2018
FREMONT COUNTY
PROPERTY ASSESSMENT
STUDY

WILDROSE
APPRAISAL, INCORPORATED
Audit Division

WILDROSE
APPRAISAL, INCORPORATED
Audit Division

September 15, 2018

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

RE: Final Report for the 2018 Colorado Property Assessment Study

Dear Mr. Mauer:

Wildrose Appraisal Inc.-Audit Division is pleased to submit the Final Reports for the 2018 Colorado Property Assessment Study.

These reports are the result of two analyses: A procedural audit and a statistical audit.

The procedural audit examines all classes of property. It specifically looks at how the assessor develops economic areas, confirms and qualifies sales, develops time adjustments and performs periodic physical property inspections. The audit reviews the procedures for determining subdivision absorption and subdivision discounting. Valuation methodology is examined for residential properties and commercial properties. Procedures are reviewed for producing mines, oil and gas leaseholds and lands producing, producing coal mines, producing earth and stone products, severed mineral interests, and non-producing patented mining claims.

Statistical audits are performed on vacant land, residential properties, commercial/industrial properties and agricultural land. A statistical analysis is performed for personal property compliance on the eleven largest counties: Adams, Arapahoe, Boulder, Denver, Douglas, El Paso, Jefferson, Larimer, Mesa, Pueblo and Weld. The remaining counties receive a personal property procedural study.

Wildrose Appraisal Inc. – Audit Division appreciates the opportunity to be of service to the State of Colorado. Please contact us with any questions or concerns.

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

TABLE OF CONTENTS

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.

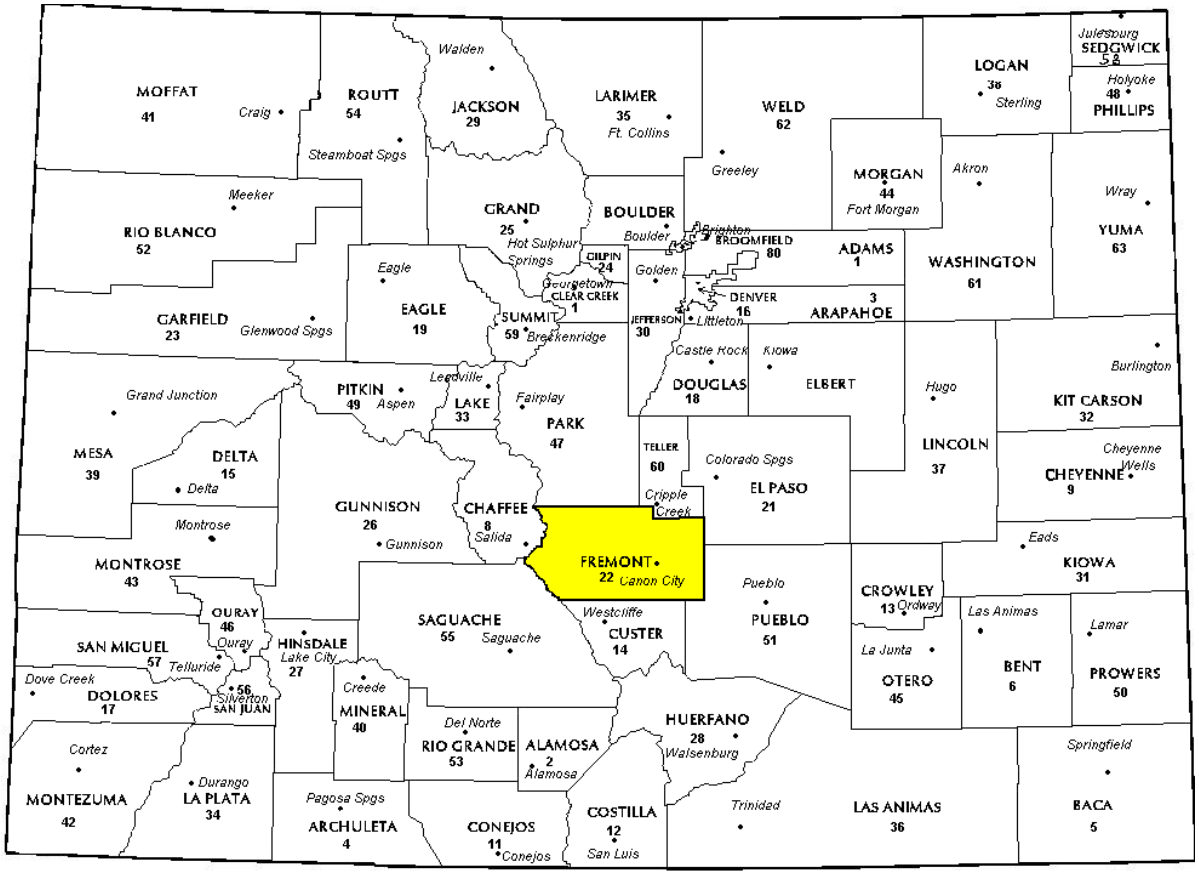
Statistical analysis is performed on vacant land, residential properties, commercial/industrial properties, agricultural land, and personal property. The statistical study results are compared with State Board of Equalization compliance requirements and the manuals published by the State Property Tax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

Wildrose Audit has completed the Property Assessment Study for 2018 and is pleased to report its findings for Fremont County in the following report.

REGIONAL / HISTORICAL SKETCH OF FREMONT COUNTY

Regional Information

Fremont 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

Fremont County had an estimated population of approximately 47,446 people with 30.95 people per square mile, according to the U.S. Census Bureau's 2016 estimated census data. This represents a 1.33 percent change from April 1, 2010 to July 1, 2016.

The County was established in 1861 and has 1,561 square miles in area. It was named for General John C. Fremont and was one of the original seventeen territorial counties. The county seat is Canon City, named for the nearby Grand Canyon of the Arkansas River.

The majestic Royal Gorge Canyon has been the focal point of Fremont County history since prehistoric times. For centuries Ute Indians knew its secrets as did later groups of Spanish Conquistadors. Lt. Zebulon Pike explored the canyon in the winter of 1806 by traveling up the frozen Arkansas River. The county is named for famed explorer, Captain John Fremont, who arrived in 1843. When Cañon City was incorporated in 1872, it was already a bustling little town, even if it was only four blocks long.

The first Colorado Territory prison was built here in 1871, five years before Colorado became a state. Since that early time, Fremont County has been home to a large number of state and federal correction facilities. But corrections are only part of the local history. Natural resource extraction has also been important. As early as 1872 oil was selling from the Oil Creek area. Nearby, large coal reserves provided further impetus for the railroads to push a route through the Royal Gorge to reach the silver mines in Leadville. This legacy of rail travel into the depths of the Royal Gorge is still available today.

Fremont County's scenic canyons, hot springs and hospitable climate began attracting film makers as early as 1910 when cowboy star, Tom Mix starred in a silent film produced by the Selig Film Company. Over the intervening years, many films have been made here.
(Wikipedia.org &fremontco.com)

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, 2015 and June 30, 2016. Counties with less than 30 sales typically extended the sale period back up to 5 years prior to June 30, 2016 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 Fremont County are:

Fremont County Ratio Grid					
Property Class	Number of Qualified Sales	Unweighted Median Ratio	Price Related Differential	Coefficient of Dispersion	Time Trend Analysis
Commercial/Industrial	45	0.982	1.058	12	Compliant
Condominium	N/A	N/A	N/A	N/A	N/A
Single Family	1,185	0.985	1.017	12.2	Compliant
Vacant Land	188	1.007	1.102	19.5	Compliant

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

Fremont 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

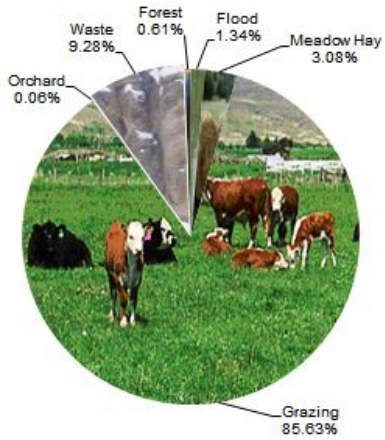
After applying the above described methodologies, it is concluded that Fremont County is reasonably treating its sold and unsold properties in the same manner.

Recommendations

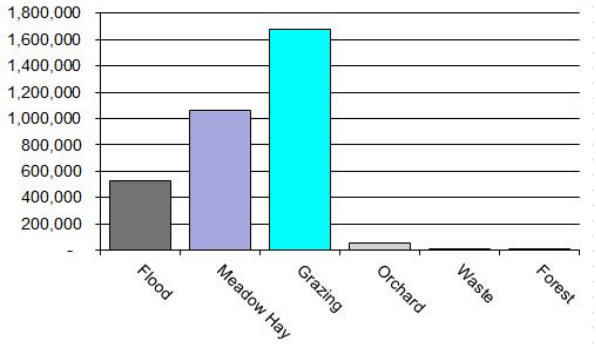
None

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:

Fremont County Agricultural Land Ratio Grid						
Abstract Code	Land Class	Number Of Acres	County Value Per Acre	County Assessed Total Value	WRA Total Value	Ratio
4117	Flood	5,438	119.62	650,481	655,307	0.99
4137	Meadow Hay	9,144	115.68	1,057,750	1,057,750	1.00
4147	Grazing	278,337	6.24	1,737,931	1,737,931	1.00
4157	Orchard	177	307.63	54,451	54,451	1.00
4177	Forest	1,800	2.22	3,999	3,999	1.00
4167	Waste	210	2.22	9,187	9,187	1.00
Total/Avg		**295,106**	**11.91**	**3,513,800**	**3,518,626**	**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.

Conclusions

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

Recommendations

None

Agricultural Land Under Improvements

Methodology

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

Conclusions

Fremont 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.:

- Field Inspections
- Phone Interviews
- In-Person Interviews with Owners/Tenants
- Personal Knowledge of Occupants at Assessment Date

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

- Property Record Card Analysis
- Field Inspections
- Aerial Photography/Pictometry

Fremont 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 2018 for Fremont 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 $500, the contractor has examined and reported the ratio of qualified sales to total sales by class and performed the following analyses of unqualified sales:

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

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

Conclusions

Fremont 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

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

Recommendations

None

NATURAL RESOURCES

Earth and Stone Products

Methodology

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

Conclusions

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

Recommendations

None

Producing Oil and Gas

Methodology

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

STATUTORY REFERENCES

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

Actual value determined - when.

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

§ 39-1-103, C.R.S.

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

Valuation:

Valuation for assessment.

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

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

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

§ 39-7-102, C.R.S.

Conclusions

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

Recommendations

None

VACANT LAND

Subdivision Discounting

Subdivisions were reviewed in 2018 in Fremont 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

Fremont 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.

Fremont 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

Fremont 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

Fremont 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.

Fremont 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.

Fremont County submitted their personal property written audit plan and was current for the 2018 valuation period. The number and listing of businesses audited was also submitted and was in conformance with the written audit plan. The following audit triggers were used by the county to select accounts to be audited:

- Businesses in a selected area
- Accounts with obvious discrepancies
- New businesses filing for the first time
- Incomplete or inconsistent declarations
- Accounts with omitted property
- Businesses with no deletions or additions for 2 or more years

- Non-filing Accounts - Best Information Available
- Accounts close to the $7,400 actual value exemption status
- Accounts protested with substantial disagreement

Conclusions

Fremont 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*

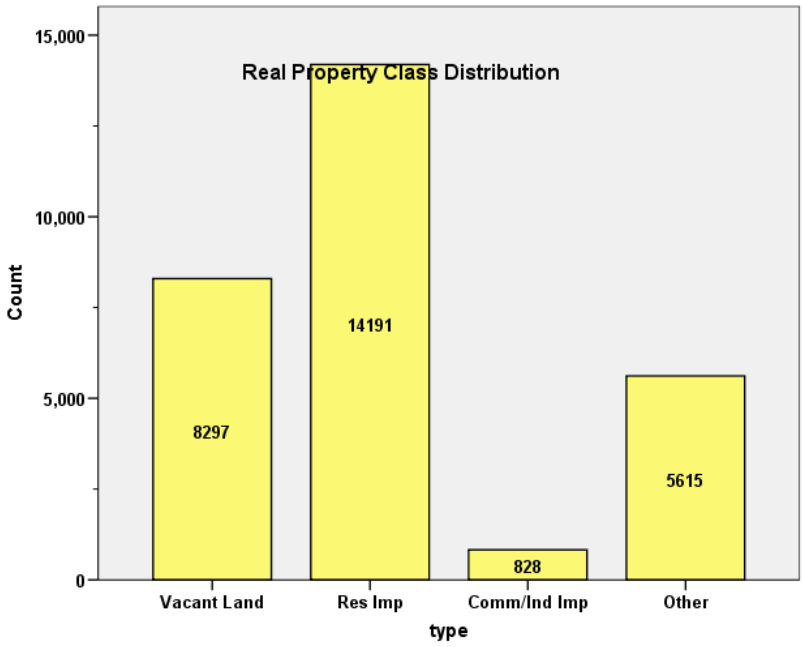
J. Andrew Rodriguez, *Field Analyst*

APPENDICES

STATISTICAL COMPLIANCE REPORT
FOR FREMONT COUNTY
2018

I. OVERVIEW

Fremont County is located in central Colorado. The county has a total of 28,931 property parcels, according to data submitted by the county assessor's office in 2018. 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 75.4% of all vacant land parcels.

For residential improved properties, single family properties accounted for 96.8% of all residential properties.

Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial sales accounted for 2.9% of all such properties in this county.

II. DATA FILES

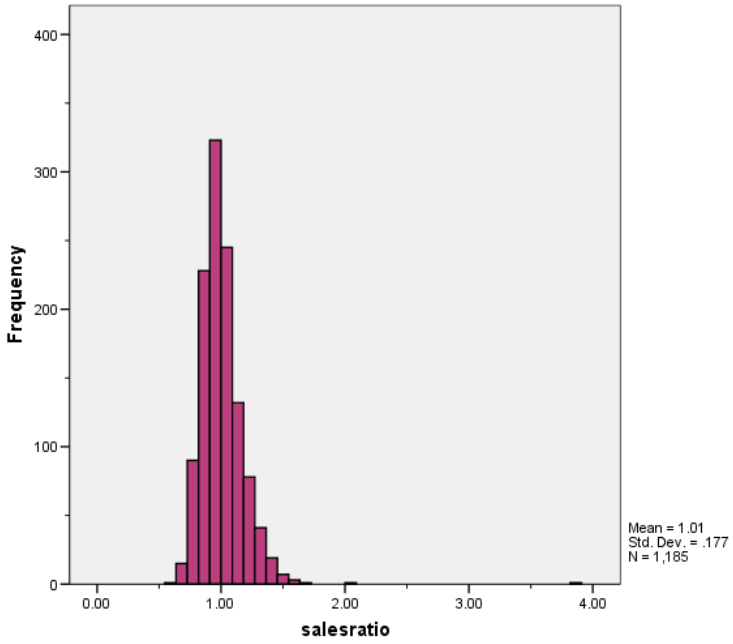
The following sales analyses were based on the requirements of the 2018 Colorado Property Assessment Study. Information was provided by the Fremont Assessor's Office in June 2018. The data included all 5 property record files as specified by the Auditor.

III. RESIDENTIAL SALES RESULTS

There were 1,185 qualified residential sales for the 18 month sale period ending June 30, 2016. The sales ratio analysis was as follows:

Median	**0.985**
Price Related Differential	**1.017**
Coefficient of Dispersion	**12.2**

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



The above graphs indicate that the distribution of the sale ratios was within state mandated limits. No sales were trimmed.

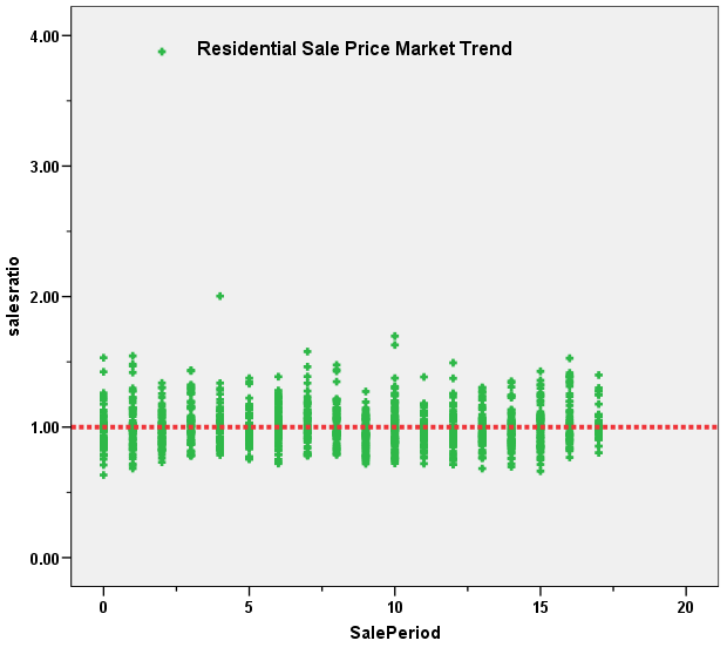
Residential Market Trend Analysis

We next analyzed the residential dataset using the 18-month sale period for any residual market trending, with the following results:

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1.005	.010		102.787	.000
	SalePeriod	.000	.001	.003	.119	.905

a. Dependent Variable: salesratio



There was no statistically significant market trend in the above residential sales ratios; therefore, we 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 2018 median value per square feet between both groups, as follows:

Report
VALSF

sold	N	Median	Mean
UNSOLD	10	$120	$119
SOLD	1123	$107	$110

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	.269	Retain the null hypothesis.

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

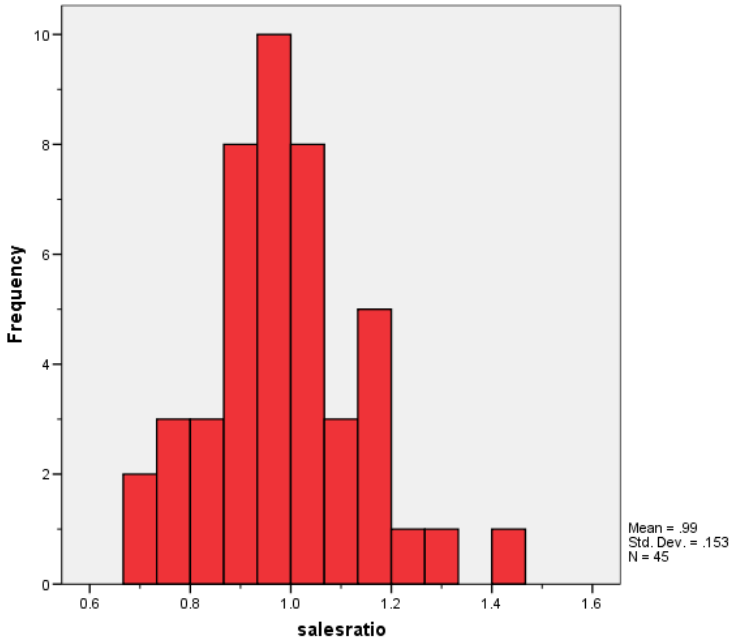
The above results indicate that sold and unsold residential properties were valued in a consistent manner.

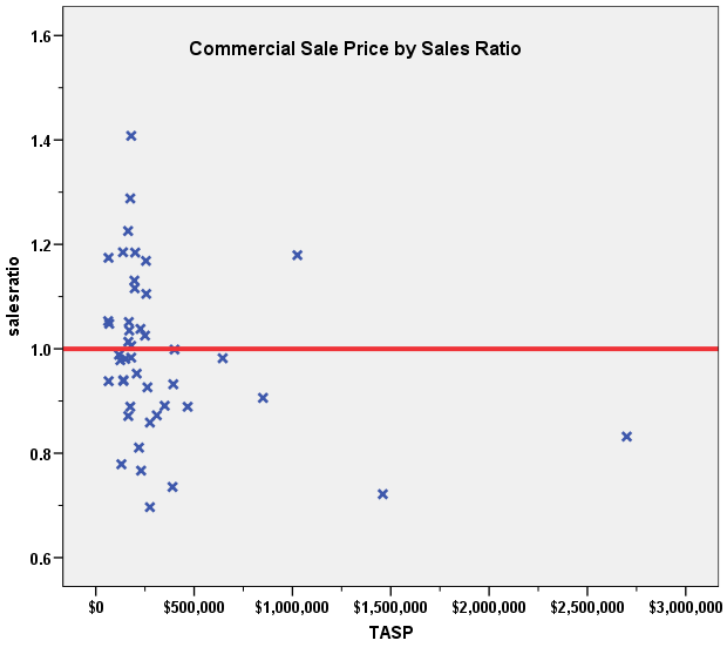
IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

There were 45 qualified commercial and industrial sales for the 18 month sale period ending June 30, 2016. The sales ratio analysis was as follows:

Median	**0.982**
Price Related Differential	**1.058**
Coefficient of Dispersion	**12.0**

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





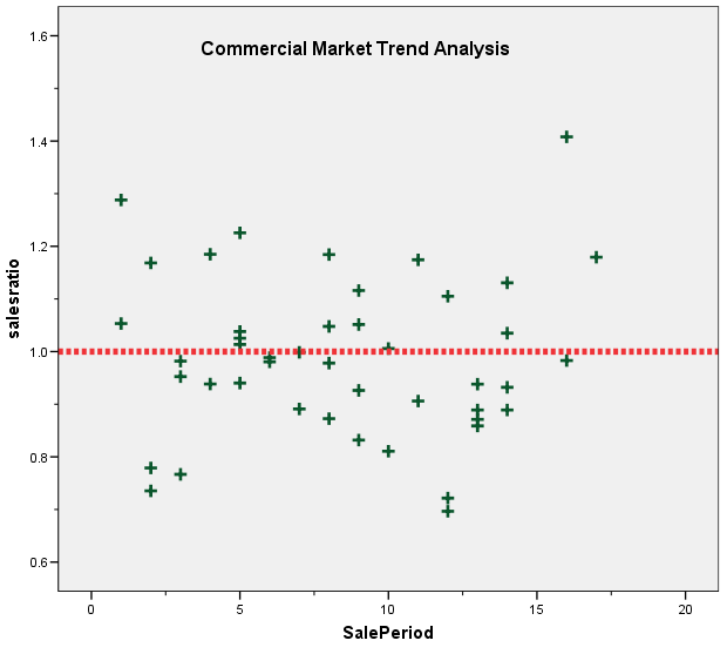
Commercial Market Trend Analysis

The 45 commercial/industrial sales were next analyzed, examining the sale ratios across the 18-month sale period with the following results:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.984	.050		19.859	.000
	SalePeriod	.001	.005	.017	.111	.912

a. Dependent Variable: salesratio



The market trend results indicated no statistically significant trend, especially when considering the low number of sales.

Sold/Unsold Analysis

We compared the median change in actual value between taxable years 2016 and 2018 for commercial and industrial properties to determine if sold and unsold properties were valued consistently, as follows:

Report

DIFF

sold	N	Median	Mean
UNSOLD	779	1.00	1.04
SOLD	45	1.04	1.14

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	.003	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .00.

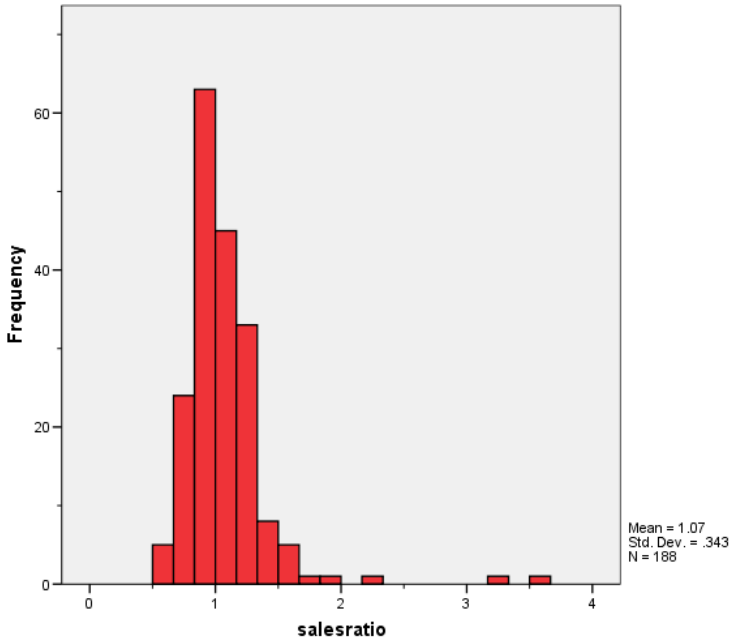
Based on these results, we concluded that the Fremont County Assessor has valued sold and unsold commercial properties consistently.

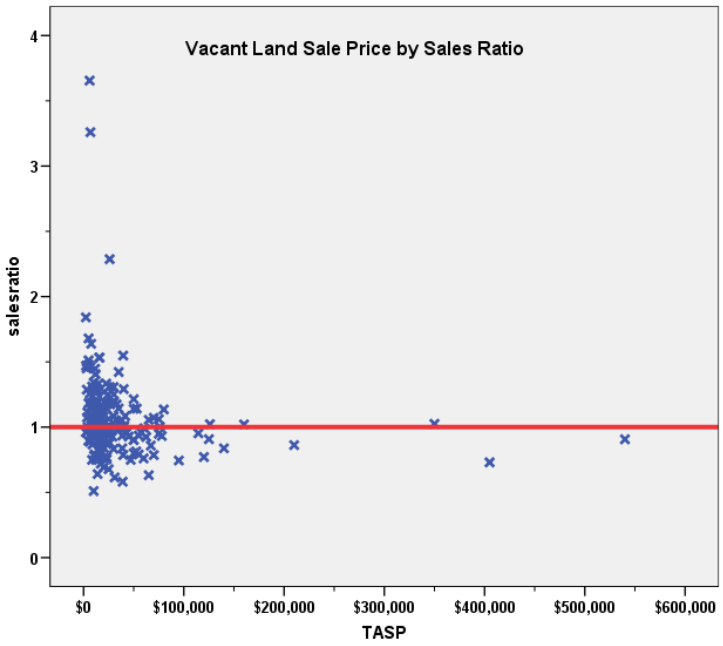
V. VACANT LAND SALE RESULTS

There were 188 qualified vacant land sales for the 18 month sale period ending June 30, 2016. The sales ratio analysis was as follows:

Median	**1.007**
Price Related Differential	**1.102**
Coefficient of Dispersion	**19.5**

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





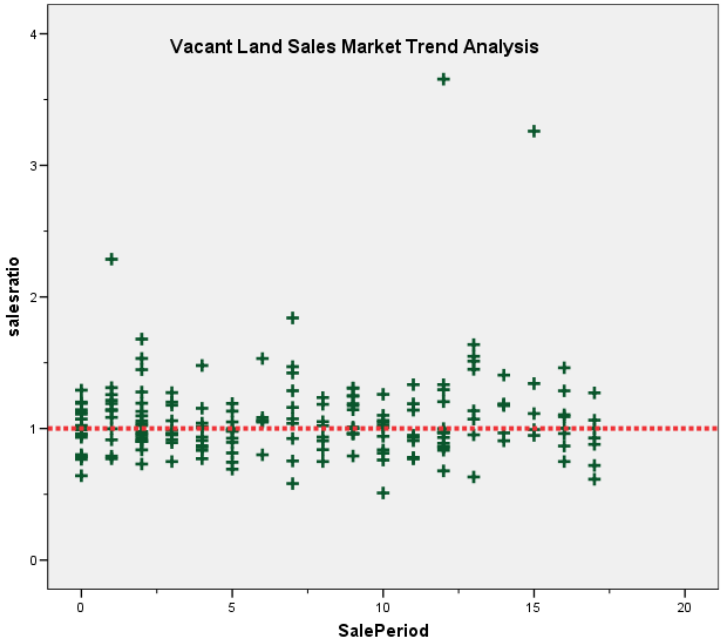
Vacant Land Market Trend Analysis

The 188 vacant land sales were next analyzed, examining the sale ratios across the 18 month sale period with the following results:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.028	.043		23.967	.000
	SalePeriod	.006	.005	.090	1.229	.221

a. Dependent Variable: salesratio



The market trend results indicated no statistically significant trend. We concluded that the assessor adequately considered market trending in the vacant land sale data.

Sold/Unsold Analysis

We compared the median change in actual value between taxable years 2016 and 2018 for vacant land properties to determine if sold and unsold properties were valued consistently, as follows:

Report

DIFF

sold	N	Median	Mean
UNSOLD	7965	1.00	1.03
SOLD	176	1.00	1.00

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	.110	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .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 assigned actual values for agricultural residential improvements. We compared the change in actual value from 2016 to 2018, using the same methodology as was used in the sold and unsold comparison analysis.

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	13327	$80.50	$82.51
4277	54	$91.74	$93.47

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	.018	Retain the null hypothesis.

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

VII. CONCLUSIONS

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

STATISTICAL ABSTRACT
Residential

Ratio Statistics for CURRTOT / TASP

	95% Confidence Interval for Mean			95% Confidence Interval for Median				95% Confidence Interval for Weighted Mean				Coefficient of Variation
Mean	Lower Bound	Upper Bound	Median	Lower Bound	Upper Bound	Actual Coverage	Weighted Mean	Lower Bound	Upper Bound	Price Related Differential	Coefficient of Dispersion	Mean Centered
1.006	.996	1.016	.985	.977	.994	95.2%	.989	.980	.999	1.017	.122	17.6%

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.

Commercial/Industrial

Ratio Statistics for CURRTOT / TASP

	95% Confidence Interval for Mean			95% Confidence Interval for Median				95% Confidence Interval for Weighted Mean				Coefficient of Variation
Mean	Lower Bound	Upper Bound	Median	Lower Bound	Upper Bound	Actual Coverage	Weighted Mean	Lower Bound	Upper Bound	Price Related Differential	Coefficient of Dispersion	Mean Centered
.989	.943	1.035	.982	.932	1.035	96.4%	.934	.862	1.006	1.058	.120	15.5%

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

	95% Confidence Interval for Mean			95% Confidence Interval for Median				95% Confidence Interval for Weighted Mean				Coefficient of Variation
Mean	Lower Bound	Upper Bound	Median	Lower Bound	Upper Bound	Actual Coverage	Weighted Mean	Lower Bound	Upper Bound	Price Related Differential	Coefficient of Dispersion	Mean Centered
1.071	1.022	1.121	1.007	.976	1.050	95.1%	.972	.930	1.015	1.102	.195	32.0%

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

Residential Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	LT $25K	2	0.2%
	$25K to $50K	17	1.4%
	$50K to $100K	185	15.6%
	$100K to $150K	368	31.1%
	$150K to $200K	290	24.5%
	$200K to $300K	251	21.2%
	$300K to $500K	69	5.8%
	$500K to $750K	1	0.1%
	$750K to $1,000K	1	0.1%
	Over $1,000K	1	0.1%
Overall		1185	100.0%
Excluded		0	
Total		1185	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LT $25K	1.330	.999	.018	2.6%
$25K to $50K	1.259	1.009	.150	22.8%
$50K to $100K	1.079	1.009	.159	26.1%
$100K to $150K	.987	1.000	.110	13.9%
$150K to $200K	.971	1.000	.104	13.4%
$200K to $300K	.969	1.000	.103	13.2%
$300K to $500K	.956	1.001	.097	12.3%
$500K to $750K	1.068	1.000	.000	.
$750K to $1,000K	1.175	1.000	.000	.
Over $1,000K	1.304	1.000	.000	.
Overall	.985	1.017	.122	18.1%

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	1212	1156	97.6%
	1215	12	1.0%
	1216	1	0.1%
	1220	5	0.4%
	1225	2	0.2%
	1230	9	0.8%
Overall		1185	100.0%
Excluded		0	
Total		1185	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1212	.985	1.019	.122	18.2%
1215	.914	.997	.107	13.7%
1216	.803	1.000	.000	.
1220	.895	.986	.112	15.4%
1225	1.075	.908	.213	30.1%
1230	.972	1.008	.106	15.7%
Overall	.985	1.017	.122	18.1%

Improvement Size

Case Processing Summary

		Count	Percent
ImpSFRec	0	62	5.2%
	LE 500 sf	2	0.2%
	500 to 1,000 sf	164	13.8%
	1,000 to 1,500 sf	435	36.7%
	1,500 to 2,000 sf	367	31.0%
	2,000 to 3,000 sf	137	11.6%
	3,000 sf or Higher	18	1.5%
Overall		1185	100.0%
Excluded		0	
Total		1185	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
0	.979	.983	.108	14.2%
LE 500 sf	.907	1.048	.190	26.8%
500 to 1,000 sf	.964	1.040	.139	19.2%
1,000 to 1,500 sf	.986	1.025	.123	17.1%
1,500 to 2,000 sf	.983	1.017	.116	20.7%
2,000 to 3,000 sf	.999	1.016	.119	14.9%
3,000 sf or Higher	1.073	.997	.119	14.5%
Overall	.985	1.017	.122	18.1%

Commercial Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	$50K to $100K	4	8.9%
	$100K to $150K	7	15.6%
	$150K to $200K	13	28.9%
	$200K to $300K	10	22.2%
	$300K to $500K	6	13.3%
	$500K to $750K	1	2.2%
	$750K to $1,000K	1	2.2%
	Over $1,000K	3	6.7%
Overall		45	100.0%
Excluded		0	
Total		45	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
$50K to $100K	1.050	1.000	.058	9.2%
$100K to $150K	.978	.999	.073	12.2%
$150K to $200K	1.051	.998	.114	15.3%
$200K to $300K	.939	1.001	.131	16.2%
$300K to $500K	.890	.999	.061	9.8%
$500K to $750K	.982	1.000	.000	.
$750K to $1,000K	.906	1.000	.000	.
Over $1,000K	.832	1.048	.183	31.0%
Overall	.982	1.058	.120	15.6%

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	0	1	2.2%
	1212	2	4.4%
	2212	13	28.9%
	2215	3	6.7%
	2220	6	13.3%
	2221	2	4.4%
	2225	2	4.4%
	2230	8	17.8%
	2235	6	13.3%
	2718	1	2.2%
	3215	1	2.2%
Overall		45	100.0%
Excluded		0	
Total		45	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
0	1.035	1.000	.000	.
1212	.971	1.009	.165	23.3%
2212	.982	.969	.106	14.5%
2215	.906	1.162	.185	28.8%
2220	1.052	1.013	.076	10.8%
2221	1.023	1.017	.024	3.4%
2225	.860	1.024	.033	4.7%
2230	.981	1.001	.154	23.1%
2235	.963	1.006	.080	11.6%
2718	.735	1.000	.000	.
3215	.859	1.000	.000	.
Overall	.982	1.058	.120	15.6%

Vacant Land Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	LT $25K	119	63.3%
	$25K to $50K	40	21.3%
	$50K to $100K	19	10.1%
	$100K to $150K	5	2.7%
	$150K to $200K	1	0.5%
	$200K to $300K	1	0.5%
	$300K to $500K	2	1.1%
	$500K to $750K	1	0.5%
Overall		188	100.0%
Excluded		0	
Total		188	

Ratio Statistics for CURRLND / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LT $25K	1.047	1.048	.207	37.3%
$25K to $50K	1.005	1.015	.181	28.7%
$50K to $100K	.935	1.000	.120	15.2%
$100K to $150K	.908	1.001	.081	10.9%
$150K to $200K	1.021	1.000	.000	.
$200K to $300K	.863	1.000	.000	.
$300K to $500K	.878	1.012	.168	23.8%
$500K to $750K	.907	1.000	.000	.
Overall	1.007	1.102	.195	34.6%

Subclass

Case Processing Summary

		Count	Percent
ABSTRLND	100	143	76.1%
	300	1	0.5%
	350	2	1.1%
	475	1	0.5%
	500	1	0.5%
	520	1	0.5%
	530	1	0.5%
	540	4	2.1%
	550	6	3.2%
	560	2	1.1%
	580	1	0.5%
	1112	20	10.6%
	1135	2	1.1%
	2120	1	0.5%
	2125	1	0.5%
	2130	1	0.5%
Overall		188	100.0%
Excluded		0	
Total		188	

Ratio Statistics for CURRLND / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
100	1.010	1.056	.169	22.1%
300	1.308	1.000	.000	.
350	1.918	1.041	.193	27.2%
475	3.259	1.000	.000	.
500	1.533	1.000	.000	.
520	.786	1.000	.000	.
530	1.056	1.000	.000	.
540	1.046	1.051	.239	37.2%
550	.870	.996	.088	11.3%
560	.932	1.010	.026	3.7%
580	.907	1.000	.000	.
1112	1.000	1.126	.237	62.7%
1135	.943	1.003	.008	1.1%
2120	1.002	1.000	.000	.
2125	1.026	1.000	.000	.
2130	.730	1.000	.000	.
Overall	1.007	1.102	.195	34.6%