



2017

TELLER COUNTY PROPERTY ASSESSMENT STUDY



WILDROSE
APPRAISAL, INCORPORATED
Audit Division



September 15, 2017

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

RE: Final Report for the 2017 Colorado Property Assessment Study

Dear Mr. Mauer:

Wildrose Appraisal Inc.-Audit Division is pleased to submit the Final Reports for the 2017 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, flowing style.

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

TABLE OF CONTENTS

Introduction	3
Regional/Historical Sketch of Teller County	4
Ratio Analysis.....	6
Time Trending Verification	8
Sold/Unsold Analysis	9
Agricultural Land Study	11
<i>Agricultural Land</i>	11
<i>Agricultural Outbuildings</i>	12
<i>Agricultural Land Under Improvements</i>	13
Sales Verification.....	14
Economic Area Review and Evaluation	16
Natural Resources	17
<i>Earth and Stone Products</i>	17
<i>Producing Mines</i>	17
Vacant Land.....	18
Possessory Interest Properties	19
Personal Property Audit	20
Wildrose Auditor Staff.....	22
Appendices.....	23

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.

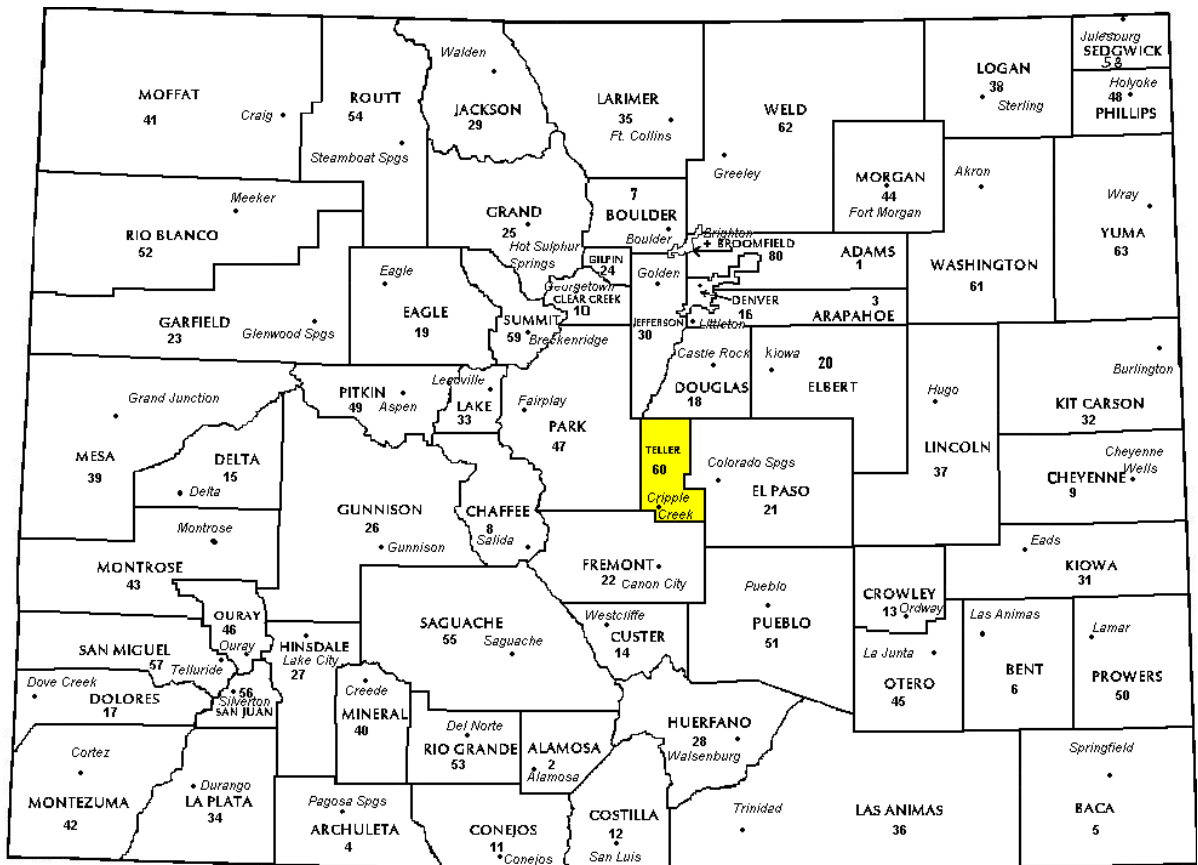
Wildrose Audit has completed the Property Assessment Study for 2017 and is pleased to report its findings for Teller County in the following report.

REGIONAL/HISTORICAL SKETCH OF TELLER COUNTY

Regional Information

Teller County is located in the Central Mountains region of Colorado. The Central Mountains Region is in the central portion of Colorado. It extends from the northern Gilpin county boundary approximately 210 miles

southeasterly to the southern boundary of Colorado, including Chaffee, Clear Creek, Custer, Fremont, Gilpin, Huerfano, Lake, Las Animas, Park, and Teller counties.



Historical Information

Teller County had an estimated population of approximately 24,043 people with 43.2 people per square mile, according to the U.S. Census Bureau's 2016 estimated census data. This represents a 3.0 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 property were analyzed. Sales were collected for each property class over the eighteen month period from January 1, 2015 through June 20, 2016. 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. 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:

Teller County Ratio Grid					
Property Class	Number of Qualified Sales	Unweighted Median Ratio	Price Related Differential	Coefficient of Dispersion	Time Trend Analysis
Commercial/Industrial	30	1.015	1.028	16.3	Compliant
Condominium	N/A	N/A	N/A	N/A	N/A
Single Family	1,220	0.992	1.017	9.6	Compliant
Vacant Land	509	1.050	1.093	20.2	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.

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

Conclusions

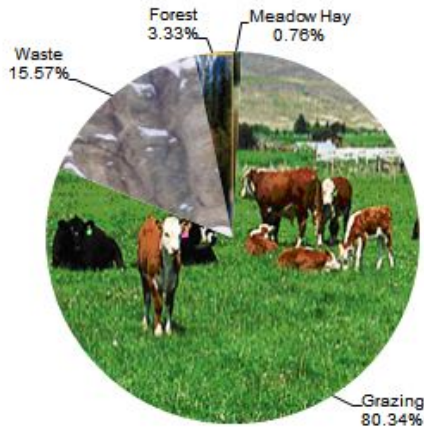
After applying the above described methodologies, it is concluded that Teller County is reasonably treating its sold and unsold properties in the same manner.

Recommendations

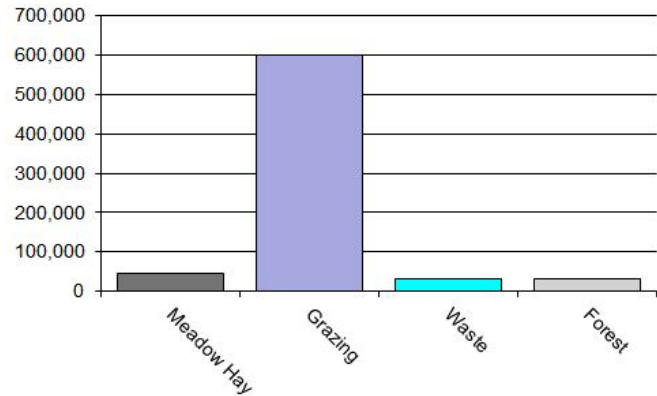
None

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:

Teller County Agricultural Land Ratio Grid						
Abstract Code	Land Class	Number Of Acres	County Value Per Acre	County Assessed Total Value	WRA Total Value	Ratio
4137	Meadow Hay	676	66.73	45,132	44,962	1.00
4147	Grazing	71,323	8.39	598,580	601,562	1.00
4177	Forest	2,960	10.62	31,444	29,824	1.05
4167	Waste	13,819	2.22	30,704	30,704	1.00
Total/Avg		88,778	7.95	705,859	707,051	1.00

Recommendations

None

Agricultural Outbuildings

Methodology

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

Property Taxation for the valuation of agricultural outbuildings.

Recommendations

None

Conclusions

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

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

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 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 2017 for Teller County. This study was conducted by checking selected sales from the master sales list for the current valuation period. Specifically WRA selected 108 sales listed as unqualified.

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

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

The contractor has examined the manner in which sales have been classified as qualified or unqualified, including a listing of each step in the sales verification process, any adjustment procedures, and the county official responsible for making the final decision on qualification.

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

reviewed with the assessor any analysis indicating that sales data 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.

The following subclasses were analyzed for Teller County:

- 2112 Merchandising
- 2130 Special Purpose
- 2212 Merchandising
- 3115 Manufacturing/Processing
- 3120 Manufacturing/Milling
- 3215 Manufacturing/Processing

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

Earth and Stone Products

Methodology

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

Conclusions

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

Recommendations

None

Producing Mines

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 2017 in Teller County. The review showed that subdivisions were discounted pursuant to the Colorado Revised Statutes in Article 39-1-103 (14). Discounting procedures were applied to all subdivisions where less than 80 percent of all sites were sold using the present worth method. The market approach was applied where 80 percent or more of the subdivision sites were sold. An absorption period was estimated for each subdivision that was discounted. An appropriate discount rate was

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

Conclusions

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 2017 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
- 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 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*

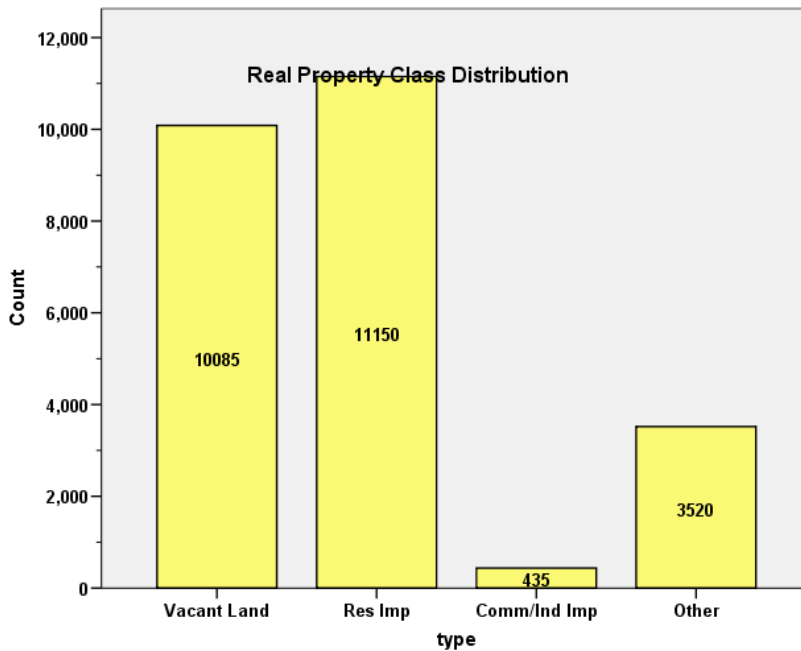
J. Andrew Rodriguez, *Field Analyst*

APPENDICES

STATISTICAL COMPLIANCE REPORT
FOR TELLER COUNTY
2017

I. OVERVIEW

Teller County is located in central Colorado. The county has a total of 25,190 real property parcels, according to data submitted by the county assessor’s office in 2017. 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 78.9% 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 sales accounted for 1.9% of all such properties in this county.

II. DATA FILES

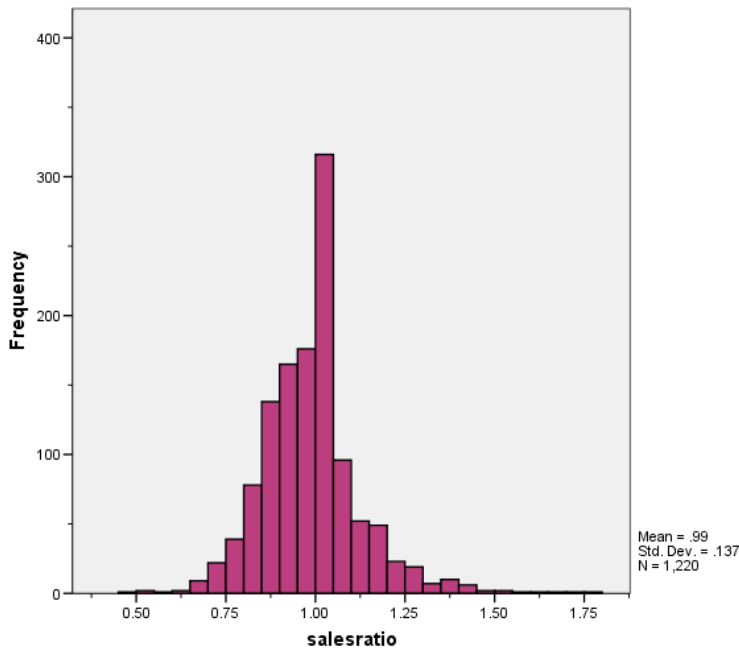
The following sales analyses were based on the requirements of the 2017 Colorado Property Assessment Study. Information was provided by the Teller Assessor’s Office in May 2017. The data included all 5 property record files as specified by the Auditor.

III. RESIDENTIAL SALES RESULTS

There were **1220 qualified residential sales** for the 24-month sale period ending June 30, 2016. The sales ratio analysis results were as follows:

Median	0.992
Price Related Differential	1.017
Coefficient of Dispersion	0.096

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





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

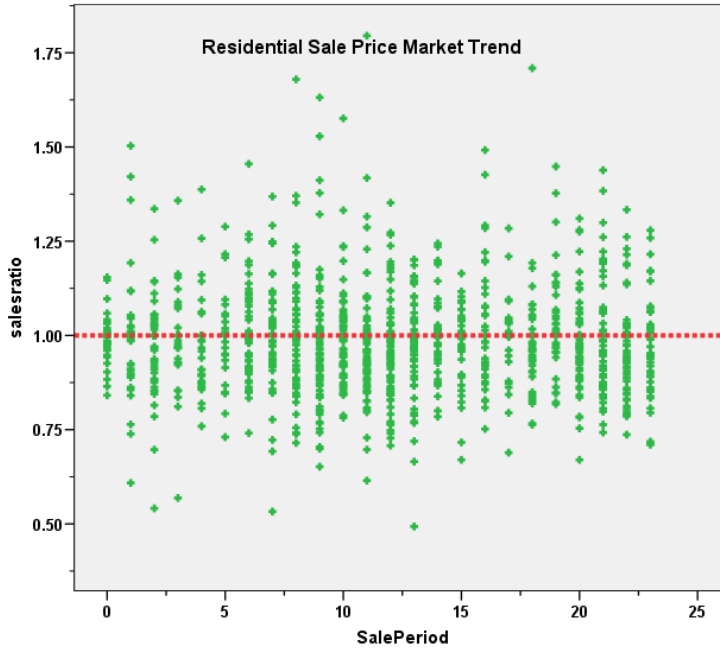
Residential Market Trend Analysis

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

Coefficients^a

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients Beta		
1	(Constant)	.992	.007		135.933	.000
	SalePeriod	-.001	.001	-.028	-.969	.332

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 actual value for taxable years 2016 and 2017 between each group, as follows:

Report

DIFF				
	sold	N	Median	Mean
UNSOLD		9,904	1.06	1.20
SOLD		1,220	1.09	1.15

Report

DIFF				
ECONAREA	sold	N	Median	Mean
1.00	UNSOLD	4,858	1.05	1.24
	SOLD	600	1.07	1.14
3.00	UNSOLD	3,951	1.07	1.17
	SOLD	548	1.10	1.17
4.00	UNSOLD	488	1.03	1.08
	SOLD	29	1.01	1.08
5.00	UNSOLD	363	1.19	1.27
	SOLD	16	1.31	1.29
66.00	UNSOLD	42	1.06	1.16
	SOLD	8	1.02	1.17

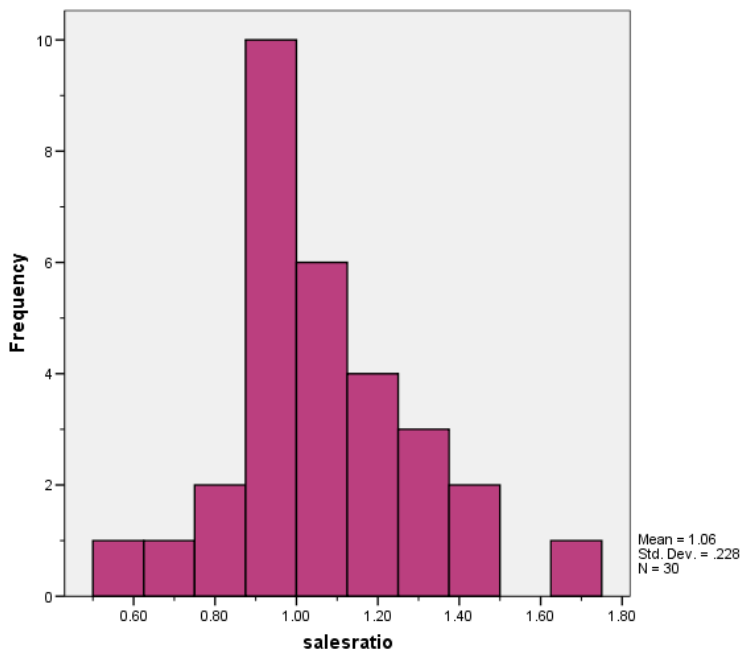
The above results indicate that sold and unsold residential properties were valued in a consistent manner.

IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

There were **30 qualified commercial and industrial sales** for the 60-month sale period ending June 30, 2016. The sales ratio analysis results were as follows:

Median	1.015
Price Related Differential	1.028
Coefficient of Dispersion	16.3

Based on these results, we concluded that the assessor is in compliance. The following histogram and scatter plot of the 30 final sales describe the sales ratio distribution further:





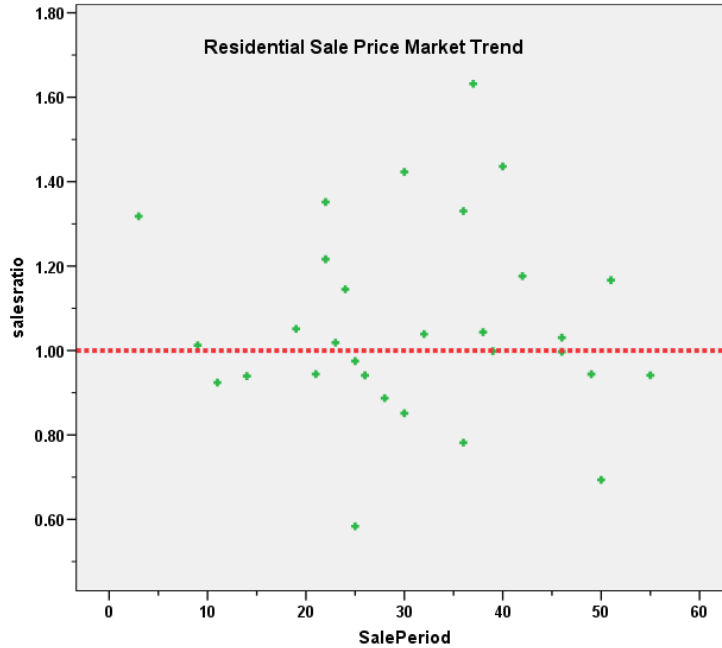
Commercial Market Trend Analysis

The 30 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^a

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1.083	.109		9.945	.000
	SalePeriod	-.001	.003	-.044	-.232	.818

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 change in actual value for taxable years 2016 and 2017 between sold and unsold commercial properties to determine if the assessor was valuing each group consistently, as follows:

Report

DIFF	N	Median	Mean
UNSOLD	404	1.05	1.21
SOLD	30	.99	1.05

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of DIFF is the same across categories of sold.	Independent-Samples Mann-Whitney U Test	.014	Retain the null hypothesis.

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

Report

DIFF				
ECONAREA	sold	N	Median	Mean
1.00	0	55	1.07	1.55
	1	6	.99	1.04
3.00	0	66	1.03	1.11
	1	8	.94	.98
5.00	0	23	1.00	1.04
	1	1	.74	.74
44.00	0	17	1.04	1.17
	1	2	.75	.75
49.00	0	47	1.05	1.06
	1	1	1.37	1.37
66.00	0	122	1.13	1.27
	1	12	1.05	1.15

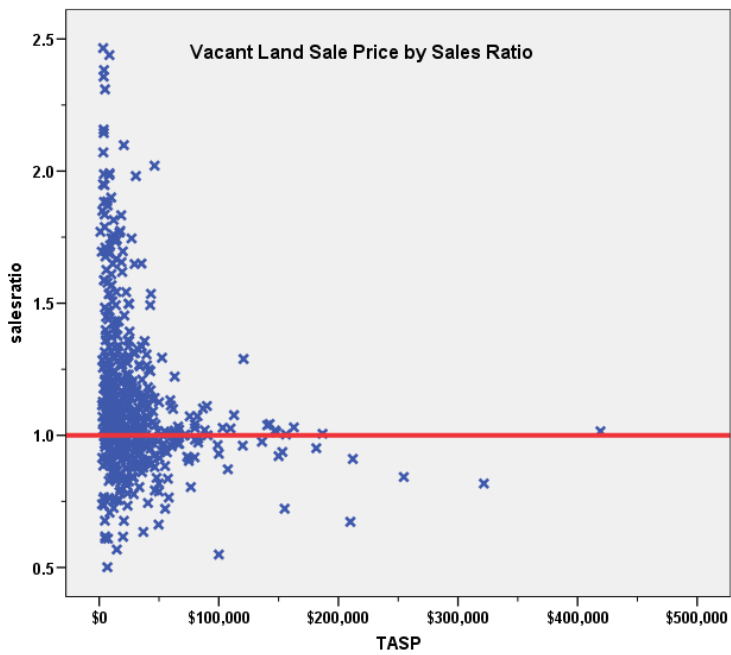
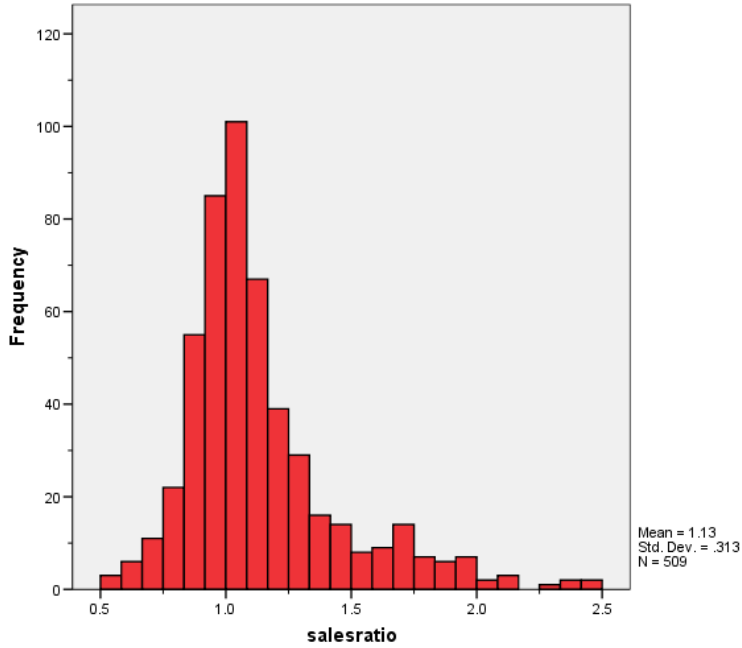
Based on the above results, we concluded that the Teller County assessor was valuing sold and unsold commercial properties consistently.

V. VACANT LAND SALE RESULTS

The number of qualified vacant land sales was 514 for the 60 month period ending June 30, 2016. We trimmed 5 sales with extreme sales ratios, for a final total of 509 qualified sales. The sales ratio analysis resulted in the following ratio statistics:

Median	1.050
Price Related Differential	1.093
Coefficient of Dispersion	20.2

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:



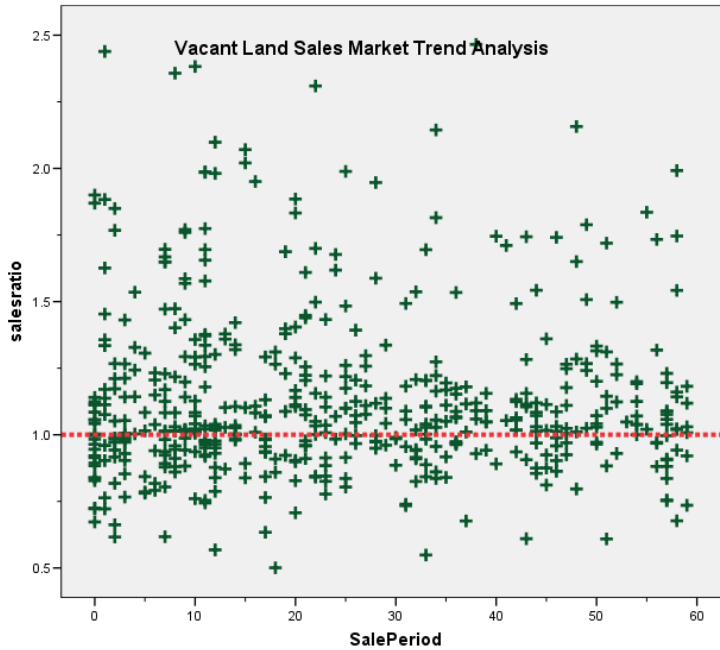
Vacant Land Market Trend Analysis

The 509 vacant land sales were analyzed, examining the sale ratios across the 60-month sale period with the following results:

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	1.139	.024		48.374	.000
	SalePeriod	.000	.001	-.010	-.227	.820

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 2016 and 2017 for vacant land properties to determine if sold and unsold properties were valued consistently, as follows:

Report			
DIFF			
DIFF	N	Median	Mean
UNSOLD	9,246	1.03	1.10
SOLD	499	.98	1.00

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

VI. AGRICULTURAL IMPROVEMENTS ANALYSIS

The final statistical verification concerned the 2017 actual improved values for agricultural residential improvements. We compared the actual value per square foot rate for this group and compared it to rates assigned to residential single family improvements in Teller County.

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

Report

IMPVALSF ABSTRIMP	N	Median	Mean
1212.00	10850	\$121.72	\$124.77
4277.00	100	\$116.00	\$117.52

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of IMPVALSF is the same across categories of ABSTRIMP.	Independent-Samples Mann-Whitney U Test	.128	Retain the null hypothesis.

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

VII. 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			Actual Coverage	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	Lower Bound			Upper Bound				
.986	.978	.994	.992	.984	1.000	95.2%	.970	.963	.977	1.017	.096	13.9%	

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

Commercial/Industrial

Ratio Statistics for CURRTOT / TASP

Mean	95% Confidence Interval for Mean		Median	95% Confidence Interval for Median			Actual Coverage	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	Lower Bound			Upper Bound				
1.060	.975	1.145	1.015	.944	1.145	95.7%	1.033	.929	1.136	1.026	.163	21.5%	

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

Vacant Land

Ratio Statistics for CURRLND / TASP

Mean	95% Confidence Interval for Mean		Median	95% Confidence Interval for Median			Actual Coverage	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	Lower Bound			Upper Bound				
1.135	1.107	1.162	1.050	1.030	1.076	95.9%	1.038	1.014	1.063	1.093	.202	27.6%	

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



Residential Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	\$25K to \$50K	10	0.8%
	\$50K to \$100K	51	4.2%
	\$100K to \$150K	144	11.8%
	\$150K to \$200K	208	17.0%
	\$200K to \$300K	442	36.2%
	\$300K to \$500K	322	26.4%
	\$500K to \$750K	36	3.0%
	\$750K to \$1,000K	6	0.5%
	Over \$1,000K	1	0.1%
Overall		1220	100.0%
Excluded		0	
Total		1220	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
\$25K to \$50K	1.175	.992	.185	26.4%
\$50K to \$100K	1.033	1.005	.149	23.3%
\$100K to \$150K	1.025	1.002	.112	16.1%
\$150K to \$200K	1.000	.999	.102	13.4%
\$200K to \$300K	.979	1.001	.086	11.7%
\$300K to \$500K	.974	1.001	.079	10.7%
\$500K to \$750K	.896	.998	.098	12.7%
\$750K to \$1,000K	1.000	1.004	.060	10.2%
Over \$1,000K	1.000	1.000	.000	.
Overall	.992	1.017	.096	13.8%

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	1212.00	1199	98.3%
	1215.00	3	0.2%
	1230.00	18	1.5%
Overall		1220	100.0%
Excluded		0	
Total		1220	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1212.00	.992	1.016	.096	13.9%
1215.00	.913	1.057	.192	34.7%
1230.00	1.005	1.011	.068	10.0%
Overall	.992	1.017	.096	13.8%

Improvement Age

Case Processing Summary

AgeRec	Count	Percent
Over 100	32	2.6%
75 to 100	13	1.1%
50 to 75	60	4.9%
25 to 50	474	38.9%
5 to 25	594	48.7%
5 or Newer	47	3.9%
Overall	1220	100.0%
Excluded	0	
Total	1220	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Over 100	1.062	1.013	.160	24.2%
75 to 100	.911	1.021	.105	13.2%
50 to 75	.920	1.024	.147	21.3%
25 to 50	1.000	1.012	.097	13.6%
5 to 25	.986	1.015	.087	12.1%
5 or Newer	.991	1.012	.070	11.1%
Overall	.992	1.017	.096	13.8%

Improved Area

Case Processing Summary

ImpSFRec	Count	Percent
LE 500 sf	8	0.7%
500 to 1,000 sf	212	17.4%
1,000 to 1,500 sf	405	33.2%
1,500 to 2,000 sf	317	26.0%
2,000 to 3,000 sf	209	17.1%
3,000 sf or Higher	69	5.7%
Overall	1220	100.0%
Excluded	0	
Total	1220	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LE 500 sf	.799	1.074	.294	39.3%
500 to 1,000 sf	1.000	1.017	.095	14.8%
1,000 to 1,500 sf	.980	1.018	.103	14.4%
1,500 to 2,000 sf	.993	1.018	.091	12.9%
2,000 to 3,000 sf	1.000	1.020	.094	13.2%
3,000 sf or Higher	1.000	1.013	.066	9.8%
Overall	.992	1.017	.096	13.8%

Improved Quality

Case Processing Summary

		Count	Percent
QUALITY	Average	483	39.6%
	Average Plus	52	4.3%
	Fair	225	18.4%
	Fair Plus	437	35.8%
	Good	7	0.6%
	Low	16	1.3%
Overall		1220	100.0%
Excluded		0	
Total		1220	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Average	.986	1.011	.082	11.6%
Average Plus	.938	1.006	.081	10.4%
Fair	.994	1.032	.133	18.5%
Fair Plus	1.000	1.012	.091	13.1%
Good	1.000	1.011	.088	14.9%
Low	1.000	1.042	.153	22.8%
Overall	.992	1.017	.096	13.8%

Improved Condition

Case Processing Summary

		Count	Percent
CONDITION	Average	1063	87.1%
	Badly Worn	10	0.8%
	Excellent	22	1.8%
	Fair	94	7.7%
	FAIR	1	0.1%
	Good	29	2.4%
	Worn Out	1	0.1%
Overall		1220	100.0%
Excluded		0	
Total		1220	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Average	.990	1.015	.091	12.9%
Badly Worn	1.032	1.182	.223	29.4%
Excellent	1.005	1.014	.090	14.5%
Fair	1.000	1.027	.148	20.9%
FAIR	1.193	1.000	.000	.
Good	.981	1.001	.061	9.3%
Worn Out	.975	1.000	.000	.
Overall	.992	1.017	.096	13.8%

Economic Area

Case Processing Summary

		Count	Percent
ECONAREA	1.00	600	50.0%
	3.00	548	45.6%
	4.00	29	2.4%
	5.00	16	1.3%
	66.00	8	0.7%
Overall		1201	100.0%
Excluded		19	
Total		1220	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
1.00	.994	1.021	.105
3.00	.985	1.004	.081
4.00	1.040	1.026	.109
5.00	1.070	1.027	.179
66.00	.865	1.036	.165
Overall	.992	1.016	.097

Commercial Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	LT \$25K	1	3.3%
	\$50K to \$100K	2	6.7%
	\$100K to \$150K	3	10.0%
	\$150K to \$200K	5	16.7%
	\$200K to \$300K	7	23.3%
	\$300K to \$500K	6	20.0%
	\$500K to \$750K	4	13.3%
	Over \$1,000K	2	6.7%
Overall		30	100.0%
Excluded		0	
Total		30	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LT \$25K	.944	1.000	.000	.
\$50K to \$100K	1.388	1.040	.175	24.8%
\$100K to \$150K	1.352	1.003	.094	16.5%
\$150K to \$200K	.997	.993	.110	21.5%
\$200K to \$300K	1.012	.995	.074	10.1%
\$300K to \$500K	.987	1.007	.174	23.8%
\$500K to \$750K	.951	.991	.190	24.0%
Over \$1,000K	1.189	1.124	.208	29.4%
Overall	1.015	1.026	.163	22.8%

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	2212.00	8	26.7%
	2215.00	1	3.3%
	2220.00	11	36.7%
	2230.00	7	23.3%
	2235.00	2	6.7%
	3212.00	1	3.3%
	Overall		30
Excluded		0	
Total		30	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
2212.00	1.008	1.078	.157	28.4%
2215.00	.941	1.000	.000	.
2220.00	1.031	1.025	.149	19.1%
2230.00	.999	.983	.197	27.0%
2235.00	.992	.959	.048	6.8%
3212.00	1.436	1.000	.000	.
Overall	1.015	1.026	.163	22.8%

Improvement Age

Case Processing Summary

		Count	Percent
AgeRec	Over 100	4	13.3%
	75 to 100	1	3.3%
	50 to 75	6	20.0%
	25 to 50	11	36.7%
	5 to 25	8	26.7%
Overall		30	100.0%
Excluded		0	
Total		30	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Over 100	1.018	.982	.110	19.5%
75 to 100	1.019	1.000	.000	.
50 to 75	1.021	1.194	.239	35.3%
25 to 50	1.031	.982	.128	18.6%
5 to 25	.940	1.013	.190	28.6%
Overall	1.015	1.026	.163	22.8%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	LE 500 sf	1	3.3%
	500 to 1,000 sf	2	6.7%
	1,500 to 2,000 sf	3	10.0%
	2,000 to 3,000 sf	10	33.3%
	3,000 sf or Higher	14	46.7%
Overall		30	100.0%
Excluded		0	
Total		30	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LE 500 sf	1.632	1.000	.000	.
500 to 1,000 sf	1.210	1.031	.176	24.9%
1,500 to 2,000 sf	1.039	.989	.148	31.0%
2,000 to 3,000 sf	.987	1.013	.074	10.1%
3,000 sf or Higher	1.090	1.035	.175	20.3%
Overall	1.015	1.026	.163	22.8%

Improved Quality

Case Processing Summary

		Count	Percent
QUALITY	Average	14	46.7%
	Fair	12	40.0%
	Good	2	6.7%
	Low	2	6.7%
Overall		30	100.0%
Excluded		0	
Total		30	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Average	1.037	1.000	.160	22.1%
Fair	1.026	1.038	.178	25.9%
Good	.853	1.005	.083	11.8%
Low	.971	.977	.028	4.0%
Overall	1.015	1.026	.163	22.8%

Improved Condition

Case Processing Summary

		Count	Percent
CONDITION	Average	22	73.3%
	Badly Worn	1	3.3%
	Fair	6	20.0%
	Worn Out	1	3.3%
Overall		30	100.0%
Excluded		0	
Total		30	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Average	1.021	1.033	.186	25.2%
Badly Worn	.999	1.000	.000	.
Fair	1.029	1.026	.112	16.6%
Worn Out	.944	1.000	.000	.
Overall	1.015	1.026	.163	22.8%

Economic Area

Case Processing Summary

	Count	Percent
ECONAREA		
1.00	6	20.0%
3.00	8	26.7%
5.00	1	3.3%
44.00	2	6.7%
49.00	1	3.3%
66.00	12	40.0%
Overall	30	100.0%
Excluded	0	
Total	30	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
1.00	.980	1.097	.175
3.00	.949	.917	.218
5.00	.944	1.000	.000
44.00	1.174	1.020	.151
49.00	1.039	1.000	.000
66.00	1.037	1.075	.138
Overall	1.015	1.026	.163

Vacant Land Median Ratio Stratification

Sale Price

Case Processing Summary

	Count	Percent
SPRec		
LT \$25K	316	62.1%
\$25K to \$50K	120	23.6%
\$50K to \$100K	50	9.8%
\$100K to \$150K	12	2.4%
\$150K to \$200K	6	1.2%
\$200K to \$300K	3	0.6%
\$300K to \$500K	2	0.4%
Overall	509	100.0%
Excluded	0	
Total	509	

Ratio Statistics for CURRLND / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LT \$25K	1.103	1.039	.231	33.1%
\$25K to \$50K	1.037	1.005	.149	22.0%
\$50K to \$100K	.985	1.003	.077	11.9%
\$100K to \$150K	1.022	1.001	.060	9.9%
\$150K to \$200K	.977	.997	.073	12.2%
\$200K to \$300K	.842	.997	.094	15.3%
\$300K to \$500K	.916	.986	.108	15.2%
Overall	1.050	1.093	.202	30.9%

Subclass

Case Processing Summary

	Count	Percent
ABSTRLND	438	86.1%
200.00	3	0.6%
520.00	13	2.6%
530.00	24	4.7%
540.00	17	3.3%
550.00	14	2.8%
Overall	509	100.0%
Excluded	0	
Total	509	

Ratio Statistics for CURRLND / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
100.00	1.066	1.093	.211	31.4%
200.00	.933	1.231	.175	30.2%
520.00	1.002	1.000	.073	10.3%
530.00	1.078	1.057	.184	28.5%
540.00	1.018	1.020	.098	15.5%
550.00	1.005	1.017	.044	6.4%
Overall	1.050	1.093	.202	30.9%

Economic Area

Case Processing Summary

	Count	Percent
ECONAREA	433	85.1%
3.00	47	9.2%
4.00	14	2.8%
5.00	13	2.6%
33.00	2	0.4%
Overall	509	100.0%
Excluded	0	
Total	509	

Ratio Statistics for CURRLND / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
1.00	1.067	1.078	.198
3.00	1.011	1.056	.117
4.00	1.093	1.282	.371
5.00	1.016	1.081	.331
33.00	.986	1.025	.053
Overall	1.050	1.093	.202