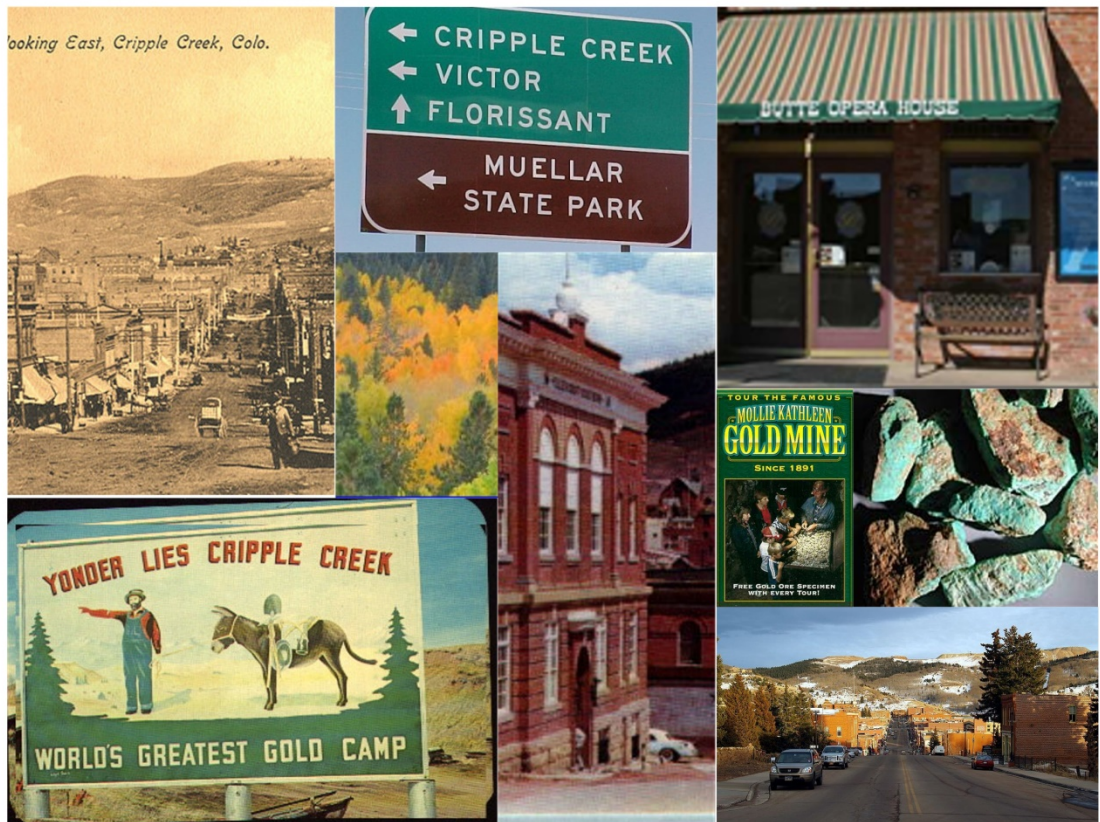




2020

# TELLER COUNTY PROPERTY ASSESSMENT STUDY





September 15, 2020

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

**RE: Final Report for the 2020 Colorado Property Assessment Study**

Dear Ms. Mullis:

Wildrose Appraisal Inc.-Audit Division is pleased to submit the Final Reports for the 2020 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.

A handwritten signature in black ink that reads "Harry J. Fuller". The signature is written in a cursive style.

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

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# INTRODUCTION

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## 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 2020 and is pleased to report its findings for Teller County in the following report.



## Historical Information

Teller County had an estimated population of approximately 24,043 people with 43.16 people per square mile, according to the U.S. Census Bureau's 2016 estimated census data. This represents a 2.96 percent change from April 1, 2010 to July 1, 2016.

Teller County was named after United States Senator Henry M. Teller. Teller County was carved from the western slope of Pikes Peak, which had been entirely within El Paso County, in 1899.

The county seat is Cripple Creek. On October 20, 1890, Robert Miller "Bob" Womack discovered a rich ore and the last great Colorado gold rush was on. Thousands of prospectors flocked to the region, and before long W. S. Stratton located the famous Independence lode, one of the largest gold strikes in history. In three years, the population increased from 500 to 10,000. By 1900 Cripple

Creek and its sister city, Victor, were substantial communities.

Through 2005, the Cripple Creek district produced about 23.5 million troy ounces (731 tonnes) of gold. The old underground mines are exhausted, but open pit mining has operated since 1994 east of Cripple Creek, near its sister city of Victor, Colorado.

With many empty storefronts and picturesque homes, Cripple Creek once drew interest as a ghost town. At one point the population dropped to a few hundred, although Cripple Creek was never entirely deserted.

Colorado voters allowed Cripple Creek to establish legalized gambling in 1991 and it is currently more of a gambling and tourist town than a ghost town. Casinos now occupy many historic buildings. Casino gambling has been successful in bringing revenue and vitality back into the area.

*(www.Wikipedia.org)*



# RATIO ANALYSIS

## Methodology

All significant classes of properties were analyzed. Sales were collected for each property class over the appropriate sale period, which was typically defined as the 18-month period between January 1, 2017 and June 30, 2018. Counties with less than 30 sales typically extended the sale period back up to 5 years prior to June 30, 2018 in 6-month increments. If there were still fewer than 30 sales, supplemental appraisals were performed and treated as proxy sales. Residential sales for all counties using this method totaled at least 30 per county. For commercial sales, the total number analyzed was allowed, in some cases, to fall below 30. There were no sale quantity issues for counties requiring vacant land analysis or condominium analysis. Although it was required that we examine the median and coefficient of dispersion for all counties, we also calculated the weighted mean and price-related differential for each class of property. Counties were not passed or failed by these

latter measures, but were counseled if there were anomalies noted during our analysis. Qualified sales were based on the qualification code used by each county, which were typically coded as either “Q” or “C.” The ratio analysis included all sales. The data was trimmed for counties with obvious outliers using IAAO standards for data analysis. In every case, we examined the loss in data from trimming to ensure that only true outliers were excluded. Any county with a significant portion of sales excluded by this trimming method was examined further. No county was allowed to pass the audit if more than 5% of the sales were “lost” because of trimming. For the largest 11 counties, the residential ratio statistics were broken down by economic area as well.

## Conclusions

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

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

The results for Teller County are:

<b>Teller County Ratio Grid</b>					
<b>Property Class</b>	<b>Number of Qualified Sales</b>	<b>Unweighted Median Ratio</b>	<b>Price Related Differential</b>	<b>Coefficient of Dispersion</b>	<b>Time Trend Analysis</b>
Commercial/Industrial	36	0.999	1.048	10.5	Compliant
Condominium	N/A	N/A	N/A	N/A	N/A
Single Family	1,378	0.985	1.016	8.5	Compliant
Vacant Land	678	0.978	1.074	20.9	Compliant

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

Teller 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.

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

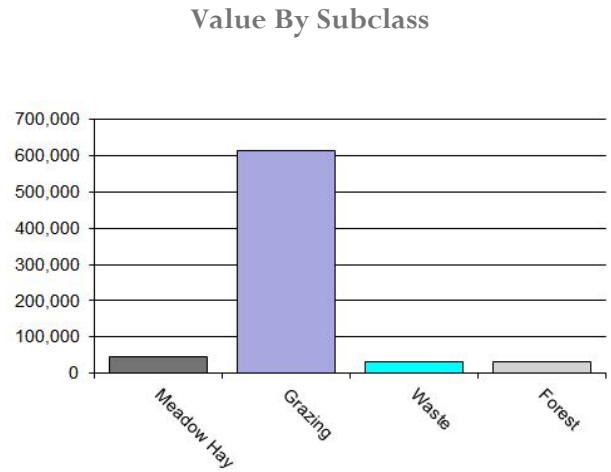
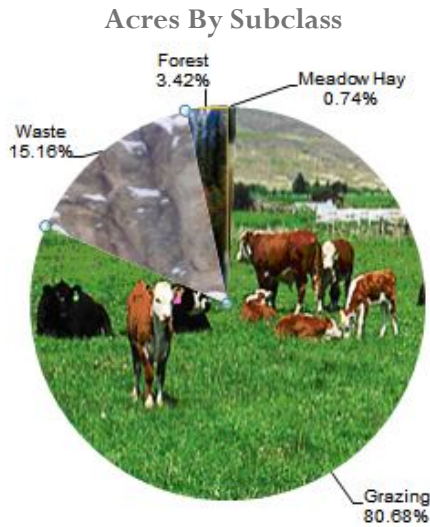
**Conclusions**

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

**Recommendations**

None

# 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 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:

<b>Teller County Agricultural Land Ratio Grid</b>						
<b>Abstract Code</b>	<b>Land Class</b>	<b>Number Of Acres</b>	<b>County Value Per Acre</b>	<b>County Assessed Total Value</b>	<b>WRA Total Value</b>	<b>Ratio</b>
4137	Meadow Hay	639	71.57	45,733	45,849	1.00
4147	Grazing	69,776	8.82	615,324	617,720	1.00
4177	Forest	2,960	11.13	32,948	33,106	1.00
4167	Waste	13,112	2.39	31,283	31,283	1.00
<b>Total/Avg</b>		<b>86,487</b>	<b>8.39</b>	<b>725,288</b>	<b>727,957</b>	<b>1.00</b>

### 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.

Property Taxation for the valuation of agricultural outbuildings.

### Recommendations

None

### Conclusions

Teller County has complied with the procedures provided by the Division of

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## Agricultural Land Under Improvements

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### 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

Teller 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
- Personal Knowledge of Occupants at Assessment Date

- Aerial Photography/Pictometry

Teller 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.:

- Field Inspections
- Aerial Photography/Pictometry

Teller County has 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 2020 for Teller County. This study was conducted by checking selected sales from the master sales list for the current valuation period. Specifically WRA selected 36 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 \$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.

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



conducted further analysis to determine if the sales included in that code have been assigned appropriately.

### **Conclusions**

Teller County appears to be doing a good 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**

None

# ECONOMIC AREA REVIEW AND EVALUATION

## **Methodology**

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

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## Earth and Stone Products

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### 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

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## Producing Mines

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### Methodology

Colorado Revised Statutes (CRS) Article 39, Section 6, and the Assessor's Reference Library (ARL), Volume 3 are the basis for valuing producing mine property. The gross value of the ore extracted during the preceding year is determined. All costs of treatment, reduction, transportation and sale are deducted to estimate gross proceeds. The costs of extraction are deducted from the gross proceeds to estimate net proceeds.

The current value for assessment is determined by determining if 25% of the gross proceeds or 100% of the net proceeds is greater, then applying that number as the valuation for assessment.

### Conclusions

The County valued the producing mine production using acceptable appraisal procedures.

### Recommendations

None

## VACANT LAND

### **Subdivision Discounting**

Subdivisions were reviewed in 2020 in Teller 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.

In instances where the number of sales within an approved plat was less than the absorption

rate per year calculated for the plat, the absorption period was left unchanged.

### **Conclusions**

Teller 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.

Teller 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

Teller 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

Teller 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.

Teller 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.

Teller County submitted their personal property written audit plan and was current for the 2020 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:

- Accounts with obvious discrepancies
- New businesses filing for the first time
- 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 protested with substantial disagreement

### **Conclusions**

Teller County has employed adequate discovery, classification, documentation,

valuation, and auditing procedures for their personal property assessment and is in statistical compliance with SBOE requirements.

### **Recommendations**

None



## WILDROSE AUDITOR STAFF

**Harry J. Fuller**, *Audit Project Manager*

**Suzanne Howard**, *Audit Administrative Manager*

**Steve Kane**, *Audit Statistician*

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

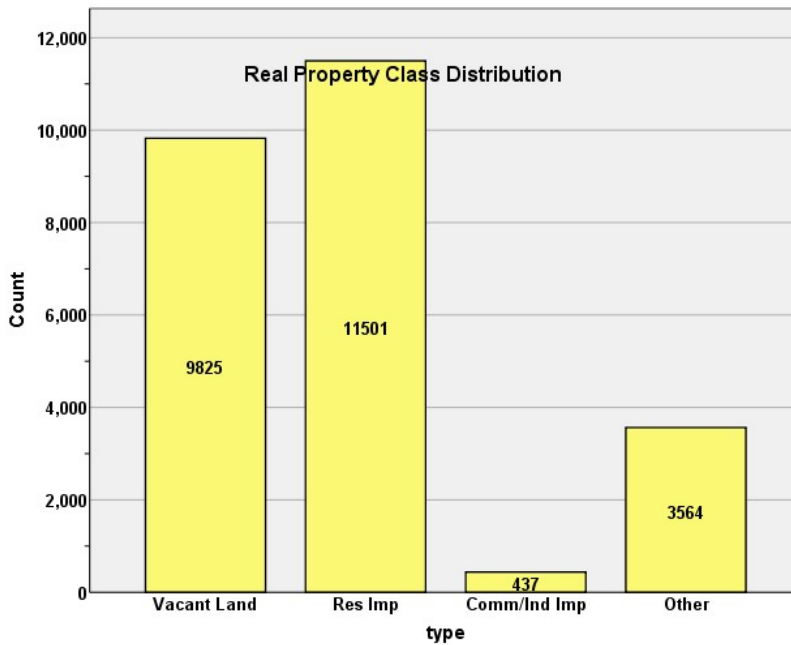
**J. Andrew Rodriguez**, *Field Analyst*

# APPENDICES

**STATISTICAL COMPLIANCE REPORT  
FOR TELLER COUNTY  
2020**

**I. OVERVIEW**

Teller County is located in central Colorado. The county has a total of 25,327 real property parcels, according to data submitted by the county assessor’s office in 2020. 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 74.5% of all vacant land parcels.

For residential improved properties, single family properties accounted for 97.3% of all residential properties.

Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial parcels 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		V
Neighborhood			
Subdivision	V		V

*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 2020 Colorado Property Assessment Study. Information was provided by the Teller Assessor’s Office in May 2020. The data included all 5 property record files as specified by the Auditor.

## III. RESIDENTIAL SALES RESULTS

There were 1,378 qualified residential sales for the 24-month sale period ending June 30, 2018. The sales ratio analysis results were as follows:

Median	<b>0.985</b>
Price Related Differential	<b>1.016</b>
Coefficient of Dispersion	<b>8.5</b>

We next stratified the sale ratio analysis by economic area. The following are the results of this stratification analysis:

### Case Processing Summary

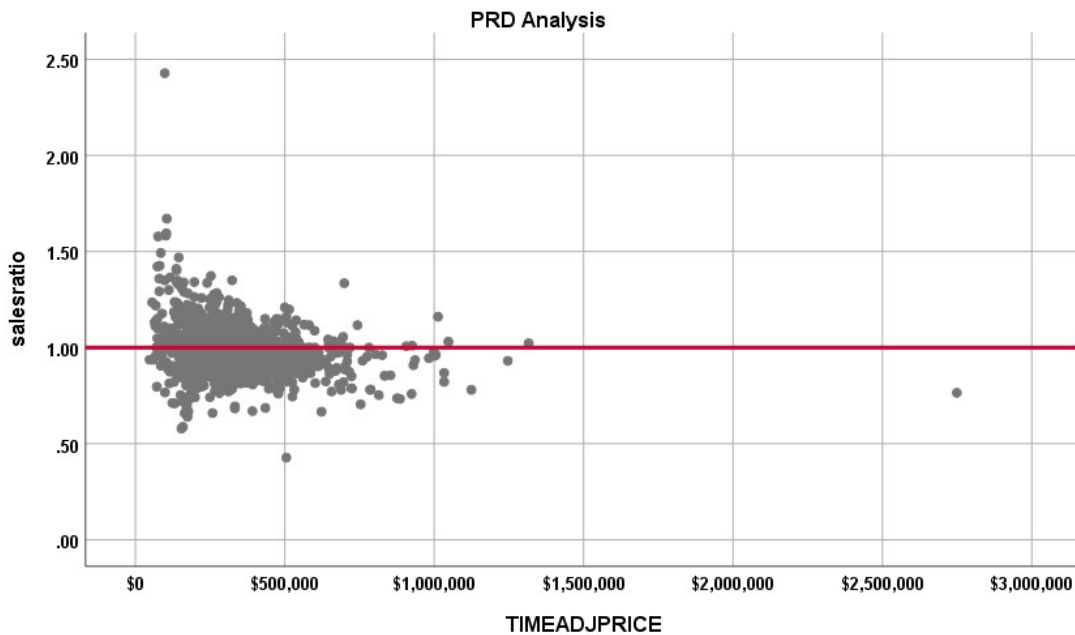
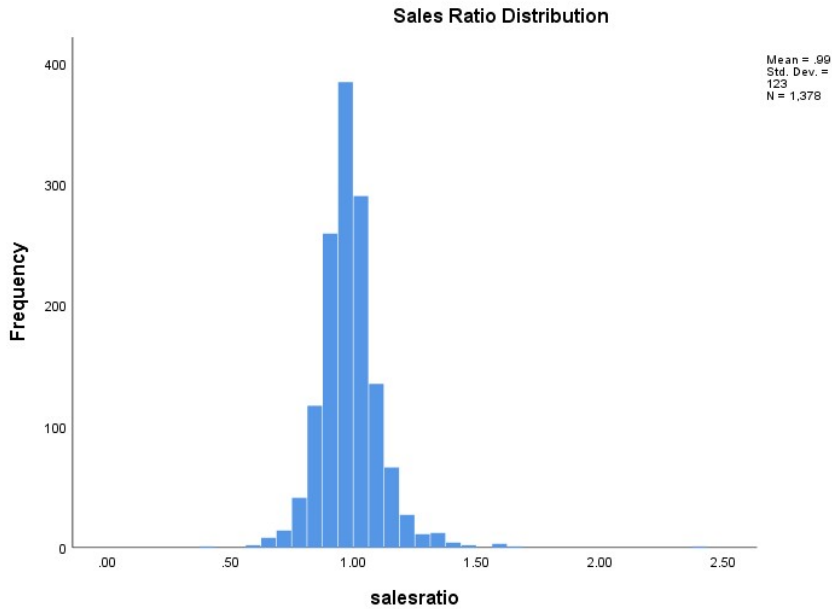
	Count	Percent	
ECONAREA	1.00	612	45.1%
	3.00	637	47.0%
	4.00	71	5.2%
	5.00	31	2.3%
	66.00	5	0.4%
Overall	1356	100.0%	
Excluded	22		
Total	1378		

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
1.00	.984	1.022	.093
3.00	.989	1.011	.067
4.00	.965	1.035	.129
<b>5.00</b>	<b>.885</b>	<b>1.050</b>	<b>.193</b>
66.00	.873	.980	.136
Overall	.985	1.016	.085

The above results indicate that the three largest economic areas were in compliance with SBOE ratio standards, but the smallest (EA 4) was out of compliance, although it had the fewest sales with 34. EA 66 had only 5 sales.

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



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

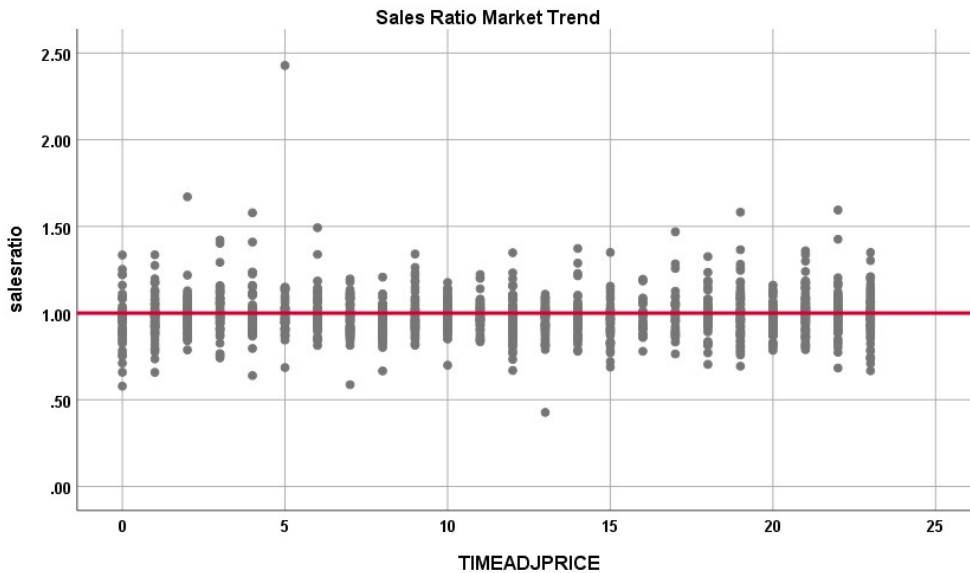
### Residential Market Trend Analysis

We next analyzed the residential dataset using the 24-month sale period for any residual market trending, with the following results:

#### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients	Standardized Coefficients	t	Sig.
		B	Beta		
1	(Constant)	.986		153.045	.000
	SalePeriod	1.044E-5	.001	.022	.982

a. Dependent Variable: salesratio



There was no statistically significant trend. We therefore concluded that the assessor has adequately addressed market trending in the valuation of residential properties.

### Sold/Unsold Analysis

In terms of the valuation consistency between sold and unsold residential properties, we compared the median change in value between taxable years 2018 and 2020 for each group, both by class and stratified by economic area:

<b>Report</b>			
DIFF			
sold	N	Median	Mean
UNSOLD	10081	1.0000	1.2062
SOLD	1378	1.0000	1.0707

### Report

DIFF				
ECONAREA	sold	N	Median	Mean
1.00	UNSOLD	5292	1.0000	1.3077
	SOLD	612	1.0000	1.0000
3.00	UNSOLD	3813	1.0000	1.1132
	SOLD	637	1.0000	1.1536
4.00	UNSOLD	444	1.0000	1.0449
	SOLD	71	1.0000	.9950
5.00	UNSOLD	282	1.0000	.9916
	SOLD	31	1.0000	1.0000
66.00	UNSOLD	47	1.0000	1.0460
	SOLD	5	1.0000	1.0000

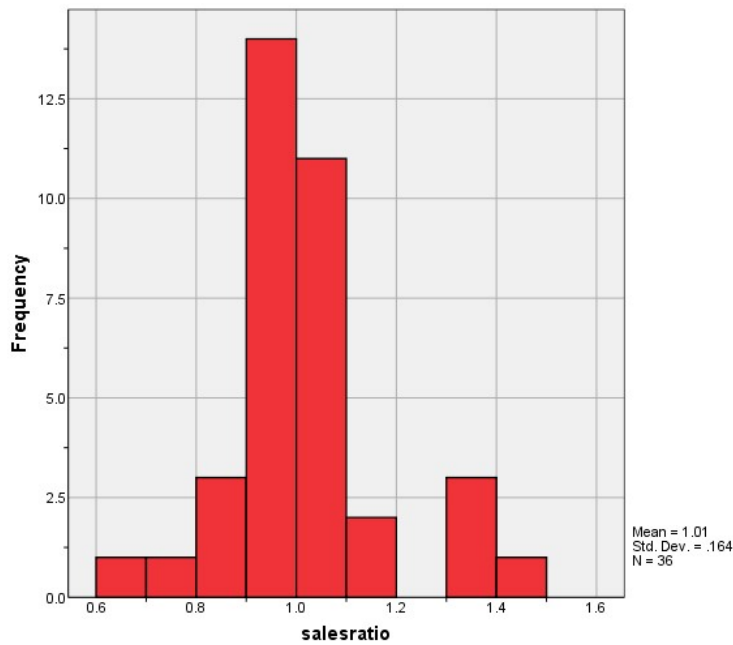
The above results from the second comparison method indicate that sold and unsold residential properties were valued in a consistent manner.

#### IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

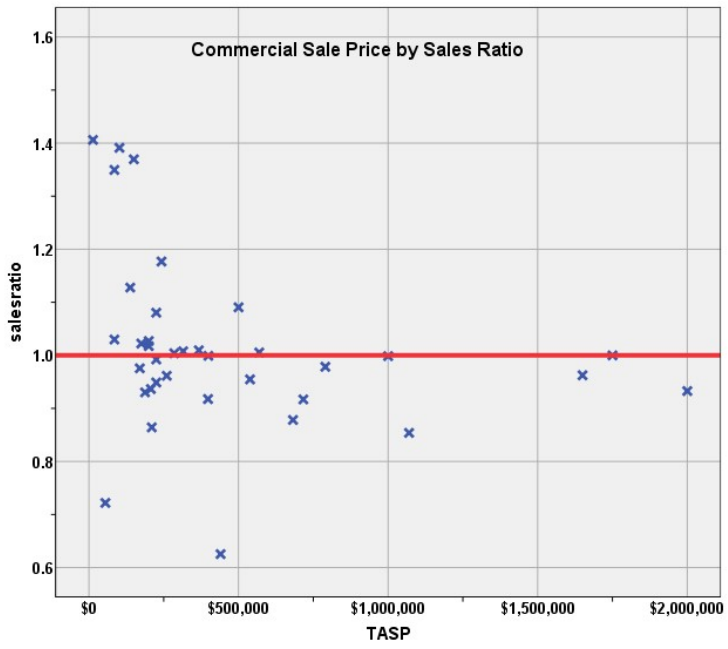
There were 36 qualified commercial and industrial sales for the 60-month sale period ending June 30, 2018. The sales ratio analysis results were as follows:

Median	<b>0.999</b>
Price Related Differential	<b>1.048</b>
Coefficient of Dispersion	<b>10.5</b>

Based on these results, we concluded that the assessor is in compliance. The following describes the sales ratio distribution further:







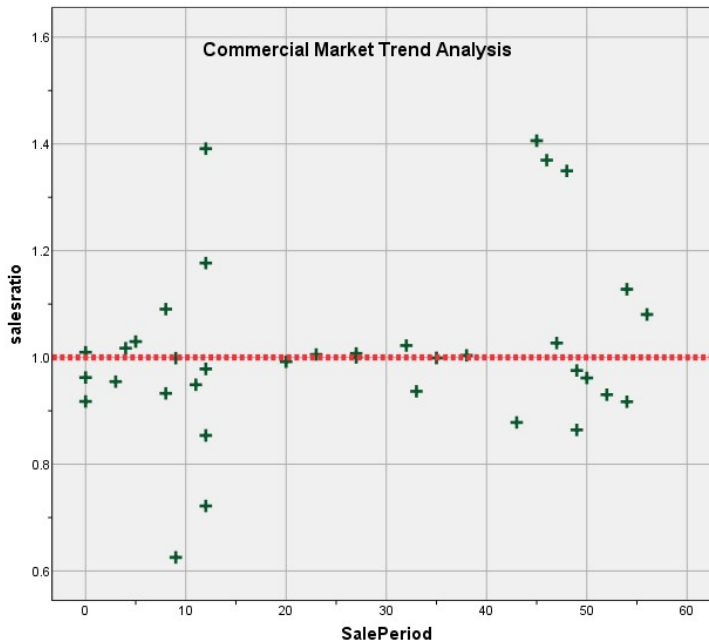
### Commercial Market Trend Analysis

The commercial/industrial sales were next analyzed by subclass for any residual market trending, examining the sale ratios across the 60-month sale period with the following results:

#### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.960	.046		20.879	.000
	SalePeriod	.002	.001	.236	1.414	.166

a. Dependent Variable: salesratio



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

### Sold/Unsold Analysis

We compared the median actual value per square foot between sold and unsold commercial properties to determine if the assessor was valuing each group consistently. The analysis was by class and by subclass, as follows:

#### Report

VALSF			
sold	N	Median	Mean
UNSOLD	370	\$78	\$95
SOLD	36	\$81	\$99

#### Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of VALSF is the same across categories of sold.	Independent-Samples Mann-Whitney U Test	.784	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .01.

### Report

VALSF	ABSTRIMP	sold	N	Median	Mean
2220.00	UNSOLD		44	\$123	\$143
	SOLD		11	\$81	\$93
2230.00	UNSOLD		80	\$123	\$116
	SOLD		7	\$103	\$93
2235.00	UNSOLD		34	\$41	\$46
	SOLD		3	\$19	\$56

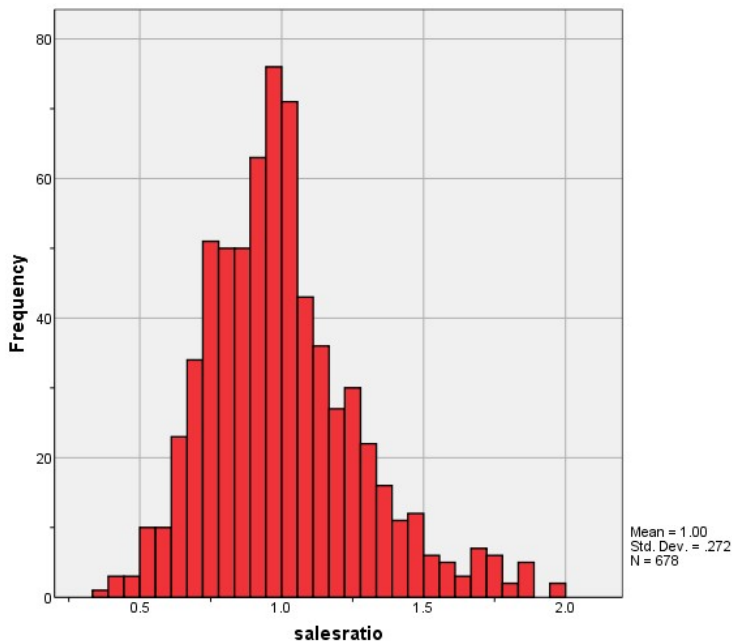
Based on the above results, we concluded that the Teller County assessor was valuing sold and unsold commercial properties consistently.

### V. VACANT LAND SALE RESULTS

The number of qualified vacant land sales was 703 for the 60 month period ending June 30, 2016. We trimmed 25 sales using IAAO standards, resulting in a final total of 678 qualified sales. The sales ratio analysis resulted in the following ratio statistics:

Median	<b>0.978</b>
Price Related Differential	<b>1.074</b>
Coefficient of Dispersion	<b>20.9</b>

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





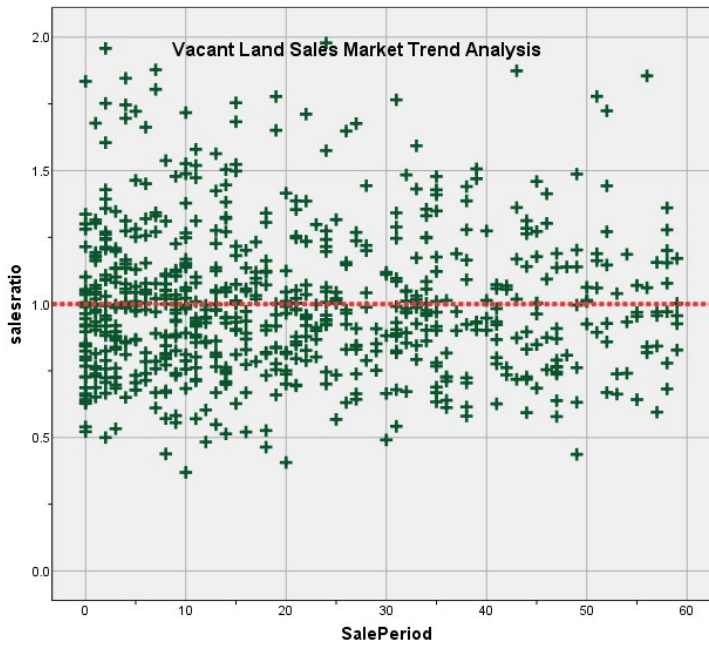
### Vacant Land Market Trend Analysis

The vacant land sales were analyzed, examining the sale ratios across the 60-month sale period with the following results:

#### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients Beta		
1	(Constant)	1.006	.017		60.409	.000
	SalePeriod	-6.112E-5	.001	-.004	-.097	.923

a. Dependent Variable: salesratio



The market trend results indicated a marginally statistically significant trend, but with a slope coefficient that was not significant. We concur that no market trend adjustments were warranted for properties in this class for Teller County.

### Sold/Unsold Analysis

We compared the median change in actual value between taxable years 2018 and 2020 for vacant land properties to determine if sold and unsold properties were valued consistently, as follows:

#### Report

DIFF			
sale	N	Median	Mean
UNSOLD	8564	.9892	.9780
SOLD	660	1.1247	1.1376

## Report

DIFF				
SUBDIVNO	sold	N	Median	Mean
90	UNSOLD	78	1.1600	1.1618
	SOLD	15	1.2512	1.2234
216	UNSOLD	125	1.3348	1.3281
	SOLD	20	1.3029	1.3500
218	UNSOLD	267	.6477	.7071
	SOLD	12	.9902	.9871
223	UNSOLD	921	.9115	.9500
	SOLD	70	1.0952	1.1127
226	UNSOLD	346	.6353	.6349
	SOLD	21	.8083	.9060
232	UNSOLD	159	1.3495	1.2960
	SOLD	10	1.3814	1.3760
242	UNSOLD	393	1.2388	1.1954
	SOLD	59	1.2563	1.2580
251	UNSOLD	115	1.2244	1.2178
	SOLD	29	1.3105	1.2623
252	UNSOLD	1085	.8790	.9195
	SOLD	73	.9501	1.0011
258	UNSOLD	55	1.0320	.9847
	SOLD	18	1.1119	1.0869
378	UNSOLD	22	.8609	.8211
	SOLD	10	.9938	1.0240
609	UNSOLD	99	1.0697	1.0598
	SOLD	16	1.1522	1.1765
1050	UNSOLD	371	1.1507	1.0982
	SOLD	20	1.3147	1.3026

We next stratified this analysis for subdivisions with at least 10 sales:

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

## V. CONCLUSIONS

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

## STATISTICAL ABSTRACT

### Residential

#### 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 Mean Centered
	Lower Bound	Upper Bound		Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound			
.986	.980	.993	.985	.978	.992	95.1%	.971	.964	.977	1.016	.085	12.5%

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.

### Commercial/Industrial

#### 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 Mean Centered
	Lower Bound	Upper Bound		Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound			
1.013	.957	1.068	.999	.955	1.017	97.1%	.967	.934	.999	1.048	.105	16.2%

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.

### 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 Mean Centered
	Lower Bound	Upper Bound		Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound			
1.005	.984	1.025	.978	.957	.997	95.8%	.935	.905	.965	1.074	.209	27.0%

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	\$25K to \$50K	1	0.1%
	\$50K to \$100K	41	3.0%
	\$100K to \$150K	67	4.9%
	\$150K to \$200K	132	9.6%
	\$200K to \$300K	366	26.6%
	\$300K to \$500K	607	44.0%
	\$500K to \$750K	134	9.7%
	\$750K to \$1,000K	20	1.5%
	Over \$1,000K	10	0.7%
Overall		1378	100.0%
Excluded		0	
Total		1378	

**Ratio Statistics for CURRTOT / TASP**

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
\$25K to \$50K	.937	1.000	.000	.
\$50K to \$100K	1.025	.997	.159	28.6%
\$100K to \$150K	1.036	1.001	.145	19.9%
\$150K to \$200K	.978	1.000	.124	16.0%
\$200K to \$300K	1.000	1.001	.074	9.9%
\$300K to \$500K	.978	1.001	.067	8.9%
\$500K to \$750K	.937	1.001	.077	11.1%
\$750K to \$1,000K	.920	.997	.099	12.4%
Over \$1,000K	.943	1.024	.102	13.3%
Overall	.985	1.016	.085	12.5%

**Subclass**

**Case Processing Summary**

		Count	Percent
ABSTRIMP	1212.00	1350	98.0%
	1215.00	4	0.3%
	1220.00	4	0.3%
	1230.00	19	1.4%
	1712.00	1	0.1%
Overall		1378	100.0%
Excluded		0	
Total		1378	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1212.00	.985	1.016	.085	12.4%
1215.00	1.015	1.051	.171	25.9%
1220.00	.761	.998	.094	16.8%
1230.00	.994	1.036	.092	15.5%
1712.00	1.198	1.000	.000	.
Overall	.985	1.016	.085	12.5%

### Improvement Age

#### Case Processing Summary

		Count	Percent
AgeRec	Over 100	67	4.9%
	75 to 100	15	1.1%
	50 to 75	60	4.4%
	25 to 50	445	32.3%
	5 to 25	694	50.4%
	5 or Newer	97	7.0%
Overall		1378	100.0%
Excluded		0	
Total		1378	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Over 100	.953	1.038	.166	22.4%
75 to 100	.937	1.080	.230	46.3%
50 to 75	.947	1.021	.114	17.4%
25 to 50	.989	1.013	.081	11.4%
5 to 25	.983	1.016	.076	10.4%
5 or Newer	1.000	1.013	.073	10.1%
Overall	.985	1.016	.085	12.5%

### Improved Area

#### Case Processing Summary

		Count	Percent
ImpSFRec	LE 500 sf	16	1.2%
	500 to 1,000 sf	201	14.6%
	1,000 to 1,500 sf	437	31.7%
	1,500 to 2,000 sf	387	28.1%
	2,000 to 3,000 sf	244	17.7%
	3,000 sf or Higher	93	6.7%
Overall		1378	100.0%
Excluded		0	
Total		1378	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LE 500 sf	.998	1.032	.076	13.2%
500 to 1,000 sf	.992	1.028	.116	18.2%
1,000 to 1,500 sf	.982	1.010	.088	12.7%
1,500 to 2,000 sf	.985	1.010	.070	9.8%
2,000 to 3,000 sf	.979	1.011	.079	10.4%
3,000 sf or Higher	.991	1.027	.085	11.6%
Overall	.985	1.016	.085	12.5%

### Improved Quality

#### Case Processing Summary

		Count	Percent
QUALITY	Average	555	40.3%
	Average Plus	84	6.1%
	Excellent	1	0.1%
	Fair	150	10.9%
	Fair Plus	550	39.9%
	Good	21	1.5%
	Low	15	1.1%
	Very Good	2	0.1%
Overall		1378	100.0%
Excluded		0	
Total		1378	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Average	.983	1.008	.070	9.4%
Average Plus	.975	1.008	.076	10.4%
Excellent	.764	1.000	.000	.
Fair	.998	1.025	.133	18.2%
Fair Plus	.988	1.010	.085	11.9%
Good	.945	.997	.084	11.2%
Low	1.000	1.033	.189	40.3%
Very Good	.943	1.001	.013	1.9%
Overall	.985	1.016	.085	12.5%

## Improved Condition

### Case Processing Summary

		Count	Percent
CONDITION	Average	1236	89.7%
	Badly Worn	8	0.6%
	Excellent	49	3.6%
	Fair	52	3.8%
	Good	33	2.4%
Overall		1378	100.0%
Excluded		0	
Total		1378	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Average	.983	1.014	.083	11.6%
Badly Worn	.937	1.008	.291	61.9%
Excellent	1.000	1.031	.058	7.8%
Fair	1.002	1.049	.136	19.6%
Good	.964	.986	.082	11.4%
Overall	.985	1.016	.085	12.5%

### Commercial Median Ratio Stratification

#### Sale Price

### Case Processing Summary

		Count	Percent
SPRec	LT \$25K	1	2.8%
	\$50K to \$100K	3	8.3%
	\$100K to \$150K	3	8.3%
	\$150K to \$200K	5	13.9%
	\$200K to \$300K	8	22.2%
	\$300K to \$500K	6	16.7%
	\$500K to \$750K	4	11.1%
	\$750K to \$1,000K	2	5.6%
	Over \$1,000K	4	11.1%
Overall		36	100.0%
Excluded		0	
Total		36	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LT \$25K	1.406	1.000	.000	.
\$50K to \$100K	1.030	.961	.203	30.5%
\$100K to \$150K	1.370	1.005	.064	12.5%
\$150K to \$200K	1.017	.999	.028	4.8%
\$200K to \$300K	.977	.997	.069	10.0%
\$300K to \$500K	1.003	1.002	.094	17.7%
\$500K to \$750K	.936	1.005	.044	5.8%
\$750K to \$1,000K	.989	.999	.010	1.4%
Over \$1,000K	.948	.991	.046	6.7%
Overall	.999	1.048	.105	16.5%

### Subclass

### Case Processing Summary

	Count	Percent
ABSTRIMP	1716.00	1
	1723.50	1
	2097.88	1
	2212.00	10
	2217.50	1
	2220.00	11
	2224.00	1
	2230.00	7
	2235.00	3
Overall	36	100.0%
Excluded	0	
Total	36	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1716.00	1.022	1.000	.000	.
1723.50	1.391	1.000	.000	.
2097.88	.978	1.000	.000	.
2212.00	.968	1.050	.125	16.4%
2217.50	1.005	1.000	.000	.
2220.00	.999	.994	.043	5.7%
2224.00	.962	1.000	.000	.
2230.00	.992	1.046	.120	21.5%
2235.00	1.080	1.040	.211	31.7%
Overall	.999	1.048	.105	16.5%

## Improvement Age

### Case Processing Summary

		Count	Percent
AgeRec	Over 100	9	25.0%
	75 to 100	2	5.6%
	50 to 75	7	19.4%
	25 to 50	10	27.8%
	5 to 25	7	19.4%
	5 or Newer	1	2.8%
Overall		36	100.0%
Excluded		0	
Total		36	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Over 100	1.080	1.095	.168	21.9%
75 to 100	.826	1.100	.243	34.4%
50 to 75	.992	1.019	.045	6.5%
25 to 50	.933	1.057	.089	16.0%
5 to 25	.999	1.004	.029	5.1%
5 or Newer	.933	1.000	.000	.
Overall	.999	1.048	.105	16.5%

## Improved Area

### Case Processing Summary

		Count	Percent
ImpSFRec	LE 500 sf	1	2.8%
	500 to 1,000 sf	1	2.8%
	1,500 to 2,000 sf	5	13.9%
	2,000 to 3,000 sf	9	25.0%
	3,000 sf or Higher	20	55.6%
Overall		36	100.0%
Excluded		0	
Total		36	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LE 500 sf	1.030	1.000	.000	.
500 to 1,000 sf	1.128	1.000	.000	.
1,500 to 2,000 sf	1.017	.994	.065	9.3%
2,000 to 3,000 sf	.930	1.023	.118	18.8%
3,000 sf or Higher	.999	1.061	.109	18.5%
Overall	.999	1.048	.105	16.5%

## Improved Quality

### Case Processing Summary

		Count	Percent
QUALITY	Average	14	38.9%
	Fair	19	52.8%
	Good	1	2.8%
	Low	2	5.6%
Overall		36	100.0%
Excluded		0	
Total		36	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Average	.965	1.029	.100	16.0%
Fair	1.005	1.038	.087	14.4%
Good	.999	1.000	.000	.
Low	1.064	1.242	.322	45.5%
Overall	.999	1.048	.105	16.5%

## Improved Condition

### Case Processing Summary

		Count	Percent
CONDITION	Average	26	72.2%
	Badly Worn	1	2.8%
	Fair	8	22.2%
	Worn Out	1	2.8%
Overall		36	100.0%
Excluded		0	
Total		36	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Average	.995	1.031	.067	10.9%
Badly Worn	.722	1.000	.000	.
Fair	1.025	1.094	.157	23.3%
Worn Out	1.406	1.000	.000	.
Overall	.999	1.048	.105	16.5%

## Vacant Land Median Ratio Stratification

### Sale Price

#### Case Processing Summary

		Count	Percent
SPRec	LT \$25K	339	50.0%
	\$25K to \$50K	165	24.3%
	\$50K to \$100K	111	16.4%
	\$100K to \$150K	27	4.0%
	\$150K to \$200K	17	2.5%
	\$200K to \$300K	13	1.9%
	\$300K to \$500K	5	0.7%
	\$500K to \$750K	1	0.1%
Overall		678	100.0%
Excluded		0	
Total		678	

#### Ratio Statistics for CURRLND / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LT \$25K	1.010	1.024	.216	28.8%
\$25K to \$50K	.978	1.002	.190	24.9%
\$50K to \$100K	.901	.999	.190	25.8%
\$100K to \$150K	.918	.991	.234	33.9%
\$150K to \$200K	.846	.992	.204	27.3%
\$200K to \$300K	.814	1.000	.143	17.6%
\$300K to \$500K	.877	.991	.219	29.8%
\$500K to \$750K	.533	1.000	.000	.
Overall	.978	1.074	.209	27.9%

### Subclass

#### Case Processing Summary

		Count	Percent
ABSTRLND	100.00	546	80.5%
	200.00	8	1.2%
	520.00	15	2.2%
	530.00	21	3.1%
	540.00	27	4.0%
	550.00	25	3.7%
	1112.00	36	5.3%
	Overall		678
Excluded		0	
Total		678	



**Ratio Statistics for CURRLND / TASP**

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
100.00	.979	1.076	.215	28.7%
200.00	.783	1.156	.424	65.9%
520.00	.848	1.014	.172	20.3%
530.00	.926	1.067	.220	31.2%
540.00	1.017	1.013	.172	24.5%
550.00	.948	1.013	.128	17.0%
1112.00	1.002	1.061	.160	19.6%
Overall	.978	1.074	.209	27.9%