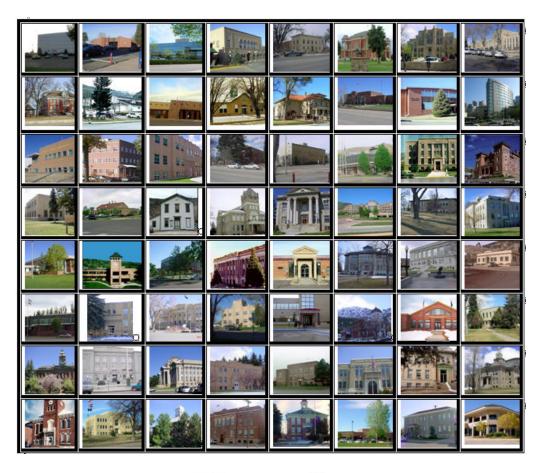


# 2013 CUSTER COUNTY PROPERTY ASSESSMENT STUDY







September 15, 2013

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

RE: Final Report for the 2013 Colorado Property Assessment Study

Dear Mr. Mauer:

Wildrose Appraisal Inc.-Audit Division is pleased to submit the Final Reports for the 2013 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

Harry J. Zulla

Wildrose Appraisal Inc. – Audit Division



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# INTRODUCTION



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 subdivision and discounting procedures. Valuation methodology for vacant land, improved properties commercial residential and 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 2013 and is pleased to report its findings for Custer County in the following report.



# REGIONAL/HISTORICAL SKETCH OF CUSTER COUNTY

#### **Regional Information**

Custer County is located in the Central Mountains region of Colorado. The Central Mountains Region is in the central portion of Colorado. It extends from the northern Gilpin county boundary approximately 210 miles southeasterly to the southern boundary of Colorado, including Chaffee, Clear Creek, Custer, Fremont, Gilpin, Huerfano, Lake, Las Animas, Park, and Teller counties.





#### **Historical Information**

Custer County has a population of approximately 4,255 people with 5.76 people per square mile, according to the U.S. Census Bureau's 2010 census data. This represents a 21.47 percent change from the 2000 Census.

Custer County was created by the Colorado legislature on March 9, 1877 out of the southern half of Fremont County. Originally set in Ula, the county seat moved to Rosita in 1878, and to Silver Cliff in 1886 before settling in Westcliffe in 1928. It was named in honor of Lt. Colonel George Armstrong Custer, who had died the previous year.

The county was the site of a silver rush during the 1870s. Thousands of men poured into the county during this time in the hunt for silver. Some of the notable mines include the Geyser Mine (on the north edge of the town of Silver Cliff), the Bassick Mine (near the ghost town of Querida) and the Bull Domingo (north of Silver Cliff).

During the late 1800s a railroad line was connected through the Grape Creek Canyon but was permanently closed after a few disastrous floods. The old railhouse has been

turned into a historical landmark in the town of Westcliffe.

After the mines dried up, the population dropped considerably and was replaced by cattle ranchers. An extensive system of irrigation ditches were built throughout the valley. The tradition of ranching in the Wet Mountain Valley continues to this day.

The county is very rugged and would be virtually inaccessible without roads. The lowest point of the county is around 6,000 feet in elevation, but most of the county is rugged and mountainous. The county seat of Westcliffe is about 7,800 feet and along with nearby town Silver Cliff lies in the Wet Mountain Valley which sits at the base of the Sangre de Cristo Mountains. The peaks of the Sangre de Cristo Mountains to the west reach heights in excess of 14,000 feet with Crestone Peak being the highest at 14,294 feet.

A large percentage of the county is National Forest land in the Sangre de Cristo Mountains on the west side and in the Wet Mountains on the east. The only lake of size is the Deweese Reservoir in the north end of the Wet Mountain Valley. (Wikipedia.org)



# RATIO ANALYSIS

#### Methodology

All significant classes of properties were Sales were collected for each analyzed. property class over the appropriate sale period, which was typically defined as the 18-month period between January 2011 and June 2012. Counties with less than 30 sales typically extended the sale period back up to 5 years prior to June 30, 2012 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 pricerelated 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 Custer County are:

Custer County Ratio Grid						
Property Class	Number of Qualified Sales	Unweighted Median Ratio	Price Related Differential	Coefficient of Dispersion	Time Trend Analysis	
*Commercial/Industrial	22	0.994	1.047	11.2	Compliant	
Condominium	N/A	N/A	N/A	N/A	N/A	
Single Family	124	0.991	1.013	13.3	Compliant	
Vacant Land	122	0.998	1.087	16.0	Compliant	

<sup>\*</sup>County Sales Files augmented by 8 supplemental appraisals

After applying the above described methodologies, it is concluded from the sales ratios that Custer County is in compliance with

SBOE, DPT, and Colorado State Statute valuation guidelines.

Recommendations



# 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 Custer County has complied with the statutory requirements to analyze the effects of time on value in their county. Custer County has also satisfactorily applied the results of their time trending analysis to arrive at the time adjusted sales price (TASP).

#### Recommendations



# SOLD/UNSOLD ANALYSIS

#### Methodology

Custer 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 2012 and 2013 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. 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 nonparametric 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 multivariate 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 Re	esults
Property Class	Results
Commercial/Industrial	Compliant
Condominium	N/A
Single Family	Compliant
Vacant Land	Compliant

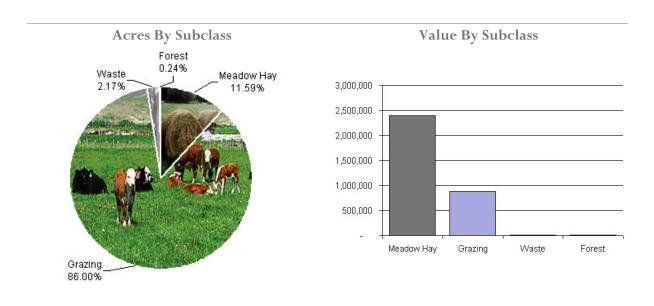
#### Conclusions

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

#### Recommendations



# AGRICULTURAL LAND STUDY



## **Agricultural Land**

County records were reviewed to determine major land categories such as irrigated farm, dry farm, meadow hay, grazing and other In addition, county records were lands. reviewed in order to determine if: 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 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. 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:



	Custer County Agricultural Land Ratio Grid					
Abstract Code	Land Class	Number Of Acres	County Value Per Acre	County Assessed Fotal Value	WRA Total Value	Ratio
4137	Meadow Hay	24,710	97.00	2,394,560	2,394,560	1.00
4147	Grazing	183,266	5.00	882,105	882,105	1.00
4177	Forest	506	15.00	7,840	7,840	1.00
4167	Waste	4,630	2.00	8,082	8,082	1.00
Total/Avg		213,112	15.00	3,292,586	3,292,586	1.00

# Recommendations



# **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

Custer 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.

Custer County utilized the following discovery method(s):

- Questionnaires
- Phone Interviews
- In-Person Interviews
- Personal Knowledge of Owners and Tenants

• Custer County Stock Growers Association

#### Conclusions

Custer 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



## 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 2013 for Custer County. This study was conducted by checking selected sales from the master sales list for the current valuation period. Specifically WRA selected 33 sales listed as unqualified.

All of the sales in the unqualified sales sample had reasons that were clear and supportable.

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.

When less than 50 percent of sales are qualified in any of the three property classes (residential, commercial, and vacant land), the contractor analyzed the reasons for disqualifying sales in any subclass that constitutes at least 20 percent of the class, either by number of properties or by value, from the prior year. The contractor has



reviewed with the assessor any analysis indicating that sales data inadequate, fail to reflect typical properties, or have been disqualified for insufficient cause. In addition, the contractor has reviewed disqualified sales by assigned code. If there appears to be any inconsistency in the coding, the contractor has conducted further analysis determine if the sales included in that code have been assigned appropriately.

If 50 percent or more of the sales are qualified, the contractor has reviewed a statistically significant sample of unqualified sales, excluding sales that were disqualified for obvious reasons.

Custer County did not qualify for indepth subclass analysis.

#### **Conclusions**

Custer County appears to be doing an excellent job of verifying their sales. WRA agreed with the county's reason for disqualifying each of the sales selected in the sample. There are no recommendations or suggestions.

#### Recommendations



# ECONOMIC AREA REVIEW AND EVALUATION

#### Methodology

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



# 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



# VACANT LAND

#### **Subdivision Discounting**

Subdivisions were reviewed in 2013 in Custer County. The review showed that subdivisions were discounted pursuant to the Colorado Revised Statutes in Article 39-1-103 (14). Discounting procedures were applied to all subdivisions where less than 80 percent of all sites were sold using the present worth method. The market approach was applied where 80 percent or more of the subdivision sites were sold. An absorption period was estimated for each subdivision that was discounted. An appropriate discount rate was

developed using the summation method. Subdivision land with structures was appraised at full market value.

#### Conclusions

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

#### Recommendations



# 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 C.R.S. Chapter 39-1-103 (17)(a)(II)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 under lease, permit, license, concession, contract, or other agreement.

Custer County has been reviewed for their procedures and adherence to guidelines when

assessing and valuing agricultural 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

Custer 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



# PERSONAL PROPERTY AUDIT

Custer 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.

Custer 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

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.

Custer County submitted their personal property written audit plan and was current for the 2013 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 \$7,000 actual value exemption status
- Accounts protested with substantial disagreement

#### **Conclusions**

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

#### Recommendations



# WILDROSE AUDITOR STAFF

Harry J. Fuller, Audit Project Manager

Suzanne Howard, Audit Administrative Manager

Steve Kane, Audit Statistician

Carl W. Ross, Agricultural/Natural Resource Analyst

J. Andrew Rodriguez, Field Analyst



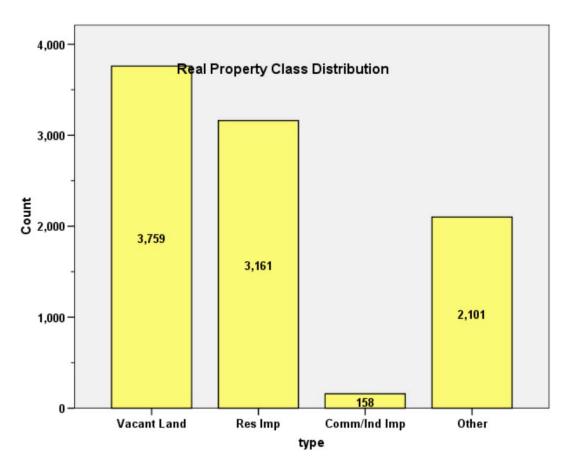
# APPENDICES



#### STATISTICAL COMPLIANCE REPORT FOR CUSTER COUNTY 2013

#### I. OVERVIEW

Custer County is located in south central Colorado. The county has a total of 9,179 real property parcels, according to data submitted by the county assessor's office in 2013. 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 86.5% of all vacant land parcels.

For residential improved properties, single family properties accounted for nearly 89.1% of all residential properties.

Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial properties accounted for 1.6% of all such properties in this county.



#### II. DATA FILES

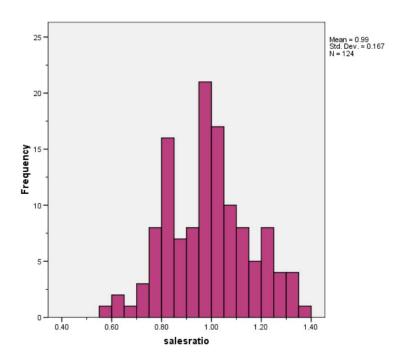
The following sales analyses were based on the requirements of the 2013 Colorado Property Assessment Study. Information was provided by the Custer Assessor's Office in April 2013. The data included all 5 property record files as specified by the Auditor.

#### III. RESIDENTIAL SALES RESULTS

There were 126 qualified residential sales in the 24 month sale period prior to June 30, 2012. There were 2 trimmed sales, resulting in a final qualified sale total of 124 sales. The sales ratio analysis was analyzed as follows:

Median	0.991
Price Related Differential	1.013
Coefficient of Dispersion	.133

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. No sales were trimmed.

#### **Residential Market Trend Analysis**

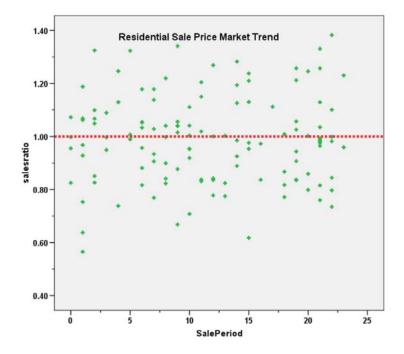
We next analyzed the residential dataset using the 24-month sale period for any residual market trending. The following indicates that there was no statistically significant residual trend based on the sale ratios:

Coefficients<sup>a</sup>

Γ	Model		Unstandardized Coefficients		Standardized Coefficients		
L			В	Std. Error	Beta	t	Sig.
Γ	1	(Constant)	.978	.029		33.574	.000
L		SalePeriod	.001	.002	.041	.454	.650

a. Dependent Variable: salesratio





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 2013 between each group, as follows:

Group	N	Median	Mean
Unsold	3,014	\$103	\$108
Sold	121	\$111	\$114

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

#### IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

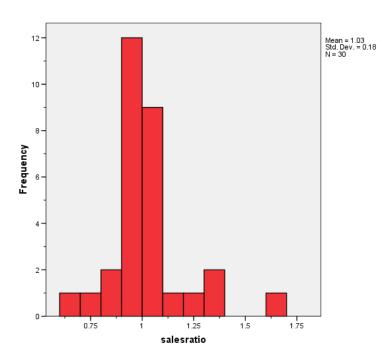
There were 22 qualified residential sales in the 60 month sale period prior to June 30, 2012. Because there were fewer than 30 sales, 8 supplemental appraisals of unsold commercial properties were completed to augment these sales, bringing the total number of commercial/industrial properties analyzed to 30. We used all 30 properties for the sales ratio analysis, while the 22 sales alone were used to analyze market trending and sold/unsold properties.



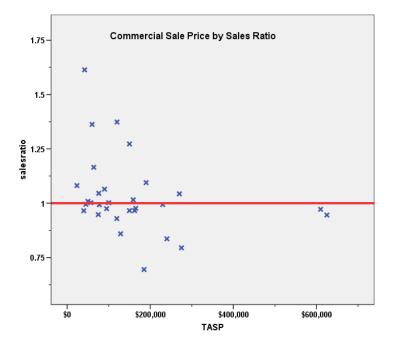
The sales ratio analysis was as follows:

Median	0.994
Price Related Differential	1.047
Coefficient of Dispersion	.112

The above tables indicate that the Custer County commercial/industrial sale ratios were in compliance with the SBOE standards. The following histogram and scatter plot describe the sales ratio distribution further:







#### **Commercial Market Trend Analysis**

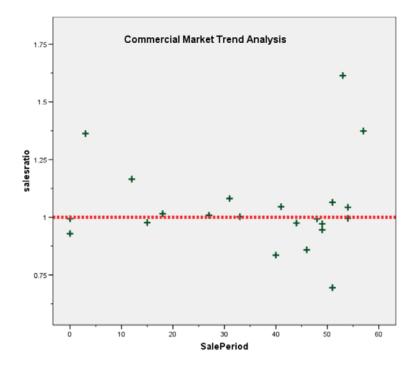
The assessor did not apply any market trend adjustment to the commercial dataset. The commercial sales were analyzed, examining the sale ratios across the 60 month sale period with the following results and stratifying the results by commercial subclass:

Coefficients<sup>a</sup>

Mo	del	Unstandardized Coefficients		Standardized Coefficients		
		В	Std. Error	Beta	t	Sig.
1	(Constant)	1.046	.091		11.456	.000
	SalePeriod	-7.811E-5	.002	008	034	.973

a. Dependent Variable: salesratio





The market trend results indicated no statistically significant trend. We concur that no market trend adjustments were warranted for properties in this class for Custer County.

#### **Sold/Unsold Analysis**

We compared the median and mean actual value per square feet between sold and unsold commercial/industrial properties in Custer County to determine if sold and unsold properties were treated consistently, as follows:

Group	No.	Median SPSF	Mean SPSF
Sold	21	\$56	\$65
Unsold	134	\$63	\$74

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

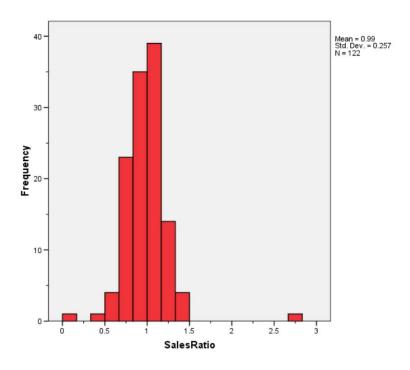


#### V. VACANT LAND SALE RESULTS

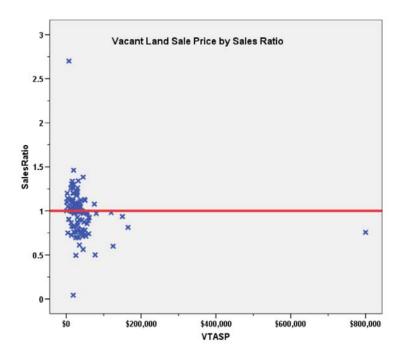
There were 122 qualified vacant land sales in the 24 month sale period prior to June 30, 2012. The sales ratio analysis was analyzed as follows:

Median	0.998
Price Related Differential	1.0869
Coefficient of Dispersion	.160

The above tables indicate that the Custer 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**

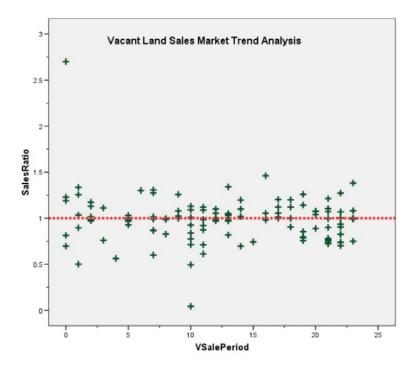
The assessor did apply market trend adjustments to the vacant land dataset. The 122 vacant land sales were analyzed, examining the sale ratios across the 24 month sale period with the following results:

Coefficients<sup>a</sup>

M	odel	Unstandardize	d Coefficients	Standardized Coefficients		
		В	Std. Error	Beta	t	Sig.
1	(Constant)	1.040	.048		21.632	.000
L	VSalePeriod	004	.003	114	-1.253	.213

a. Dependent Variable: SalesRatio





The above analysis indicated that no statistically significant market trend was present in the sales ratio for vacant land. We therefore concluded that the assessor considered market trending appropriately for this class of property.

#### Sold/Unsold Analysis

We compared the median change in actual value between 2012 and 2013 for vacant land properties to determine if sold and unsold properties were valued consistently. We performed the analysis stratifying the properties by subdivision, as follows:

Group	No. Props	Median	Mean
Unsold	3,655	1.00	0.988
Sold	112	1.00	1.057

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

#### 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 Custer County.

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



Descriptives

	ABSTE	RIMP		Statistic	Std. Error
lmp	SFR	Mean		\$83.02	\$.632
ValSF		95% Confidence Interval for	Lower Bound	\$81.78	
		Mean	Upper Bound	\$84.25	
		5% Trimmed Mean		\$82.29	
		Median		\$81.73	
		Variance		1112.982	
		Std. Deviation		\$33.361	
		Minimum		\$0	
		Maximum		\$234	
		Range		\$234	
		Interquartile Range		\$45	
		Skewness		.361	.046
		Kurtosis		.367	.093
	Ag	Mean		\$78.96	\$2.199
	Res	95% Confidence Interval for	Lower Bound	\$74.64	
		Mean	Upper Bound	\$83.28	
		5% Trimmed Mean		\$77.07	
		Median		\$75.11	
		Variance		1750.438	
		Std. Deviation		\$41.838	
		Minimum		\$3	
		Maximum		\$331	
		Range		\$328	
		Interquartile Range		\$56	
		Skewness		1.097	.128
		Kurtosis		3.646	.256

#### VI. CONCLUSIONS

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



#### STATISTICAL ABSTRACT Residential

#### Ratio Statistics for CURRTOT / TASP

	95% Confider Me	nce Interval for an		95% Confidence Interval for Median				95% Confiden Weighte				Coefficient of Variation
Mean	Lower Bound	Upper Bound	Median	Lower Bound	Upper Bound	Actual Coverage	Weighted Mean	Lower Bound	Upper Bound	Price Related Differential	Coefficient of Dispersion	Mean Centered
.990	.960	1.019	.991	.957	1.015	96.2%	.977	.946	1.007	1.013	.133	16.9%

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.

#### Commercial/Industrial

#### Ratio Statistics for CURRTOT / TASP

	95% Confiden Me	ice Interval for an		95% Confidence Interval for Median			95% Confidence Interval for Weighted Mean				Coefficient of Variation	
Mean	Lower Bound	Upper Bound	Median	Lower Bound	Upper Bound	Actual Coverage	Weighted Mean	Lower Bound	Upper Bound	Price Related Differential	Coefficient of Dispersion	Mean Centered
1.032	.964	1.099	.994	.966	1.043	95.7%	.986	.933	1.039	1.047	.112	17.5%

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

	95% Confiden Me			95% Confidence Interval for Median				95% Confidence Interval for Weighted Mean				Coefficient of Variation
Mean	Lower Bound	Upper Bound	Median	Lower Bound	Upper Bound	Actual Coverage	Weighted Mean	Lower Bound	Upper Bound	Price Related Differential	Coefficient of Dispersion	Mean Centered
.987	.941	1.033	.998	.981	1.017	96.3%	.909	.848	.969	1.086	.160	26.0%

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	.8%
	\$25K to \$50K	8	6.5%
	\$50K to \$100K	17	13.7%
	\$100K to \$150K	28	22.6%
	\$150K to \$200K	24	19.4%
	\$200K to \$300K	34	27.4%
	\$300K to \$500K	12	9.7%
Overall		124	100.0%
Excluded	ı	0	
Total		124	

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
LT \$25K	.838	1.000	.000	.%
\$25K to \$50K	1.036	1.000	.154	20.0%
\$50K to \$100K	.990	.997	.152	18.9%
\$100K to \$150K	1.034	1.005	.171	20.9%
\$150K to \$200K	1.017	1.001	.073	9.6%
\$200K to \$300K	.970	1.001	.116	14.6%
\$300K to \$500K	.942	.997	.114	16.9%
Overall	.991	1.013	.133	16.9%



## Age

## **Case Processing Summary**

		Count	Percent
AgeRec	Over 100	9	7.3%
	75 to 100	1	.8%
	50 to 75	9	7.3%
	25 to 50	35	28.2%
	5 to 25	59	47.6%
	5 or Newer	11	8.9%
Overall		124	100.0%
Excluded		0	
Total		124	

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
Over 100	.845	1.065	.136	20.1%
75 to 100	.954	1.000	.000	.%
50 to 75	.944	.966	.197	25.8%
25 to 50	1.001	1.025	.120	15.9%
5 to 25	.982	1.015	.120	15.2%
5 or Newer	1.055	1.027	.143	17.7%
Overall	.991	1.013	.133	16.9%



## Improved Area

### **Case Processing Summary**

		Count	Percent
ImpSFRec	LE 500 sf	12	9.7%
	500 to 1,000 sf	17	13.7%
	1,000 to 1,500 sf	34	27.4%
	1,500 to 2,000 sf	24	19.4%
	2,000 to 3,000 sf	29	23.4%
	3,000 sf or Higher	8	6.5%
Overall		124	100.0%
Excluded		0	
Total		124	

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
LE 500 sf	.837	1.011	.120	18.4%
500 to 1,000 sf	1.001	1.093	.171	20.9%
1,000 to 1,500 sf	.998	1.033	.127	16.6%
1,500 to 2,000 sf	1.006	1.009	.091	12.2%
2,000 to 3,000 sf	.982	1.026	.123	15.9%
3,000 sf or Higher	1.059	1.017	.094	13.3%
Overall	.991	1.013	.133	16.9%



# Quality

## Case Processing Summary

	Count	Percent
QUALITY 3	1	.8%
4	21	17.4%
5	94	77.7%
6	5	4.1%
Overall	121	100.0%
Excluded	3	
Total	124	

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
3	1.220	1.000	.000	.%
4	1.040	1.036	.107	14.9%
5	.977	1.008	.138	17.1%
6	.998	.989	.038	8.4%
Overall	.997	1.015	.129	16.4%



## Condition

## **Case Processing Summary**

		Count	Percent
CONDITION	4	23	19.0%
	5	93	76.9%
	6	5	4.1%
Overall		121	100.0%
Excluded		3	
Total		124	

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
4	1.004	1.058	.122	16.2%
5	.982	1.008	.136	17.1%
6	1.003	.999	.042	9.3%
Overall	.997	1.015	.129	16.4%



## Commercial Median Ratio Stratification

### Sale Price

## **Case Processing Summary**

		Count	Percent
SPRec	LT \$25K	1	3.3%
	\$25K to \$50K	4	13.3%
	\$50K to \$100K	9	30.0%
	\$100K to \$150K	5	16.7%
	\$150K to \$200K	5	16.7%
	\$200K to \$300K	4	13.3%
	\$500K to \$750K	2	6.7%
Overall		30	100.0%
Excluded	l	130	
Total		160	

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
LT \$25K	1.081	1.000	.000	.%
\$25K to \$50K	1.002	1.006	.165	35.3%
\$50K to \$100K	1.002	1.011	.080	14.4%
\$100K to \$150K	.966	.999	.178	27.1%
\$150K to \$200K	.977	1.002	.092	15.8%
\$200K to \$300K	.915	1.001	.111	13.1%
\$500K to \$750K	.959	1.000	.014	1.9%
Overall	.994	1.047	.112	18.5%



## Subclass

## **Case Processing Summary**

		Count	Percent
ABSTRIMP	0	1	3.3%
	1212	1	3.3%
	2212	6	20.0%
	2220	7	23.3%
	2224	1	3.3%
	2230	8	26.7%
	2235	4	13.3%
	3215	2	6.7%
Overall		30	100.0%
Excluded		130	
Total		160	

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
0	.695	1.000	.000	.%
1212	1.045	1.000	.000	.%
2212	.989	1.017	.098	15.1%
2220	1.009	1.045	.174	29.4%
2224	1.043	1.000	.000	.%
2230	.969	1.007	.067	9.7%
2235	.994	1.027	.110	21.7%
3215	1.028	1.032	.052	7.3%
Overall	.994	1.047	.112	18.5%



## Age

## **Case Processing Summary**

		Count	Percent
AgeRec	Over 100	10	33.3%
	50 to 75	6	20.0%
	25 to 50	8	26.7%
	5 to 25	6	20.0%
Overall		30	100.0%
Excluded		130	
Total		160	

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
Over 100	1.009	1.010	.122	18.7%
50 to 75	1.104	1.055	.170	24.4%
25 to 50	.960	1.026	.068	9.4%
5 to 25	.982	1.018	.044	7.4%
Overall	.994	1.047	.112	18.5%



## Improved Area

## **Case Processing Summary**

		Count	Percent
ImpSFRec	LE 500 sf	4	13.3%
	500 to 1,000 sf	4	13.3%
	1,000 to 1,500 sf	3	10.0%
	1,500 to 2,000 sf	2	6.7%
	2,000 to 3,000 sf	9	30.0%
	3,000 sf or Higher	8	26.7%
Overall		30	100.0%
Excluded		130	
Total		160	

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
LE 500 sf	.987	1.189	.244	40.5%
500 to 1,000 sf	1.123	.941	.103	14.8%
1,000 to 1,500 sf	1.002	1.010	.026	4.0%
1,500 to 2,000 sf	.937	.991	.083	11.8%
2,000 to 3,000 sf	.966	1.021	.061	9.4%
3,000 sf or Higher	1.022	1.068	.102	16.1%
Overall	.994	1.047	.112	18.5%



# Quality

## **Case Processing Summary**

	Count	Percent
QUALITY 1	1	3.4%
2	20	69.0%
3	7	24.1%
4	1	3.4%
Overall	29	100.0%
Excluded	131	
Total	160	

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
1	1.065	1.000	.000	.%
2	.994	1.026	.076	12.8%
3	.977	1.111	.202	32.8%
4	1.045	1.000	.000	.%
Overall	.995	1.046	.105	17.9%



## **Vacant Land Median Ratio Stratification**

### Sale Price

### **Case Processing Summary**

		Count	Percent
SPRec	LT \$25K	51	41.8%
	\$25K to \$50K	54	44.3%
	\$50K to \$100K	12	9.8%
	\$100K to \$150K	3	2.5%
	\$150K to \$200K	1	.8%
	\$750K to \$1,000K	1	.8%
Overall		122	100.0%
Excluded	I	0	
Total		122	

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
LT \$25K	1.035	1.026	.171	31.1%
\$25K to \$50K	.998	1.005	.142	19.3%
\$50K to \$100K	.923	1.002	.116	17.8%
\$100K to \$150K	.936	.995	.136	25.6%
\$150K to \$200K	.814	1.000	.000	.%
\$750K to \$1,000K	.757	1.000	.000	.%
Overall	.998	1.086	.160	25.7%



## Subclass

### **Case Processing Summary**

		Count	Percent
ABSTRLND	100	90	73.8%
	200	1	.8%
	510	1	.8%
	540	1	.8%
	1112	23	18.9%
	1135	2	1.6%
	2130	2	1.6%
	4143	1	.8%
	5140	1	.8%
Overall		122	100.0%
Excluded		0	
Total		122	

Group					fficient of riation
	Median	Price Related Differential	Coefficient of Dispersion		edian Intered
100	.999	1.071	.159		25.9%
200	.979	1.000	.000	.%	
510	1.000	1.000	.000	.%	
540	.981	1.000	.000	.%	
1112	1.000	1.168	.146		19.7%
1135	.780	1.166	.278		39.3%
2130	.948	.954	.182		25.7%
4143	.044	1.000	.000	.%	
5140	.996	1.000	.000	.%	
Overall	.998	1.086	.160		25.7%