2017 JEFFERSON COUNTY PROPERTY ASSESSMENT STUDY

WILDROSE
APPRAISAL, INCORPORATED
Audit Division

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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.

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

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INTRODUCTION

The State Board of Equalization (SBOE) reviews assessments for conformance to the Constitution. The SBOE will order revaluations for counties whose valuations do not reflect the proper valuation period level of value.

The statutory basis for the audit is found in C.R.S. 39-1-104 (16)(a)(b) and (c).

The legislative council sets forth two criteria that are the focus of the audit group:

To determine whether each county assessor is applying correctly the constitutional and statutory provisions, compliance requirements of the State Board of Equalization, and the manuals published by the State Property Tax Administrator to arrive at the actual value of each class of property.

To determine if each assessor is applying correctly the provisions of law to the actual values when arriving at valuations for assessment of all locally valued properties subject to the property tax.

The property assessment audit conducts a two-part analysis: A procedural analysis and a statistical analysis.

The procedural analysis includes all classes of property and specifically looks at how the assessor develops economic areas, confirms and qualifies sales, and develops time adjustments. The audit also examines the procedures for adequately discovering, classifying and valuing agricultural outbuildings, discovering subdivision build-out 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 Jefferson County in the following report.

REGIONAL/HISTORICAL SKETCH OF JEFFERSON COUNTY

Regional Information

Jefferson County is located in the Front Range region of Colorado. The Colorado Front Range is a colloquial geographic term for the populated areas of the State that are just east of the foothills of the Front Range. It includes Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, El Paso, Jefferson, Larimer, Pueblo, and Weld counties.
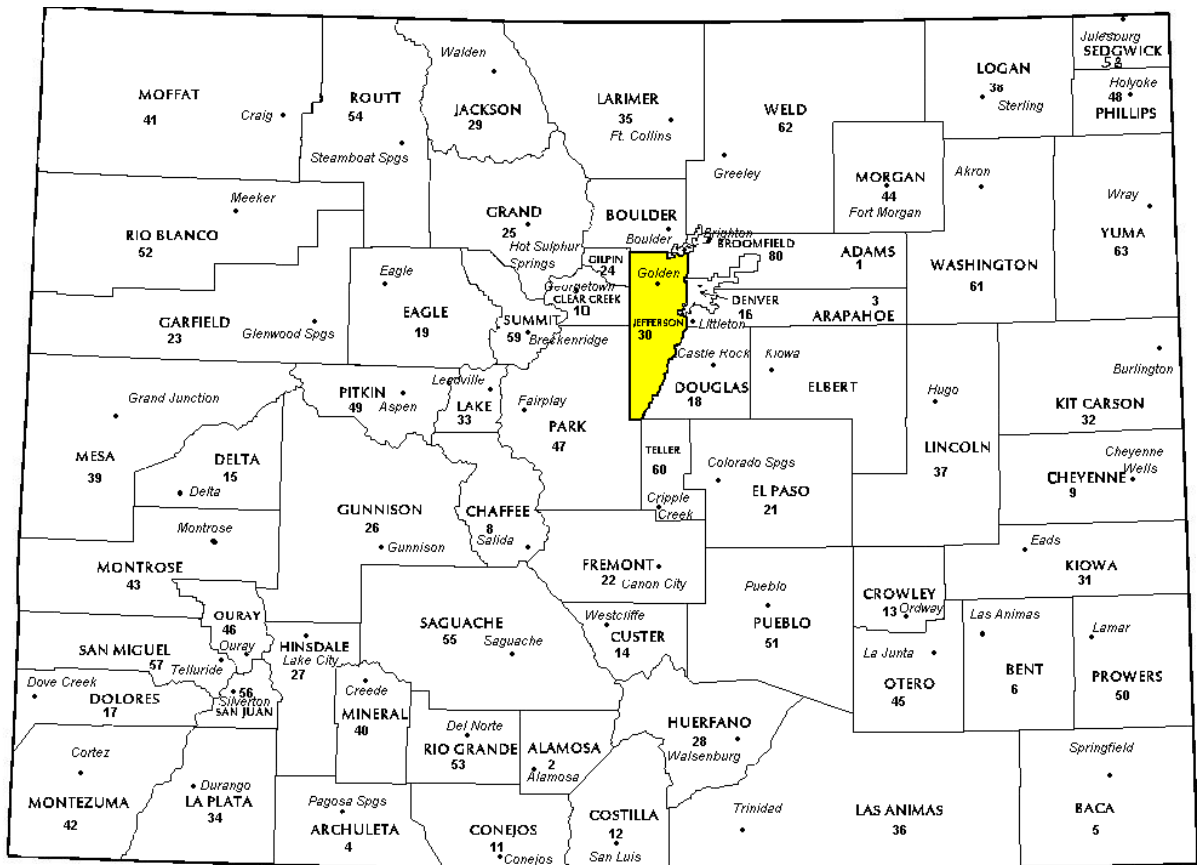
Historical Information

Jefferson County had an estimated population of approximately 571,837 people with 748.5 people per square mile, according to the U.S. Census Bureau's 2016 estimated census data. This represents a 7.0 percent change from April 1, 2010 to July 1, 2016.

Jefferson County is one of the seventeen original territorial counties. On August 25, 1855, the Kansas Territorial Legislature created Arapahoe County to govern the entire western portion of the territory. The county was named for the Arapaho Nation of Native Americans that lived in the region.

In July 1858, gold was discovered along the South Platte River in Arapahoe County (in present day Englewood). This discovery precipitated the Pike's Peak Gold Rush. Many residents of the mining region felt disconnected from the remote territorial governments of Kansas and Nebraska, so they voted to form their own Territory of Jefferson on October 24, 1959. The following month, the Jefferson Territorial Legislature organized 12 counties for the new territory, including Jefferson County. Jefferson County was named for the namesake of the Jefferson Territory, Thomas Jefferson, the principal author of the Declaration of Independence and the nation's third president. Golden City served as the county seat of Jefferson County. Robert Williamson Steele, Governor of the Provisional Government of the Territory of Jefferson from 1859 to 1861, built his home in the county at Mount Vernon and later at Apex.

The Jefferson Territory never received federal sanction, but during his last week in office, President James Buchanan signed an act which organized the Territory of Colorado on February 28, 1861. That November 1, the new Colorado General Assembly organized the 17 original counties of Colorado, including a new Jefferson County. In 1908, the southern tip of Jefferson County was transferred to Park County, reducing Jefferson County to its present length of 54 miles. Several annexations by the City & County of Denver and the 2001 consolidation of the City & County of Broomfield removed eastern portions of the county.

A major employer in Jefferson County is the large Coors Brewing Company in Golden. Also, the state-supported Colorado School of Mines is located in Jefferson County, offering programs in mining and engineering. The county seat is Golden and the most populous city is Lakewood.

(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 Jefferson County are:

Jefferson County Ratio Grid					
Property Class	Number of Qualified Sales	Unweighted Median Ratio	Price Related Differential	Coefficient of Dispersion	Time Trend Analysis
Commercial/Industrial	436	0.984	1.106	13.1	Compliant
Condominium	N/A	N/A	N/A	N/A	N/A
Single Family	23,027	0.988	1.013	9.0	Compliant
Vacant Land	501	0.978	1.085	19.0	Compliant

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion
1	.978	1.009	.079
2	1.013	1.020	.107
3	.991	1.013	.091
4	.983	1.010	.074
5	.978	1.013	.079
6	.996	1.006	.111
7	.993	1.027	.114
8	.997	1.009	.113
9	.987	1.012	.100
11	1.019	.997	.027
12	.995	1.124	.055
20	.949	1.009	.028
22	1.014	1.000	.038
23	.997	.981	.071
26	1.036	.994	.021
33	1.031	1.037	.036
44	1.001	.955	.126
58	1.130	1.047	.068
99	.985	1.018	.092
Overall	.988	1.013	.090

After applying the above described methodologies, it is concluded from the sales ratios that Jefferson County is in compliance with SBOE, DPT, and Colorado State Statute valuation guidelines.

Recommendations

None

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 Jefferson County has complied with the statutory requirements to analyze the effects of time on value in their county. Jefferson 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

Jefferson 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 Jefferson County is reasonably treating its sold and unsold properties in the same manner.

Recommendations

None

AGRICULTURAL LAND STUDY
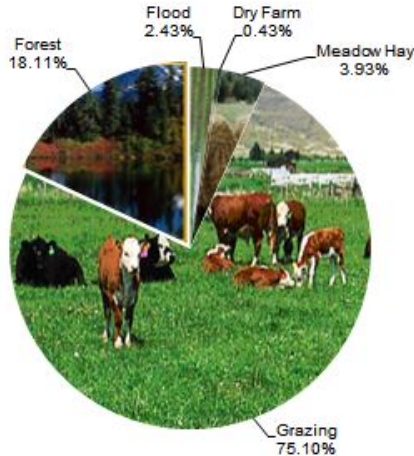
Acres By Subclass	Value By Subclass
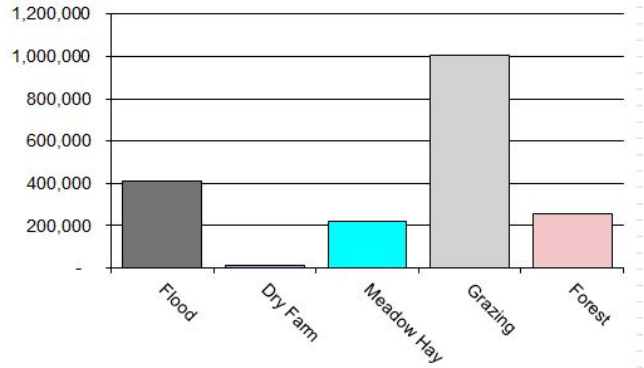
Agricultural Land

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:

Jefferson 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	1,797	227.07	408,072	409,494	1.00
4127	Dry Farm	318	37.99	12,094	11,962	1.01
4137	Meadow Hay	2,904	76.81	223,017	223,017	1.00
4147	Grazing	55,522	18.09	1,004,182	1,004,182	1.00
4177	Forest	13,389	19.14	256,257	256,086	1.00
Total/Avg		73,930	25.75	1,903,631	1,904,741	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

Jefferson 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

Jefferson 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
- Written Correspondence other than Questionnaire
- Personal Knowledge of Occupants at Assessment Date
- Aerial Photography/Pictometry

Jefferson 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
- Phone Interviews
- In-Person Interviews with Owners/Tenants
- Aerial Photography/Pictometry

Jefferson 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 Jefferson County. This study was conducted by checking selected sales from the master sales list for the current valuation period. Specifically WRA selected 67 sales listed as unqualified.

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

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.

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

Conclusions

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

Recommendations

None

ECONOMIC AREA REVIEW AND EVALUATION

Methodology

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

Recommendations

None

NATURAL RESOURCES

Earth and Stone Products

Methodology

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

Conclusions

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

Recommendations

None

VACANT LAND

Subdivision Discounting

Subdivisions were reviewed in 2017 in Jefferson 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

Jefferson 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.

Jefferson 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

Jefferson 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

Jefferson 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.

Jefferson 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
- Chamber of Commerce/Economic Development Contacts
- Local Telephone Directories, Newspapers or Other Local Publications
- Personal Observation, Physical Canvassing or Word of Mouth

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.

Jefferson 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:

- Businesses in a selected area
- Accounts with obvious discrepancies
- Incomplete or inconsistent declarations
- Same business type or use
- Non-filing Accounts - Best Information Available
- Accounts protested with substantial disagreement

Jefferson County's median ratio is 1.00. This is in compliance with the State Board of Equalization (SBOE) compliance requirements which range from .90 to 1.10 with no COD requirements.

Conclusions

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

Recommendations

None

WILDROSE AUDITOR STAFF

Harry J. Fuller, *Audit Project Manager*

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

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APPENDICES

STATISTICAL COMPLIANCE REPORT
FOR JEFFERSON COUNTY
2017

I. OVERVIEW

Jefferson County is an urban county located along Colorado's Front Range. The county has a total of 217,208 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:
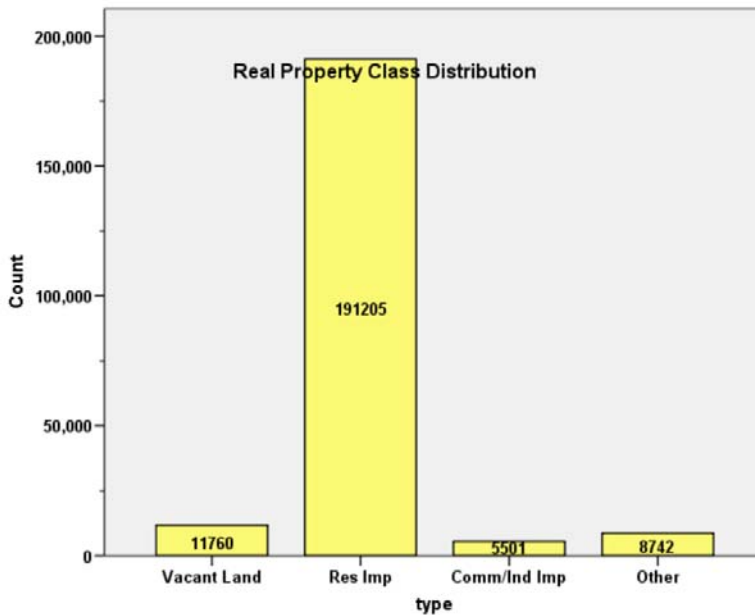
The vacant land class of properties was dominated by residential land. Residential lots (coded 100 and 1112) accounted for 78.3% of all vacant land parcels.

For residential improved properties, single family properties accounted for 91.1% of all residential properties.

Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial properties accounted for 2.7% 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 Jefferson 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 23,027 qualified residential sales in the 24 month period ending June 30, 2016. The sales ratio analysis results were as follows:

Case Processing Summary

		Count	Percent
ECONAREA	1	3247	14.1%
	2	3779	16.4%
	3	4190	18.2%
	4	4347	18.9%
	5	1985	8.6%
	6	656	2.8%
	7	106	0.5%
	8	983	4.3%
	9	1033	4.5%
	11	2	0.0%
	12	35	0.2%
	20	2	0.0%
	22	55	0.2%
	23	46	0.2%
	26	6	0.0%
	33	5	0.0%
	44	4	0.0%
	58	4	0.0%
	99	2542	11.0%
Overall		23027	100.0%
Excluded		0	
Total		23027	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion
1	.978	1.009	.079
2	1.013	1.020	.107
3	.991	1.013	.091
4	.983	1.010	.074
5	.978	1.013	.079
6	.996	1.006	.111
7	.993	1.027	.114
8	.997	1.009	.113
9	.987	1.012	.100
11	1.019	.997	.027
12	.995	1.124	.055
20	.949	1.009	.028
22	1.014	1.000	.038
23	.997	.981	.071
26	1.036	.994	.021
33	1.031	1.037	.036
44	1.001	.955	.126
58	1.130	1.047	.068
99	.985	1.018	.092
Overall	.988	1.013	.090

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. Economic areas with ratios statistics out of compliance had very low sale totals. The following graphs describe further the sales ratio distribution for these properties:

Mean = 1.00
Std. Dev. = .152
N = 23,027

Residential Sale Price by Sales Ratio
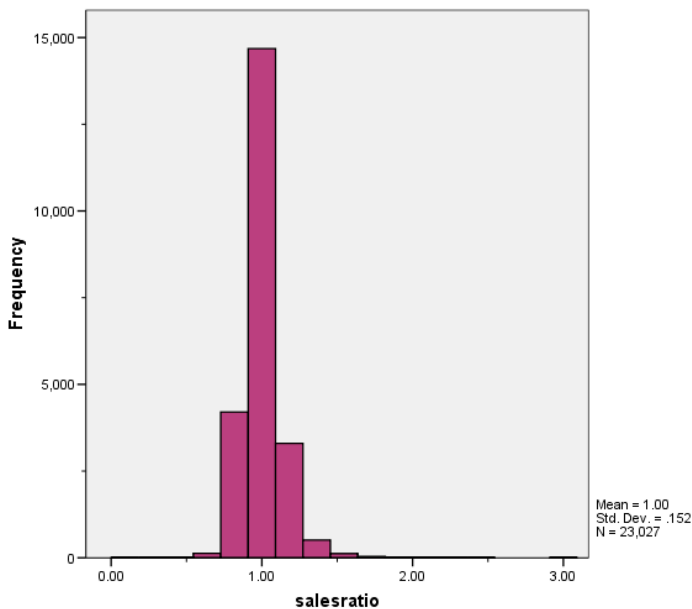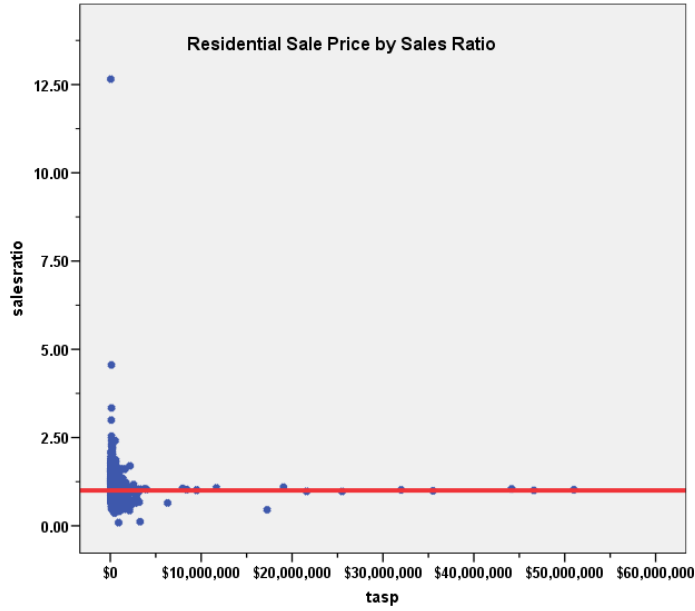
The above graphs indicate that the distribution of the sale ratios was within state mandated limits.

Residential Market Trend Analysis

We next analyzed the residential dataset using the 24-month sale period for any residual market trending and broken down by economic area, as follows:

Coefficients[a]

ECONAREA	Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	1	(Constant)	.985	.004		240.738	.000
		SalePeriod	.001	.000	.037	2.125	.034
2	1	(Constant)	1.026	.005		209.590	.000
		SalePeriod	.001	.000	.034	2.068	.039
3	1	(Constant)	.998	.004		262.025	.000
		SalePeriod	.001	.000	.029	1.876	.061
4	1	(Constant)	.989	.003		298.419	.000
		SalePeriod	.000	.000	.024	1.615	.106
5	1	(Constant)	.984	.011		86.554	.000
		SalePeriod	.000	.001	.003	.148	.882
6	1	(Constant)	1.028	.011		93.070	.000
		SalePeriod	-.001	.001	-.049	-1.254	.210
7	1	(Constant)	.959	.033		29.387	.000
		SalePeriod	.005	.002	.184	1.909	.059
8	1	(Constant)	1.038	.009		117.283	.000
		SalePeriod	-.003	.001	-.128	-4.033	.000
9	1	(Constant)	1.015	.008		128.132	.000
		SalePeriod	-.001	.001	-.073	-2.361	.018
12	1	(Constant)	.953	.032		29.378	.000
		SalePeriod	.004	.003	.254	1.511	.140
44	1	(Constant)	.849	.542		1.568	.257
		SalePeriod	.009	.056	.116	.166	.884
99	1	(Constant)	.960	.005		182.924	.000
		SalePeriod	.003	.000	.145	7.402	.000

a. Dependent Variable: salesratio

There was no residual significant market trending present in the sale ratio data for any of the economic areas; economic areas with statistically significant trends were not significant in terms of magnitude. 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 median actual value per square foot for 2017 between each group. The data was analyzed both as a whole and broken down by economic area, as follows:

Report

VALSF

sold	N	Median	Mean
UNSOLD	168,178	$215	$228
SOLD	23,027	$215	$229

Report

VALSF

ECONAREA	sold	N	Median	Mean
1.00	UNSOLD	23,643	$199	$208
	SOLD	3,247	$206	$216
2.00	UNSOLD	33,343	$242	$247
	SOLD	3,779	$247	$254
3.00	UNSOLD	33,598	$218	$225
	SOLD	4,190	$219	$229
4.00	UNSOLD	33,317	$202	$211
	SOLD	4,347	$209	$218
5.00	UNSOLD	7,320	$214	$226
	SOLD	1,985	$208	$215
6.00	UNSOLD	7,206	$265	$277
	SOLD	656	$278	$287
7.00	UNSOLD	1,111	$236	$252
	SOLD	106	$247	$262
8.00	UNSOLD	7,950	$267	$280
	SOLD	983	$282	$293
9.00	UNSOLD	8,814	$244	$252
	SOLD	1,033	$262	$268
12.00	UNSOLD	253	$131	$159
	SOLD	35	$131	$138
22.00	UNSOLD	399	$128	$141
	SOLD	55	$142	$142
23.00	UNSOLD	321	$128	$140
	SOLD	46	$135	$146

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

IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

There were 436 qualified commercial/industrial sales in the 24 month period ending June 30, 2016. The sales ratio analysis was analyzed as follows:

Median	0.984
Price Related Differential	1.106
Coefficient of Dispersion	13.1

The above table indicates that the Jefferson 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 Sale Price by Sales Ratio
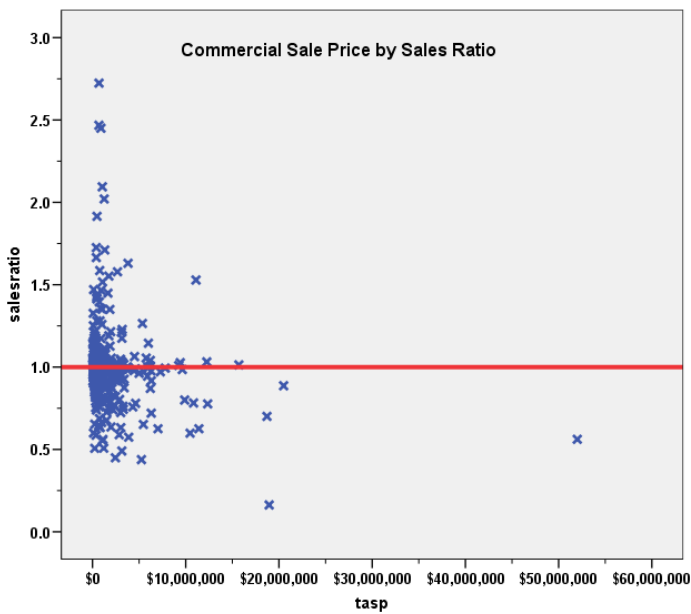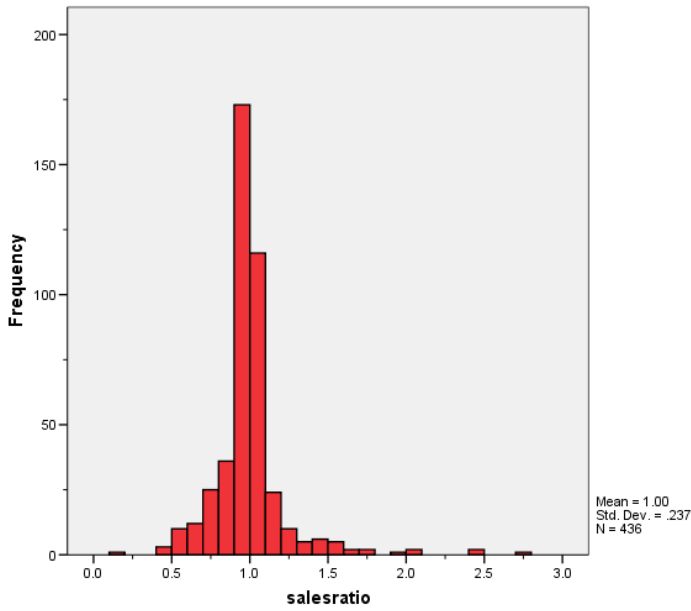
Commercial/Industrial Market Trend Analysis

The commercial/industrial sales were analyzed for residual marketing trending by examining the sale ratios across the 24 month sale period with the following results:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.986	.021		46.002	.000
	SalePeriod	.001	.002	.027	.553	.580

a. Dependent Variable: salesratio
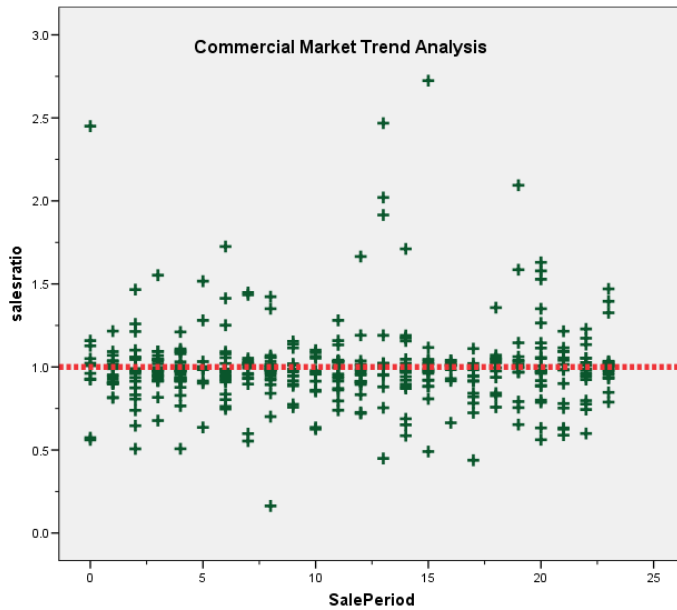
There was no residual market trending present in the commercial sale ratios. We concluded that the assessor has adequately considered market trending adjustments as part of the commercial/industrial valuation.

Sold/Unsold Analysis

We compared the 2017 median value per square foot between sold and unsold commercial/industrial properties to determine if they were valued consistently, as follows:

Report
VALSF

sold	N	Median	Mean
UNSOLD	5,070	$111	$148
SOLD	436	$135	$163

Given that there was some difference between sold and unsold commercial/industrial properties overall, we employed the second comparison analysis that compared the median change in actual value for taxable years 2016 and 2017 to determine if sold and unsold properties were valued consistently, as follows:

Report

DIFF

sold	N	Median	
UNSOLD	5,051	1.22	1.49
SOLD	417	1.35	1.51

Report

DIFF

ABSTRIMP	sold	N	Median	Mean
2212.00	UNSOLD	1,292	1.19	1.36
	SOLD	93	1.40	1.50
2220.00	UNSOLD	550	1.25	1.35
	SOLD	65	1.39	1.51
2225.00	UNSOLD	47	1.07	1.17
	SOLD	5	.81	.88
2230.00	UNSOLD	1,105	1.23	1.56
	SOLD	77	1.64	1.96
2235.00	UNSOLD	731	1.51	1.84
	SOLD	51	1.49	1.64
2245.00	UNSOLD	419	1.01	1.04
	SOLD	20	1.01	1.00
3215.00	UNSOLD	57	1.35	1.63
	SOLD	4	1.29	1.33
3230.00	UNSOLD	671	1.29	1.67
	SOLD	93	1.20	1.24

The above results indicated that sold and unsold commercial/industrial properties were valued consistently.

V. VACANT LAND SALE RESULTS

There were 501 qualified vacant land sales for the 24 month period ending June 30, 2016. The sales ratio analysis results were as follows:

Median	0.978
Price Related Differential	1.085
Coefficient of Dispersion	19.0

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

Vacant Land Sale Price by Sales Ratio
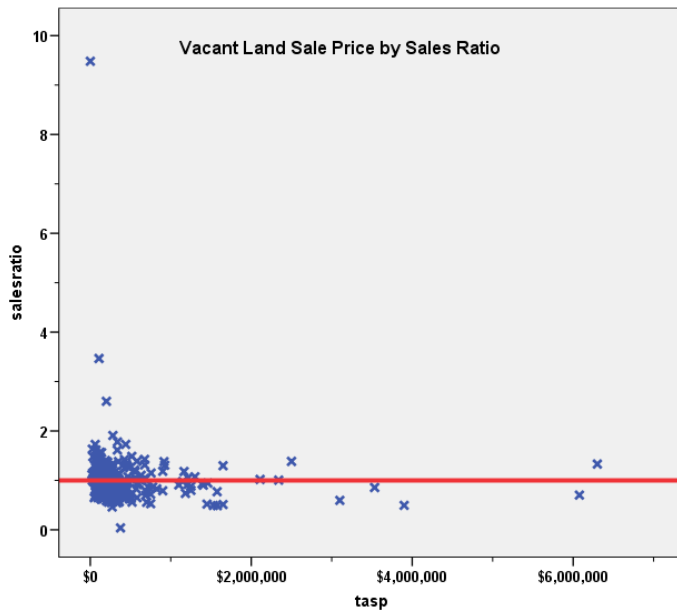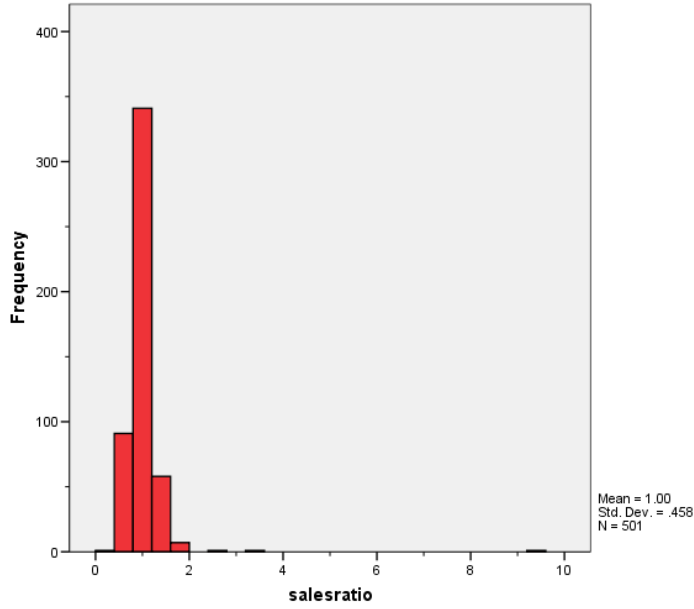
The above histogram indicates that the distribution of the vacant land sale ratios was within state mandated limits. No sales were trimmed.

Vacant Land Market Trend Analysis

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

Coefficients[a]

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1.021	.040		25.420	.000
	SalePeriod	-.001	.003	-.022	-.491	.624

a. Dependent Variable: salesratio
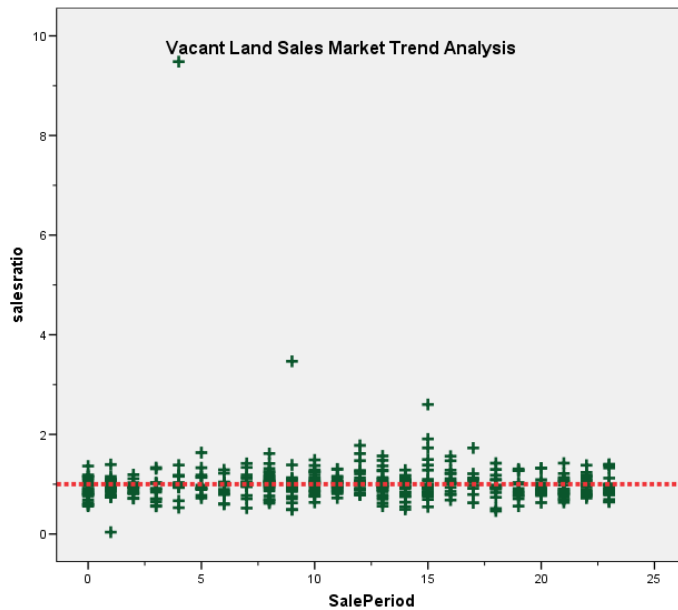
The above analysis indicated that there was no significant statistical trend. We therefore concluded that the assessor has adequately dealt with market trending for vacant land properties.

Sold/Unsold Analysis

In terms of the valuation consistency between sold and unsold vacant land properties, we compared the median change in actual value for taxable years 2016 and 2017 between each group, as follows:

Report
DIFF

sold	N	Median	Mean
UNSOLD	8,035	1.00	1.14
SOLD	430	1.24	1.28

We next performed the same comparison analysis by subdivision with at least 3 sales. This indicated that when broken down by subdivision, there was overall consistency between sold and unsold properties. The following table was developed using subdivisions with at least 3 sales:

Report

DIFF

SUBDIVNO	sold	N	Median	Mean
036405	UNSOLD	2	1.33	1.33
	SOLD	7	.69	.89
093810	UNSOLD	2	1.00	1.00
	SOLD	5	1.28	1.31
108050	UNSOLD	92	1.24	1.26
	SOLD	4	1.16	1.18
108180	UNSOLD	6	1.00	1.00
	SOLD	3	1.59	1.56
163400	UNSOLD	6	1.25	1.24
	SOLD	3	1.24	1.09
186645	UNSOLD	4	1.00	1.01
	SOLD	5	1.21	1.18
198000	UNSOLD	2	1.47	1.47
	SOLD	3	1.85	1.82
210800	UNSOLD	3	1.18	1.27
	SOLD	3	1.35	1.31
277000	UNSOLD	3	1.00	.99
	SOLD	3	1.48	1.64
361635	UNSOLD	8	1.49	1.43
	SOLD	5	1.49	1.45
425400	UNSOLD	68	1.00	.93
	SOLD	3	1.14	1.05
600400	UNSOLD	5	1.00	1.06
	SOLD	3	1.10	1.13
615125	UNSOLD	17	1.24	1.31
	SOLD	3	1.08	1.14
615127	UNSOLD	6	1.05	1.05
	SOLD	3	1.05	1.05
636005	UNSOLD	10	1.05	1.17
	SOLD	8	1.09	1.09
638208	UNSOLD	3	1.80	1.83
	SOLD	3	1.57	1.64
688215	UNSOLD	2	1.19	1.19
	SOLD	3	1.57	1.54

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

VI. AGRICULTURAL IMPROVEMENTS ANALYSIS

Based on the parameters of the state audit analysis, this county was exempt from this analysis for 2017.

VII. Conclusions

Based on this 2017 audit statistical analysis, residential, commercial/industrial and vacant land properties were found to be in compliance with state guidelines.

STATISTICAL ABSTRACT
Residential

ECON AREA	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	.992	.988	.996	.978	.973	.982	95.1%	.984	.980	.987	1.009	.079	12.2%
2	1.035	1.030	1.040	1.013	1.008	1.018	95.3%	1.014	1.008	1.021	1.020	.107	15.0%
3	1.004	1.001	1.008	.991	.987	.994	95.0%	.991	.987	.995	1.013	.091	12.6%
4	.994	.990	.997	.983	.980	.986	95.1%	.984	.980	.988	1.010	.074	11.5%
5	.985	.973	.997	.978	.973	.983	95.2%	.973	.968	.978	1.013	.079	28.4%
6	1.016	1.005	1.027	.996	.985	1.010	95.4%	1.009	.998	1.020	1.006	.111	14.1%
7	1.013	.980	1.045	.993	.970	1.020	95.9%	.986	.950	1.022	1.027	.114	16.8%
8	1.008	.999	1.018	.997	.987	1.008	95.2%	.999	.987	1.011	1.009	.113	15.1%
9	.999	.991	1.007	.987	.976	.997	95.4%	.987	.978	.996	1.012	.100	13.2%
11	1.019	.670	1.368	1.019	.992	1.046	100.0%	1.022	.677	1.367	.997	.027	3.8%
12	.994	.957	1.030	.995	.979	1.020	95.9%	.884	.687	1.082	1.124	.055	10.7%
20	.949	.611	1.287	.949	.923	.976	100.0%	.941	.635	1.248	1.009	.028	4.0%
22	1.017	1.004	1.030	1.014	.989	1.028	97.0%	1.017	1.009	1.025	1.000	.038	4.7%
23	1.036	.994	1.077	.997	.976	1.045	97.4%	1.056	1.003	1.110	.981	.071	13.5%
26	1.024	.989	1.060	1.036	.964	1.060	96.9%	1.031	1.003	1.058	.994	.021	3.3%
33	1.045	.967	1.123	1.031	.998	1.153	100.0%	1.008	.996	1.019	1.037	.036	6.0%
44	.936	.620	1.253	1.001	.648	1.096	100.0%	.981	.771	1.191	.955	.126	21.3%
58	1.114	.966	1.262	1.130	1.005	1.191	100.0%	1.064	.948	1.180	1.047	.068	8.3%
99	.994	.989	.999	.985	.981	.988	95.0%	.976	.970	.983	1.018	.092	13.5%

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

Commercial

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 |
Mean	Lower Bound	Upper Bound	Median	Lower Bound	Upper Bound	Actual Coverage	Weighted Mean	Lower Bound	Upper Bound	Price Related Differential	Coefficient of Dispersion	Centered
.996	.973	1.018	.984	.977	.990	95.1%	.900	.828	.973	1.106	.131	23.8%

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 currInd / tasp

| Mean | 95% Confidence Interval for Mean | | Median | 95% Confidence Interval for Median | | | Weighted Mean | 95% Confidence Interval for Weighted Mean | | Price Related Differential | Coefficient of Dispersion | Coefficient of Variation |
	Lower Bound	Upper Bound		Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound			Mean Centered
1.004	.964	1.044	.978	.955	.992	95.1%	.943	.889	.996	1.065	.190	45.6%

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	2	0.0%
	$50K to $100K	144	0.6%
	$100K to $150K	717	3.1%
	$150K to $200K	1752	7.6%
	$200K to $300K	4805	20.9%
	$300K to $500K	10814	47.0%
	$500K to $750K	3604	15.7%
	$750K to $1,000K	838	3.6%
	Over $1,000K	351	1.5%
Overall		23027	100.0%
Excluded		0	
Total		23027	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
$25K to $50K	7.120	.974	.777	109.9%
$50K to $100K	1.078	1.010	.187	24.8%
$100K to $150K	1.056	1.003	.140	25.6%
$150K to $200K	1.004	1.001	.091	14.9%
$200K to $300K	1.001	1.000	.095	13.7%
$300K to $500K	.984	1.002	.079	10.7%
$500K to $750K	.976	1.001	.084	11.5%
$750K to $1,000K	.954	1.000	.102	13.9%
Over $1,000K	.942	.981	.132	18.1%
Overall	.988	1.013	.090	15.4%

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	1212.00	20095	87.3%
	1213.50	1	0.0%
	1215.00	230	1.0%
	1220.00	94	0.4%
	1221.25	1	0.0%
	1225.00	62	0.3%
	1230.00	2542	11.0%
	1712.00	1	0.0%
	1717.50	1	0.0%
Overall		23027	100.0%
Excluded		0	
Total		23027	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1212.00	.989	1.013	.090	15.6%
1213.50	.834	1.000	.000	.
1215.00	.992	1.016	.115	15.8%
1220.00	1.014	.996	.047	5.8%
1221.25	1.000	1.000	.000	.
1225.00	1.002	1.021	.070	14.8%
1230.00	.985	1.018	.092	13.6%
1712.00	.923	1.000	.000	.
1717.50	.976	1.000	.000	.
Overall	.988	1.013	.090	15.4%

Improvement Age

Case Processing Summary

		Count	Percent
AgeRec	Over 100	103	0.4%
	75 to 100	462	2.0%
	50 to 75	3927	17.1%
	25 to 50	10999	47.8%
	5 to 25	5190	22.5%
	5 or Newer	2346	10.2%
Overall		23027	100.0%
Excluded		0	
Total		23027	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Over 100	.920	1.048	.202	33.7%
75 to 100	.960	1.036	.164	23.5%
50 to 75	1.014	1.015	.105	15.3%
25 to 50	.992	1.005	.086	12.2%
5 to 25	.976	1.007	.078	12.5%
5 or Newer	.972	1.021	.084	26.9%
Overall	.988	1.013	.090	15.4%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	LE 500 sf	47	0.2%
	500 to 1,000 sf	3308	14.4%
	1,000 to 1,500 sf	7430	32.3%
	1,500 to 2,000 sf	5375	23.3%
	2,000 to 3,000 sf	5270	22.9%
	3,000 sf or Higher	1597	6.9%
Overall		23027	100.0%
Excluded		0	
Total		23027	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LE 500 sf	1.027	1.181	.172	27.6%
500 to 1,000 sf	.989	1.015	.102	15.2%
1,000 to 1,500 sf	.988	1.010	.090	13.2%
1,500 to 2,000 sf	.984	1.011	.084	11.9%
2,000 to 3,000 sf	.991	1.012	.087	20.8%
3,000 sf or Higher	.994	1.013	.097	14.1%
Overall	.988	1.013	.090	15.4%

Improvement Quality

Case Processing Summary

		Count	Percent
QUALITY	0	13	0.1%
	1	84	0.4%
	2	3325	14.4%
	3	14200	61.7%
	4	4662	20.2%
	5	724	3.1%
	6	19	0.1%
Overall		23027	100.0%
Excluded		0	
Total		23027	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
0	.938	1.054	.228	33.7%
1	.963	1.044	.198	30.8%
2	.982	1.012	.099	14.9%
3	.990	1.009	.087	13.1%
4	.986	1.015	.088	20.9%
5	1.006	1.019	.108	14.1%
6	1.022	1.039	.170	22.3%
Overall	.988	1.013	.090	15.4%

Commercial Median Ratio Stratification

Sale Price
Case Processing Summary

		Count	Percent
SPRec	LT $25K	1	0.2%
	$25K to $50K	2	0.5%
	$50K to $100K	13	3.0%
	$100K to $150K	26	6.0%
	$150K to $200K	51	11.7%
	$200K to $300K	44	10.1%
	$300K to $500K	77	17.7%
	$500K to $750K	41	9.4%
	$750K to $1,000K	34	7.8%
	Over $1,000K	147	33.7%
Overall		436	100.0%
Excluded		0	
Total		436	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LT $25K	1.053	1.000	.000	.
$25K to $50K	1.030	1.027	.113	15.9%
$50K to $100K	1.046	1.001	.062	10.5%
$100K to $150K	.941	1.003	.092	15.7%
$150K to $200K	.981	1.000	.036	5.6%
$200K to $300K	.986	1.000	.088	13.1%
$300K to $500K	.984	.994	.122	21.1%
$500K to $750K	.966	.996	.170	40.3%
$750K to $1,000K	.997	1.000	.165	32.0%
Over $1,000K	.977	1.095	.173	27.0%
Overall	.984	1.106	.131	24.2%

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	1716.00	2	0.5%
	1878.67	2	0.5%
	1975.50	1	0.2%
	2212.00	93	21.3%
	2215.00	2	0.5%
	2216.00	1	0.2%
	2220.00	65	14.9%
	2223.50	1	0.2%
	2225.00	5	1.1%
	2230.00	77	17.7%
	2235.00	51	11.7%
	2245.00	20	4.6%
	3215.00	4	0.9%
	3230.00	112	25.7%
Overall		436	100.0%
Excluded		0	
Total		436	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1716.00	.895	.994	.109	15.5%
1878.67	.737	1.012	.141	20.0%
1975.50	.808	1.000	.000	.
2212.00	.956	1.094	.123	17.3%
2215.00	.877	1.022	.108	15.3%
2216.00	.814	1.000	.000	.
2220.00	.989	1.037	.111	21.0%
2223.50	.936	1.000	.000	.
2225.00	.633	.868	.221	33.0%
2230.00	.989	1.250	.199	41.4%
2235.00	.989	1.101	.183	25.0%
2245.00	.998	1.004	.160	23.5%
3215.00	.996	1.095	.229	33.3%
3230.00	.981	1.008	.060	8.6%
Overall	.984	1.106	.131	24.2%

Improvement Age

Case Processing Summary

		Count	Percent
AgeRec	Over 100	5	1.1%
	75 to 100	11	2.5%
	50 to 75	72	16.5%
	25 to 50	144	33.0%
	5 to 25	123	28.2%
	5 or Newer	81	18.6%
Overall		436	100.0%
Excluded		0	
Total		436	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Over 100	.918	.997	.090	13.6%
75 to 100	.930	1.010	.116	23.1%
50 to 75	.987	1.011	.105	25.0%
25 to 50	.988	1.042	.161	26.9%
5 to 25	.990	1.205	.144	23.8%
5 or Newer	.975	1.134	.078	19.1%
Overall	.984	1.106	.131	24.2%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	LE 500 sf	3	0.7%
	500 to 1,000 sf	39	8.9%
	1,000 to 1,500 sf	77	17.7%
	1,500 to 2,000 sf	26	6.0%
	2,000 to 3,000 sf	47	10.8%
	3,000 sf or Higher	244	56.0%
Overall		436	100.0%
Excluded		0	
Total		436	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LE 500 sf	1.053	1.020	.056	8.4%
500 to 1,000 sf	.984	.989	.098	15.3%
1,000 to 1,500 sf	.981	1.031	.061	11.0%
1,500 to 2,000 sf	1.004	.984	.132	22.3%
2,000 to 3,000 sf	.981	1.027	.104	16.1%
3,000 sf or Higher	.984	1.121	.164	29.4%
Overall	.984	1.106	.131	24.2%

Improvement Quality

Case Processing Summary

		Count	Percent
QUALITY	2	8	1.8%
	3	341	78.2%
	4	79	18.1%
	5	8	1.8%
Overall		436	100.0%
Excluded		0	
Total		436	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
2	1.013	.938	.127	21.5%
3	.984	1.067	.134	25.3%
4	.979	1.133	.115	19.2%
5	.760	1.282	.159	23.7%
Overall	.984	1.106	.131	24.2%

Economic Area

Case Processing Summary

		Count	Percent
ECONAREA	10.00	67	22.0%
	12.00	6	2.0%
	15.00	1	0.3%
	20.00	144	47.4%
	22.00	5	1.6%
	23.00	3	1.0%
	26.00	4	1.3%
	30.00	28	9.2%
	33.00	2	0.7%
	40.00	23	7.6%
	50.00	17	5.6%
	58.00	2	0.7%
	59.00	2	0.7%
Overall		304	100.0%
Excluded		132	
Total		436	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion
10.00	.988	1.081	.186
12.00	.935	1.009	.055
15.00	.977	1.000	.000
20.00	.974	1.138	.164
22.00	.941	1.011	.057
23.00	.960	.987	.042
26.00	.963	1.060	.089
30.00	1.008	1.141	.183
33.00	.993	.995	.087
40.00	.990	1.070	.114
50.00	1.005	1.010	.053
58.00	.970	.999	.001
59.00	1.051	.951	.395
Overall	.983	1.110	.155

Vacant Land Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	LT $25K	2	0.4%
	$25K to $50K	9	1.8%
	$50K to $100K	78	15.6%
	$100K to $150K	102	20.4%
	$150K to $200K	89	17.8%
	$200K to $300K	101	20.2%
	$300K to $500K	61	12.2%
	$500K to $750K	25	5.0%
	$750K to $1,000K	8	1.6%
	Over $1,000K	26	5.2%
Overall		501	100.0%
Excluded		0	
Total		501	

Ratio Statistics for currInd / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LT $25K	5.300	3.779	.789	111.6%
$25K to $50K	1.134	1.030	.173	25.3%
$50K to $100K	1.012	1.005	.137	19.7%
$100K to $150K	1.008	1.006	.163	30.6%
$150K to $200K	.973	.996	.144	24.3%
$200K to $300K	.963	1.001	.154	21.3%
$300K to $500K	.885	.998	.230	33.2%
$500K to $750K	.941	1.004	.234	29.5%
$750K to $1,000K	1.007	.989	.225	25.5%
Over $1,000K	.906	.990	.223	29.1%
Overall	.978	1.065	.190	46.9%

Subclass

Case Processing Summary

		Count	Percent
ABSTRLND	100.00	176	35.1%
	200.00	37	7.4%
	300.00	15	3.0%
	510.00	6	1.2%
	520.00	18	3.6%
	530.00	4	0.8%
	540.00	10	2.0%
	550.00	13	2.6%
	600.00	8	1.6%
	1112.00	181	36.1%
	1115.00	4	0.8%
	1120.00	1	0.2%
	1125.00	8	1.6%
	2112.00	5	1.0%
	2115.00	1	0.2%
	2130.00	7	1.4%
	2135.00	5	1.0%
	2245.00	1	0.2%
	3115.00	1	0.2%
Overall		501	100.0%
Excluded		0	
Total		501	

Ratio Statistics for currlnd / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
100.00	.978	1.093	.208	69.6%
200.00	.944	1.089	.216	27.2%
300.00	.918	.979	.168	20.0%
510.00	.728	1.093	.100	15.1%
520.00	.991	.953	.177	22.1%
530.00	.942	1.031	.120	17.9%
540.00	.840	1.012	.140	17.7%
550.00	1.074	1.097	.120	16.9%
600.00	.779	1.073	.222	28.6%
1112.00	.978	1.017	.130	17.3%
1115.00	1.058	1.014	.114	23.9%
1120.00	1.134	1.000	.000	.
1125.00	1.182	1.146	.316	38.6%
2112.00	.903	1.133	.369	61.4%
2115.00	.511	1.000	.000	.
2130.00	1.019	.979	.176	23.7%
2135.00	1.005	1.299	.594	90.5%
2245.00	3.467	1.000	.000	.
3115.00	.828	1.000	.000	.
Overall	.978	1.065	.190	46.9%

Economic Area

Case Processing Summary

		Count	Percent
ECONAREA	1.00	30	6.0%
	2.00	48	9.6%
	3.00	47	9.4%
	4.00	30	6.0%
	5.00	26	5.2%
	6.00	12	2.4%
	7.00	18	3.6%
	8.00	65	13.0%
	9.00	133	26.5%
	10.00	23	4.6%
	11.00	1	0.2%
	12.00	1	0.2%
	15.00	1	0.2%
	20.00	25	5.0%
	22.00	5	1.0%
	23.00	4	0.8%
	26.00	4	0.8%
	30.00	11	2.2%
	33.00	1	0.2%
	34.00	3	0.6%
	40.00	9	1.8%
	44.00	1	0.2%
	50.00	2	0.4%
	58.00	1	0.2%
Overall		501	100.0%
Excluded		0	
Total		501	

Ratio Statistics for currlnd / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion
1.00	.943	1.008	.095
2.00	.979	1.080	.143
3.00	.945	1.034	.159
4.00	.979	1.045	.131
5.00	1.028	1.009	.105
6.00	.991	1.019	.126
7.00	.922	1.089	.194
8.00	.973	1.151	.312
9.00	.999	1.028	.140
10.00	.983	1.015	.211
11.00	1.380	1.000	.000
12.00	1.304	1.000	.000
15.00	.929	1.000	.000
20.00	.970	1.071	.289
22.00	.798	.970	.357
23.00	.711	1.267	.284
26.00	.949	.911	.120
30.00	.914	1.406	.407
33.00	1.034	1.000	.000
34.00	1.330	1.219	.270
40.00	1.024	1.074	.353
44.00	1.134	1.000	.000
50.00	.767	.877	.177
58.00	.038	1.000	.000
Overall	.978	1.065	.190