2020
JEFFERSON COUNTY PROPERTY ASSESSMENT STUDY

WILDROSE
APPRAISAL, INCORPORATED
Audit Division

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September 15, 2020

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

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

Dear Ms. Mullis:

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

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

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

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

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

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 2020 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.
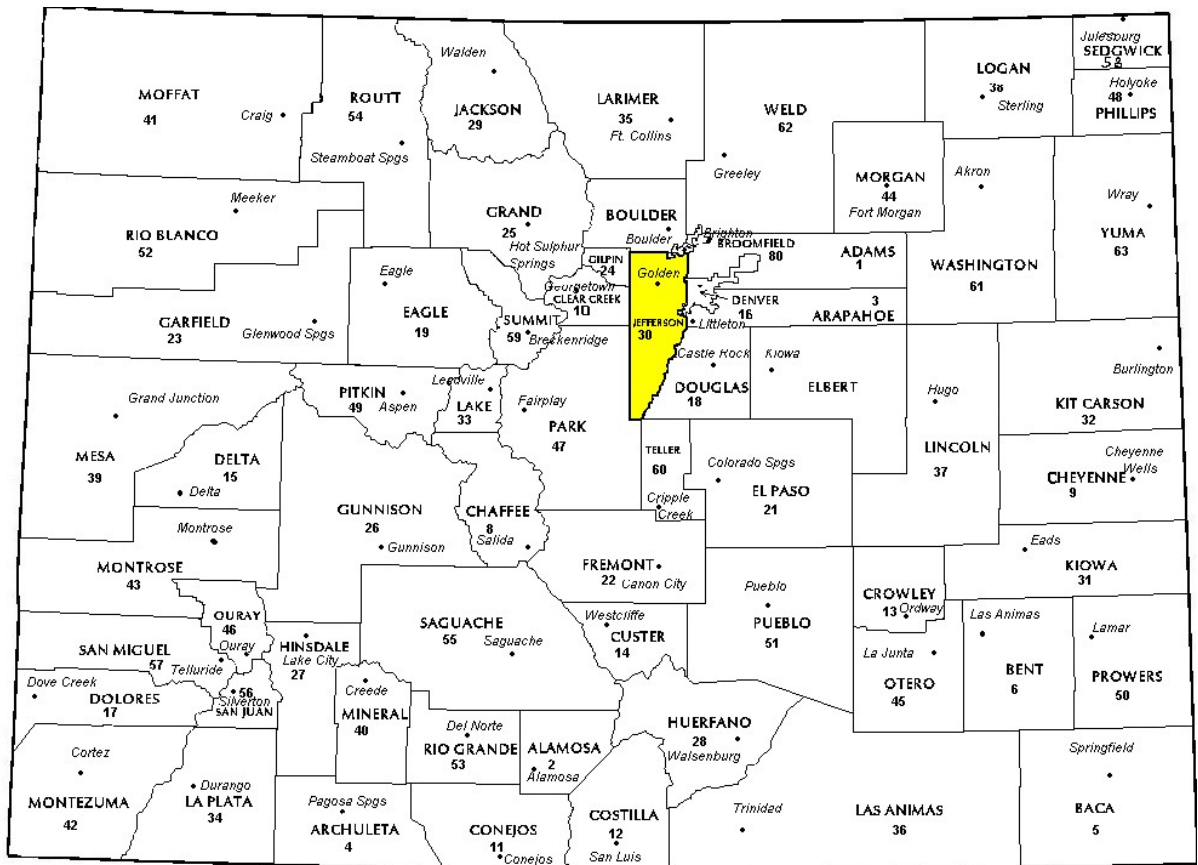
Historical Information

Jefferson County had an estimated population of approximately 571,837 people with 748.47 people per square mile, according to the U.S. Census Bureau's 2016 estimated census data. This represents a 6.9 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 properties were analyzed. Sales were collected for each property class over the appropriate sale period, which was typically defined as the 18-month period between January 1, 2017 and June 30, 2018. Counties with less than 30 sales typically extended the sale period back up to 5 years prior to June 30, 2018 in 6-month increments. If there were still fewer than 30 sales, supplemental appraisals were performed and treated as proxy sales. Residential sales for all counties using this method totaled at least 30 per county. For commercial sales, the total number analyzed was allowed, in some cases, to fall below 30. There were no sale quantity issues for counties requiring vacant land analysis or condominium analysis. Although it was required that we examine the median and coefficient of dispersion for all counties, we also calculated the weighted mean and price-related differential for each class of property. Counties were not passed or failed by these latter measures, but were counseled if there were anomalies noted during our analysis. Qualified sales were based on the qualification code used by each county, which were typically coded as either "Q" or "C." The ratio analysis included all sales. The data was trimmed for counties with obvious outliers using IAAO standards for data analysis. In every case, we examined the loss in data from trimming to ensure that only true outliers were excluded. Any county with a significant portion of sales excluded by this trimming method was examined further. No county was allowed to pass the audit if more than 5% of the sales were "lost" because of trimming. For the largest 11 counties, the residential ratio statistics were broken down by economic area as well.

Conclusions

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

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

The results for 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	376	0.971	1.041	11.4	Compliant
Condominium	N/A	N/A	N/A	N/A	N/A
Single Family	23,058	0.971	1.013	8	Compliant
Vacant Land	294	0.984	1.039	17.8	Compliant

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

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 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.

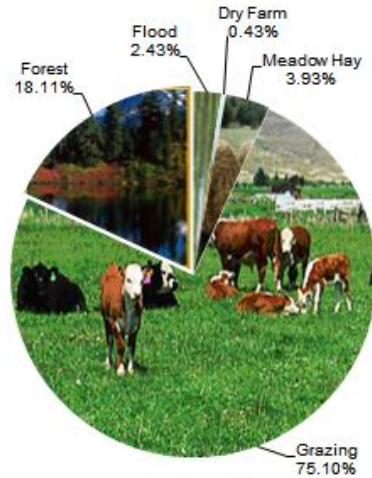| Sold/Unsold Results	
Property Class	**Results**
Commercial/Industrial	Compliant
Condominium	N/A
Single Family	Compliant
Vacant Land	Compliant

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.
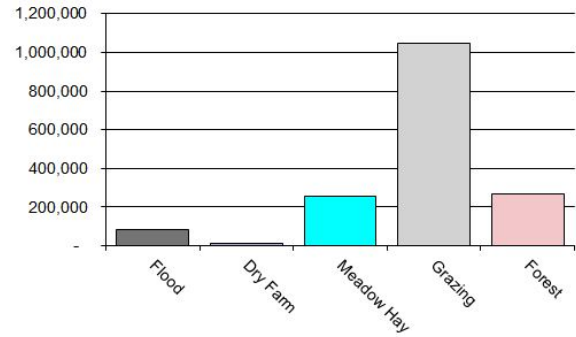
Recommendations

None

AGRICULTURAL LAND STUDY

Acres By Subclass	Value By Subclass

Acres By Subclass:
- Forest 18.11%
- Flood 2.43%
- Dry Farm 0.43%
- Meadow Hay 3.93%
- Grazing 75.10%

Value By Subclass (bar chart with categories): Flood, Dry Farm, Meadow Hay, Grazing, Forest

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	47.00	84,459	87,445	0.97
4127	Dry Farm	318	34.38	10,944	11,040	0.99
4137	Meadow Hay	2,904	88.37	256,597	256,597	1.00
4147	Grazing	55,522	18.90	1,049,376	1,049,376	1.00
4177	Forest	13,389	19.98	267,555	267,555	1.00
Total/Avg		**73,930**	**22.57**	**1,668,931**	**1,672,013**	**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 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.:

- Questionnaires
- Field Inspections
- Phone Interviews
- In-Person Interviews with Owners/Tenants
- Written Correspondence other than Questionnaire
- Personal Knowledge of Occupants at Assessment Date
- Aerial Photography/Pictometry

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
- Questionnaires
- Field Inspections
- Phone Interviews
- In-Person Interviews with Owners/Tenants
- Written Correspondence other than Questionnaire
- Personal Knowledge of Occupants at Assessment Date
- Aerial Photography/Pictometry

Jefferson County has complied with the procedures provided by the Division of Property Taxation for the valuation of land under residential improvements that may or may not be integral to an agricultural operation.

Recommendations

None

SALES VERIFICATION

According to Colorado Revised Statutes:

A representative body of sales is required when considering the market approach to appraisal.

(8) In any case in which sales prices of comparable properties within any class or subclass are utilized when considering the market approach to appraisal in the determination of actual value of any taxable property, the following limitations and conditions shall apply:

(a)(I) Use of the market approach shall require a representative body of sales, including sales by a lender or government, sufficient to set a pattern, and appraisals shall reflect due consideration of the degree of comparability of sales, including the extent of similarities and dissimilarities among properties that are compared for assessment purposes. In order to obtain a reasonable sample and to reduce sudden price changes or fluctuations, all sales shall be included in the sample that reasonably reflect a true or typical sales price during the period specified in section 39-1-104 (10.2). Sales of personal property exempt pursuant to the provisions of sections 39-3-102, 39-3-103, and 39-3-119 to 39-3-122 shall not be included in any such sample.

(b) Each such sale included in the sample shall be coded to indicate a typical, negotiated sale, as screened and verified by the assessor. (39-1-103, C.R.S.)

The assessor is required to use sales of real property only in the valuation process.

(8)(f) Such true and typical sales shall include only those sales which have been determined on an individual basis to reflect the selling price of the real property only or which have been adjusted on an individual basis to reflect the selling price of the real property only. (39-1-103, C.R.S.)

Part of the Property Assessment Study is the sales verification analysis. WRA has used the above-cited statutes as a guide in our study of the county's procedures and practices for verifying sales.

WRA reviewed the sales verification procedures in 2020 for Jefferson County. This study was conducted by checking selected sales from the master sales list for the current valuation period. Specifically WRA selected 60 sales listed as unqualified.

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

For residential, commercial, and vacant land sales with considerations over $100,000, the contractor has examined and reported the ratio of qualified sales to total sales by class and performed the following analyses of unqualified sales:

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

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 2020 in Jefferson 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

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 2020 valuation period. The number and listing of businesses audited was also submitted and was in conformance with the written audit plan. The following audit triggers were used by the county to select accounts to be audited:

- Accounts with obvious discrepancies
- New businesses filing for the first time
- Incomplete or inconsistent declarations
- Accounts with omitted property
- Same business type or use
- Businesses with no deletions or additions for 2 or more years
- Non-filing Accounts - Best Information Available

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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J. Andrew Rodriguez, *Field Analyst*

APPENDICES

STATISTICAL COMPLIANCE REPORT
FOR JEFFERSON COUNTY
2020

I. OVERVIEW

Jefferson County is an urban county located along Colorado's Front Range. The county has a total of 215,198 real property parcels, according to data submitted by the county assessor's office in 2020. The following provides a breakdown of property classes for this county:
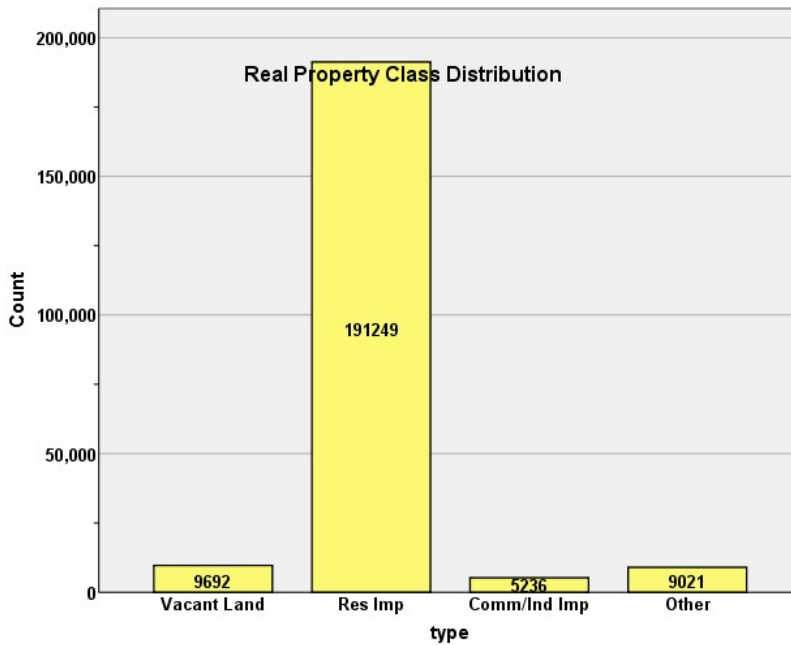
The vacant land class of properties was dominated by residential land. Residential lots (coded 100 and 1112) accounted for 73.7% of all vacant land parcels.

For residential improved properties, single family properties accounted for 91.0% of all residential properties.

Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial properties accounted for 2.4% of all such properties in this county.

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

Residential Sub-market	Type (Economic area, Neighborhood, Other (please specify)
Economic Area/Neighborhood	All Res improvements were valued by Economic Area and Neighborhood. This included Ag Res Improvements.

II. DATA FILES

The following sales analyses were based on the requirements of the 2020 Colorado Property Assessment Study. Information was provided by the Jefferson Assessor's Office in June 2020. The data included all 5 property record files as specified by the Auditor.

III. RESIDENTIAL SALES RESULTS

There were 23,058 qualified residential sales in the 24 month period ending June 30, 2018. The sales ratio analysis results were as follows:

Median	0.971
Price Related Differential	1.013
Coefficient of Dispersion	8.0

We next stratified the sale ratio analysis by economic area and neighborhood. The minimum count for the neighborhood stratification is 30 sales. The following are the results of this stratification analysis:

Economic Area
Case Processing Summary

		Count	Percent
ECONAREA	1.00	3319	16.0%
	2.00	4074	19.7%
	3.00	4098	19.8%
	4.00	4119	19.9%
	5.00	2243	10.8%
	6.00	629	3.0%
	7.00	102	0.5%
	8.00	928	4.5%
	9.00	1085	5.2%
	11.00	3	0.0%
	12.00	19	0.1%
	22.00	49	0.2%
	23.00	37	0.2%
	26.00	7	0.0%
	30.00	1	0.0%
	33.00	9	0.0%
	44.00	3	0.0%
	58.00	1	0.0%
Overall		20726	100.0%
Excluded		2333	
Total		23059	

Ratio Statistics for CURRTOT / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion
1.00	.976	1.004	.072
2.00	.961	1.013	.091
3.00	.972	1.010	.076
4.00	.965	1.005	.068
5.00	.975	1.011	.077
6.00	.967	1.012	.087
7.00	.968	1.005	.095
8.00	.957	1.023	.110
9.00	.961	1.016	.097
11.00	.956	1.005	.020
12.00	.988	1.051	.055
22.00	.970	1.067	.066
23.00	1.003	1.024	.045
26.00	1.051	1.152	.080
30.00	1.094	1.000	.000
33.00	.979	1.040	.086
44.00	.993	.944	.047
58.00	1.145	1.000	.000
Overall	.968	1.012	.080

Economic areas with sufficient sales were in compliance with SBOE sales ratio standards.

B. Neighborhoods with at least 30 sales
Ratio Statistics for CURRTOT / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion
1001	.973	1.004	.063
1002	.982	1.008	.074
1003	.974	.998	.077
1004	.972	.997	.073
1005	.964	1.000	.051
1006	.976	1.002	.060
1007	**.937**	**1.007**	**.082**
1008	.970	1.004	.074
1009	.970	1.005	.074
101	.979	1.005	.060
1010	.970	1.007	.068
1011	.975	1.004	.061
1012	.981	1.004	.053
1013	.988	1.009	.080
1014	.982	1.015	.064
1015	.960	1.009	.096
1016	.969	1.011	.090
1017	.969	.998	.077
1903	.993	1.001	.070
1905	.982	1.005	.063
1906	.987	1.007	.069
1911	.986	1.002	.040
1915	.988	1.005	.061
1916	.997	1.004	.076
1922	1.020	1.002	.087

2002	.955	1.012	.091
2301	.960	1.006	.089
2302	.967	1.008	.071
2307	.959	1.005	.086
2311	.982	1.007	.070
2312	.972	1.040	.115
2314	.964	1.004	.062
2318	.973	1.006	.064
2319	.951	1.004	.082
2324	.950	1.010	.107
2329	.950	1.018	.112
2337	.968	1.007	.108
2403	.959	1.032	.098
2404	.957	1.011	.093
2405	.967	1.012	.096
2406	.961	1.029	.115
2408	.981	1.021	.110
2410	.960	1.023	.108
2411	.947	1.017	.114
2412	.981	1.022	.123
2417	.943	1.018	.110
2420	**.945**	**1.012**	**.087**
2424	.952	1.023	.106
2923	.961	1.001	.058
2929	.985	1.004	.054
2935	**.926**	**1.008**	**.089**
2936	**.915**	**1.006**	**.063**
2945	.967	1.009	.060
2958	.972	1.002	.067
3001	**.900**	**1.004**	**.138**
3003	**.944**	**1.019**	**.126**
3004	.955	1.020	.104
3006	.960	1.005	.087
3007	.947	1.013	.088
3008	.951	1.018	.103
3009	.960	1.024	.104
3010	.948	1.008	.098
3011	.981	1.004	.072
3012	.972	1.000	.071
3014	.983	1.000	.069
3015	.967	1.004	.063
3016	.988	1.001	.065
3017	.965	1.001	.055
3018	.981	1.015	.070
3019	.985	1.008	.082
3021	.966	1.008	.066
3022	.976	1.007	.064
3024	.961	1.003	.057
3025	.966	1.008	.079
3026	.995	1.017	.079
3028	.961	1.007	.061
3029	.969	1.003	.078
3906	.981	1.013	.092
3908	.990	1.010	.080
3910	.978	1.001	.046
3911	.977	1.003	.053
3918	.991	1.002	.041

3919	.975	1.002	.049
3920	.977	1.002	.067
3924	.980	1.003	.068
3938	.971	1.008	.063
3942	.985	1.005	.052
3943	.968	1.011	.070
3944	.967	1.004	.048
4003	.969	1.011	.073
4005	.964	1.000	.054
4006	.968	1.008	.069
4008	.982	1.002	.046
4009	.952	.999	.062
4010	**.940**	**1.001**	**.075**
4011	.974	1.008	.077
4012	.952	1.001	.045
4013	.969	1.002	.052
4015	.956	1.004	.063
4016	.967	1.002	.084
4020	.968	1.001	.082
4021	.960	.999	.066
4022	.969	1.003	.070
4024	.963	1.001	.059
4025	.952	1.000	.066
4026	.968	1.002	.061
4027	.970	1.002	.052
4028	.982	1.004	.078
4029	.979	.999	.063
4030	.958	1.004	.071
4031	.958	1.007	.071
4032	.965	1.000	.065
4034	.976	1.001	.052
4035	.970	.998	.042
4036	**.917**	**1.018**	**.157**
4038	**.937**	**1.015**	**.113**
4041	.968	1.002	.043
4046	**.937**	**1.028**	**.125**
4904	.977	.999	.052
4905	.987	1.001	.048
4907	.999	.999	.048
4910	.986	1.004	.042
4912	.983	1.002	.041
4913	.991	.992	.081
4914	.990	1.009	.068
4916	.984	1.002	.048
4918	**.920**	**.999**	**.056**
5001	.995	1.021	.099
5003	.950	1.001	.059
5006	.985	1.008	.079
5007	.976	1.006	.056
5010	1.000	1.047	.151
5011	.968	1.010	.074
5901	.972	1.007	.064
6101	.962	1.002	.065
6102	.951	1.003	.084
6103	.974	1.010	.104
6104	.972	1.015	.117
6105	.997	1.002	.069

6106	**.941**	**1.018**	**.095**
6107	.972	1.002	.052
6109	.963	1.000	.062
6901	.971	1.027	.095
6904	.953	1.010	.073
7013	.970	1.010	.082
8001	.958	1.012	.127
8002	.958	1.060	.158
8004	.953	1.023	.113
8005	.961	1.007	.093
8009	.962	1.018	.091
8010	.954	1.010	.078
8011	.954	1.018	.105
8012	.971	.997	.081
8013	.935	1.018	.125
8014	**.918**	**1.062**	**.125**
8016	.961	1.011	.121
8017	.969	.984	.152
8020	.938	1.017	.108
9012	.981	1.020	.110
9024	.963	1.026	.083
9033	.971	1.019	.089
9043	.976	1.005	.084
9074	.954	1.024	.105
9082	.995	1.015	.129
9093	.962	1.005	.091
9103	**.939**	**1.014**	**.105**
9114	**.929**	**1.010**	**.079**
9122	**.897**	**1.017**	**.083**
9133	.964	1.005	.075
9143	.948	1.022	.091
9152	**.939**	**1.031**	**.109**
9162	**.938**	**1.006**	**.134**
Overall	.970	1.011	.080

The neighborhoods highlighted in red were out of the compliance range fo either the sales ratio, the COD or both. The county assessor will be contacted to determine reasons for these non-compliant neighborhoods.

In terms of overall and economic areas, 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:

Sales Ratio Distribution
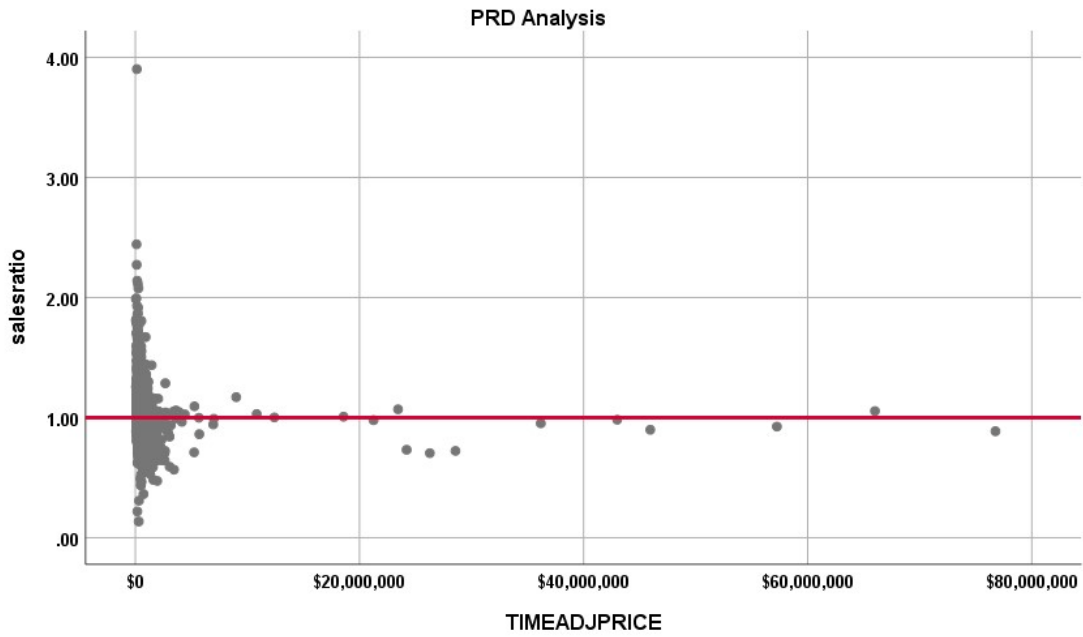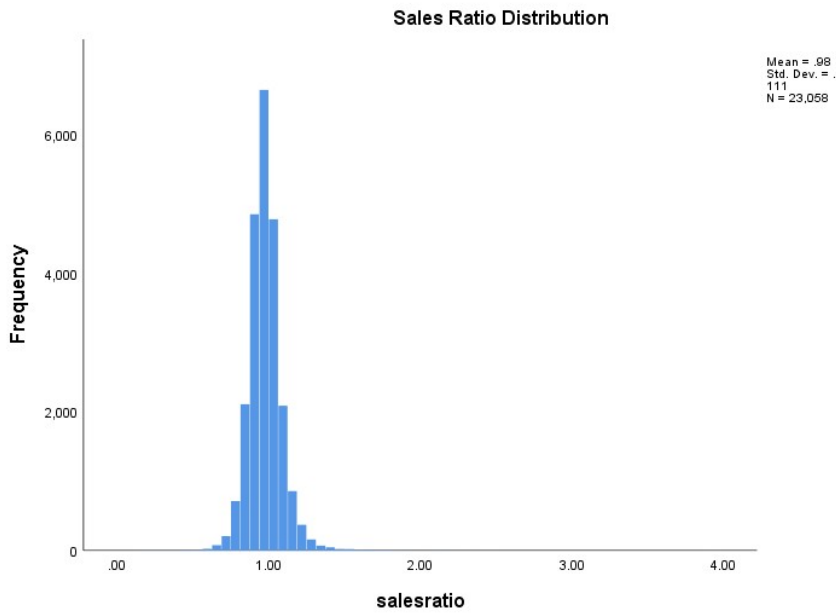
PRD Analysis

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	(Constant)	.995	.005		217.521	.000
		SalePeriod	.000	.000	.029	1.424	.155
1.00	1	(Constant)	.977	.003		300.999	.000
		SalePeriod	.000	.000	.029	1.649	.099
2.00	1	(Constant)	.963	.004		272.220	.000
		SalePeriod	.000	.000	.026	1.686	.092
3.00	1	(Constant)	.969	.003		299.653	.000
		SalePeriod	.001	.000	.068	4.348	.000
4.00	1	(Constant)	.972	.003		363.404	.000
		SalePeriod	-2.818E-5	.000	-.002	-.144	.886
5.00	1	(Constant)	.970	.005		202.177	.000
		SalePeriod	.000	.000	.015	.714	.475
6.00	1	(Constant)	.959	.009		107.836	.000
		SalePeriod	.001	.001	.037	.917	.359
7.00	1	(Constant)	.957	.025		38.767	.000
		SalePeriod	.001	.002	.044	.440	.661
8.00	1	(Constant)	.956	.009		104.809	.000
		SalePeriod	.000	.001	-.007	-.224	.822
9.00	1	(Constant)	.967	.008		122.300	.000
		SalePeriod	-6.963E-6	.001	.000	-.012	.990
11.00	1	(Constant)	.946	.069		13.780	.046
		SalePeriod	.001	.005	.129	.130	.918
12.00	1	(Constant)	1.006	.031		32.311	.000
		SalePeriod	-5.196E-5	.002	-.005	-.022	.982
22.00	1	(Constant)	.890	.020		44.468	.000
		SalePeriod	.008	.002	.570	4.762	.000
23.00	1	(Constant)	.983	.023		43.062	.000
		SalePeriod	.001	.002	.074	.441	.662
26.00	1	(Constant)	.949	.081		11.681	.000
		SalePeriod	.008	.007	.497	1.281	.256
33.00	1	(Constant)	.834	.057		14.514	.000
		SalePeriod	.013	.005	.708	2.650	.033
44.00	1	(Constant)	.392	.084		4.657	.135
		SalePeriod	.045	.006	.991	7.211	.088

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 2020 between each group. The data was analyzed both as a whole and stratified by economic area and neighborhoods (with at least 30 sales), as follows:

Class
Report
VALSF

sold	N	Median	Mean
UNSOLD	168193	$247	$260
SOLD	23056	$253	$267

Economic Area
Report
VALSF

ECONAREA	sold	N	Median	Mean
1.00	UNSOLD	23655	$234	$243
	SOLD	3319	$242	$251
2.00	UNSOLD	32980	$271	$278
	SOLD	4072	$283	$293
3.00	UNSOLD	33607	$248	$257
	SOLD	4098	$259	$268
4.00	UNSOLD	33353	$230	$239
	SOLD	4119	$243	$251
5.00	UNSOLD	7844	$240	$252
	SOLD	2243	$234	$239
6.00	UNSOLD	6907	$295	$311
	SOLD	629	$304	$320
7.00	UNSOLD	1109	$282	$303
	SOLD	102	$281	$302
8.00	UNSOLD	7933	$291	$307
	SOLD	928	$297	$310
9.00	UNSOLD	8654	$277	$288
	SOLD	1085	$299	$305
12.00	UNSOLD	265	$162	$222
	SOLD	19	$181	$200
22.00	UNSOLD	392	$160	$186
	SOLD	49	$202	$218
23.00	UNSOLD	325	$163	$190
	SOLD	37	$185	$209

Neighborhoods with at least 30 sales

Out of 171 residential neighborhoods with at least 30 sales, there was only one neighborhood (NBHD 101) that had a difference of 10 percent or more between sold and unsold properties using the value per square foot comparison test and the median change in value comparison test.

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

IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

There were 376 qualified commercial/industrial sales in the 24 month period ending June 30, 2018. The sales ratio analysis was analyzed as follows:

Median	0.971
Price Related Differential	1.041
Coefficient of Dispersion	11.4

The above table indicates that the Jefferson County vacant land sale ratios were in compliance with the SBOE standards. The following histogram and scatter plot describe the sales ratio distribution further:
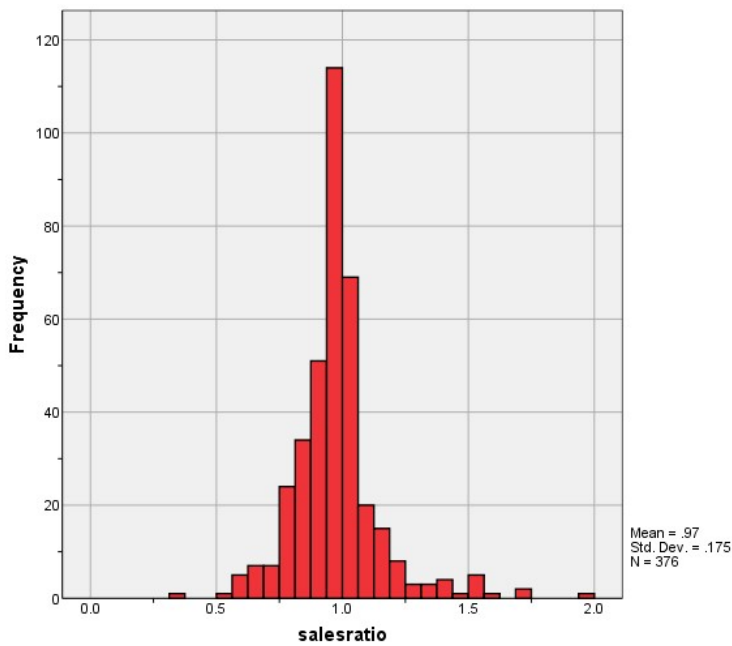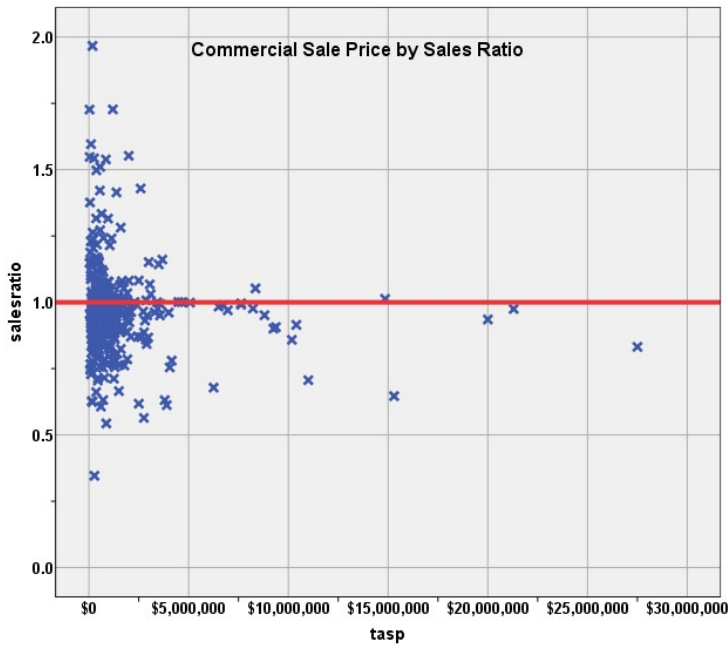
Commercial/Industrial Market Trend Analysis

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		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.945	.016		57.438	.000
	SalePeriod	.003	.001	.110	2.148	.032

a. Dependent Variable: salesratio

Commercial Market Trend Analysis
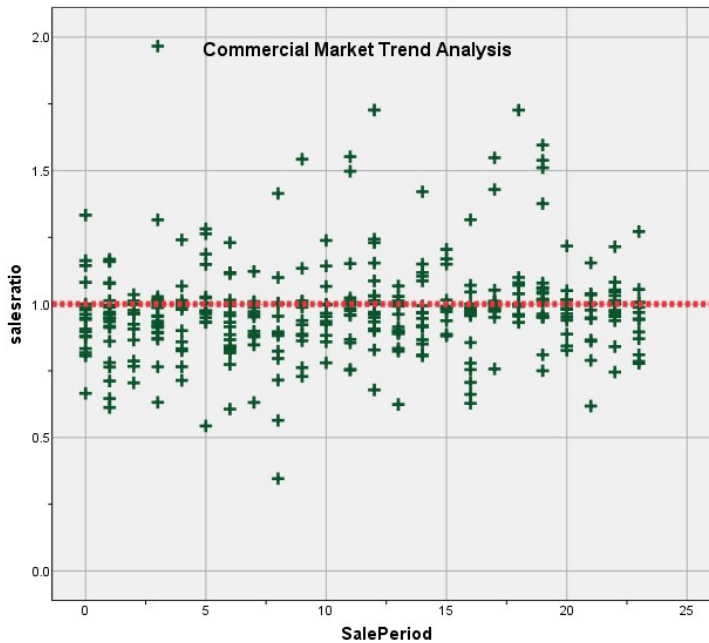
There was no residual market trending present in the commercial sale ratios. We concluded that the assessor has adequately considered market trending adjustments as part of the commercial/industriall valuation.

Sold/Unsold Analysis

We compared the median and mean change in value between taxable years 2018 and 2020 for sold and unsold commercial/industrial properties to determine if they were valued consistently, as follows:

Report

DIFF

sold	N	Median	Mean
UNSOLD	4518	1.0385	1.1003
SOLD	337	1.1950	1.2488

Report

DIFF

ABSTRIMP	sold	N	Median	Mean
2212.00	UNSOLD	1129	1.0000	1.0873
	SOLD	67	1.2105	1.2699
2215.00	UNSOLD	47	1.0871	1.1080
	SOLD	4	1.2878	1.2702
2220.00	UNSOLD	478	1.0857	1.1764
	SOLD	58	1.3695	1.3668
2230.00	UNSOLD	926	1.0490	1.0959
	SOLD	63	1.1412	1.1750
2235.00	UNSOLD	632	1.0385	1.0404
	SOLD	35	1.1432	1.2352
2245.00	UNSOLD	416	1.0010	1.1379
	SOLD	47	1.2443	1.2879

3230.00	UNSOLD	714	1.0490	1.0981
	SOLD	59	1.0989	1.1688

Overall and by most sub-classes, sold properties were adjusted by a greater amount than unsold properties, although for 2235 and 2245, the average age was significantly lower for sold properties than unsold properties. We will contact the assessor to determine if there are other reasons for differences between sold and unsold properties.

V. VACANT LAND SALE RESULTS

There were 294 qualified vacant land sales for the 24 month period ending June 30, 2018. The sales ratio analysis results were as follows:

Median	0.984
Price Related Differential	1.039
Coefficient of Dispersion	17.8

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:

Mean = 1.01
Std. Dev. = .254
N = 294
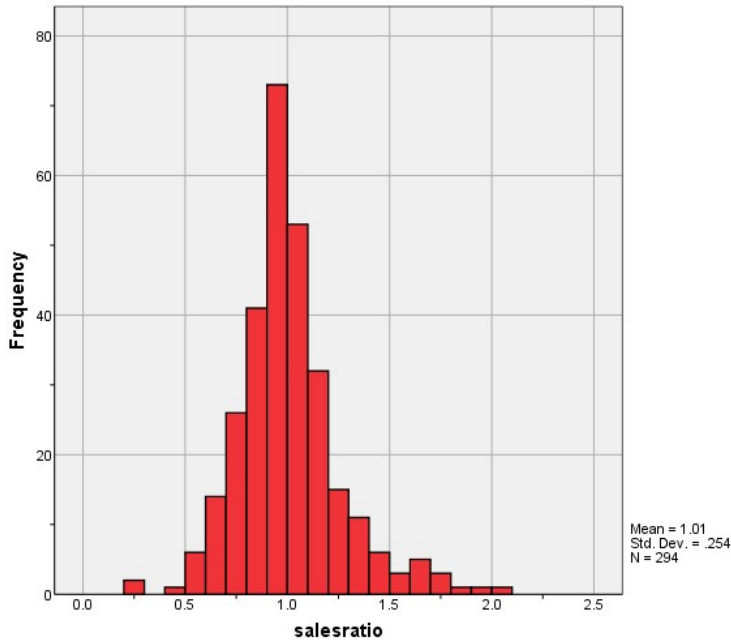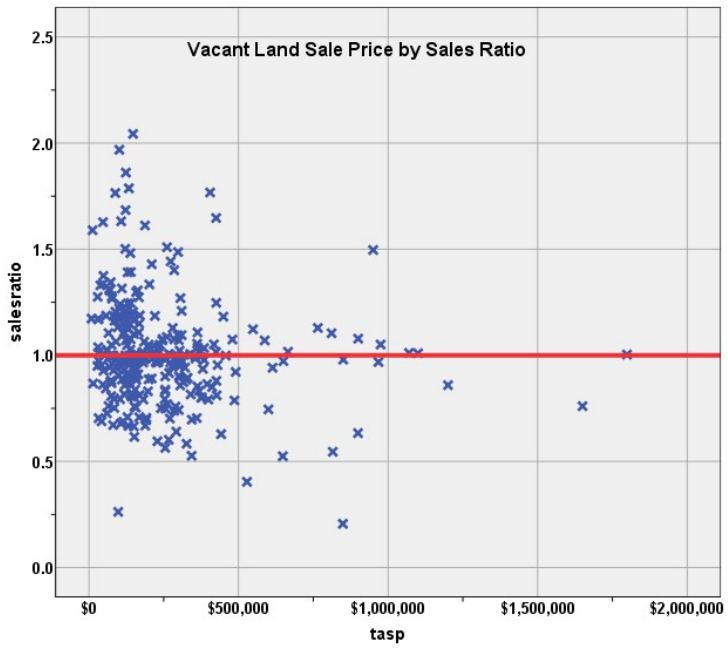
The above histogram indicates that the distribution of the vacant land sale ratios was within state mandated limits. No sales were trimmed.

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)	1.004	.029		34.156	.000
	SalePeriod	.000	.002	.007	.114	.909

a. Dependent Variable: salesratio

Vacant Land Sales Market Trend Analysis
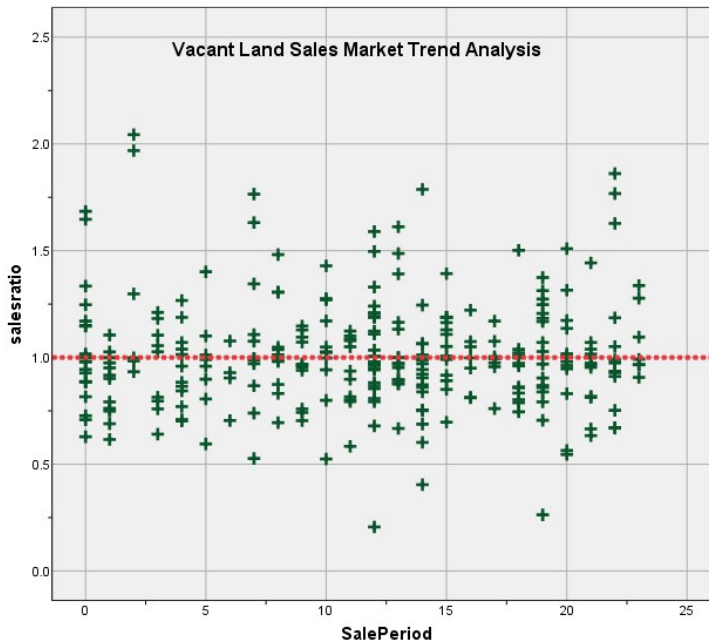
The above analysis indicated that there was no significant statistical trend. We therefore concluded that the assessor has adequately dealt with market trending for vacant land properties.

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 2018 and 2020 between each group, as follows:

Report

DIFF

sold	N	Median	Mean
UNSOLD	7234	1.0000	1.1206
SOLD	235	1.2149	1.2321

We next performed the same comparison analysis by subdivision with at least 3 sales. This indicated that when broken down by subdivision, there was no consistent pattern of sold vacant land parcels being adjusted at a greater rate than unsold properties. The following table was developed using subdivisions with at least 3 sales:

Report

DIFF

SUBDIVNO	sold	N	Median	Mean
108050	UNSOLD	24	1.1139	1.0440
	SOLD	3	1.1139	.9796
142400	UNSOLD	15	1.0206	1.0192
	SOLD	3	.6593	.8004
218000	UNSOLD	26	1.1111	1.1418
	SOLD	3	1.3410	1.5091
348200	UNSOLD	11	1.0000	.9577
	SOLD	3	1.5811	1.2863

416800	UNSOLD	8	.4756	.4612
	SOLD	4	.7951	1.0283
567009	UNSOLD	2	1.6964	1.6964
	SOLD	3	1.8120	1.6638
615125	UNSOLD	8	1.1919	1.2348
	SOLD	7	1.2128	1.1969
636005	UNSOLD	10	1.4269	1.4472
	SOLD	3	1.3869	1.3929
661200	UNSOLD	9	1.0000	.9965
	SOLD	3	1.1560	1.0840
788400	UNSOLD	3	1.1097	1.0892
	SOLD	5	1.3510	1.3504

V. CONCLUSIONS

Based on this 2020 audit statistical analysis, residential, commercial/industrial and vacant land properties were found to be in compliance with state guidelines.

STATISTICAL ABSTRACT
Residential

		Ratio Statistics for CURRTOT / tasp											
		95% Confidence Interval for Mean			95% Confidence Interval for Median				95% Confidence Interval for Weighted Mean				Coefficient of Variation
ECONAREA	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
.	1.000	.996	1.005	.992	.988	.996	95.1%	.994	.988	.999	1.007	.077	11.5%
1.00	.981	.978	.984	.976	.973	.979	95.2%	.977	.974	.980	1.004	.072	9.7%
2.00	.968	.964	.972	.961	.957	.965	95.3%	.956	.952	.959	1.013	.091	12.4%
3.00	.981	.977	.984	.972	.970	.975	95.3%	.972	.968	.975	1.010	.076	11.1%
4.00	.971	.969	.974	.965	.962	.968	95.0%	.966	.963	.970	1.005	.068	9.0%
5.00	.973	.968	.978	.975	.970	.980	95.3%	.963	.958	.967	1.011	.077	11.8%
6.00	.966	.957	.975	.967	.956	.975	95.4%	.954	.945	.964	1.012	.087	12.2%
7.00	.967	.942	.992	.968	.943	.995	96.3%	.962	.932	.991	1.005	.095	13.2%
8.00	.954	.945	.964	.957	.945	.963	95.5%	.933	.921	.944	1.023	.110	15.2%
9.00	.967	.959	.975	.961	.952	.967	95.5%	.952	.944	.960	1.016	.097	13.7%
11.00	.955	.884	1.025	.956	.926	.982	100.0%	.950	.848	1.052	1.005	.020	3.0%
12.00	1.006	.971	1.040	.988	.960	1.043	98.1%	.957	.893	1.021	1.051	.055	7.1%
22.00	.968	.940	.996	.970	.954	.989	95.6%	.907	.803	1.012	1.067	.066	10.0%
23.00	.992	.969	1.015	1.003	.965	1.013	95.3%	.968	.834	1.103	1.024	.045	7.0%
26.00	1.040	.935	1.144	1.051	.887	1.211	98.4%	.902	.860	.945	1.152	.080	10.9%
30.00	1.094	.	.	1.094	.	.	.	1.094	.	.	1.000	.000	.
33.00	.962	.867	1.057	.979	.862	1.046	96.1%	.925	.797	1.053	1.040	.086	12.9%
44.00	.997	.823	1.171	.993	.929	1.069	100.0%	1.056	.982	1.130	.944	.047	7.0%
58.00	1.145	.	.	1.145	.	.	.	1.145	.	.	1.000	.000	.

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

Commercial

Ratio Statistics for CURRTOT / tasp

Mean	95% Confidence Interval for Mean		Median	95% Confidence Interval for Median			Weighted Mean	95% Confidence Interval for Weighted Mean		Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
	Lower Bound	Upper Bound		Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound			Mean Centered
.975	.957	.993	.971	.962	.983	95.6%	.937	.910	.964	1.041	.114	17.9%

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

Vacant Land

Ratio Statistics for CURRLND / tasp

Mean	95% Confidence Interval for Mean		Median	95% Confidence Interval for Median			Weighted Mean	95% Confidence Interval for Weighted Mean		Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
	Lower Bound	Upper Bound		Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound			Mean Centered
1.007	.978	1.036	.984	.968	1.000	95.9%	.969	.931	1.007	1.039	.178	25.2%

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

Residential Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	$25K to $50K	2	0.0%
	$50K to $100K	18	0.1%
	$100K to $150K	133	0.6%
	$150K to $200K	592	2.6%
	$200K to $300K	3191	13.8%
	$300K to $500K	11573	50.2%
	$500K to $750K	5792	25.1%
	$750K to $1,000K	1218	5.3%
	Over $1,000K	539	2.3%
Overall		23058	100.0%
Excluded		1	
Total		23059	

Ratio Statistics for CURRTOT / tasp

Group	Median	Price Related Differential	Coeff Dispe
$25K to $50K	1.898	1.000	.047
$50K to $100K	1.268	1.008	.190
$100K to $150K	1.042	1.004	.142
$150K to $200K	1.014	1.001	.096
$200K to $300K	.986	1.000	.078
$300K to $500K	.973	1.002	.075
$500K to $750K	.963	1.001	.076
$750K to $1,000K	.939	1.001	.092
Over $1,000K	.888	.984	.119
Overall	.971	1.013	.080

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	.00	3	0.0%
	1212.00	20395	88.5%
	1215.00	198	0.9%
	1220.00	76	0.3%
	1225.00	51	0.2%
	1230.00	2332	10.1%
	1240.00	2	0.0%
	2215.00	1	0.0%
Overall		23058	100.0%
Excluded		1	
Total		23059	

Ratio Statistics for CURRTOT / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
.00	1.028	1.018	.099	15.6%
1212.00	.969	1.011	.080	11.3%
1215.00	.881	1.019	.121	16.8%
1220.00	.974	1.004	.059	8.8%
1225.00	.999	1.053	.064	9.5%
1230.00	.992	1.007	.077	11.6%
1240.00	.878	1.009	.018	2.5%
2215.00	1.094	1.000	.000	.
Overall	.971	1.013	.080	11.4%

Improvement Age

Case Processing Summary

		Count	Percent
AgeRec	.00	3	0.0%
	Over 100	119	0.5%
	75 to 100	419	1.8%
	50 to 75	4096	17.8%
	25 to 50	10414	45.2%
	5 to 25	4971	21.6%
	5 or Newer	3036	13.2%
Overall		23058	100.0%
Excluded		1	
Total		23059	

Ratio Statistics for CURRTOT / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
.00	1.028	1.018	.099	15.6%
Over 100	.934	1.028	.156	20.7%
75 to 100	.913	1.020	.138	19.2%
50 to 75	.959	1.013	.096	13.8%
25 to 50	.968	1.006	.074	10.3%
5 to 25	.979	1.025	.072	10.3%
5 or Newer	.986	1.018	.076	11.3%
Overall	.971	1.013	.080	11.4%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	.00	3	0.0%
	LE 500 sf	43	0.2%
	500 to 1,000 sf	3160	13.7%
	1,000 to 1,500 sf	7292	31.6%
	1,500 to 2,000 sf	5532	24.0%
	2,000 to 3,000 sf	5343	23.2%
	3,000 sf or Higher	1685	7.3%
Overall		23058	100.0%
Excluded		1	
Total		23059	

Ratio Statistics for CURRTOT / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
.00	1.028	1.018	.099	15.6%
LE 500 sf	.986	1.047	.147	25.1%
500 to 1,000 sf	.968	1.014	.087	13.0%
1,000 to 1,500 sf	.972	1.008	.076	10.6%
1,500 to 2,000 sf	.970	1.008	.077	10.7%
2,000 to 3,000 sf	.975	1.011	.079	11.6%
3,000 sf or Higher	.965	1.021	.093	12.6%
Overall	.971	1.013	.080	11.4%

Improvement Quality

Case Processing Summary

		Count	Percent
QUALITY		3	0.0%
	0	10	0.0%
	1	62	0.3%
	2	3263	14.2%
	3	13781	59.8%
	4	5061	21.9%
	5	856	3.7%
	6	22	0.1%
Overall		23058	100.0%
Excluded		1	
Total		23059	

Ratio Statistics for CURRTOT / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
	1.028	1.018	.099	15.6%
0	1.049	1.018	.241	35.5%
1	.938	1.022	.165	23.7%
2	.955	1.012	.090	13.5%
3	.971	1.009	.076	10.6%
4	.979	1.021	.079	11.5%
5	.990	1.026	.101	13.2%
6	.916	1.037	.142	19.9%
Overall	.971	1.013	.080	11.4%

Commercial Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	$25K to $50K	4	1.1%
	$50K to $100K	11	2.9%
	$100K to $150K	22	5.9%
	$150K to $200K	23	6.1%
	$200K to $300K	25	6.6%
	$300K to $500K	70	18.6%
	$500K to $750K	47	12.5%
	$750K to $1,000K	37	9.8%
	Over $1,000K	137	36.4%
Overall		376	100.0%
Excluded		0	
Total		376	

Ratio Statistics for CURRTOT / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
$25K to $50K	1.348	1.004	.217	26.3%
$50K to $100K	1.100	.997	.141	18.5%
$100K to $150K	.946	1.004	.121	19.9%
$150K to $200K	.972	.997	.135	25.7%
$200K to $300K	.980	1.005	.126	20.8%
$300K to $500K	.971	1.002	.097	13.9%
$500K to $750K	.988	1.002	.103	16.7%
$750K to $1,000K	.988	.998	.099	16.1%
Over $1,000K	.962	1.025	.106	16.5%
Overall	.971	1.041	.114	18.0%

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	.00	1	0.3%
	1225.00	1	0.3%
	2212.00	80	21.3%
	2215.00	5	1.3%
	2220.00	66	17.6%
	2225.00	1	0.3%
	2230.00	69	18.4%
	2235.00	36	9.6%
	2245.00	52	13.8%
	3212.00	1	0.3%
	3215.00	1	0.3%
	3230.00	63	16.8%
Overall		376	100.0%
Excluded		0	
Total		376	

Ratio Statistics for CURRTOT / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
.00	.665	1.000	.000	.
1225.00	1.282	1.000	.000	.
2212.00	.952	1.023	.122	18.8%
2215.00	.970	1.009	.025	3.7%
2220.00	.998	1.043	.099	14.1%
2225.00	.965	1.000	.000	.
2230.00	.974	1.014	.095	17.0%
2235.00	.971	1.067	.108	16.0%
2245.00	.992	1.067	.134	25.1%
3212.00	.954	1.000	.000	.
3215.00	1.000	1.000	.000	.
3230.00	.925	1.008	.117	15.8%
Overall	.971	1.041	.114	18.0%

Improvement Age

Case Processing Summary

		Count	Percent
AgeRec	.00	1	0.3%
	Over 100	12	3.2%
	75 to 100	6	1.6%
	50 to 75	71	18.9%
	25 to 50	127	33.8%
	5 to 25	122	32.4%
	5 or Newer	37	9.8%
Overall		376	100.0%
Excluded		0	
Total		376	

Ratio Statistics for CURRTOT / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
.00	.665	1.000	.000	.
Over 100	.972	1.001	.092	16.2%
75 to 100	1.004	.994	.057	8.3%
50 to 75	.980	1.050	.102	17.0%
25 to 50	.966	1.042	.116	17.6%
5 to 25	.974	1.026	.103	16.2%
5 or Newer	.919	1.100	.171	28.6%
Overall	.971	1.041	.114	18.0%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	.00	1	0.3%
	LE 500 sf	4	1.1%
	500 to 1,000 sf	44	11.7%
	1,000 to 1,500 sf	44	11.7%
	1,500 to 2,000 sf	38	10.1%
	2,000 to 3,000 sf	60	16.0%
	3,000 sf or Higher	185	49.2%
Overall		376	100.0%
Excluded		0	
Total		376	

Ratio Statistics for CURRTOT / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
.00	.665	1.000	.000	.
LE 500 sf	1.263	1.000	.162	20.5%
500 to 1,000 sf	.946	.994	.130	20.6%
1,000 to 1,500 sf	.984	1.026	.108	20.4%
1,500 to 2,000 sf	.987	1.031	.098	17.2%
2,000 to 3,000 sf	.964	1.009	.097	15.0%
3,000 sf or Higher	.970	1.034	.113	17.3%
Overall	.971	1.041	.114	18.0%

Improvement Quality

Case Processing Summary

		Count	Percent
QUALITY		1	0.3%
	1	2	0.5%
	2	6	1.6%
	3	314	83.5%
	4	52	13.8%
	5	1	0.3%
Overall		376	100.0%
Excluded		0	
Total		376	

Ratio Statistics for CURRTOT / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
	.665	1.000	.000	.
1	.989	.985	.027	3.8%
2	.872	.944	.158	18.8%
3	.976	1.044	.113	18.3%
4	.943	1.011	.107	14.9%
5	.946	1.000	.000	.
Overall	.971	1.041	.114	18.0%

Vacant Land Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	LT $25K	3	1.0%
	$25K to $50K	16	5.4%
	$50K to $100K	39	13.3%
	$100K to $150K	66	22.4%
	$150K to $200K	43	14.6%
	$200K to $300K	49	16.7%
	$300K to $500K	55	18.7%
	$500K to $750K	8	2.7%
	$750K to $1,000K	10	3.4%
	Over $1,000K	5	1.7%
Overall		294	100.0%
Excluded		0	
Total		294	

Ratio Statistics for CURRLND / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LT $25K	1.173	1.015	.205	31.1%
$25K to $50K	1.026	.990	.198	25.7%
$50K to $100K	.999	1.001	.172	24.5%
$100K to $150K	1.013	1.002	.217	31.1%
$150K to $200K	.974	.999	.140	19.7%
$200K to $300K	.979	1.002	.160	22.8%
$300K to $500K	.954	.996	.147	22.1%
$500K to $750K	.957	.996	.205	30.1%
$750K to $1,000K	1.015	.992	.249	37.2%
Over $1,000K	1.004	1.008	.080	14.1%
Overall	.984	1.039	.178	25.9%

Subclass

Case Processing Summary

		Count	Percent
ABSTRLND	100.00	142	48.3%
	200.00	22	7.5%
	300.00	5	1.7%
	510.00	5	1.7%
	520.00	7	2.4%
	530.00	6	2.0%
	540.00	11	3.7%
	550.00	11	3.7%
	560.00	1	0.3%
	1112.00	70	23.8%
	2112.00	2	0.7%
	2130.00	7	2.4%
	2135.00	4	1.4%
	2343.50	1	0.3%
Overall		294	100.0%
Excluded		0	
Total		294	

Ratio Statistics for CURRLND / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
100.00	.990	1.076	.191	26.8%
200.00	1.011	1.060	.126	18.5%
300.00	.942	1.037	.210	31.8%
510.00	.959	1.032	.115	17.1%
520.00	.994	.980	.221	44.5%
530.00	.900	1.028	.078	9.1%
540.00	.998	1.029	.122	16.5%
550.00	.982	1.045	.230	36.9%
560.00	1.074	1.000	.000	.
1112.00	.966	1.038	.164	23.6%
2112.00	1.250	1.065	.197	27.9%
2130.00	1.051	1.002	.129	24.3%
2135.00	.930	1.073	.294	52.9%
2343.50	1.072	1.000	.000	.
Overall	.984	1.039	.178	25.9%