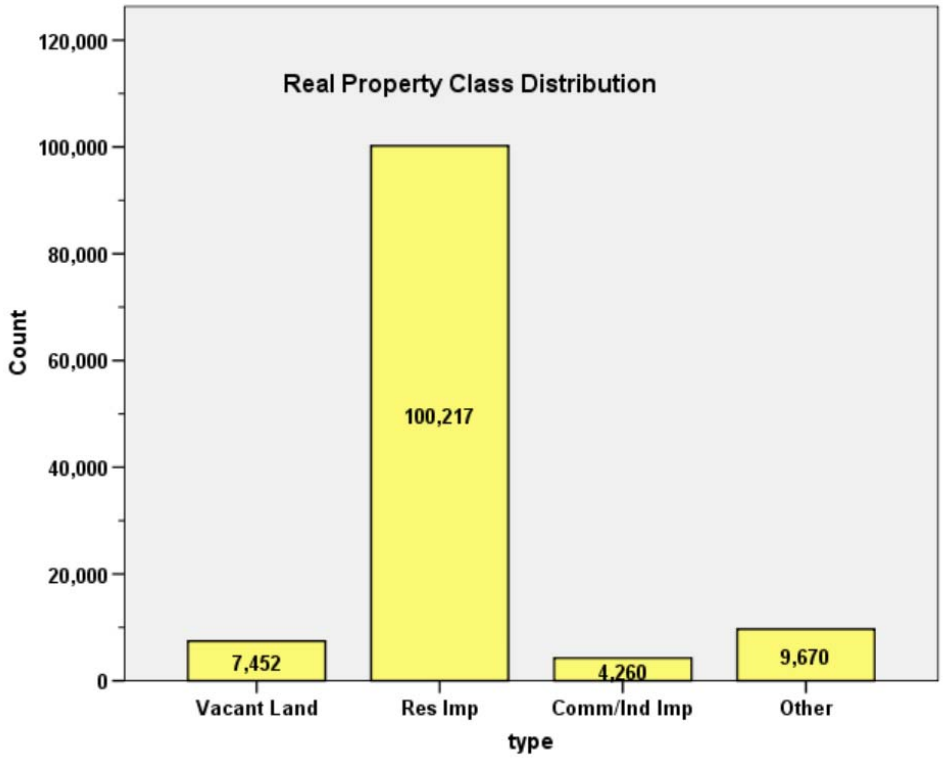
APPENDICES

STATISTICAL COMPLIANCE REPORT
FOR BOULDER COUNTY
2016

I. OVERVIEW

Boulder County is an urban county located along Colorado's Front Range. The county has a total of 121,599 real property parcels, according to data submitted by the county assessor's office in 2016. 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, 1100, 1110 and 1112) accounted for 74.5% of all vacant land parcels.

For residential improved properties, single family properties accounted for 82.6% of all residential properties.

Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial properties accounted for 3.5% of all such properties in this county.

II. DATA FILES

The following sales analyses were based on the requirements of the 2016 Colorado Property Assessment Study. Information was provided by the Boulder Assessor's Office in April 2016. The data included all 5 property record files as specified by the Auditor.

III. RESIDENTIAL SALES RESULTS

There were 10,596 qualified residential sales in the 24-month sale period prior to June 30, 2014. The sales ratio analysis was analyzed as follows:

Ratio Statistics for CURRTOT / TASP

Median	Price Related Differential	Coefficient of Dispersion
.996	1.009	.071

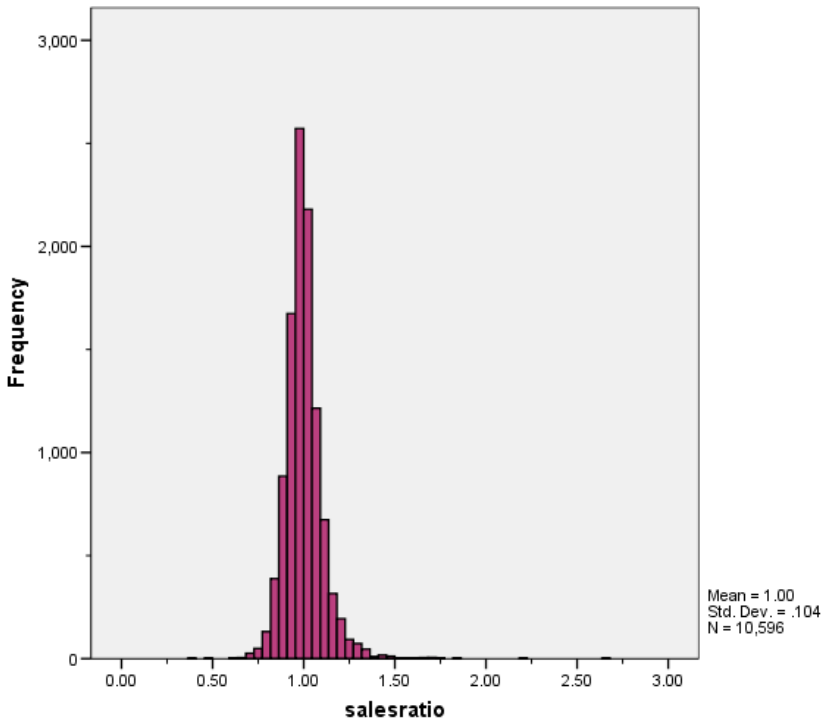
Case Processing Summary

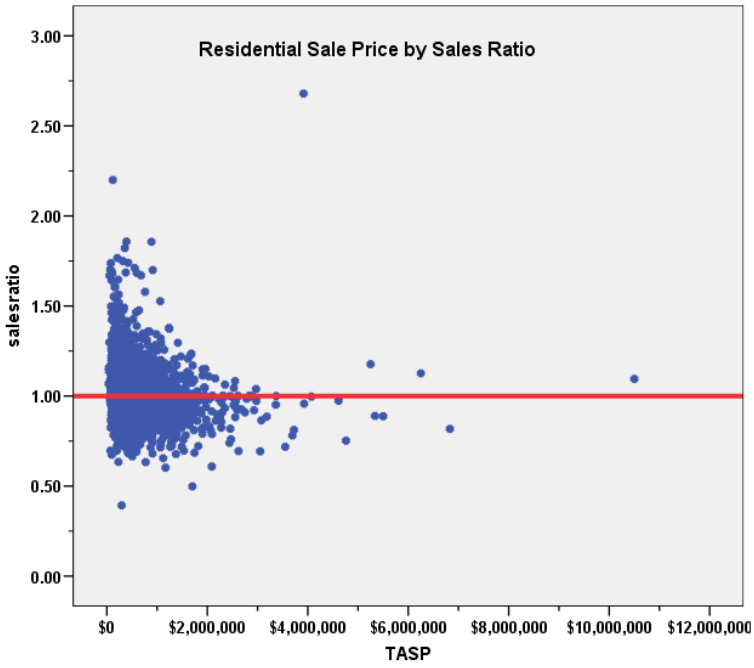
		Count	Percent
ECONAREA	1	1750	16.5%
	2	567	5.4%
	3	364	3.4%
	4	2740	25.9%
	5	3037	28.7%
	30	796	7.5%
	31	424	4.0%
	32	494	4.7%
	33	373	3.5%
	40	51	0.5%
Overall		10596	100.0%
Excluded		0	
Total		10596	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
1	.999	1.012	.067
2	1.000	1.019	.099
3	.990	1.021	.106
4	.993	1.006	.064
5	.999	1.012	.075
30	.989	1.008	.064
31	.980	1.009	.068
32	.991	1.008	.058
33	.995	1.002	.066
40	1.008	.939	.137
Overall	.996	1.009	.071

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:





The above graphs indicate that the distribution of the sale ratios was within state mandated limits.

Residential Market Trend Analysis

We next analyzed the residential dataset using the 24-month sale period for any residual market trending and broken down by economic area, as follows:

ECONAREA	Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	1	(Constant)	1.005	.005		216.605	.000
		SalePeriod	.000	.000	-.025	-1.030	.303
2	1	(Constant)	1.020	.011		90.865	.000
		SalePeriod	.000	.001	-.023	-.557	.578
3	1	(Constant)	1.009	.016		64.133	.000
		SalePeriod	.000	.001	-.015	-.283	.777
4	1	(Constant)	.992	.003		295.483	.000
		SalePeriod	.001	.000	.042	2.193	.028
5	1	(Constant)	1.004	.004		278.081	.000
		SalePeriod	.000	.000	.011	.631	.528
30	1	(Constant)	.997	.006		170.877	.000
		SalePeriod	.000	.000	-.026	-.732	.464
31	1	(Constant)	.991	.008		117.321	.000
		SalePeriod	-.001	.001	-.042	-.866	.387
32	1	(Constant)	.993	.006		160.927	.000
		SalePeriod	.000	.000	.021	.475	.635
33	1	(Constant)	1.008	.009		112.534	.000
		SalePeriod	-.001	.001	-.055	-1.070	.286
40	1	(Constant)	.928	.077		12.110	.000
		SalePeriod	.007	.005	.189	1.349	.183

a. Dependent Variable: salesratio

There was no significant residual market trending present in the sale ratio data for most economic areas; the one economic area with a statistically significant residual trends was not significant in terms of the magnitude of the trend. We therefore concluded 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 2016 between each group. The data was analyzed both as a whole and broken down by economic area, as follows:

Report

ValSF

sold	N	Median	Mean
UNSOLD	85,357	$230.97	$669.11
SOLD	10,249	$227.38	$551.95

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of ValSF is the same across categories of sold.	Independent-Samples Mann-Whitney U Test	.034	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .03.

Report

ValSF

ECONAREA	sold	N	Median	Mean
1	UNSOLD	18,005	$394.55	$1,307.82
	SOLD	1,664	$400.01	$2,194.92
2	UNSOLD	6,506	$241.45	$630.04
	SOLD	489	$248.65	$287.23
3	UNSOLD	3,529	$281.67	$1,217.64
	SOLD	266	$288.74	$325.81
4	UNSOLD	20,869	$228.23	$554.08
	SOLD	2,702	$229.33	$241.08
5	UNSOLD	23,377	$172.62	$428.05
	SOLD	2,993	$179.05	$190.05
20	UNSOLD	90	$624.67	$1,040.13
30	UNSOLD	4,552	$250.86	$265.39
	SOLD	796	$256.47	$265.16
31	UNSOLD	2,604	$338.47	$347.04
	SOLD	424	$366.41	$406.00
32	UNSOLD	2,959	$197.31	$200.05
	SOLD	494	$198.30	$204.29
33	UNSOLD	1,959	$147.87	$152.86
	SOLD	373	$159.55	$162.23
40	UNSOLD	907	$226.89	$555.17
	SOLD	48	$230.90	$261.78

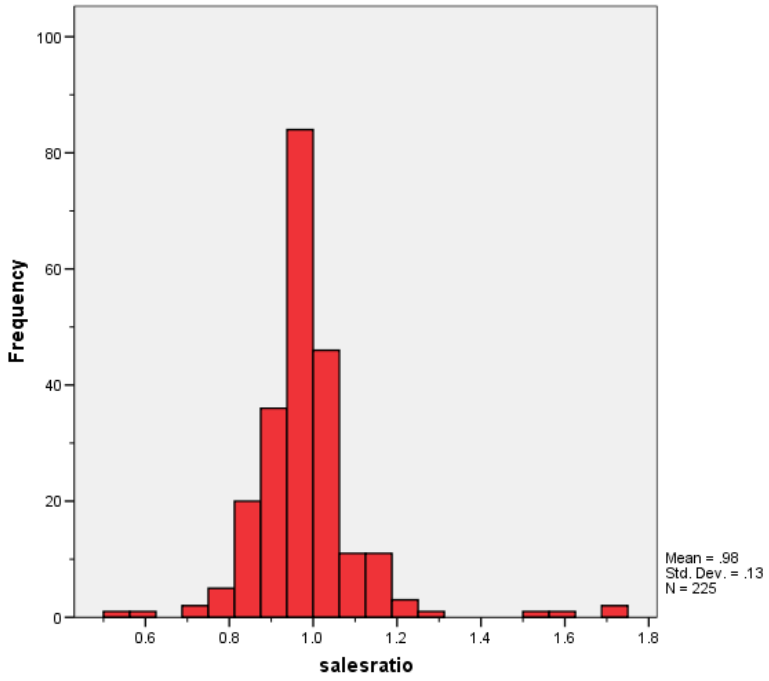
The above results indicate that sold and unsold residential properties were valued in a consistent manner.

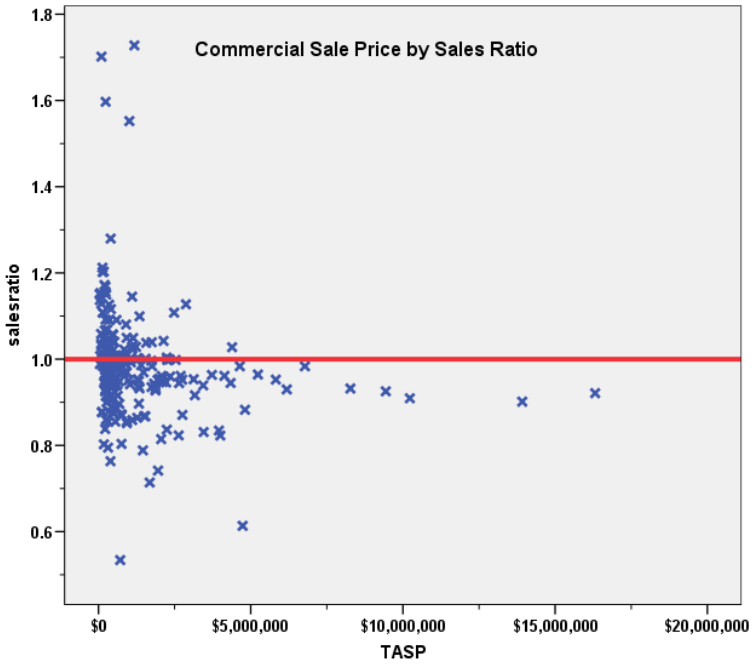
IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

There were 225 qualified commercial and industrial sales in the 24-month sale period prior to June 30, 2014. The sales ratio analysis was analyzed as follows:

Median	**0.969**
Price Related Differential	**1.039**
Coefficient of Dispersion	**8.1**

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



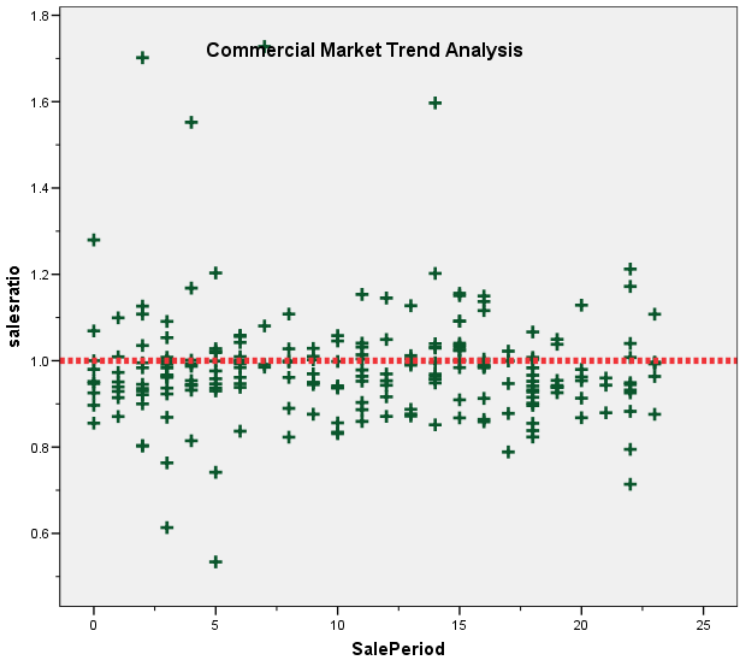


Commercial/Industrial Market Trend Analysis

The 225 commercial/industrial sales were analyzed, examining the sale ratios across the 24-month sale period with the following results:

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.989	.016		60.220	.000
	SalePeriod	-.001	.001	-.036	-.541	.589

a. Dependent Variable: salesratio



There was no residual market trending present in the commercial sale ratios. We concluded that the assessor has adequately considered market trending adjustments as part of the commercial/industrial valuation.

Sold/Unsold Analysis

We compared the median and mean change in value between 2014 and 2016 for sold and unsold commercial properties, as follows:

Report

DIFF

sold	N	Median	Mean
UNSOLD	3.736	1.120	1.151
SOLD	213	1.129	1.212

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The medians of DIFF are the same across categories of sold.	Independent-Samples Median Test	.158	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Report

DIFF

ABSTRIMP	sold	N	Median	Mean
2212	UNSOLD	641	1.200	1.222
	SOLD	28	1.293	1.343
2220	UNSOLD	524	1.120	1.153
	SOLD	37	1.211	1.225
2221	UNSOLD	67	1.120	1.216
	SOLD	8	1.244	1.317
2235	UNSOLD	266	1.120	1.166
	SOLD	11	1.122	1.237
2245	UNSOLD	710	1.050	1.049
	SOLD	58	1.050	1.058
3215	UNSOLD	336	1.170	1.184
	SOLD	16	1.251	1.366
3230	UNSOLD	124	1.050	1.052
	SOLD	12	1.050	1.097
3235	UNSOLD	88	1.119	1.134
	SOLD	6	1.060	1.121

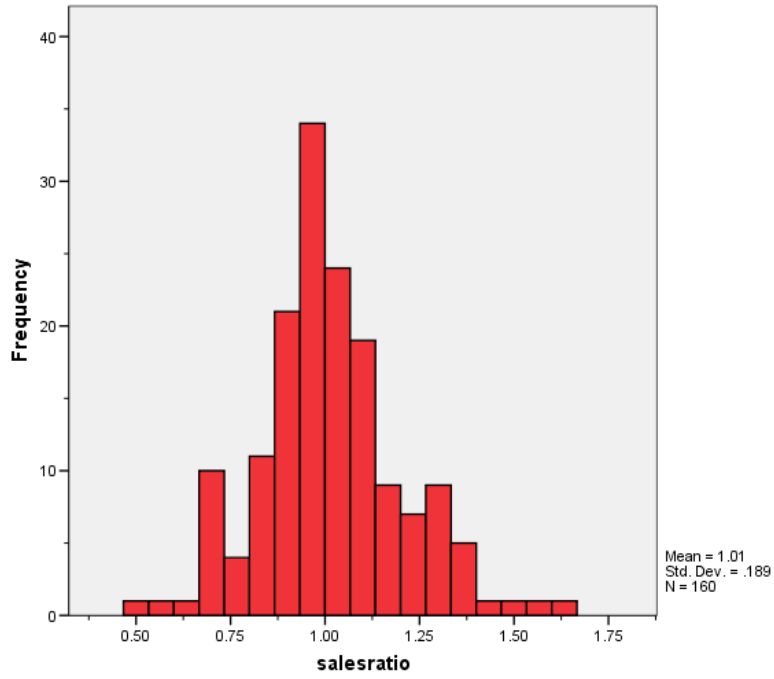
Overall, we concluded that sold and unsold commercial/industrial properties were valued consistently.

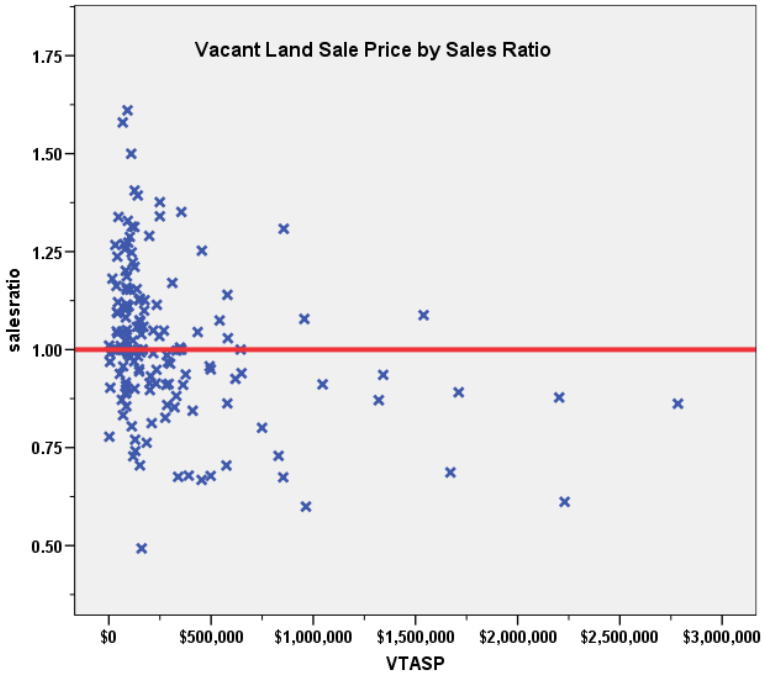
V. VACANT LAND SALE RESULTS

There were 160 qualified vacant land sales in the 24-month sale period prior to June 30, 2014. The sales ratio analysis was analyzed as follows:

Median	**1.000**
Price Related Differential	**1.091**
Coefficient of Dispersion	**13.9**

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





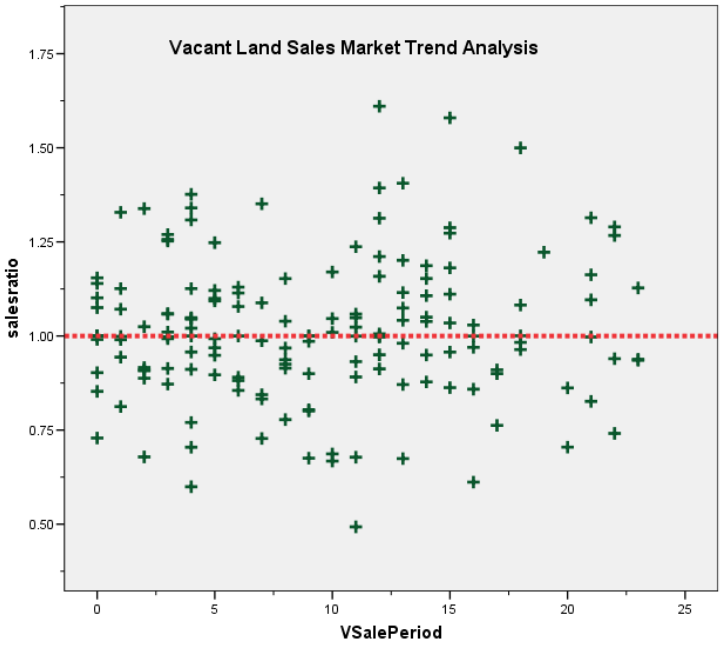
The above histogram indicates that the distribution of the vacant land sale ratios was within state mandated limits.

Vacant Land Market Trend Analysis

We next analyzed the vacant land dataset using the 24-month sale period, with the following results:

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.999	.026		38.028	.000
	VSalePeriod	.002	.002	.056	.709	.479

a. Dependent Variable: salesratio



The above analysis indicated that no significant market trending was present in the vacant land sale data. We concluded that the assessor has adequately dealt with market trending for vacant land properties.

Sold/Unsold Analysis

In terms of the valuation consistency between sold and unsold vacant land properties, we compared the median change in value for 2014 and 2016 between each group, as follows:

Report

DIFF sold	N	Median	Mean
UNSOLD	3,263	1.14	1.26
SOLD	134	1.11	1.21

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of DIFF is the same across categories of sold.	Independent-Samples Mann-Whitney U Test	.201	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Overall, we concluded that the county assessor valued sold and unsold vacant properties consistently.

V. AGRICULTURAL IMPROVEMENTS ANALYSIS

Based on the parameters of the state audit analysis, this county was exempt from this analysis for 2016.

VI. CONCLUSIONS

Based on this 2016 audit statistical analysis, residential, commercial and vacant land properties were found to be in compliance with state guidelines.

STATISTICAL ABSTRACT

Residential

ECONAREA	Mean	95% Confidence Interval for Mean		Median	95% Confidence Interval for Median			Weighted Mean	95% Confidence Interval for Weighted Mean		Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
		Lower Bound	Upper Bound		Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound			Mean Centered
1	1.001	.997	1.006	.999	.995	1.000	95.3%	.990	.983	.996	1.012	.067	10.0%
2	1.015	1.003	1.027	1.000	.998	1.005	95.6%	.996	.985	1.006	1.019	.099	14.1%
3	1.005	.989	1.021	.990	.968	1.000	95.9%	.984	.969	1.000	1.021	.106	15.4%
4	.998	.994	1.001	.993	.989	.997	95.1%	.992	.988	.995	1.006	.064	9.1%
5	1.006	1.002	1.010	.999	.994	1.000	95.4%	.994	.990	.998	1.012	.075	10.4%
30	.994	.987	1.000	.989	.983	.997	95.7%	.986	.979	.992	1.008	.064	9.0%
31	.985	.976	.994	.980	.973	.988	95.4%	.976	.965	.987	1.009	.068	9.7%
32	.995	.988	1.002	.991	.982	.999	95.7%	.987	.980	.994	1.008	.058	7.8%
33	1.000	.991	1.009	.995	.987	1.000	95.1%	.998	.989	1.008	1.002	.066	9.2%
40	1.018	.940	1.095	1.008	.964	1.043	95.1%	1.084	.893	1.274	.939	.137	27.1%

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 Land

Mean	95% Confidence Interval for Mean		Median	95% Confidence Interval for Median			Weighted Mean	95% Confidence Interval for Weighted Mean		Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
	Lower Bound	Upper Bound		Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound			Mean Centered
.982	.965	.999	.969	.957	.988	95.5%	.945	.928	.963	1.039	.081	13.3%

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

Mean	95% Confidence Interval for Mean		Median	95% Confidence Interval for Median			Weighted Mean	95% Confidence Interval for Weighted Mean		Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
	Lower Bound	Upper Bound		Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound			Mean Centered
1.015	.985	1.044	1.000	.990	1.025	95.2%	.930	.882	.978	1.091	.139	18.6%

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	$25K to $50K	5	0.0%
	$50K to $100K	52	0.5%
	$100K to $150K	319	3.0%
	$150K to $200K	1111	10.5%
	$200K to $300K	2476	23.4%
	$300K to $500K	3620	34.2%
	$500K to $750K	1865	17.6%
	$750K to $1,000K	621	5.9%
	Over $1,000K	527	5.0%
Overall		10596	100.0%
Excluded		0	
Total		10596	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
$25K to $50K	1.155	.993	.043	7.3%
$50K to $100K	1.047	1.002	.161	24.3%
$100K to $150K	1.019	1.002	.102	15.2%
$150K to $200K	1.011	1.001	.072	10.5%
$200K to $300K	.999	1.001	.072	10.2%
$300K to $500K	.991	1.000	.067	9.3%
$500K to $750K	.989	1.000	.065	9.3%
$750K to $1,000K	.988	.999	.072	10.7%
Over $1,000K	.973	.999	.084	13.7%
Overall	.996	1.009	.071	10.4%

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	0	2	0.0%
	1212	8333	78.6%
	1215	122	1.2%
	1220	41	0.4%
	1225	10	0.1%
	1230	2087	19.7%
	1279	1	0.0%
Overall		10596	100.0%
Excluded		0	
Total		10596	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
0	.938	1.019	.054	7.7%
1212	.998	1.011	.072	10.5%
1215	.982	1.032	.104	14.8%
1220	.996	1.024	.095	12.7%
1225	1.073	.957	.284	54.0%
1230	.989	1.010	.064	9.0%
1279	.889	1.000	.000	.
Overall	.996	1.009	.071	10.4%

Age

Case Processing Summary

		Count	Percent
AgeRec	.00	2	0.0%
	Over 100	227	2.1%
	75 to 100	206	1.9%
	50 to 75	911	8.6%
	25 to 50	4173	39.4%
	5 to 25	4277	40.4%
	5 or Newer	800	7.6%
Overall		10596	100.0%
Excluded		0	
Total		10596	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
.00	.938	1.019	.054	7.7%
Over 100	.987	1.026	.114	15.3%
75 to 100	.979	1.039	.125	18.7%
50 to 75	.995	1.005	.080	11.8%
25 to 50	.994	1.007	.076	10.9%
5 to 25	.998	1.009	.061	8.7%
5 or Newer	.992	1.010	.069	10.8%
Overall	.996	1.009	.071	10.4%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	.00	2	0.0%
	LE 500 sf	451	4.3%
	500 to 1,000 sf	1806	17.0%
	1,000 to 1,500 sf	3233	30.5%
	1,500 to 2,000 sf	2157	20.4%
	2,000 to 3,000 sf	2220	21.0%
	3,000 sf or Higher	727	6.9%
Overall		10596	100.0%
Excluded		0	
Total		10596	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
.00	.938	1.019	.054	7.7%
LE 500 sf	.996	1.014	.092	13.4%
500 to 1,000 sf	.996	1.012	.074	10.9%
1,000 to 1,500 sf	.993	1.008	.070	9.9%
1,500 to 2,000 sf	.995	1.009	.070	10.1%
2,000 to 3,000 sf	.997	1.009	.067	9.6%
3,000 sf or Higher	1.000	1.009	.075	12.8%
Overall	.996	1.009	.071	10.4%

Improvement Quality

Case Processing Summary

		Count	Percent
QUALITY	0	5	0.0%
	1	35	0.3%
	2	117	1.1%
	3	5068	47.8%
	4	4121	38.9%
	5	1031	9.7%
	6	217	2.0%
Overall		10594	100.0%
Excluded		2	
Total		10596	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
0	.809	1.013	.063	10.8%
1	1.010	1.027	.127	18.6%
2	.987	1.018	.119	17.8%
3	.991	1.006	.075	11.0%
4	.998	1.009	.065	9.4%
5	1.000	1.013	.067	9.6%
6	.999	1.018	.088	14.0%
Overall	.996	1.009	.072	10.4%

Commercial Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	$25K to $50K	3	1.3%
	$50K to $100K	8	3.6%
	$100K to $150K	10	4.4%
	$150K to $200K	10	4.4%
	$200K to $300K	33	14.7%
	$300K to $500K	38	16.9%
	$500K to $750K	22	9.8%
	$750K to $1,000K	20	8.9%
	Over $1,000K	81	36.0%
Overall		225	100.0%
Excluded		0	
Total		225	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
$25K to $50K	1.137	1.002	.048	9.3%
$50K to $100K	1.047	.989	.117	24.2%
$100K to $150K	1.006	.995	.091	12.2%
$150K to $200K	.997	1.000	.078	11.5%
$200K to $300K	.992	1.002	.080	13.4%
$300K to $500K	.963	1.000	.072	9.9%
$500K to $750K	.953	1.004	.063	11.2%
$750K to $1,000K	.994	.998	.054	8.1%
Over $1,000K	.953	1.024	.079	14.6%
Overall	.969	1.039	.081	13.5%

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	1212	3	1.3%
	1230	1	0.4%
	2212	30	13.3%
	2220	38	16.9%
	2221	7	3.1%
	2222	3	1.3%
	2225	1	0.4%
	2230	3	1.3%
	2231	2	0.9%
	2232	4	1.8%
	2234	6	2.7%
	2235	13	5.8%
	2237	4	1.8%
	2238	5	2.2%
	2239	5	2.2%
	2245	57	25.3%
	3210	5	2.2%
	3212	2	0.9%
	3215	15	6.7%
	3230	12	5.3%
	3235	6	2.7%
	9279	2	0.9%
	9299	1	0.4%
Overall		225	100.0%
Excluded		0	
Total		225	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1212	.979	.996	.048	8.8%
1230	.990	1.000	.000	.
2212	.938	1.023	.063	10.1%
2220	.958	1.028	.056	7.8%
2221	.947	1.024	.054	7.0%
2222	1.000	.979	.106	20.0%
2225	.945	1.000	.000	.
2230	1.009	.993	.025	3.8%
2231	1.359	.811	.271	38.3%
2232	1.024	1.002	.042	5.3%
2234	.971	1.015	.169	28.4%
2235	.983	1.005	.048	6.6%
2237	.951	.986	.037	6.4%
2238	.969	1.030	.049	8.3%
2239	.859	1.005	.076	10.8%
2245	.997	1.042	.088	13.8%
3210	.953	1.040	.103	14.1%
3212	.999	.999	.004	0.5%
3215	.987	1.056	.089	18.8%
3230	.954	1.037	.056	7.7%
3235	1.009	1.003	.116	21.8%
9279	.867	.988	.018	2.5%
9299	.887	1.000	.000	.
Overall	.969	1.039	.081	13.5%

Age

Case Processing Summary

		Count	Percent
AgeRec	Over 100	16	7.1%
	75 to 100	12	5.3%
	50 to 75	21	9.3%
	25 to 50	95	42.2%
	5 to 25	75	33.3%
	5 or Newer	6	2.7%
Overall		225	100.0%
Excluded		0	
Total		225	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Over 100	.980	1.026	.049	6.1%
75 to 100	.974	.980	.053	7.9%
50 to 75	.939	1.027	.073	9.5%
25 to 50	.983	1.044	.084	14.3%
5 to 25	.961	1.047	.091	15.5%
5 or Newer	.999	1.004	.031	5.3%
Overall	.969	1.039	.081	13.5%

Improvement Quality

Case Processing Summary

		Count	Percent
QUALITY	1	13	5.8%
	2	4	1.8%
	3	165	73.3%
	4	42	18.7%
	5	1	0.4%
Overall		225	100.0%
Excluded		0	
Total		225	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1	.914	1.031	.083	10.3%
2	.957	1.031	.063	7.9%
3	.969	1.036	.077	13.0%
4	.990	1.063	.094	16.1%
5	.961	1.000	.000	.
Overall	.969	1.039	.081	13.5%

Improvement Condition

Case Processing Summary

		Count	Percent
CONDITION	1	2	1.0%
	2	4	2.0%
	3	129	63.9%
	4	67	33.2%
Overall		202	100.0%
Excluded		23	
Total		225	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1	.869	.985	.085	12.0%
2	.933	1.023	.068	9.1%
3	.973	1.031	.073	12.2%
4	.983	1.057	.101	16.5%
Overall	.969	1.040	.083	13.9%

Vacant Land Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	LT $25K	7	4.4%
	$25K to $50K	12	7.5%
	$50K to $100K	37	23.1%
	$100K to $150K	29	18.1%
	$150K to $200K	14	8.8%
	$200K to $300K	19	11.9%
	$300K to $500K	19	11.9%
	$500K to $750K	9	5.6%
	$750K to $1,000K	5	3.1%
	Over $1,000K	9	5.6%
Overall		160	100.0%
Excluded		0	
Total		160	

Ratio Statistics for CURRLND / VTASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LT $25K	.990	.949	.078	12.4%
$25K to $50K	1.094	.996	.079	10.6%
$50K to $100K	1.025	.996	.124	18.0%
$100K to $150K	1.060	1.004	.152	19.2%
$150K to $200K	1.020	.996	.136	20.4%
$200K to $300K	.964	1.001	.104	15.9%
$300K to $500K	.949	1.006	.147	20.0%
$500K to $750K	.940	1.005	.112	14.6%
$750K to $1,000K	.729	1.001	.305	47.4%
Over $1,000K	.878	1.016	.101	15.9%
Overall	1.000	1.091	.139	18.9%

Subclass

Case Processing Summary

		Count	Percent
ABSTRLND	100	50	31.3%
	200	6	3.8%
	300	1	0.6%
	400	2	1.3%
	510	2	1.3%
	520	12	7.5%
	530	5	3.1%
	540	6	3.8%
	1112	60	37.5%
	1125	1	0.6%
	1230	1	0.6%
	2112	4	2.5%
	2120	1	0.6%
	2125	1	0.6%
	2130	1	0.6%
	2131	1	0.6%
	2135	1	0.6%
	2138	1	0.6%
	3110	1	0.6%
	3115	1	0.6%
	3135	2	1.3%
Overall		160	100.0%
Excluded		0	
Total		160	

Ratio Statistics for CURRLND / VTASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
100	1.000	1.059	.135	19.4%
200	1.015	1.106	.250	29.6%
300	1.329	1.000	.000	.
400	.674	1.089	.269	38.0%
510	1.005	1.005	.005	0.7%
520	.969	1.019	.100	15.6%
530	1.001	1.030	.097	15.8%
540	.896	1.067	.094	14.0%
1112	1.039	1.076	.134	18.1%
1125	1.088	1.000	.000	.
1230	.862	1.000	.000	.
2112	.992	1.006	.069	8.1%
2120	.878	1.000	.000	.
2125	.859	1.000	.000	.
2130	.687	1.000	.000	.
2131	.871	1.000	.000	.
2135	.910	1.000	.000	.
2138	.704	1.000	.000	.
3110	.936	1.000	.000	.
3115	.957	1.000	.000	.
3135	1.004	1.032	.054	7.6%
Overall	1.000	1.091	.139	18.9%