2024
JEFFERSON COUNTY PROPERTY ASSESSMENT STUDY

EastWest ECONOMETRICS

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September 15, 2024

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

      RE: **Final Report for the 2024 Colorado Property Assessment Study**

Dear Ms. Castle:

East West Econometrics.-Audit Division is pleased to submit the Final Reports for the 2024 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.

East West Econometrics – 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

Harry J. Fuller
Project Manager
East West Econometrics. – 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.

East West Econometrics has completed the Property Assessment Study for 2024 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 has approximately 764.2 square miles and an estimated population of approximately 582,881 people, according to the U.S. Census Bureau's 2020 estimated census data. This represents a 9.0 percent change from April 1, 2010 to July 1, 2019.

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, 2019 through June 30th, 2020. 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.

All sixty-four counties were examined for compliance on the economic area level. Where there were sufficient sales data, the neighborhood and subdivision levels were tested for compliance. Although counties are determined to be in or out of compliance at the class level, non-compliant economic areas, neighborhoods and subdivisions (where applicable) were discussed with the Assessor.

Data on the individual economic areas, neighborhoods and subdivisions are found in the STATISTICAL APPENDIX.

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	257	0.991	1.037	8.5	Compliant
Single Family	22,127	0.971	1.014	8.1	Compliant
Vacant Land	422	0.984	1.021	10.3	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
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 (pie chart):
- Dry Farm 0.47%
- Flood 0.25%
- Sprinkler 0.02%
- Forest 17.57%
- Meadow Hay 6.30%
- Orchard 0.13%
- Grazing 75.26%

Value By Subclass (bar chart, categories: Sprinkler, Flood, Dry Farm, Meadow Hay, Grazing, Orchard, Forest)
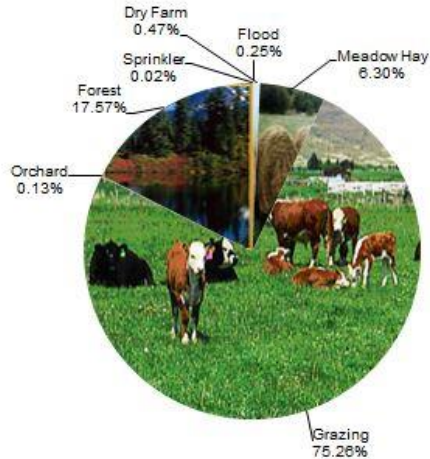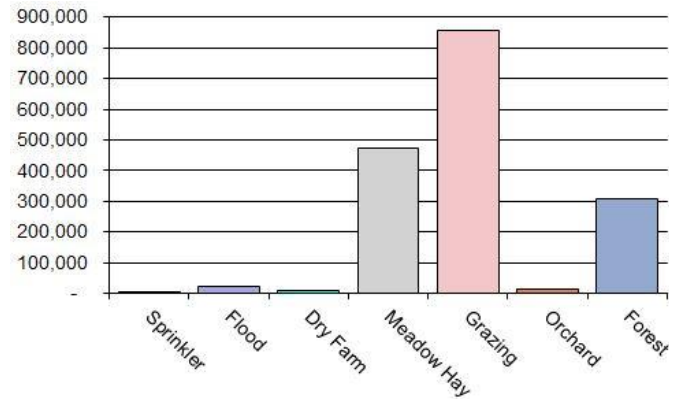
Agricultural Land

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
4107	Sprinkler	13	154.52	2,047	2,047	1.00
4117	Flood	176	141.37	24,866	24,866	1.00
4127	Dry Farm	326	33.78	10,998	10,998	1.00
4137	Meadow Hay	4,366	108.06	471,715	471,715	1.00
4147	Grazing	52,157	16.42	856,247	856,247	1.00
4157	Orchard	89	176.96	15,749	15,749	1.00
4177	Forest	12,176	25.45	309,871	309,871	1.00
Total/Avg		**69,302**	**24.41**	**1,691,494**	**1,691,494**	**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.:

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

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.

EWE reviewed the sales verification procedures in 2024 for Jefferson County. This study was conducted by checking selected sales from the master sales list for the current valuation period. Specifically EWE selected 65 sales listed as unqualified.

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

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

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

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

determine if the sales included in that code have been assigned appropriately.

Conclusions

Jefferson County appears to be doing an adequate job of verifying their sales. EWE agreed with the county's reason for disqualifying each of the sales selected in the sample. There are no recommendations or suggestions.

Recommendations

None

ECONOMIC AREA REVIEW AND EVALUATION

Methodology

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 2024 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 2024 valuation period. The number and listing of businesses audited was also submitted and was in conformance with the written audit plan. The following audit triggers were used by the county to select accounts to be audited:

- Accounts with obvious discrepancies
- New businesses filing for the first time
- Incomplete or inconsistent declarations
- Accounts with omitted property
- Same business type or use
- Businesses with no deletions or additions for 2 or more years
- Non-filing Accounts - Best Information Available
- Accounts close to the $52,000 actual value exemption status

- 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

EAST WEST ECONOMETRICS
AUDITOR STAFF

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APPENDICES

STATISTICAL COMPLIANCE REPORT
FOR JEFFERSON COUNTY
2024

I. OVERVIEW

Jefferson County is an urban county located along Colorado's Front Range. The county has a total of 208,088 real property parcels, according to data submitted by the county assessor's office in 2024. The following provides a breakdown of property classes for this county:
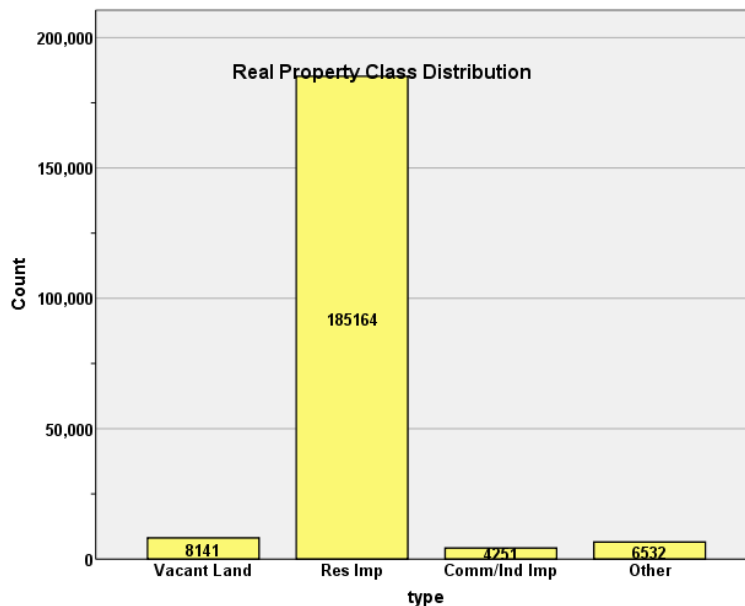
The vacant land class of properties was dominated by residential land. Residential lots (coded 100 and 1112) accounted for 80.6% of all vacant land parcels.

For residential improved properties, single family properties accounted for 97.6% of all residential properties.

Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial properties accounted for 2.0% of all such properties in this county.

II. DATA FILES

The following sales analyses were based on the requirements of the 2024 Colorado Property Assessment Study. Information was provided by the Jefferson Assessor's Office in June 2024. The data included all 5 property record files as specified by the Auditor.

III. RESIDENTIAL SALES RESULTS

There were 22,155 qualified residential sales in the 24-month period ending June 30, 2022. Using IAAO standards, 28 sales were trimmed, resulting in a final count of 22,127 residential sales. The sales ratio analysis results were as follows:

Median	0.971
Price Related Differential	1.014
Coefficient of Dispersion	8.1

We next stratified the sale ratio analysis by economic area and neighborhood. The minimum count for the neighborhood stratification is 50 sales. The following are the results of this stratification analysis:

Economic Area
Case Processing Summary

		Count	Percent
ECONAREA	1.00	3140	14.2%
	2.00	4992	22.6%
	3.00	4700	21.2%
	4.00	4346	19.6%
	5.00	1512	6.8%
	6.00	767	3.5%
	7.00	145	0.7%
	8.00	1116	5.0%
	9.00	1242	5.6%
	11.00	1	0.0%
	12.00	33	0.1%
	22.00	65	0.3%
	23.00	40	0.2%
	26.00	8	0.0%
	33.00	12	0.1%
	44.00	6	0.0%
	58.00	2	0.0%
Overall		22127	100.0%
Excluded		0	
Total		22127	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
1.00	.973	1.004	.069
2.00	.970	1.015	.090
3.00	.972	1.010	.079
4.00	.973	1.005	.067
5.00	.980	1.011	.075
6.00	.963	1.011	.094
7.00	.943	1.016	.090
8.00	.955	1.015	.104
9.00	.958	1.018	.106
11.00	.957	1.000	.000
12.00	1.000	1.096	.048

22.00	.989	1.106	.048
23.00	1.000	.986	.063
26.00	.989	.952	.059
33.00	1.000	1.147	.055
44.00	1.018	1.045	.127
58.00	1.037	1.000	.000
Overall	.971	1.014	.081

All but one economic area with sufficient sales were in compliance with SBOE sales ratio standards.

B. Neighborhoods with at least 50 sales
Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
101	.985	1.002	.049
1001	.974	1.002	.067
1002	.964	1.004	.066
1003	.975	1.001	.071
1004	.970	1.002	.066
1005	.965	1.004	.070
1006	.964	1.001	.057
1007	.976	1.003	.065
1008	.975	1.009	.082
1009	.974	1.006	.068
1010	.978	1.004	.069
1011	.966	1.002	.069
1012	.992	1.009	.059
1013	.988	1.026	.095
1014	.969	1.002	.055
1015	.981	1.011	.082
1016	.961	1.004	.076
1017	.968	1.004	.081
1905	.977	1.006	.067
1906	.975	1.004	.059
2002	.977	1.014	.096
2301	.959	1.010	.083
2302	.957	1.013	.087
2307	.969	1.020	.101
2311	.984	1.002	.076
2312	.988	1.024	.110
2314	.969	1.004	.079
2319	.966	1.011	.084
2324	.968	1.012	.108
2329	.986	1.012	.096
2337	.966	1.002	.087
2403	.975	1.025	.093
2404	.988	1.025	.098
2405	.956	1.027	.110
2406	.974	1.028	.103
2408	.994	1.012	.100
2410	.970	1.049	.112
2411	.947	1.016	.115
2412	.965	1.023	.104
2417	.991	1.014	.079
2420	.978	1.005	.073
2424	.977	1.017	.085

2923	.992	.998	.076
2927	.978	1.005	.064
2936	.961	1.012	.081
2945	.967	1.011	.076
3001	**.943**	**1.018**	**.142**
3003	.946	1.019	.110
3004	.962	1.020	.126
3005	.982	1.023	.128
3006	.958	1.013	.088
3007	.963	1.010	.085
3008	.977	1.011	.080
3009	.964	1.016	.108
3010	.961	1.007	.093
3011	.971	1.006	.074
3012	.962	1.009	.081
3015	.973	1.008	.074
3016	.978	1.005	.072
3017	.972	1.005	.074
3019	.990	1.023	.076
3021	.973	1.013	.074
3022	.950	1.009	.083
3026	.985	1.012	.075
3028	.965	1.006	.064
3906	.962	1.005	.064
3908	.970	1.001	.069
3910	.963	1.005	.052
3911	.989	1.005	.054
3919	.968	1.004	.058
3924	.977	1.004	.055
3929	.981	1.003	.053
3942	.973	1.004	.060
3944	.999	1.010	.056
4003	.988	1.011	.058
4005	.977	1.002	.064
4006	.979	1.006	.070
4009	.971	1.000	.057
4010	.985	1.006	.078
4011	.982	1.006	.064
4012	.971	1.003	.067
4013	.974	1.008	.061
4015	.971	1.007	.068
4016	.966	1.001	.068
4020	.968	1.002	.058
4021	.969	1.000	.071
4022	.965	1.006	.075
4024	.990	1.000	.054
4025	.979	1.005	.068
4026	.969	1.001	.063
4027	.983	1.003	.041
4029	.970	.998	.051
4030	.970	1.004	.069
4031	.990	1.004	.068
4032	.965	1.003	.075
4034	.971	1.001	.055
4046	.992	1.013	.107
4904	.973	1.010	.070
4905	.984	1.002	.037

4910	.982	1.002	.041
4912	.971	1.012	.072
4913	.962	.995	.073
4918	**.943**	**1.004**	**.064**
5001	.950	1.016	.116
5006	.987	1.016	.081
5007	.978	1.012	.068
5010	.962	1.011	.101
5011	.985	1.006	.071
5901	.981	1.005	.051
6101	.987	1.015	.080
6102	.979	1.012	.069
6103	.963	1.006	.096
6104	.952	1.020	.120
6106	.981	1.019	.108
6107	.963	1.000	.061
7013	**.931**	**1.017**	**.092**
8001	.957	1.034	.122
8004	.968	1.019	.099
8005	.965	1.014	.085
8009	**.938**	**1.007**	**.085**
8010	.962	1.012	.088
8011	.953	1.017	.099
8016	.966	1.011	.091
8020	**.940**	**1.015**	**.140**
9012	**.943**	**1.024**	**.105**
9024	.951	1.003	.111
9033	.967	1.012	.090
9043	**.935**	**1.010**	**.097**
9074	.970	1.049	.104
9082	.948	1.042	.150
9103	.973	1.038	.139
9114	.960	1.010	.086
9133	.958	1.002	.078
9143	.962	1.022	.082
9152	.959	1.023	.116
9162	.969	1.001	.142
Overall	.971	1.011	.081

The neighborhoods highlighted in red were out of the compliance range for either the sales ratio, the COD or both. Most were marginally out of range and would likely be in compliance with trimming, in our opinion.

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

Mean = .97
Std. Dev. = .113
N = 22,127
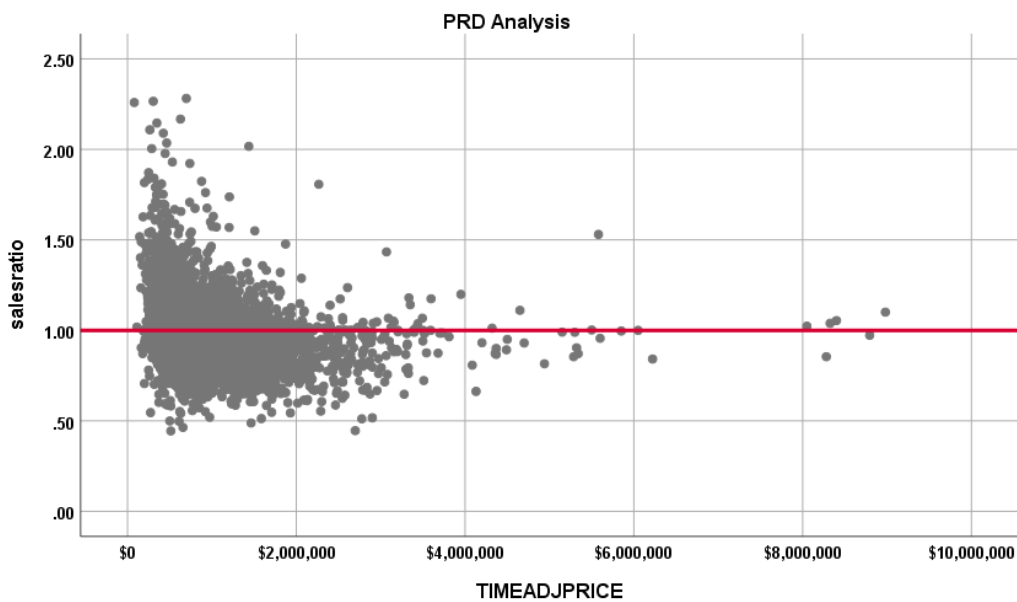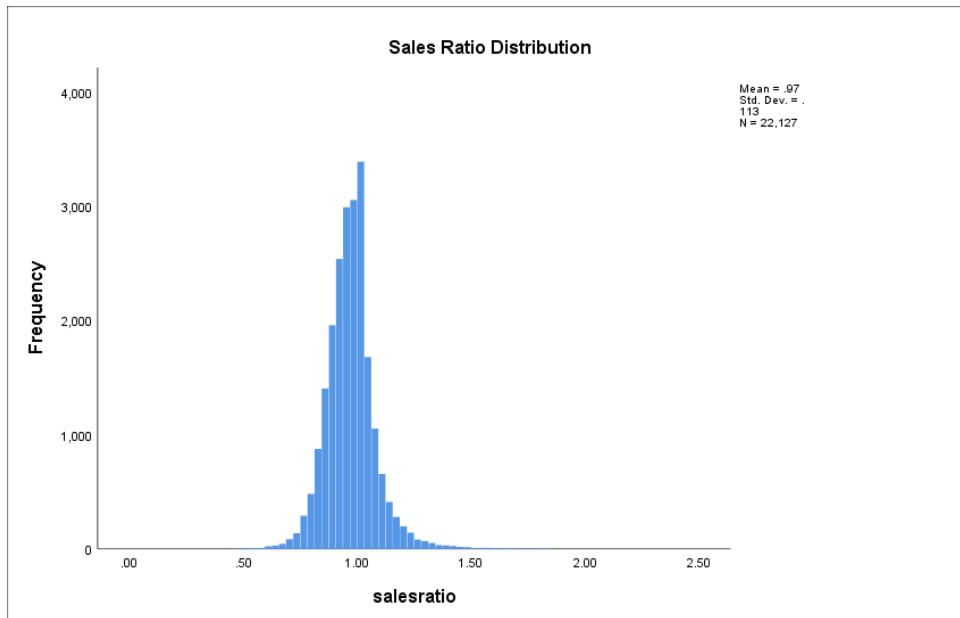
PRD Analysis

NOTE: SALES LIMITED TO LESS THAN $10,000,000.

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

Subclass 1212 PRD Analysis

We next analyzed residential properties identified as 1212 using the state abstract code system (Jefferson County uses the land code of 1112 for 1212 properties). These include single family residences, town homes and purged manufactured homes. The following indicates the distribution of sales ratios across the sale price spectrum:

1212 SALES
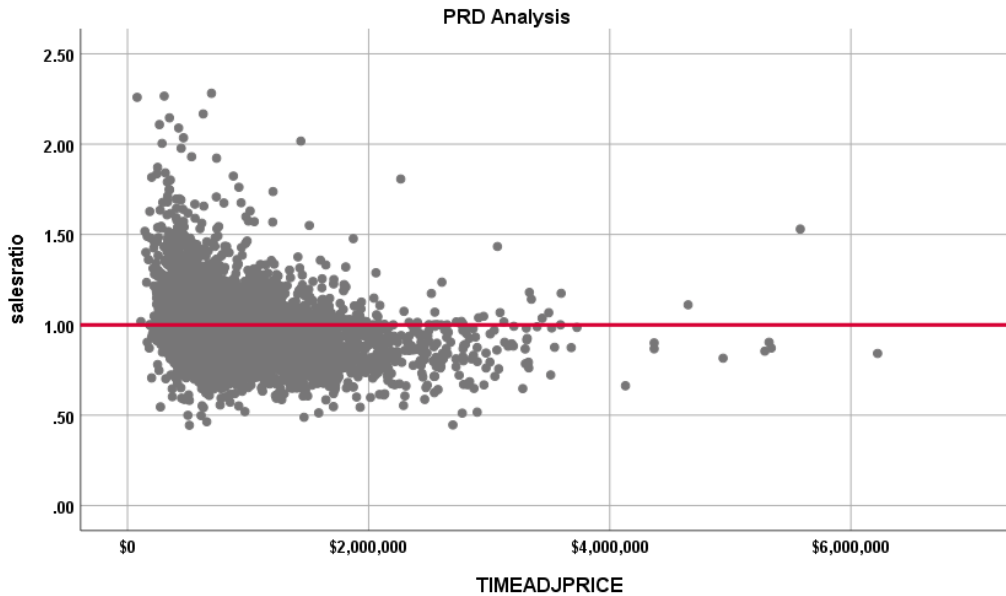
The Price-Related Differential (PRD) for 1212 sales is 1.011, which is within IAAO standards for the PRD. We also performed a regression analysis between the sales ratio and the assessor's current value to further test for regressivity or progressivity in the residential sales valuation, as follows:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.959	.002		515.947	.000
	CURRTOT	.0000000188	.000	.053	7.782	.000

a. Dependent Variable: salesratio

The slope of the line at 0.0000000188 indicates that there is virtually no slope in the regression line, which in turn indicates that sales ratios are similar across the entire sale price array. This indicates no regressivity or progressivity in the residential values assigned by the assessor.

Case Processing Summary

		Count	Percent
SPRec	LT $200K	17	0.1%
	$200K to $300K	176	0.8%
	$300K to $400K	1067	4.9%
	$400K to $500K	2277	10.5%
	$500K to $600K	4818	22.2%
	$600K to $700K	4516	20.8%
	$700K to $800K	2989	13.8%
	$800K to $900K	1967	9.1%
	$900K to $1,000K	1130	5.2%
	Over $1,000K	2720	12.5%
Overall		21677	100.0%
Excluded		0	
Total		21677	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
LT $200K	1.235	1.029	.263
$200K to $300K	1.041	1.004	.122
$300K to $400K	.991	1.002	.081
$400K to $500K	.992	1.000	.088
$500K to $600K	.980	1.001	.071
$600K to $700K	.968	1.000	.071
$700K to $800K	.964	1.000	.076
$800K to $900K	.962	1.000	.074
$900K to $1,000K	.965	1.000	.076
Over $1,000K	.937	1.008	.103
Overall	.971	1.011	.080

The above table indicates no regressivity in the sales ratios across sale price categories.

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.
1.00		.968	.003		310.425	.000
		.001	.000	.038	2.152	.031
2.00		.974	.003		293.045	.000
		-6.044E-5	.000	-.003	-.238	.812
3.00		.960	.003		308.881	.000
		.001	.000	.083	5.715	.000
4.00		.964	.003		350.706	.000
		.001	.000	.073	4.832	.000

5.00	.936	.005		176.811	.000
	.003	.000	.222	8.862	.000
6.00	.919	.009		105.708	.000
	.003	.001	.182	5.117	.000
7.00	.950	.019		50.698	.000
	.000	.001	-.019	-.230	.818
8.00	.904	.008		110.992	.000
	.004	.001	.204	6.955	.000
9.00	.923	.008		112.981	.000
	.004	.001	.172	6.148	.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 2024 between each group. The data was analyzed both as a whole and stratified by economic area and neighborhoods (with at least 65 sales), as follows:

Class

Report

VALSF

sold	N	Median	Mean
UNSOLD	163040	$369	$391
SOLD	22125	$384	$408

Economic Area

Report

VALSF

ECONAREA	sold	N	Median	Mean
1.00	UNSOLD	24210	$345	$361
	SOLD	3140	$360	$377
2.00	UNSOLD	33705	$409	$418
	SOLD	4991	$420	$434
3.00	UNSOLD	34666	$373	$388
	SOLD	4700	$380	$397
4.00	UNSOLD	33877	$333	$349
	SOLD	4346	$357	$374
5.00	UNSOLD	9707	$354	$373
	SOLD	1512	$362	$375
6.00	UNSOLD	7240	$435	$457
	SOLD	767	$464	$491
7.00	UNSOLD	1128	$425	$452
	SOLD	145	$449	$480
8.00	UNSOLD	8037	$444	$466
	SOLD	1116	$468	$489
9.00	UNSOLD	8884	$437	$456

			$460	$475
	SOLD	1242	$460	$475
22.00	UNSOLD	384	$210	$268
	SOLD	65	$260	$288
23.00	UNSOLD	337	$223	$234
	SOLD	40	$265	$355

Neighborhoods with at least 65 sales
Report
VALSF

NBHD	sold	N	Median	Mean
101	UNSOLD	633	$216	$226
	SOLD	74	$260	$283
1001	UNSOLD	2528	$343	$359
	SOLD	284	$363	$379
1003	UNSOLD	3891	$368	$379
	SOLD	512	$377	$389
1004	UNSOLD	1552	$351	$370
	SOLD	179	$371	$386
1005	UNSOLD	952	$309	$321
	SOLD	102	$331	$335
1006	UNSOLD	630	$307	$335
	SOLD	93	$337	$365
1007	UNSOLD	600	$446	$422
	SOLD	91	$481	$457
1008	UNSOLD	1107	$319	$325
	SOLD	139	$339	$341
1009	UNSOLD	1818	$317	$338
	SOLD	214	$336	$368
1011	UNSOLD	1066	$335	$342
	SOLD	127	$370	$374
1012	UNSOLD	991	$319	$337
	SOLD	168	$339	$345
1015	UNSOLD	922	$344	$357
	SOLD	88	$375	$381
1016	UNSOLD	1334	$338	$357
	SOLD	148	$370	$388
1017	UNSOLD	2325	$390	$398
	SOLD	297	$390	$413
1905	UNSOLD	284	$321	$329
	SOLD	67	$333	$344
1906	UNSOLD	377	$328	$338
	SOLD	81	$347	$353
2002	UNSOLD	520	$377	$376
	SOLD	76	$414	$398
2301	UNSOLD	3504	$437	$430
	SOLD	503	$430	$434
2302	UNSOLD	2172	$376	$387
	SOLD	301	$391	$401
2307	UNSOLD	1937	$417	$416
	SOLD	284	$426	$433
2311	UNSOLD	2470	$348	$358
	SOLD	275	$377	$387
2314	UNSOLD	1663	$359	$363
	SOLD	222	$378	$390
2319	UNSOLD	1880	$488	$480

	SOLD	272	$502	$496
2324	UNSOLD	485	$485	$489
	SOLD	73	$549	$539
2329	UNSOLD	990	$460	$454
	SOLD	181	$483	$490
2337	UNSOLD	934	$431	$439
	SOLD	153	$450	$456
2403	UNSOLD	1332	$417	$424
	SOLD	170	$452	$462
2404	UNSOLD	1038	$410	$421
	SOLD	99	$437	$449
2405	UNSOLD	2518	$447	$450
	SOLD	332	$476	$480
2406	UNSOLD	1495	$432	$437
	SOLD	182	$450	$453
2410	UNSOLD	575	$403	$403
	SOLD	69	$411	$421
2411	UNSOLD	1701	$507	$515
	SOLD	269	$517	$528
2412	UNSOLD	1174	$513	$513
	SOLD	172	$584	$573
2417	UNSOLD	896	$421	$423
	SOLD	94	$473	$495
2420	UNSOLD	662	$468	$447
	SOLD	84	$533	$518
2424	UNSOLD	1387	$396	$406
	SOLD	131	$451	$462
2927	UNSOLD	344	$276	$293
	SOLD	224	$270	$278
2936	UNSOLD	291	$362	$349
	SOLD	168	$354	$358
2945	UNSOLD	357	$383	$395
	SOLD	95	$391	$393
3001	UNSOLD	815	$446	$457
	SOLD	146	$473	$464
3003	UNSOLD	906	$415	$421
	SOLD	101	$430	$439
3004	UNSOLD	1002	$409	$419
	SOLD	134	$406	$415
3007	UNSOLD	1287	$427	$431
	SOLD	165	$448	$449
3009	UNSOLD	1164	$405	$410
	SOLD	134	$419	$424
3010	UNSOLD	2036	$439	$443
	SOLD	267	$452	$458
3011	UNSOLD	2507	$365	$382
	SOLD	260	$371	$397
3012	UNSOLD	1099	$429	$420
	SOLD	131	$430	$429
3015	UNSOLD	4692	$415	$405
	SOLD	516	$415	$421
3017	UNSOLD	1928	$457	$442
	SOLD	203	$485	$467
3019	UNSOLD	961	$355	$368
	SOLD	112	$368	$389
3021	UNSOLD	1079	$395	$404
	SOLD	114	$406	$413

3022	UNSOLD	955	$317	$330
	SOLD	93	$338	$347
3026	UNSOLD	1711	$380	$393
	SOLD	286	$410	$423
3028	UNSOLD	1295	$364	$373
	SOLD	109	$384	$394
3906	UNSOLD	276	$302	$318
	SOLD	113	$382	$372
3908	UNSOLD	356	$337	$345
	SOLD	147	$318	$332
3910	UNSOLD	500	$360	$357
	SOLD	86	$382	$377
3911	UNSOLD	598	$329	$331
	SOLD	91	$343	$342
3919	UNSOLD	609	$346	$351
	SOLD	142	$355	$361
3924	UNSOLD	529	$253	$258
	SOLD	93	$276	$280
3942	UNSOLD	538	$306	$308
	SOLD	98	$322	$320
3944	UNSOLD	203	$298	$305
	SOLD	140	$335	$339
4003	UNSOLD	1013	$330	$351
	SOLD	132	$356	$371
4005	UNSOLD	759	$328	$342
	SOLD	89	$364	$381
4006	UNSOLD	2334	$290	$300
	SOLD	251	$327	$339
4009	UNSOLD	1354	$300	$312
	SOLD	142	$336	$346
4010	UNSOLD	1228	$334	$346
	SOLD	129	$407	$413
4011	UNSOLD	981	$351	$356
	SOLD	161	$371	$374
4013	UNSOLD	1218	$327	$337
	SOLD	135	$346	$354
4015	UNSOLD	1345	$325	$335
	SOLD	156	$349	$359
4016	UNSOLD	512	$360	$378
	SOLD	94	$401	$415
4020	UNSOLD	696	$305	$307
	SOLD	70	$338	$342
4021	UNSOLD	1037	$306	$320
	SOLD	135	$332	$351
4022	UNSOLD	1308	$362	$385
	SOLD	146	$366	$399
4024	UNSOLD	721	$312	$325
	SOLD	88	$338	$348
4025	UNSOLD	896	$321	$325
	SOLD	115	$339	$346
4026	UNSOLD	1531	$353	$359
	SOLD	217	$387	$394
4029	UNSOLD	872	$328	$334
	SOLD	93	$365	$369
4030	UNSOLD	996	$357	$373
	SOLD	105	$359	$382
4031	UNSOLD	461	$317	$318

	SOLD	73	$330	$332
4032	UNSOLD	2823	$330	$352
	SOLD	383	$348	$372
4034	UNSOLD	759	$348	$355
	SOLD	102	$371	$381
4046	UNSOLD	739	$499	$510
	SOLD	77	$554	$565
4918	UNSOLD	802	$329	$338
	SOLD	167	$341	$348
5001	UNSOLD	772	$384	$394
	SOLD	90	$401	$418
5006	UNSOLD	1834	$364	$370
	SOLD	191	$379	$388
5007	UNSOLD	1183	$339	$345
	SOLD	144	$361	$364
5010	UNSOLD	1255	$429	$463
	SOLD	101	$465	$499
5011	UNSOLD	2666	$313	$325
	SOLD	666	$332	$338
5901	UNSOLD	557	$324	$315
	SOLD	183	$355	$357
6103	UNSOLD	1380	$432	$440
	SOLD	197	$424	$442
6104	UNSOLD	1480	$539	$541
	SOLD	130	$631	$637
6106	UNSOLD	828	$454	$463
	SOLD	65	$475	$503
6107	UNSOLD	651	$438	$460
	SOLD	65	$490	$507
7013	UNSOLD	790	$406	$429
	SOLD	109	$426	$447
8001	UNSOLD	876	$487	$506
	SOLD	117	$518	$539
8004	UNSOLD	570	$465	$476
	SOLD	72	$477	$496
8005	UNSOLD	716	$429	$454
	SOLD	98	$431	$458
8009	UNSOLD	649	$430	$446
	SOLD	127	$452	$462
8020	UNSOLD	538	$465	$493
	SOLD	73	$501	$526
9024	UNSOLD	837	$441	$462
	SOLD	124	$462	$479
9033	UNSOLD	1154	$427	$440
	SOLD	128	$461	$473
9043	UNSOLD	1083	$453	$472
	SOLD	185	$471	$490
9082	UNSOLD	605	$430	$459
	SOLD	65	$461	$466
9103	UNSOLD	456	$443	$470
	SOLD	76	$478	$510
9114	UNSOLD	608	$431	$441
	SOLD	79	$455	$470
9143	UNSOLD	489	$465	$479
	SOLD	87	$478	$497
9152	UNSOLD	797	$450	$460
	SOLD	112	$441	$457

| 9162 | UNSOLD | 620 | $385 | $413 |
| | SOLD | 68 | $384 | $406 |

Out of 109 residential neighborhoods with at least 65 sales, there were 16 neighborhoods that had differences 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 259 qualified commercial/industrial sales in the 24 month period ending June 30, 2022. We trimmed 2 sales using IAAO standards, resulting in a total of 257 qualified commercial sales. The sales ratio analysis results were as follows:

Median	**0.991**
Price Related Differential	**1.037**
Coefficient of Dispersion	**8.5**

The above table indicates that the Jefferson County commercial 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
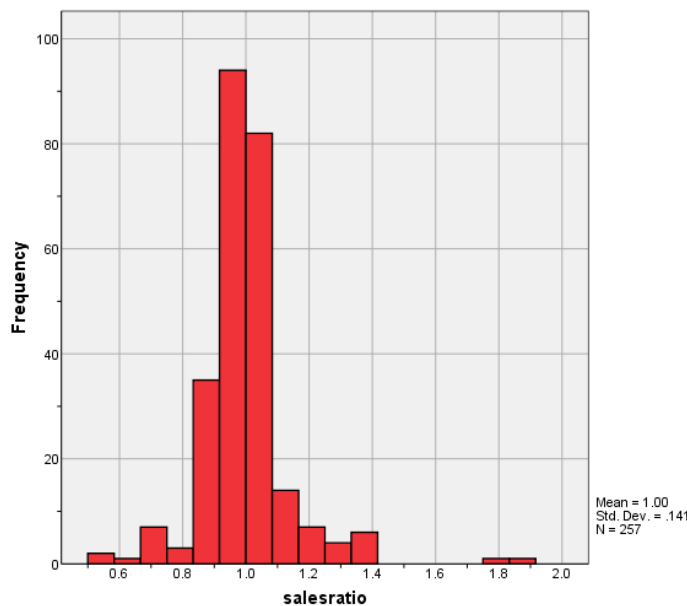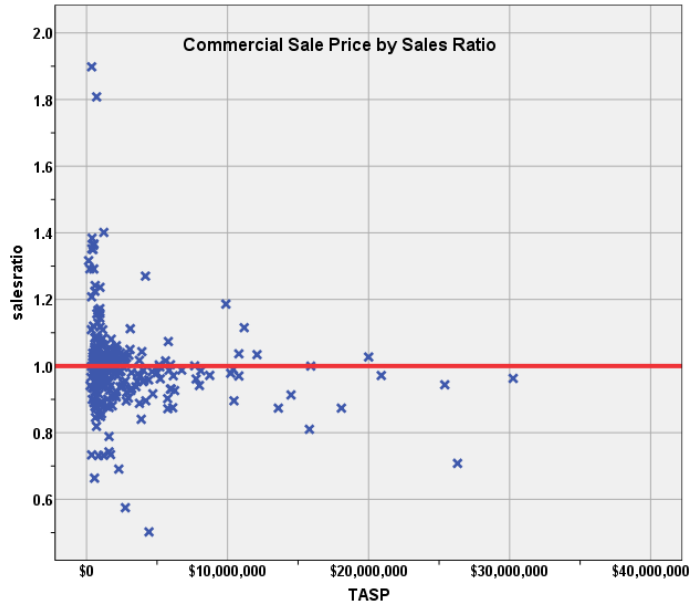
Commercial/Industrial Market Trend Analysis

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 | | |
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.971	.016		59.043	.000
	SalePeriod	.003	.001	.121	1.948	.053

a. Dependent Variable: salesratio

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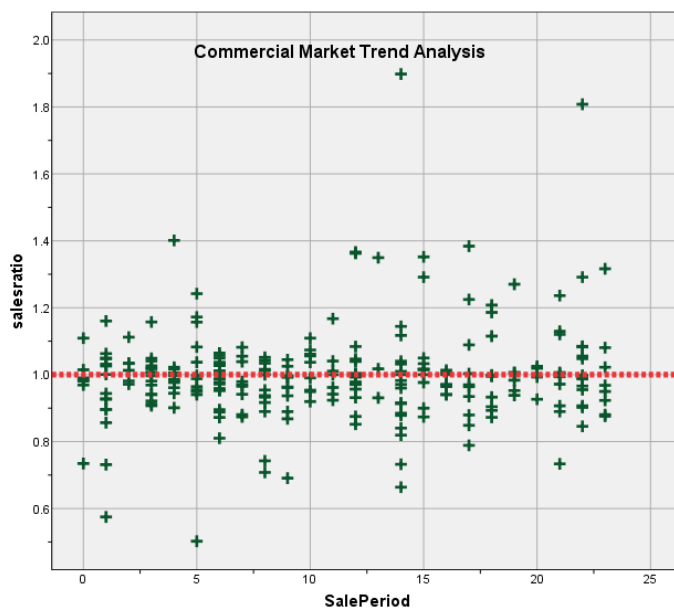
There was no residual market trending present in the commercial sale ratios. We concluded that the assessor has adequately considered market trending adjustments as part of the commercial/industrial valuation.

Sold/Unsold Analysis

We compared the median actual value per square foot for 2024 for sold and unsold commercial properties to determine if they were valued consistently, as follows:

Report

VALSF

sold	N	Median	Mean
UNSOLD	3994	$179	$230
SOLD	257	$205	$236

We checked both the 2024 actual value per square foot and the median/mean change in actual value between the prior base year and the current base year by subclass to determine the differences between sold and unsold commercial properties. The following is the differences based on the second method by subclass for sold and unsold commercial properties:

Report

DIFF

ABSTRIMP	sold	N	Median	Mean
2212.00	UNSOLD	1264	1.12	1.22
	SOLD	64	1.40	1.41
2220.00	UNSOLD	538	1.05	1.17
	SOLD	70	1.33	1.47
2230.00	UNSOLD	1066	1.18	1.31
	SOLD	56	1.45	1.52
2235.00	UNSOLD	694	1.19	1.27
	SOLD	50	1.41	1.67
3215.00	UNSOLD	99	1.12	1.24
	SOLD	7	1.10	1.28

The differences for subclasses 2212, 2220, 2230, and 2235 were at least partially explained by differences in size, quality and/or age between sold and unsold properties in each class. Overall, the assessor has valued sold and unsold commercial properties consistently.

V. VACANT LAND SALE RESULTS

There were 428 qualified commercial/industrial sales for the 24 month period ending June 30, 2022. Using IAAO standards, we trimmed 6 sales, resulting in a total of 422 sales. The sales ratio analysis results were as follows:

Median	0.984
Price Related Differential	1.021
Coefficient of Dispersion	10.3

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 = .98
Std. Dev. = .149
N = 422
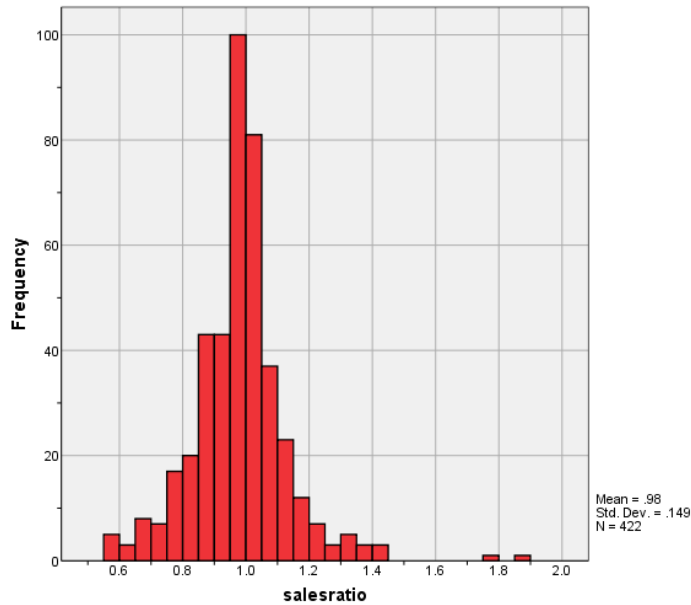
The above histogram indicates that the distribution of the vacant land sale ratios was within state mandated limits.

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		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.967	.015		64.737	.000
	SalePeriod	.001	.001	.048	.991	.322

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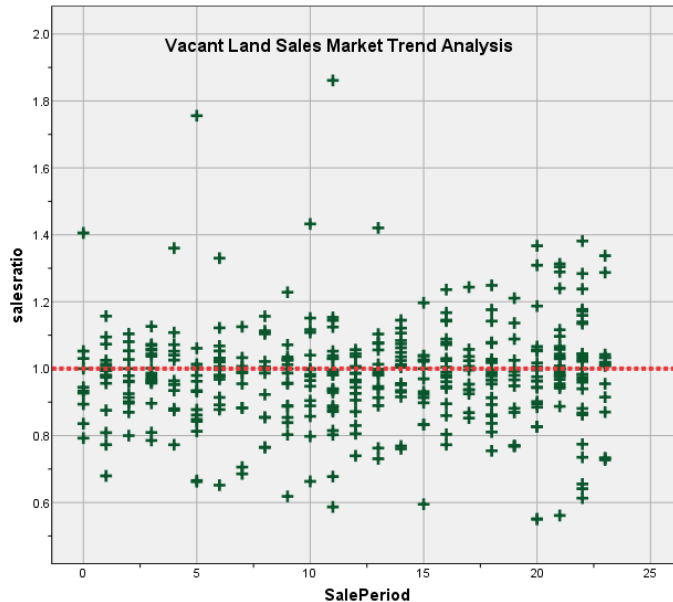
The above analysis indicated that there was no significant statistical trend. We therefore concluded that the assessor has adequately dealt with market trending for vacant land properties.

Sold/Unsold Analysis

In terms of the valuation consistency between sold and unsold vacant land properties, we compared the median change in actual value between the prior base year and the current base year for each group, as follows:

Report
DIFF

sold	N	Median	Mean
UNSOLD	5522	1.39	1.48
SOLD	387	1.45	1.57

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 2 sales:

Report

DIFF

SUBDIVNO	sold	N	Median	Mean
0	UNSOLD	1125	1.36	1.40
	SOLD	50	1.47	1.51
177000	UNSOLD	31	1.19	1.38
	SOLD	6	1.04	1.05
229200	UNSOLD	25	1.79	1.89
	SOLD	3	1.19	1.14
285605	UNSOLD	20	1.19	1.12
	SOLD	6	1.66	1.52
361625	UNSOLD	1	1.67	1.67
	SOLD	3	1.67	1.41
361635	UNSOLD	2	1.38	1.38
	SOLD	5	1.22	1.19
486500	UNSOLD	2	2.10	2.10
	SOLD	13	1.39	1.45
505400	UNSOLD	15	1.57	1.45
	SOLD	3	1.86	2.38
535400	UNSOLD	16	1.17	1.16
	SOLD	4	1.16	1.16
577800	UNSOLD	2	1.27	1.27
	SOLD	4	2.64	2.65
596670	UNSOLD	1	1.26	1.26
	SOLD	10	1.26	1.17
615127	UNSOLD	2	1.39	1.39
	SOLD	3	1.33	1.51
791200	UNSOLD	26	1.37	1.46
	SOLD	3	1.42	1.58

V. CONCLUSIONS

Based on this 2024 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

ECONAREA	Mean	95% Confidence Interval for Mean		Median	95% Confidence Interval for Median		Actual Coverage	Weighted Mean	95% Confidence Interval for Weighted Mean		Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Mean Centered
		Lower Bound	Upper Bound		Lower Bound	Upper Bound			Lower Bound	Upper Bound			
1.00	.973	.970	.977	.973	.969	.976	95.2%	.969	.966	.973	1.004	.069	9.6%
2.00	.974	.970	.977	.970	.966	.973	95.1%	.959	.955	.963	1.015	.090	12.9%
3.00	.975	.972	.979	.972	.968	.975	95.1%	.966	.962	.969	1.010	.079	11.3%
4.00	.976	.973	.978	.973	.970	.975	95.3%	.971	.967	.974	1.005	.067	9.6%
5.00	.977	.972	.982	.980	.973	.986	95.2%	.967	.961	.973	1.011	.075	10.5%
6.00	.956	.947	.965	.963	.952	.969	95.7%	.946	.936	.955	1.011	.094	13.6%
7.00	.946	.928	.965	.943	.905	.954	95.4%	.931	.912	.951	1.016	.090	11.9%
8.00	.953	.945	.961	.955	.947	.963	95.5%	.939	.930	.949	1.015	.104	14.6%
9.00	.966	.958	.975	.958	.950	.966	95.6%	.949	.939	.959	1.018	.106	15.4%

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		Actual Coverage	Weighted Mean	95% Confidence Interval for Weighted Mean		Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Mean Centered
	Lower Bound	Upper Bound		Lower Bound	Upper Bound			Lower Bound	Upper Bound			
.998	.980	1.015	.991	.979	1.000	95.4%	.962	.938	.986	1.037	.085	14.1%

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

Vacant Land

Ratio Statistics for CurrLnd / TASP

Mean	95% Confidence Interval for Mean		Median	95% Confidence Interval for Median		Actual Coverage	Weighted Mean	95% Confidence Interval for Weighted Mean		Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Mean Centered
	Lower Bound	Upper Bound		Lower Bound	Upper Bound			Lower Bound	Upper Bound			
.980	.966	.994	.984	.978	.996	95.4%	.959	.936	.982	1.021	.103	15.2%

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

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	.00	2	0.0%
	1212.00	21672	97.9%
	1213.50	1	0.0%
	1215.00	285	1.3%
	1217.50	1	0.0%
	1220.00	82	0.4%
	1225.00	81	0.4%
	1240.00	2	0.0%
	1277.00	1	0.0%
Overall		22127	100.0%
Excluded		0	
Total		22127	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
.00	.725	.801	.311	44.0%
1212.00	.971	1.011	.080	11.6%
1213.50	.935	1.000	.000	.
1215.00	.936	1.022	.115	17.9%
1217.50	.979	1.000	.000	.
1220.00	.995	1.007	.055	8.5%
1225.00	1.000	1.073	.058	9.3%
1240.00	.995	1.001	.005	0.8%
1277.00	.669	1.000	.000	.
Overall	.971	1.014	.081	11.7%

Improvement Age

Case Processing Summary

		Count	Percent
AgeRec	0	2	0.0%
	Over 100	180	0.8%
	75 to 100	590	2.7%
	50 to 75	5781	26.1%
	25 to 50	9748	44.1%
	5 to 25	3342	15.1%
	5 or Newer	2484	11.2%
Overall		22127	100.0%
Excluded		0	
Total		22127	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
0	.725	.801	.311	44.0%
Over 100	.901	1.030	.152	21.3%
75 to 100	.946	1.024	.136	19.1%
50 to 75	.966	1.012	.089	13.1%
25 to 50	.968	1.010	.075	10.6%
5 to 25	.975	1.012	.074	10.6%
5 or Newer	.990	1.035	.071	10.5%
Overall	.971	1.014	.081	11.7%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	0	2	0.0%
	LE 500 sf	26	0.1%
	500 to 1,000 sf	2120	9.6%
	1,000 to 1,500 sf	7017	31.7%
	1,500 to 2,000 sf	6039	27.3%
	2,000 to 3,000 sf	5268	23.8%
	3,000 sf or Higher	1655	7.5%
Overall		22127	100.0%
Excluded		0	
Total		22127	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
0	.725	.801	.311	44.0%
LE 500 sf	.933	1.066	.184	25.6%
500 to 1,000 sf	.952	1.015	.093	13.4%
1,000 to 1,500 sf	.965	1.009	.077	11.0%
1,500 to 2,000 sf	.976	1.010	.075	10.7%
2,000 to 3,000 sf	.978	1.014	.081	11.6%
3,000 sf or Higher	.979	1.032	.097	14.6%
Overall	.971	1.014	.081	11.7%

Improvement Quality

Case Processing Summary

		Count	Percent
QUALITY		2	0.0%
	Average	12903	58.3%
	Economy	16	0.1%
	Excellent	47	0.2%
	Fair	3163	14.3%
	Good	5186	23.4%
	Poor	72	0.3%

	Very Good	738	3.3%
Overall		22127	100.0%
Excluded		0	
Total		22127	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
	.725	.801	.311	44.0%
Average	.970	1.010	.078	11.2%
Economy	.895	1.107	.270	46.4%
Excellent	.982	1.008	.120	19.4%
Fair	.955	1.010	.088	12.8%
Good	.982	1.025	.077	11.2%
Poor	.934	1.053	.190	26.3%
Very Good	.989	1.022	.091	13.4%
Overall	.971	1.014	.081	11.7%

Commercial Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	$100K to $150K	1	0.4%
	$200K to $300K	3	1.2%
	$300K to $500K	19	7.4%
	$500K to $750K	41	16.0%
	$750K to $1,000K	37	14.4%
	Over $1,000K	156	60.7%
Overall		257	100.0%
Excluded		0	
Total		257	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
$100K to $150K	1.316	1.000	.000	.
$200K to $300K	.966	1.012	.121	23.9%
$300K to $500K	1.028	1.006	.171	26.9%
$500K to $750K	1.004	1.000	.106	17.9%
$750K to $1,000K	1.000	.999	.077	10.5%
Over $1,000K	.980	1.013	.066	10.3%
Overall	.991	1.037	.085	14.2%

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	2212.00	65	25.3%
	2215.00	2	0.8%
	2220.00	71	27.6%
	2223.50	1	0.4%
	2225.00	2	0.8%
	2230.00	57	22.2%
	2235.00	50	19.5%
	3212.00	2	0.8%
	3215.00	7	2.7%
Overall		257	100.0%
Excluded		0	
Total		257	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
2212.00	1.000	1.056	.113	18.7%
2215.00	1.111	1.003	.067	9.5%
2220.00	.981	1.009	.047	6.1%
2223.50	1.033	1.000	.000	.
2225.00	.985	1.077	.255	36.0%
2230.00	.998	1.083	.109	17.4%
2235.00	.991	1.040	.067	11.2%
3212.00	.969	1.000	.001	0.1%
3215.00	.971	1.017	.064	13.1%
Overall	.991	1.037	.085	14.2%

Improvement Age

Case Processing Summary

		Count	Percent
AgeRec	Over 100	7	2.7%
	75 to 100	8	3.1%
	50 to 75	71	27.6%
	25 to 50	96	37.4%
	5 to 25	67	26.1%
	5 or Newer	8	3.1%
Overall		257	100.0%
Excluded		0	
Total		257	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Over 100	1.000	1.034	.106	15.1%
75 to 100	.993	1.041	.188	26.4%
50 to 75	1.000	1.052	.108	18.3%
25 to 50	.997	1.006	.066	11.6%
5 to 25	.971	1.013	.068	10.5%
5 or Newer	.995	1.091	.095	14.2%
Overall	.991	1.037	.085	14.2%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	500 to 1,000 sf	5	1.9%
	1,000 to 1,500 sf	13	5.1%
	1,500 to 2,000 sf	10	3.9%
	2,000 to 3,000 sf	39	15.2%
	3,000 sf or Higher	190	73.9%
Overall		257	100.0%
Excluded		0	
Total		257	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
500 to 1,000 sf	.941	1.024	.209	28.9%
1,000 to 1,500 sf	1.003	1.050	.174	22.6%
1,500 to 2,000 sf	.984	1.030	.116	18.3%
2,000 to 3,000 sf	.992	1.018	.099	18.4%
3,000 sf or Higher	.989	1.027	.071	11.8%
Overall	.991	1.037	.085	14.2%

Improvement Quality

Case Processing Summary

		Count	Percent
QUALITY	Average	224	87.2%
	Fair	10	3.9%
	Good	22	8.6%
	Very Good	1	0.4%
Overall		257	100.0%
Excluded		0	
Total		257	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Average	.992	1.030	.083	14.4%
Fair	.976	1.001	.108	16.3%
Good	.980	1.079	.093	12.5%
Very Good	1.074	1.000	.000	.
Overall	.991	1.037	.085	14.2%

Vacant Land Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	$25K to $50K	1	0.2%
	$50K to $100K	21	5.0%
	$100K to $150K	35	8.3%
	$150K to $200K	48	11.4%
	$200K to $300K	87	20.6%
	$300K to $500K	126	29.9%
	$500K to $750K	59	14.0%
	$750K to $1,000K	19	4.5%
	Over $1,000K	26	6.2%
Overall		422	100.0%
Excluded		0	
Total		422	

Ratio Statistics for CurrLnd / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
$25K to $50K	1.044	1.000	.000	.
$50K to $100K	1.044	.997	.046	6.5%
$100K to $150K	1.022	.998	.060	8.5%
$150K to $200K	1.010	1.001	.076	11.6%
$200K to $300K	.982	1.000	.103	17.4%
$300K to $500K	.978	.998	.107	14.8%
$500K to $750K	.940	1.004	.117	17.2%
$750K to $1,000K	.953	1.001	.090	14.8%
Over $1,000K	.989	.991	.155	21.3%
Overall	.984	1.021	.103	15.2%

Subclass

Case Processing Summary

		Count	Percent
ABSTRLND	100.00	162	38.4%
	200.00	22	5.2%
	300.00	9	2.1%
	510.00	3	0.7%
	520.00	21	5.0%
	530.00	4	0.9%
	540.00	14	3.3%
	550.00	15	3.6%
	600.00	3	0.7%
	1112.00	155	36.7%
	1115.00	1	0.2%
	1125.00	2	0.5%
	2112.00	2	0.5%
	2120.00	2	0.5%
	2130.00	6	1.4%
	2135.00	1	0.2%
Overall		422	100.0%
Excluded		0	
Total		422	

Ratio Statistics for CurrLnd / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
100.00	.995	1.025	.069	10.1%
200.00	1.000	.980	.133	18.7%
300.00	.947	.931	.169	22.2%
510.00	.953	.999	.037	5.8%
520.00	.965	1.025	.117	22.1%
530.00	.972	1.070	.119	19.5%
540.00	.998	1.081	.107	15.9%
550.00	.986	1.029	.059	7.9%
600.00	.785	.969	.130	20.3%
1112.00	.966	1.004	.120	16.2%
1115.00	1.176	1.000	.000	.
1125.00	1.360	1.524	.369	52.1%
2112.00	1.034	1.002	.010	1.4%
2120.00	.960	.980	.061	8.7%
2130.00	.839	1.043	.199	24.2%
2135.00	.686	1.000	.000	.
Overall	.984	1.021	.103	15.2%