DOUGLAS COUNTY

2019
DOUGLAS COUNTY PROPERTY ASSESSMENT STUDY

WILDROSE
APPRAISAL, INCORPORATED
Audit Division

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APPRAISAL, INCORPORATED
Audit Division

September 15, 2019

Ms. Natalie Mullis
Director of Research
Colorado Legislative Council
Room 029, State Capitol Building
Denver, Colorado 80203

RE: Final Report for the 2019 Colorado Property Assessment Study

Dear Ms. Mullis:

Wildrose Appraisal Inc.-Audit Division is pleased to submit the Final Reports for the 2019 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.

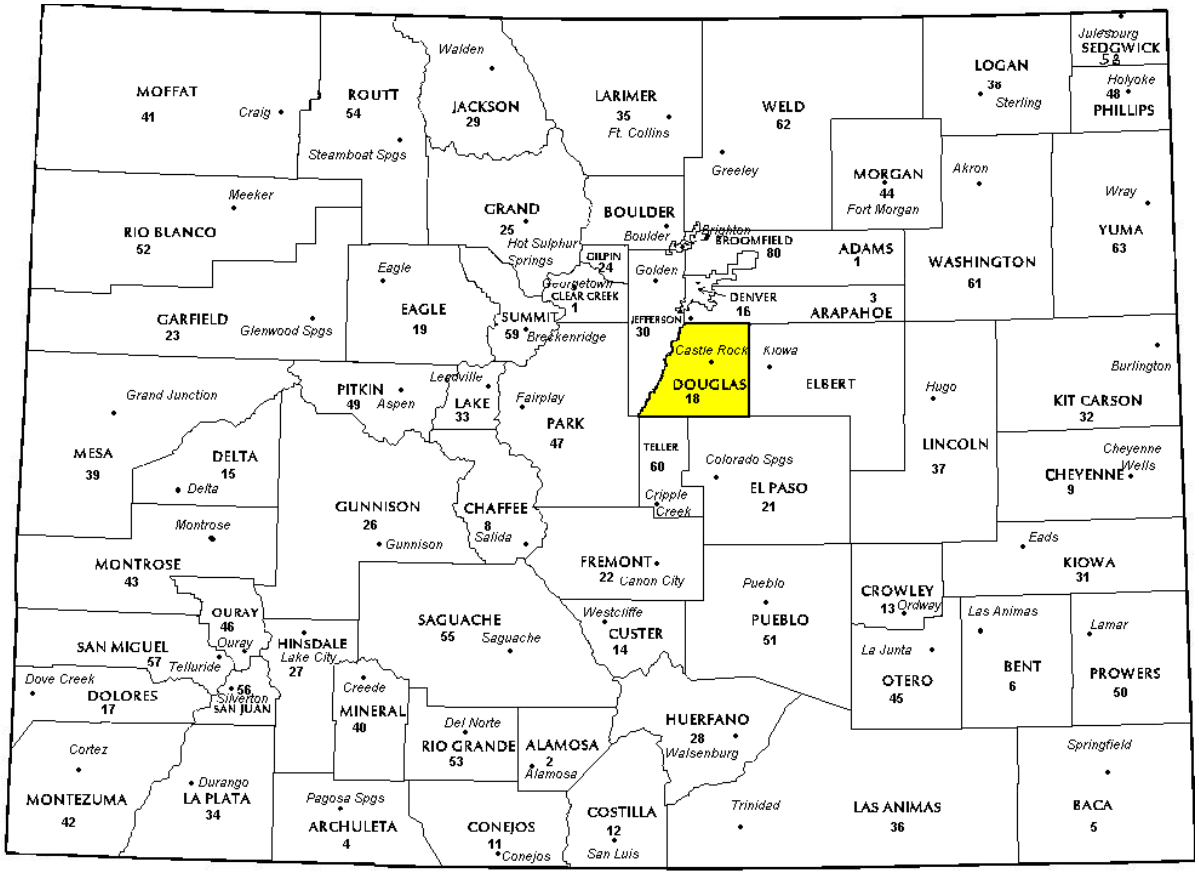
Statistical analysis is performed on vacant land, residential properties, commercial industrial properties, agricultural land, and personal property. The statistical study results are compared with State Board of Equalization compliance requirements and the manuals published by the State Property Tax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

Wildrose Audit has completed the Property Assessment Study for 2019 and is pleased to report its findings for Douglas County in the following report.

REGIONAL/HISTORICAL SKETCH OF DOUGLAS COUNTY

Regional Information

Douglas 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

Douglas County had an estimated population of approximately 328,632 people with 391.2 people per square mile, according to the U.S. Census Bureau's 2016 estimated census data. This represents a 15.1 percent change from April 1, 2010 to July 1, 2016.

Douglas County was one of the original 17 counties created in the Colorado Territory by the Colorado Territorial Legislature on November 1, 1861. The county was named in honor of U.S. Senator Stephen A. Douglas of Illinois, who died five months before the county was created. The county seat was originally Franktown, but was moved to California Ranch in 1863, and then to Castle Rock in 1874. Although the county's boundaries originally extended eastward to the Kansas state border, in 1874 most of the eastern portion of the county became part of Elbert County.

Douglas County is the eighth most populous of the 64 counties of the State of Colorado. The county, sometimes nicknamed Dougco, is located midway between Colorado's two largest cities: Denver and Colorado Springs. The United States Census Bureau estimates that the county population was 280,621 in 2008, a 59.7% increase since U.S. Census 2000, making Douglas County one of the fastest growing counties in the United States. The county seat is Castle Rock, named after a small butte just north of the town.

Douglas County is lightly wooded, mostly with ponderosa pine, with broken terrain characterized by mesas and small streams. Cherry Creek and Plum Creek rise in Douglas County and flow north toward Denver and into the South Platte River. Both were subject to flash flooding in the past, Plum Creek being partially responsible for the Denver flood of 1965. Cherry Creek is now dammed. *(Wikipedia.org)*

RATIO ANALYSIS

Methodology

All significant classes of property were analyzed. Sales were collected for each property class over the eighteen month period from January 1, 2017 through June 30, 2018. Property classes with less than thirty sales had the sales period extended in six month increments up to an additional forty-two months. If this extended sales period did not produce the minimum thirty qualified sales, the Audit performed supplemental appraisals to reach the minimum.

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.

All sixty-four counties were examined for compliance on the economic area level. Where there were sufficient sales data, the neighborhood and subdivision levels were tested for compliance. Although counties are determined to be in or out of compliance at the class level, non-compliant economic areas, neighborhoods and subdivisions (where applicable) were discussed with the Assessor.

Data on the individual economic areas, neighborhoods and subdivisions are found in the STATISTICAL APPENDIX.

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 Douglas County are:

Douglas County Ratio Grid					
Property Class	Number of Qualified Sales	Unweighted Median Ratio	Price Related Differential	Coefficient of Dispersion	Time Trend Analysis
Commercial/Industrial	163	0.950	1.025	14.1	Compliant
Condominium	N/A	N/A	N/A	N/A	N/A
Single Family	17,037	0.975	1.000	5.1	Compliant
Vacant Land	488	0.966	1.141	17.5	Compliant

After applying the above described methodologies, it is concluded from the sales ratios that Douglas 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 Douglas County has complied with the statutory requirements to analyze the effects of time on value in their county. Douglas 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

Douglas 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

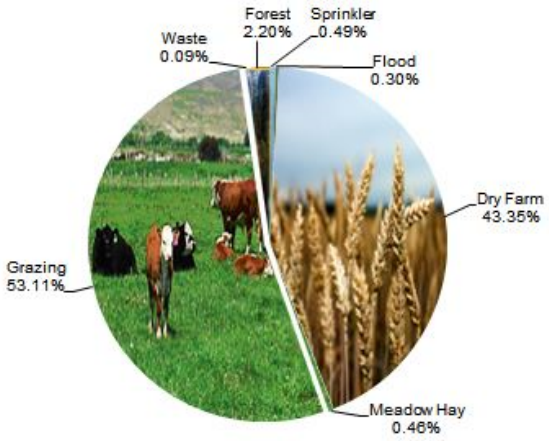
After applying the above described methodologies, it is concluded that Douglas County is reasonably treating its sold and unsold properties in the same manner.

Recommendations

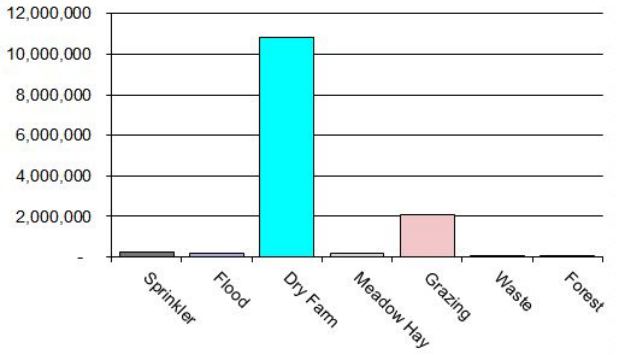
None

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:

Douglas County Agricultural Land Ratio Grid						
Abstract Code	Land Class	Number Of Acres	County Value Per Acre	County Assessed Total Value	WRA Total Value	Ratio
4107	Sprinkler	1,563	160.79	251,320	254,084	0.99
4117	Flood	945	174.72	165,107	167,313	0.99
4127	Dry Farm	137,873	78.69	10,849,853	10,776,751	1.01
4137	Meadow Hay	1,447	134.68	194,876	194,876	1.00
4147	Grazing	168,910	12.52	2,113,988	2,113,988	1.00
4177	Forest	6,983	12.16	84,928	84,928	1.00
4167	Waste	292	2.39	697	697	1.00
Total/Avg		**318,013**	**42.96**	**13,660,768**	**13,592,636**	**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

Douglas 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

Douglas 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

Douglas 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

Douglas 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 2019 for Douglas County. This study was conducted by checking selected sales from the master sales list for the current valuation period. Specifically WRA selected 60 sales listed as unqualified.

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

For residential, commercial, and vacant land sales with considerations over $100,000, 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 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.

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.

Douglas County did not qualify for in-depth subclass analysis.

Conclusions

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

Recommendations

None

ECONOMIC AREA REVIEW AND EVALUATION

Methodology

Douglas County has submitted a written narrative describing the economic areas that make up the county's market areas. Douglas 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 Douglas County has adequately identified homogeneous economic areas comprised of smaller neighborhoods. Each economic area defined is equally subject to a set of economic forces that impact the value of the properties within that geographic area and this has been adequately addressed. Each economic area defined adequately delineates an area that will give "similar values for similar properties in similar areas."

Recommendations

None

NATURAL RESOURCES

Earth and Stone Products

Methodology

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

Conclusions

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

Recommendations

None

VACANT LAND

Subdivision Discounting

Subdivisions were reviewed in 2019 in Douglas 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 can be accomplished by reducing the absorption period by one year.

Conclusions

Douglas 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.

Douglas County has been reviewed for their procedures and adherence to guidelines when assessing and valuing agricultural and commercial 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

Douglas 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

Douglas 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.

Douglas 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
- Internet
- Costar
- Loopnet

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.

Douglas County submitted their personal property written audit plan and was current for the 2019 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 $7,700 actual value exemption status
- Lowest or highest quartile of value per square foot
- Accounts protested with substantial disagreement

Douglas County's median ratio is 1.00. 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

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

Recommendations

None

WILDROSE AUDITOR STAFF

Harry J. Fuller, *Audit Project Manager*

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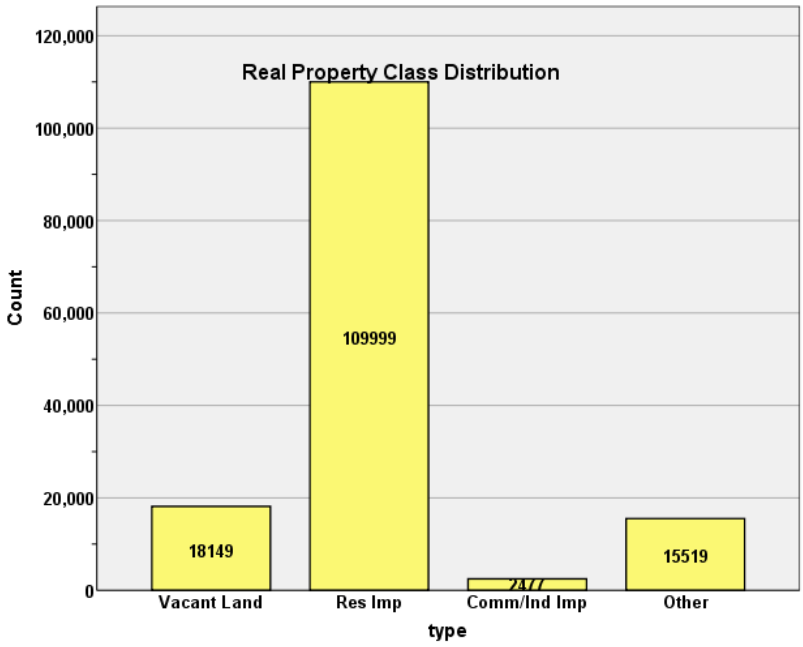
STATISTICAL APPENDIX

STATISTICAL COMPLIANCE REPORT
FOR DOUGLAS COUNTY
2019

I. OVERVIEW

Douglas County is a metropolitan county located along Colorado's Front Range urban corridor. The county has a total of 146,144 real property parcels, according to data submitted by the county assessor's office in 2019. 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 and 1112) accounted for over 92.5% of all vacant land parcels.

For residential improved properties, residential properties coded 1212 and 1213 accounted for 85.1% of all residential properties.

Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial properties accounted for 1.7% of all such properties in this county.

Based on the Audit questionnaire filled out by the assessor (see below), the following geographic levels were used by the assessor to value residential, commercial and vacant land properties:

Geo Area	Residential	Comm/Ind	Vacant Land
Economic Area	*V*	*N*	*V*
Neighborhood	*V*	*V*	*N*
Subdivision	*N*	*N*	

Codes
***V**=Valid Geographic Level – used for modeling*
***N** = Not used as Geographic Level for modeling*

II. DATA FILES

The following sales analyses were based on the requirements of the 2019 Colorado Property Assessment Study. Information was provided by the Douglas Assessor's Office in May 2019. The data included all 5 property record files as specified by the Auditor.

III. RESIDENTIAL SALES RESULTS

There were 17,040 qualified residential sales for the 24-month sale period ending June 30, 2018; 3 sales in Economic Area 7 were trimmed using IAOO standards, resulting in a final total of 17,037 sales. The sales ratio analysis results were as follows:

Median	**0.975**
Price Related Differential	**1.000**
Coefficient of Dispersion	**5.1**

We next stratified the sale ratio analysis by economic area and neighborhood. The minimum count for the neighborhood stratification is 20 sales. The following are the results of this stratification analysis:

Economic Area

Case Processing Summary

		Count	Percent
ECONAREA	1.00	5744	33.7%
	2.00	5024	29.5%
	3.00	1082	6.4%
	4.00	4717	27.7%
	5.00	118	0.7%
	6.00	311	1.8%
	7.00	37	0.2%
Overall		17033	100.0%
Excluded		4	
Total		17037	

Ratio Statistics for CURRTOT / TASP

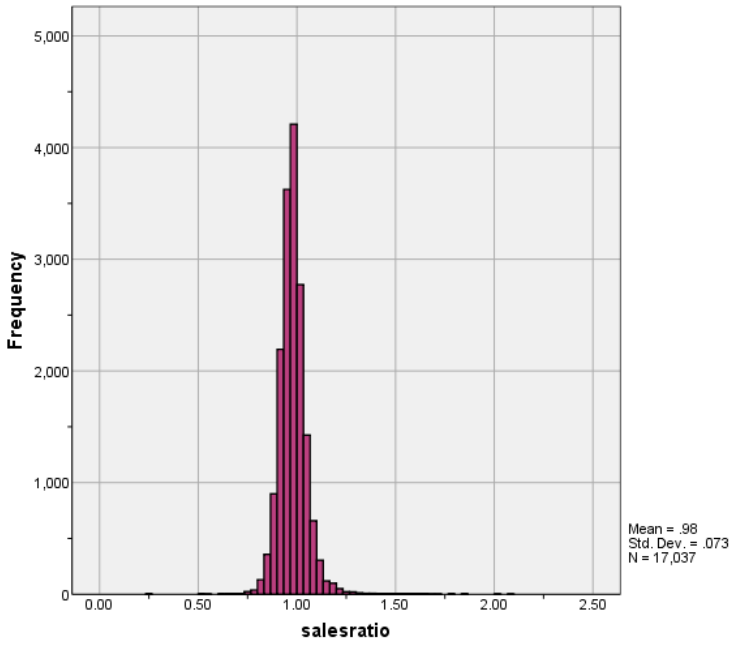
Group	Median	Price Related Differential	Coefficient of Dispersion
1.00	.976	1.005	.048
2.00	.975	.996	.047
3.00	.975	.980	.059
4.00	.975	1.005	.051
5.00	.995	1.016	.093
6.00	.969	1.003	.085
7.00	.976	1.025	.154
Overall	.975	1.000	.051

Neighborhoods with 20 or more sale

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
131	.973	1.002	.041
132	.979	1.007	.059
1AA	**.894**	**1.009**	**.143**
1CC	.981	1.005	.051
1DD	.975	1.001	.040
1EE	.975	1.003	.047
231	.973	1.003	.043
232	.972	1.004	.043
2AA	.989	1.009	.050
2BB	.974	1.004	.046
2CA	.982	1.010	.075
2CC	.975	1.002	.048
331	.980	1.004	.052
332	.973	1.003	.037
3AB	1.039	1.009	.044
3BB	.975	1.022	.108
3CC	.968	1.009	.066
3DD	.974	1.005	.056
431	.970	1.002	.053
432	.975	1.000	.036
4AA	.990	1.010	.077
4BB	.975	1.006	.049
4CC	.977	1.004	.044
4DD	.973	1.007	.051
4EE	.972	1.003	.050
4FF	.960	1.007	.069
4GG	1.012	1.009	.108
701	.997	1.041	.150
9AA	.980	1.014	.109
9BB	1.000	1.015	.084
9C1	.973	1.024	.104
9C2	.993	1.046	.135
9C3	.966	1.026	.117
9CC	.990	1.014	.092
9DD	.990	1.007	.081
Overall	.975	1.004	.050

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. One neighborhood with at least 20 sales was outside of the standards for either the median sales ratio or the COD (out of 37); this neighborhood had one of the lowest sale totals among the neighborhoods with 28 sales. The assessor's office has been advised concerning this neighborhood. The following graphs describe further the sales ratio distribution for these properties:



NOTE: SALES TRIMMED IN ABOVE GRAPH FOR CLARITY

The above graphs indicate that the distribution of the sale ratios at the class level 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 stratified by economic area, as follows:

Coefficients[a]

ECONAREA	Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
.	1	(Constant)	.574	.099		5.822	.028
		SalePeriod	.079	.033	.862	2.408	.138
1.00	1	(Constant)	.978	.002		585.416	.000
		SalePeriod	.000	.000	.027	2.073	.038
2.00	1	(Constant)	.975	.002		553.453	.000
		SalePeriod	.000	.000	.048	3.389	.001
3.00	1	(Constant)	.980	.005		192.312	.000
		SalePeriod	.000	.000	.027	.897	.370
4.00	1	(Constant)	.975	.002		496.280	.000
		SalePeriod	.000	.000	.017	1.166	.244
5.00	1	(Constant)	.963	.025		38.629	.000
		SalePeriod	.003	.002	.161	1.757	.082
6.00	1	(Constant)	.968	.013		76.564	.000
		SalePeriod	.001	.001	.056	.988	.324
7.00	1	(Constant)	.993	.069		14.445	.000
		SalePeriod	.002	.005	.064	.379	.707

a. Dependent Variable: salesratio

The above results indicated that there is no significant residual market trending for residential property sales when broken down by economic area. We therefore concluded that the assessor has adequately considered market trending in their residential valuations overall.

Sold/Unsold Analysis

In terms of the valuation consistency between sold and unsold residential properties, we compared the median and mean actual values per square foot for 2019 between each group. The data was analyzed both as a whole and broken down by neighborhoods with at least 20 sales, as follows:

Report

VALSF

sold	N	Median	Mean
UNSOLD	91681	$220	$233
SOLD	17034	$224	$233

The majority of residential neighborhoods had similar values per square foot for sold and unsold residential properties. The six neighborhoods with significant differences then had their sold and

unsold properties compared using the median percent change in value methods using taxable years 2018 and 2019. All six neighborhoods passed this second comparison test, as follows:

		VALSF Method			PCT CHG Method		
NBHD		No. Props	Median	Mean	No. Props	Median	Mean
9AA	UNSOLD	826	$239	$256	825	1.14	1.15
	SOLD	37	$286	$309	37	1.15	1.16
			-17%	-17%			
9BB	UNSOLD	2195	$233	$438	2200	1.14	1.16
	SOLD	143	$269	$281	143	1.15	1.16
			-13%	56%			
9C1	UNSOLD	811	$191	$205	812	1.17	1.17
	SOLD	43	$264	$274	43	1.18	1.17
			-28%	-25%			
9C2	UNSOLD	639	$208	$217	632	1.19	1.19
	SOLD	24	$269	$271	24	1.19	1.19
			-23%	-20%			
9CC	UNSOLD	1721	$230	$238	1712	1.17	1.17
	SOLD	81	$297	$297	80	1.13	1.14
			-22%	-20%			
9DD	UNSOLD	512	$273	$257	512	1.14	1.17
	SOLD	54	$310	$304	54	1.12	1.15
			-12%	-16%			

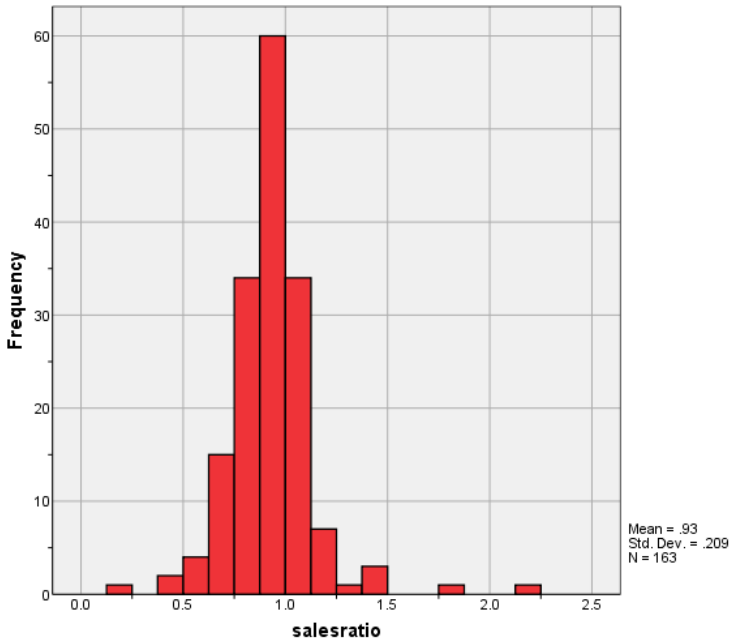
Based on these results, we concluded that the assessor valued sold and unsold residential properties consistently in 2019.

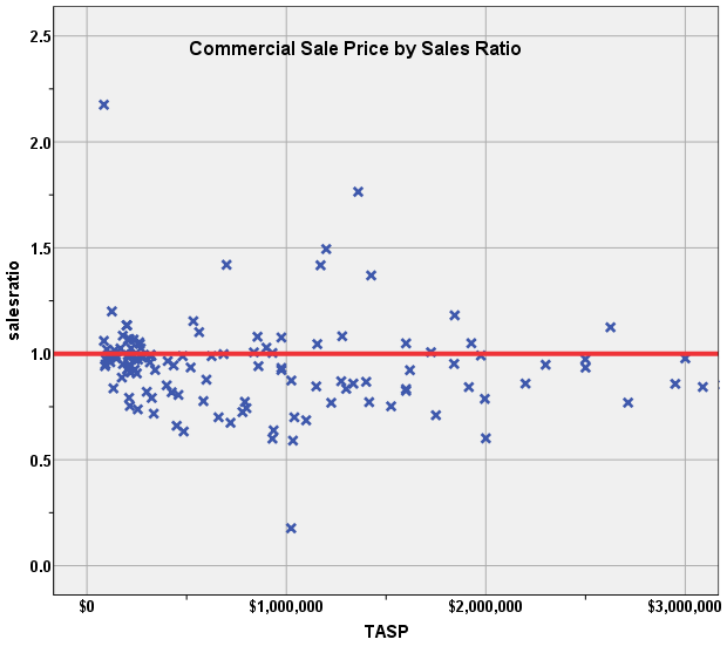
IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

There were 163 qualified commercial and industrial sales for the 24-month sale period ending June 30, 2018. The sales ratio analysis was analyzed as follows:

Median	**0.950**
Price Related Differential	**1.025**
Coefficient of Dispersion	**14.1**

The above table indicates that the Douglas County commercial/industrial sales ratios were in compliance with the SBOE standards. The following histogram and scatter plot describe the sales ratio distribution further:





NOTE: SALES TRIMMED IN ABOVE GRAPH FOR CLARITY

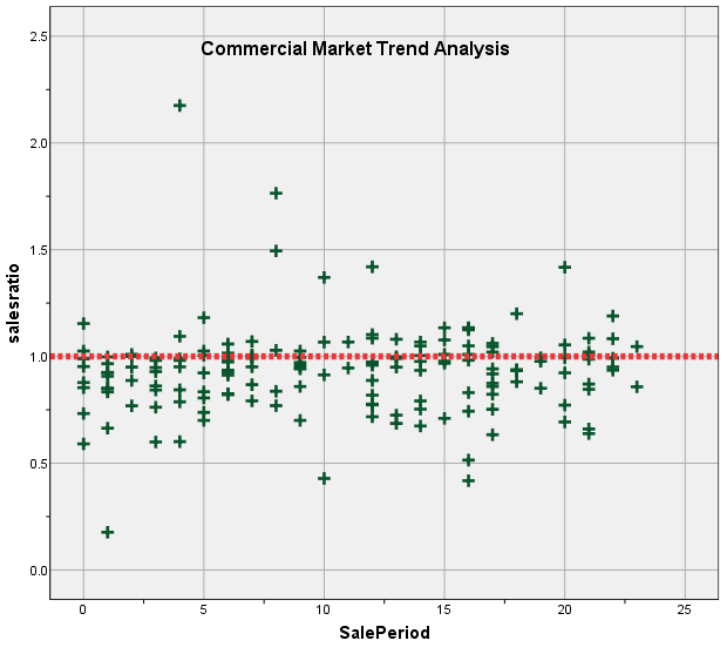
Commercial/Industrial Market Trend Analysis

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

Coefficients[a]

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.916	.031		29.895	.000
	SalePeriod	.002	.002	.056	.714	.476

a. Dependent Variable: salesratio



There was no residual market trending present in the commercial/industrial 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 values per square foot between sold and unsold properties at the class level and by subclass, as follows:

Report
VALSF

sold	N	Median	Mean
UNSOLD	2310	$160	$177
SOLD	163	$184	$199

Report
VALSF

ABSTRIMP	sold	N	Median	Mean
2212.00	UNSOLD	460	$199	$211
	SOLD	31	$250	$293
2215.00	UNSOLD	26	$114	$113
	SOLD	4	$100	$98

2220.00	UNSOLD	208	$157	$168
	SOLD	17	$195	$187
2221.00	UNSOLD	29	$263	$250
	SOLD	2	$217	$217
2230.00	UNSOLD	434	$219	$220
	SOLD	21	$195	$199
2235.00	UNSOLD	116	$90	$107
	SOLD	8	$135	$129
2245.00	UNSOLD	180	$240	$227
	SOLD	15	$240	$233
3212.00	UNSOLD	166	$104	$124
	SOLD	8	$123	$110
3215.00	UNSOLD	37	$94	$121
	SOLD	5	$134	$110
3230.00	UNSOLD	239	$117	$129
	SOLD	21	$120	$143

We also compared sold and unsold commercial properties using the median change in value method, as follows:

Report
DIFF

ABSTRIMP	sold	N	Median	Mean
2212.00	UNSOLD	460	1.02	1.07
	SOLD	31	1.13	1.25
2215.00	UNSOLD	26	1.15	1.14
	SOLD	4	1.15	1.15
2220.00	UNSOLD	208	1.05	1.09
	SOLD	17	1.08	1.09
2221.00	UNSOLD	29	1.00	1.07
	SOLD	2	1.07	1.07
2230.00	UNSOLD	434	1.02	1.05
	SOLD	21	1.06	1.10
2235.00	UNSOLD	116	1.17	1.23
	SOLD	8	1.17	1.23
2245.00	UNSOLD	180	1.05	1.06
	SOLD	15	1.05	1.08
3212.00	UNSOLD	166	1.11	1.15
	SOLD	8	1.23	1.19
3215.00	UNSOLD	37	1.15	1.13
	SOLD	5	1.19	1.20
3230.00	UNSOLD	239	1.10	1.15
	SOLD	21	1.21	1.21

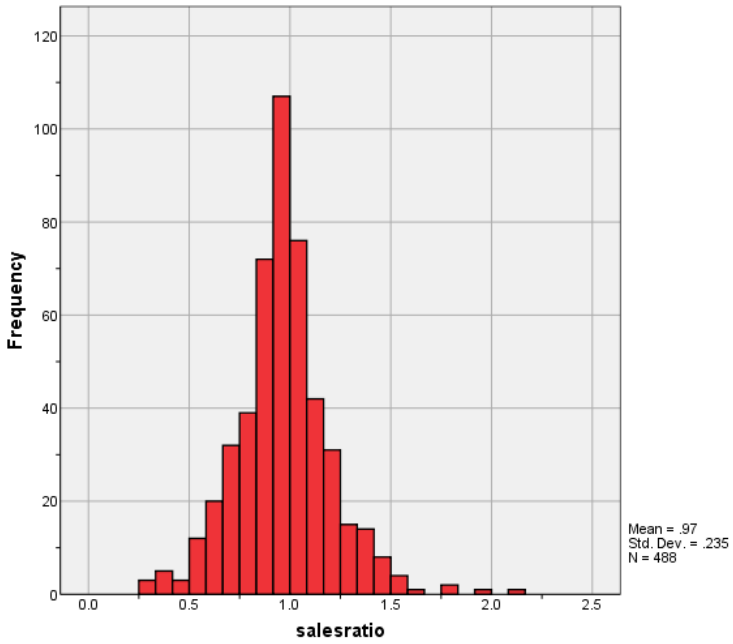
The above comparison analyses indicated that there was no consistent pattern of sold properties being valued more than unsold properties.

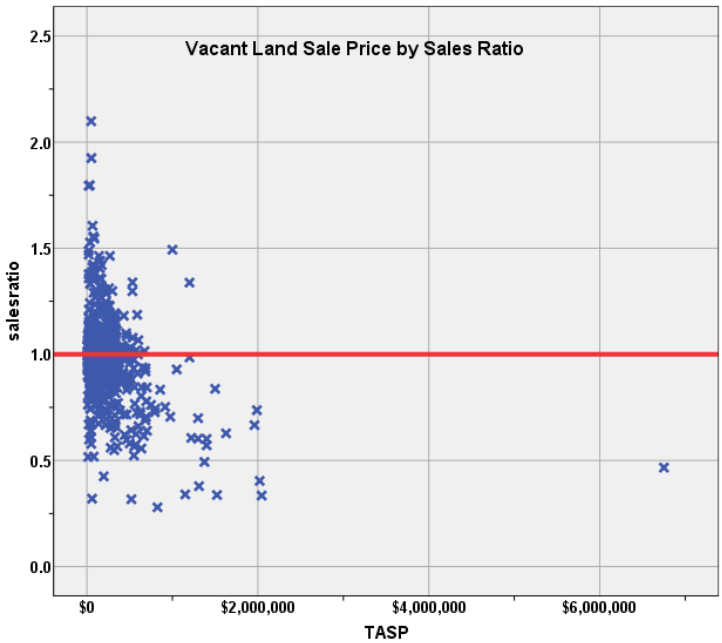
V. VACANT LAND SALE RESULTS

There were 488 qualified vacant land sales for the 24-month sale period ending June 30, 2018. The sales ratio analysis was analyzed as follows:

Median	**0.966**
Price Related Differential	**1.141**
Coefficient of Dispersion	**17.5**

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.

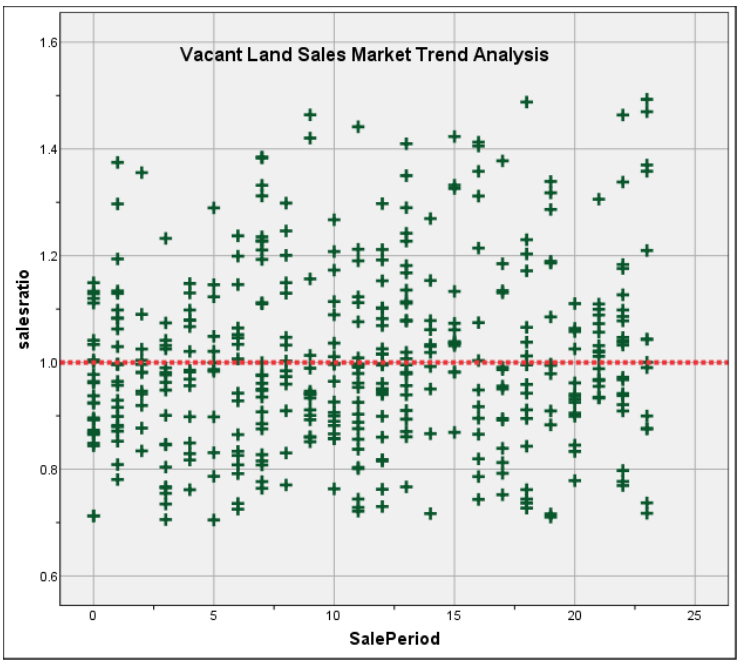
Vacant Land Market Trend Analysis

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

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.972	.015		64.950	.000
	SalePeriod	.003	.001	.121	2.502	.013

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 actual value for taxable years 2018 and 2019 between each group, as follows:

Report

DIFF

sold	N	Median	Mean
UNSOLD	6,321	1.00	.97
SOLD	529	1.13	1.15

Based on the above difference, we next compared sold and unsold vacant land properties stratified by subdivisions with at least 5 sales:

Report
DIFF

SUBDIVNO	sold	N	Median	Mean
51	UNSOLD	614	1.00	1.10
	SOLD	12	1.25	1.25
26875	UNSOLD	16	1.18	1.19
	SOLD	6	1.18	1.20
44700	UNSOLD	16	1.18	1.17
	SOLD	5	1.18	1.18
134957	UNSOLD	322	1.39	1.26
	SOLD	44	1.04	1.13
136477	UNSOLD	74	1.19	1.21
	SOLD	18	1.19	1.22
139958	UNSOLD	16	1.17	1.14
	SOLD	10	1.41	1.38
141307	UNSOLD	12	1.18	1.18
	SOLD	7	1.23	1.29
144032	UNSOLD	20	.89	.94
	SOLD	7	.79	.93
144862	UNSOLD	458	1.13	1.12
	SOLD	13	1.13	1.13
146292	UNSOLD	12	1.00	1.03
	SOLD	8	1.00	1.00
164775	UNSOLD	19	1.10	1.11
	SOLD	6	1.10	1.10
1019899	UNSOLD	2	1.13	1.13
	SOLD	5	1.33	1.31
3539011	UNSOLD	6	1.25	1.25
	SOLD	7	1.25	1.25
3549011	UNSOLD	2	1.30	1.30
	SOLD	5	1.34	1.34
2004021991	UNSOLD	11	1.00	1.02
	SOLD	6	1.10	1.02
2004034855	UNSOLD	12	1.25	1.18
	SOLD	7	1.32	1.28
2005008723	UNSOLD	2	1.28	1.28
	SOLD	6	1.31	1.31
2005066378	UNSOLD	2	1.43	1.43
	SOLD	7	1.33	1.32
2005122094	UNSOLD	62	1.16	1.19
	SOLD	19	1.18	1.19
2006007568	UNSOLD	16	.93	.93
	SOLD	13	1.06	1.06
2006019898	UNSOLD	6	.95	.91
	SOLD	8	.79	.79
2006078510	UNSOLD	73	.79	.84
	SOLD	18	1.02	1.00
2007063177	UNSOLD	1	1.23	1.23
	SOLD	5	1.22	1.21
2008050535	UNSOLD	6	.78	.78
	SOLD	6	.80	.87
2017075617	UNSOLD	5	1.59	1.65

	SOLD	20	1.89	1.94
2017086766	UNSOLD	2	1.79	1.79
	SOLD	5	1.54	1.44

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

V. CONCLUSIONS

Based on this 2019 audit statistical analysis, residential, commercial/industrial and vacant land properties were found to be in compliance with state guidelines.

STATISTICAL ABSTRACT

Residential

Ratio Statistics for CURRTOT / TASP

EA	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
.	.772	.493	1.052	.848	.510	.883	100.0%	.740	.406	1.075	1.043	.118	22.8%
1.00	.981	.979	.983	.976	.975	.977	95.1%	.976	.974	.979	1.005	.048	6.9%
2.00	.980	.978	.981	.975	.974	.976	95.0%	.984	.971	.997	.996	.047	6.7%
3.00	.984	.979	.989	.975	.972	.978	95.2%	1.004	.955	1.054	.980	.059	8.9%
4.00	.977	.975	.979	.975	.973	.976	95.2%	.972	.968	.976	1.005	.051	7.4%
5.00	1.001	.976	1.027	.995	.974	1.019	96.6%	.986	.956	1.015	1.016	.093	13.8%
6.00	.979	.966	.992	.969	.956	.985	95.9%	.975	.963	.988	1.003	.085	11.9%
7.00	1.016	.950	1.081	.976	.919	1.090	95.3%	.990	.924	1.056	1.025	.154	19.2%

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

Ratio Statistics for CURRTOT / TASP

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
.935	.902	.967	.950	.925	.974	95.9%	.912	.845	.979	1.025	.141	22.4%

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 / TASP

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
1.004	.988	1.020	.986	.968	.997	95.4%	.973	.948	.998	1.032	.129	16.5%

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.

Residential Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	LT $25K	3	0.0%
	$25K to $50K	1	0.0%
	$50K to $100K	3	0.0%
	$100K to $150K	22	0.1%
	$150K to $200K	59	0.3%
	$200K to $300K	926	5.4%
	$300K to $500K	8789	51.6%
	$500K to $750K	5521	32.4%
	$750K to $1,000K	1080	6.3%
	Over $1,000K	633	3.7%
Overall		17037	100.0%
Excluded		0	
Total		17037	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LT $25K	.861	1.000	.019	2.8%
$25K to $50K	.510	1.000	.000	.
$50K to $100K	1.220	1.000	.012	2.2%
$100K to $150K	.935	1.002	.079	9.6%
$150K to $200K	.994	1.001	.079	13.1%
$200K to $300K	.982	1.001	.065	11.5%
$300K to $500K	.979	1.000	.044	6.3%
$500K to $750K	.970	1.001	.050	6.7%
$750K to $1,000K	.972	1.000	.069	9.8%
Over $1,000K	.953	.966	.086	12.5%
Overall	.975	1.000	.051	7.5%

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	1212.00	14575	85.5%
	1213.00	1071	6.3%
	1215.00	1	0.0%
	1220.00	1	0.0%
	1225.00	7	0.0%
	1230.00	1382	8.1%
Overall		17037	100.0%
Excluded		0	
Total		17037	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1212.00	.975	1.005	.052	7.6%
1213.00	.975	1.003	.043	6.7%
1215.00	.901	1.000	.000	.
1220.00	1.023	1.000	.000	.
1225.00	1.027	.993	.107	13.7%
1230.00	.973	1.002	.045	6.2%
Overall	.975	1.000	.051	7.5%

Improvement Age

Case Processing Summary

		Count	Percent
AgeRec	Over 100	9	0.1%
	75 to 100	4	0.0%
	50 to 75	55	0.3%
	25 to 50	2421	14.2%
	5 to 25	10240	60.1%
	5 or Newer	4308	25.3%
Overall		17037	100.0%
Excluded		0	
Total		17037	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Over 100	.890	1.002	.080	11.0%
75 to 100	.792	.983	.104	14.7%
50 to 75	.964	1.020	.129	18.1%
25 to 50	.975	1.004	.063	9.5%
5 to 25	.975	.995	.048	7.1%
5 or Newer	.976	1.008	.048	6.8%
Overall	.975	1.000	.051	7.5%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	LE 500 sf	8	0.0%
	500 to 1,000 sf	354	2.1%
	1,000 to 1,500 sf	2739	16.1%
	1,500 to 2,000 sf	4587	26.9%
	2,000 to 3,000 sf	6446	37.8%
	3,000 sf or Higher	2903	17.0%
Overall		17037	100.0%
Excluded		0	
Total		17037	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LE 500 sf	.673	1.995	.386	44.7%
500 to 1,000 sf	.973	1.004	.061	8.3%
1,000 to 1,500 sf	.966	1.003	.047	7.0%
1,500 to 2,000 sf	.975	1.003	.044	6.6%
2,000 to 3,000 sf	.978	1.005	.050	7.2%
3,000 sf or Higher	.977	.993	.063	9.2%
Overall	.975	1.000	.051	7.5%

Improvement Quality

Case Processing Summary

		Count	Percent
QUALITY	Average	11969	70.3%
	Excellent	162	1.0%
	Fair	29	0.2%
	Good	3860	22.7%
	NULL	3	0.0%
	Very Good	1014	6.0%
Overall		17037	100.0%
Excluded		0	
Total		17037	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Average	.975	1.004	.045	6.6%
Excellent	.995	1.021	.108	16.8%
Fair	.897	1.023	.122	17.2%
Good	.976	.990	.056	8.0%
NULL	.266	1.200	.334	64.1%
Very Good	.988	1.015	.074	10.4%
Overall	.975	1.000	.051	7.5%

Improvement Condition

Case Processing Summary

		Count	Percent
CONDITION	Average	1854	10.9%
	Badly Worn	5	0.0%
	Good	15169	89.0%
	NULL	3	0.0%
	Very Good	6	0.0%
Overall		17037	100.0%
Excluded		0	
Total		17037	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Average	.975	1.003	.067	10.2%
Badly Worn	1.048	.993	.062	9.2%
Good	.975	.999	.049	7.0%
NULL	.266	1.200	.334	64.1%
Very Good	1.022	1.002	.043	7.2%
Overall	.975	1.000	.051	7.5%

Commercial Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	$50K to $100K	6	3.7%
	$100K to $150K	8	4.9%
	$150K to $200K	7	4.3%
	$200K to $300K	27	16.6%
	$300K to $500K	15	9.2%
	$500K to $750K	10	6.1%
	$750K to $1,000K	13	8.0%
	Over $1,000K	77	47.2%
Overall		163	100.0%
Excluded		0	
Total		163	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
$50K to $100K	.997	1.012	.233	53.1%
$100K to $150K	.985	1.001	.059	10.2%
$150K to $200K	1.086	.996	.071	9.8%
$200K to $300K	.973	1.001	.072	9.8%
$300K to $500K	.924	1.009	.112	14.9%
$500K to $750K	.962	1.002	.177	23.5%
$750K to $1,000K	.933	.997	.143	18.7%
Over $1,000K	.918	.997	.168	24.6%
Overall	.950	1.025	.141	22.1%

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	1212.00	1	0.6%
	1213.00	1	0.6%
	1262.25	1	0.6%
	1314.73	1	0.6%
	1389.50	1	0.6%
	1495.50	1	0.6%
	1545.33	1	0.6%
	1712.00	2	1.2%
	2212.00	32	19.6%
	2215.00	4	2.5%
	2220.00	17	10.4%
	2221.00	1	0.6%
	2221.75	1	0.6%
	2230.00	21	12.9%
	2235.00	26	16.0%
	2245.00	15	9.2%
	2881.33	1	0.6%
	3212.00	8	4.9%
	3215.00	5	3.1%
	3230.00	23	14.1%
Overall		163	100.0%
Excluded		0	
Total		163	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1212.00	.990	1.000	.000	.
1213.00	.946	1.000	.000	.
1262.25	1.102	1.000	.000	.
1314.73	1.006	1.000	.000	.
1389.50	.999	1.000	.000	.
1495.50	1.154	1.000	.000	.
1545.33	.806	1.000	.000	.
1712.00	.971	.991	.037	5.2%
2212.00	.923	.992	.111	19.4%
2215.00	.589	1.125	.234	30.2%
2220.00	1.029	1.116	.114	15.7%
2221.00	.998	1.000	.000	.
2221.75	.686	1.000	.000	.
2230.00	.834	1.032	.269	38.0%
2235.00	.962	1.057	.095	11.6%
2245.00	.888	.994	.122	14.5%
2881.33	.718	1.000	.000	.
3212.00	.964	1.089	.292	52.3%
3215.00	1.000	1.023	.200	27.7%
3230.00	.973	1.015	.043	7.0%
Overall	.950	1.025	.141	22.1%

Improvement Age

Case Processing Summary

		Count	Percent
AgeRec	75 to 100	6	3.7%
	50 to 75	6	3.7%
	25 to 50	28	17.2%
	5 to 25	91	55.8%
	5 or Newer	32	19.6%
Overall		163	100.0%
Excluded		0	
Total		163	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
75 to 100	.799	1.000	.153	22.2%
50 to 75	.929	1.005	.090	15.2%
25 to 50	.847	1.010	.267	41.0%
5 to 25	.951	1.055	.128	19.9%
5 or Newer	.975	1.005	.077	9.8%
Overall	.950	1.025	.141	22.1%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	500 to 1,000 sf	16	9.8%
	1,000 to 1,500 sf	35	21.5%
	1,500 to 2,000 sf	8	4.9%
	2,000 to 3,000 sf	10	6.1%
	3,000 sf or Higher	94	57.7%
Overall		163	100.0%
Excluded		0	
Total		163	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
500 to 1,000 sf	.951	1.018	.070	10.2%
1,000 to 1,500 sf	.993	1.041	.106	22.9%
1,500 to 2,000 sf	.925	1.021	.078	11.8%
2,000 to 3,000 sf	.796	1.040	.165	20.0%
3,000 sf or Higher	.935	1.008	.162	23.5%
Overall	.950	1.025	.141	22.1%

Improvement Quality

Case Processing Summary

		Count	Percent
QUALITY	Average	64	39.3%
	Good	91	55.8%
	Low	5	3.1%
	Very Good	3	1.8%
Overall		163	100.0%
Excluded		0	
Total		163	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Average	.946	1.053	.162	25.9%
Good	.959	1.051	.116	17.9%
Low	.686	1.015	.103	14.2%
Very Good	.999	.834	.197	41.1%
Overall	.950	1.025	.141	22.1%

Improvement Condition

Case Processing Summary

		Count	Percent
CONDITION	Average	34	20.9%
	Badly Worn	1	0.6%
	Good	127	77.9%
	Very Good	1	0.6%
Overall		163	100.0%
Excluded		0	
Total		163	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Average	.854	1.257	.234	36.5%
Badly Worn	.601	1.000	.000	.
Good	.960	1.012	.117	17.4%
Very Good	.999	1.000	.000	.
Overall	.950	1.025	.141	22.1%

Economic Area

Case Processing Summary

		Count	Percent
ECONAREA	1.00	27	20.3%
	2.00	48	36.1%
	3.00	3	2.3%
	4.00	49	36.8%
	6.00	6	4.5%
Overall		133	100.0%
Excluded		30	
Total		163	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
1.00	.950	.987	.132
2.00	.948	1.049	.129
3.00	.982	1.081	.062
4.00	.881	.991	.200
6.00	.773	1.127	.112
Overall	.936	1.010	.156

Vacant Land Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	LT $25K	38	9.0%
	$25K to $50K	47	11.1%
	$50K to $100K	39	9.2%
	$100K to $150K	57	13.4%
	$150K to $200K	37	8.7%
	$200K to $300K	90	21.2%
	$300K to $500K	77	18.2%
	$500K to $750K	28	6.6%
	$750K to $1,000K	6	1.4%
	Over $1,000K	5	1.2%
Overall		424	100.0%
Excluded		0	
Total		424	

Ratio Statistics for CURRLND / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LT $25K	.997	.971	.115	17.2%
$25K to $50K	.977	1.002	.098	13.3%
$50K to $100K	1.089	.997	.137	16.9%
$100K to $150K	.941	1.002	.128	16.9%
$150K to $200K	1.011	1.005	.182	21.8%
$200K to $300K	1.006	1.003	.110	14.3%
$300K to $500K	.961	1.003	.100	12.4%
$500K to $750K	.926	1.009	.137	17.9%
$750K to $1,000K	.748	.984	.201	44.9%
Over $1,000K	.929	1.033	.161	25.0%
Overall	.986	1.032	.129	16.9%

Subclass

Case Processing Summary

		Count	Percent
ABSTRLND	100.00	244	57.5%
	200.00	15	3.5%
	300.00	1	0.2%
	520.00	1	0.2%
	530.00	3	0.7%
	540.00	3	0.7%
	550.00	1	0.2%
	1112.00	144	34.0%
	2112.00	6	1.4%
	2115.00	2	0.5%
	2130.00	2	0.5%
	2135.00	1	0.2%
	3112.00	1	0.2%
Overall		424	100.0%
Excluded		0	
Total		424	

Ratio Statistics for CURRLND / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
100.00	.980	1.037	.121	16.1%
200.00	.833	1.027	.137	17.0%
300.00	.953	1.000	.000	.
520.00	.942	1.000	.000	.
530.00	1.076	1.134	.203	30.4%
540.00	1.021	.984	.150	22.6%
550.00	1.120	1.000	.000	.
1112.00	1.002	1.011	.130	16.9%
2112.00	.957	1.006	.062	8.4%
2115.00	.732	.997	.007	0.9%
2130.00	1.415	1.005	.055	7.7%
2135.00	.837	1.000	.000	.
3112.00	.909	1.000	.000	.
Overall	.986	1.032	.129	16.9%

Economic Area

Case Processing Summary

		Count	Percent
ECONAREA	1.00	85	20.0%
	2.00	6	1.4%
	3.00	47	11.1%
	4.00	78	18.4%
	5.00	32	7.5%
	6.00	155	36.6%
	7.00	21	5.0%
Overall		424	100.0%
Excluded		0	
Total		424	

Ratio Statistics for CURRLND / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
1.00	.979	1.041	.127
2.00	.934	1.119	.132
3.00	.998	1.028	.149
4.00	.984	1.008	.138
5.00	1.027	1.026	.131
6.00	.990	1.011	.119
7.00	.948	1.016	.106
Overall	.986	1.032	.129