



2022

WELD COUNTY PROPERTY ASSESSMENT STUDY



WILDROSE
APPRAISAL, INCORPORATED
Audit Division



September 15, 2022

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

RE: Final Report for the 2022 Colorado Property Assessment Study

Dear Ms. Mullis:

Wildrose Appraisal Inc.-Audit Division is pleased to submit the Final Reports for the 2022 Colorado Property Assessment Study.

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

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

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

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

A handwritten signature in black ink that reads "Harry J. Fuller". The signature is written in a cursive style.

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

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INTRODUCTION



Colorado

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

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

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

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

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

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

The procedural analysis includes all classes of property and specifically looks at how the assessor develops economic areas, confirms and qualifies sales, and develops time adjustments. The audit also examines the procedures for adequately discovering, classifying and valuing agricultural outbuildings, discovering subdivision build-out and subdivision discounting procedures. Valuation methodology for vacant land, improved residential properties and commercial properties is examined. Procedures for producing mines, oil and gas leaseholds and lands producing, producing coal mines, producing earth and stone products, severed mineral interests and non-producing patented mining claims are also reviewed.

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

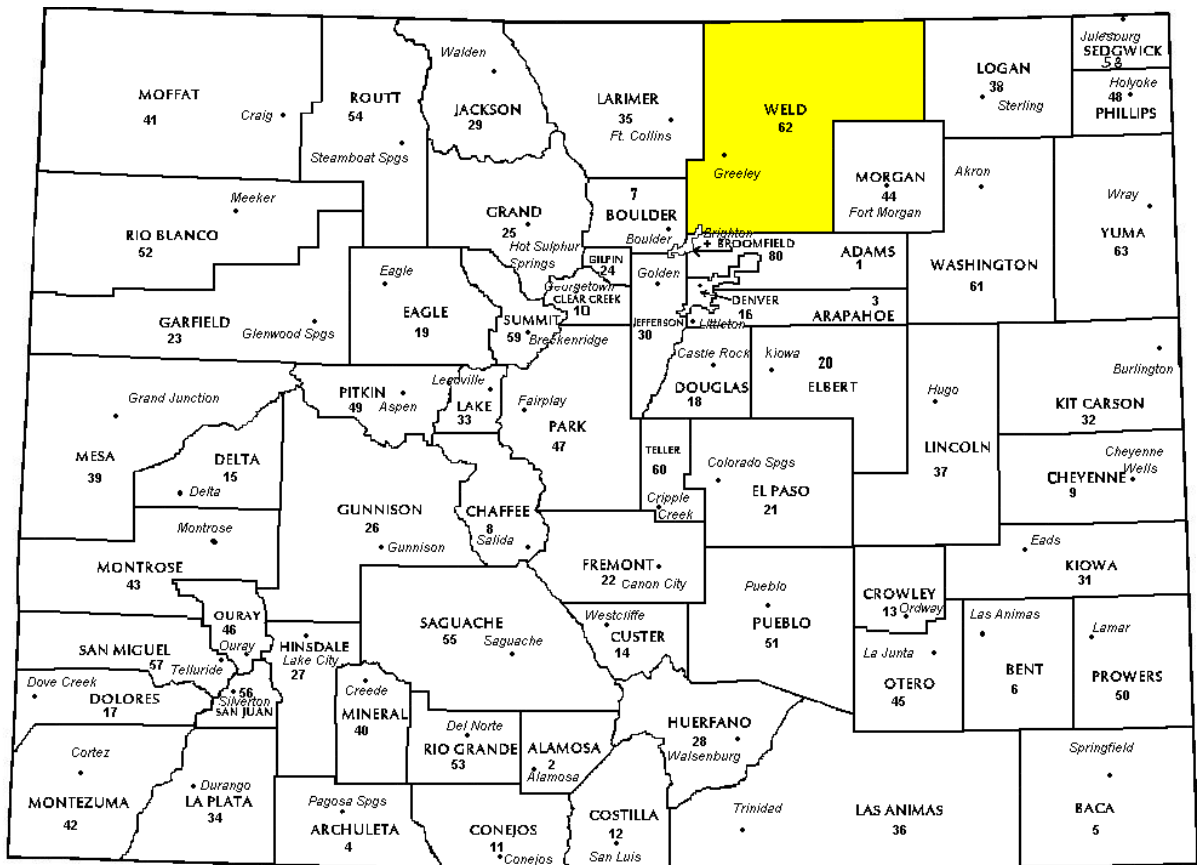
Wildrose Audit has completed the Property Assessment Study for 2022 and is pleased to report its findings for Weld County in the following report.

REGIONAL/HISTORICAL SKETCH OF WELD COUNTY

Regional Information

Weld 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

Weld County has approximately 3,987.2 square miles and an estimated population of approximately 324,492 people, according to the U.S. Census Bureau's 2020 estimated census data. This represents a 28.3 percent change from April 1, 2010 to July 1, 2019.

Weld County covers an area of 4,004 square miles in north central Colorado. It is bordered on the north by Wyoming and Nebraska and on the south by the Denver metropolitan area. The third largest county in Colorado, Weld County has an area greater than that of Rhode Island, Delaware and the District of Columbia combined.

Major Stephen H. Long made an expedition to the area now known as Weld County in 1821. In 1835 a government expedition came through the general area; the next year a member of that party, Lt. Lancaster Lupton, returned to establish a trading post located just north of the present town of Fort Lupton. In 1837 Colonel Ceran St. Vrain established Fort St. Vrain; Fort Vasquez was built south of Platteville about 1840. The latter was rebuilt in the 1930's by the State Historical Society.

The county seat is Greeley which began as the Union Colony, which was founded in 1869 as an experimental utopian community of "high moral standards" by Nathan C. Meeker, a newspaper reporter from New York City. Meeker purchased a site at the confluence of the Cache la Poudre and South Platte Rivers (that included the area of Latham, an Overland Trail station), halfway between Cheyenne and Denver along the tracks of the Denver Pacific Railroad formerly known as the "Island Grove Ranch." The name Union Colony was later changed to Greeley in honor of Horace Greeley, who was Meeker's editor at the New York Tribune, and popularized the phrase "Go West, young man."

Weld County's cultural assets include Centennial Village, an authentic recreation of pioneer life on the Colorado plains. The Meeker Museum in Greeley is a national historic site. Fort Vasquez in southern Weld County has an exciting history as an early Colorado trading post. The Greeley Philharmonic Orchestra is one of the oldest symphony orchestra west of the Mississippi. The University of Northern Colorado's Little Theatre of the Rockies is one of America's premier college dramatic organizations.

(www.co.weld.co.us, 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 Weld County are:

Weld County Ratio Grid					
Property Class	Number of Qualified Sales	Unweighted Median Ratio	Price Related Differential	Coefficient of Dispersion	Time Trend Analysis
Commercial/Industrial	216	0.993	1.007	6.4	Compliant
Single Family	11,461	0.971	1.005	4.9	Compliant
Vacant Land	215	1.000	1.010	10	Compliant

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

Weld 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

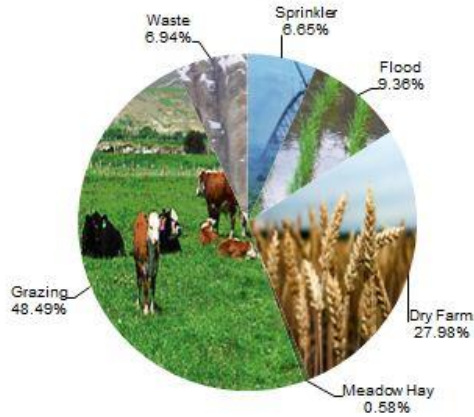
After applying the above described methodologies, it is concluded that Weld County is reasonably treating its sold and unsold properties in the same manner.

Recommendations

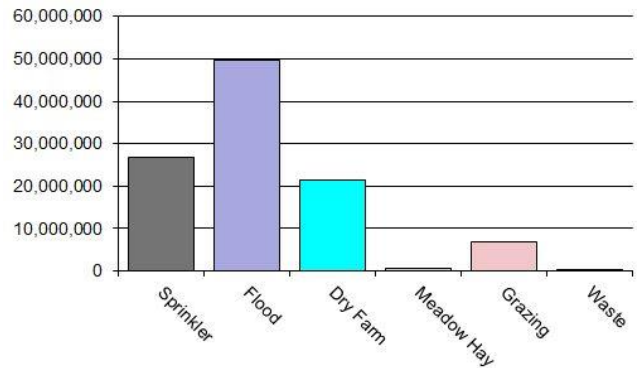
None

AGRICULTURAL LAND STUDY

Acres By Subclass



Value By Subclass



Agricultural Land

County records were reviewed to determine major land categories such as irrigated farm, dry farm, meadow hay, grazing and other lands. In addition, county records were reviewed in order to determine if: Aerial photographs are available and are being used; soil conservation guidelines have been used to classify lands based on productivity; crop rotations have been documented; typical commodities and yields have been determined; orchard lands have been properly classified and valued; expenses reflect a ten year average and are typical landlord expenses; grazing lands have been properly classified and valued; the number of acres in each class and subclass have been determined; the capitalization rate was properly applied. Also, documentation was required for the valuation methods used and any locally developed yields, carrying capacities, and expenses. Records were also checked to ensure that the commodity prices and expenses, furnished by the Property Tax Administrator (PTA), were applied properly.

(See Assessor Reference Library Volume 3 Chapter 5.)

Conclusions

An analysis of the agricultural land data indicates an acceptable appraisal of this property type. Directives, commodity prices and expenses provided by the PTA were properly applied. County yields compared favorably to those published by Colorado Agricultural Statistics. Expenses used by the county were allowable expenses and were in an acceptable range. Grazing lands carrying capacities were in an acceptable range. The data analyzed resulted in the following ratios:

Weld 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	142,328	183.75	26,152,810	26,093,144	1.00
4117	Flood	176,455	242.92	42,863,937	43,513,854	0.99
4127	Dry Farm	553,083	35.18	19,456,033	19,129,320	1.02
4137	Meadow Hay	11,595	41.19	477,576	477,576	1.00
4147	Grazing	1,045,509	6.55	6,851,302	6,851,302	1.00
4167	Waste	13,112	2.20	28,864	28,864	1.00
Total/Avg		1,989,366	48.22	95,934,611	96,198,149	1.00

Recommendations

None

Agricultural Outbuildings

Methodology

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

Property Taxation for the valuation of agricultural outbuildings.

Recommendations

None

Conclusions

Weld County has complied with the procedures provided by the Division of

Agricultural Land Under Improvements

Methodology

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

Conclusions

Weld 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

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

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

Weld 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 2022 for Weld 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 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

Weld County appears to be doing an adequate job of verifying their sales. WRA agreed with

the county's reason for disqualifying each of the sales selected in the sample. There are no recommendations or suggestions.

Recommendations

None

ECONOMIC AREA REVIEW AND EVALUATION

Methodology

Weld County has submitted a written narrative describing the economic areas that make up the county's market areas. Weld 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 Weld County has adequately

identified homogeneous economic areas comprised of smaller neighborhoods. Each economic area defined is equally subject to a set of economic forces that impact the value of the properties within that geographic area and this has been adequately addressed. Each economic area defined adequately delineates an area that will give "similar values for similar properties in similar areas."

Recommendations

None

NATURAL RESOURCES

Earth and Stone Products

Methodology

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

Conclusions

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

Recommendations

None

Producing Oil and Gas

Methodology

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

STATUTORY REFERENCES

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

(2) The valuation for assessment of leaseholds and lands producing oil or gas shall be determined as provided in article 7 of this title. § 39-1-103, C.R.S.

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

Valuation:

Valuation for assessment.

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

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

(b) The selling price of oil or gas sold in the same field area for oil or gas transported from the premises which is not sold during the preceding calendar year, after excluding the selling price of all oil or gas delivered to the United States government or any agency thereof, the state of Colorado or any agency thereof, or any political subdivision of the state as royalty during the preceding calendar year. § 39-7-102, C.R.S.

Conclusions

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

Recommendations

None

VACANT LAND

Subdivision Discounting

Subdivisions were reviewed in 2022 in Weld 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

Weld 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.

Weld 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

Weld 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

Weld 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.

Weld County is compliant with the guidelines set forth in ARL Volume 5 regarding discovery procedures, using the following methods to discover personal property accounts in the county:

- Public Record Documents
- MLS Listing and/or Sold Books
- Chamber of Commerce/Economic Development Contacts
- Local Telephone Directories, Newspapers or Other Local Publications
- Personal Observation, Physical Canvassing or Word of Mouth
- Questionnaires, Letters and/or Phone Calls to Buyer, Seller and/or Realtor

The county uses the Division of Property Taxation (DPT) recommended classification and documentation procedures. The DPT's recommended cost factor tables, depreciation tables and level of value adjustment factor tables are also used.

Weld County submitted their personal property written audit plan and was current for the 2022 valuation period. The number and listing of businesses audited was also submitted and was in conformance with the written audit plan. The following audit triggers were used by the county to select accounts to be audited:

- Businesses in a selected area
- Accounts with obvious discrepancies
- New businesses filing for the first time
- Accounts with greater than 10% change
- 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 \$50,000 actual value exemption status
- Accounts protested with substantial disagreement

Weld 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

Weld 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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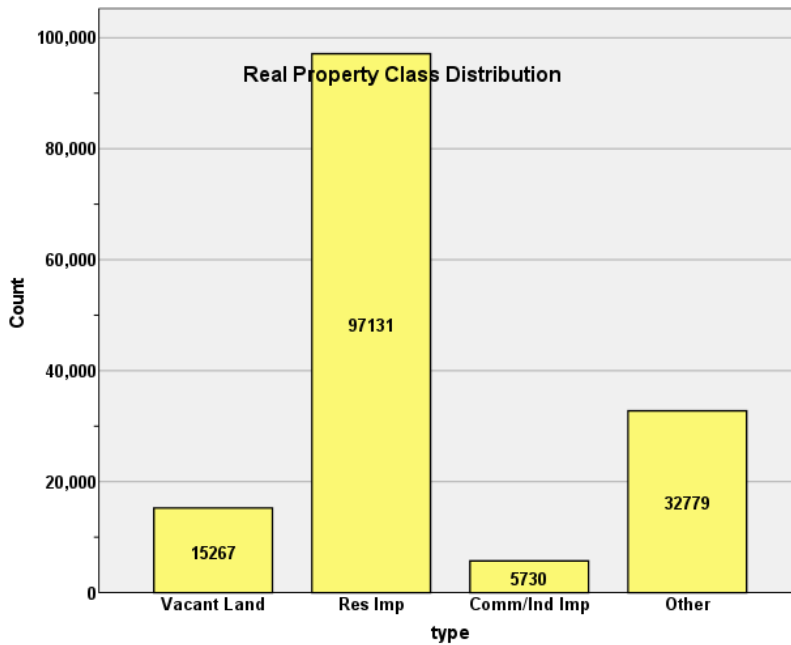
J. Andrew Rodriguez, *Field Analyst*

APPENDICES

**STATISTICAL COMPLIANCE REPORT
FOR WELD COUNTY
2022**

I. OVERVIEW

Weld County is an urban county located along Colorado’s Front Range. The county has a total of 150,907 real property parcels, according to data submitted by the county assessor’s office in 2022. 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 83.7% of all vacant land parcels.

For residential improved properties, single family properties accounted for 93.4% of all residential properties.

Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial properties accounted for 3.9% of all such properties in this county.

II. DATA FILES

The following sales analyses were based on the requirements of the 2022 Colorado Property Assessment Study. Information was provided by the Weld Assessor’s Office in May 2022. The data included all 5 property record files as specified by the Auditor.

III. RESIDENTIAL SALES RESULTS

There were 11,461 qualified residential sales that occurred in the 18-month sale period ending June 30, 2020. The sales ratio analysis results were as follows:

Median	0.971
Price Related Differential	1.005
Coefficient of Dispersion	4.9

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:

Economic Area Case Processing Summary

	Count	Percent
ECONAREA 0	697	7.2%
2	3763	39.1%
3	2421	25.2%
4	635	6.6%
5	46	0.5%
6	1393	14.5%
9	201	2.1%
99	462	4.8%
Overall	9618	100.0%
Excluded	0	
Total	9618	

Ratio Statistics for CURRTOT / TASP

Group	N	Median	Price Related Differential	Coefficient of Dispersion
0	697	.974	1.002	.037
2	3763	.970	1.003	.043
3	2421	.970	1.005	.047
4	635	.982	1.002	.039
5	46	.962	1.017	.076
6	1393	.972	1.004	.061
9	201	.973	1.005	.044
99	462	.971	1.003	.036
Overall	9618	.972	1.005	.046

Neighborhoods with at least 35 sales

Ratio Statistics for CURRTOT / TASP

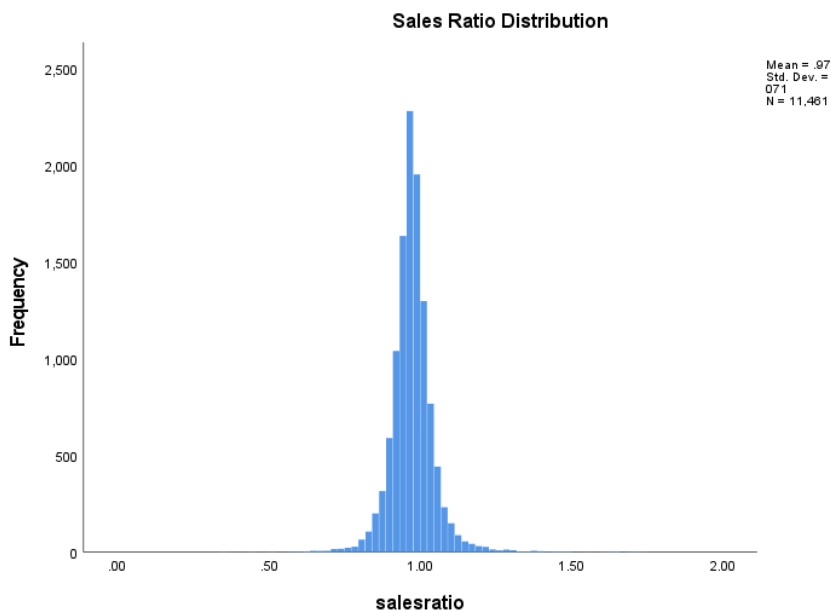
Group	N	Median	Price Related Differential	Coefficient of Dispersion
71	87	.972	1.007	.052
72	61	.971	1.000	.030
78	39	.964	1.000	.031
79	38	.974	1.000	.035
81	48	.964	1.001	.042
83	67	.964	.999	.039
171	132	.972	1.000	.038
174	225	.978	1.002	.031
2002	44	.963	1.002	.044

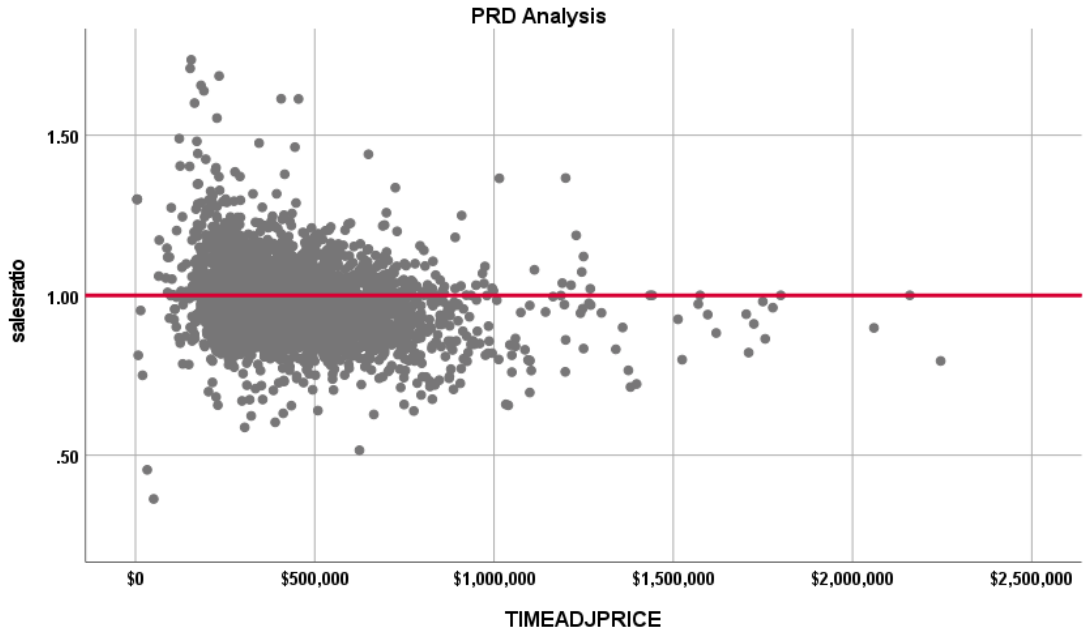
2005	81	.961	1.000	.044
2006	47	.970	1.004	.048
2007	58	.976	1.022	.100
2011	133	.973	1.009	.059
2013	175	.971	1.005	.052
2016	180	.975	1.001	.028
2018	35	.968	1.003	.052
2019	246	.966	1.004	.038
2020	449	.979	1.003	.036
2021	410	.970	1.004	.039
2060	52	.967	.998	.076
2061	48	.965	1.001	.034
2100	54	.966	1.001	.047
2101	38	.967	1.001	.033
2102	55	.969	1.000	.034
2103	55	.972	1.000	.050
2105	44	.983	1.003	.065
2106	68	.967	1.002	.036
2107	99	.972	1.001	.041
2108	45	.971	.999	.039
2110	99	.969	1.005	.056
2111	198	.959	1.002	.054
2112	82	.964	1.005	.067
2115	36	.968	1.001	.030
2117	67	.990	1.001	.027
2118	59	.969	1.000	.032
2120	70	.967	1.009	.045
2121	62	.978	1.000	.050
2122	236	.974	1.002	.030
2151	91	.971	1.001	.036
2152	124	.966	1.001	.027
2155	97	.965	1.010	.039
2252	39	.980	1.008	.074
2657	40	.970	1.007	.051
2690	47	.968	1.002	.022
3000	40	.977	1.003	.043
3003	56	.967	.999	.033
3004	122	.972	1.001	.027
3008	444	.980	1.010	.059
3012	75	.964	1.001	.040
3013	138	.958	1.007	.068
3017	154	.975	1.016	.060
3024	83	.968	1.000	.022
3025	229	.968	1.001	.039
3026	151	.947	1.002	.048
3027	46	.972	1.000	.029
3030	138	.981	1.000	.037
3031	62	.964	1.000	.053
3032	135	.970	1.002	.038
3034	225	.975	1.004	.049
3037	130	.969	1.001	.044
3038	140	.970	1.001	.044
3122	53	.960	1.006	.040
4000	154	.984	1.001	.034
4002	93	.986	1.001	.028
4004	202	.986	1.002	.025
4102	85	.968	1.001	.040

4103	62	.966	1.005	.063
4105	39	.971	1.011	.100
5001	46	.962	1.017	.076
6003	46	.965	1.001	.057
6021	66	.956	1.003	.053
6025	71	.964	1.004	.058
6027	74	.968	1.003	.040
6029	75	.969	1.000	.045
6030	75	.965	.998	.085
6031	133	.967	1.003	.057
6033	73	.990	1.022	.107
6034	163	.966	1.005	.070
6035	145	.972	1.001	.036
6037	110	.976	1.004	.083
6038	105	.969	1.003	.058
6045	58	.979	1.022	.098
6050	40	.965	1.004	.055
6062	161	.984	1.001	.040
9010	62	.967	1.004	.049
9014	52	.977	1.006	.049
9040	87	.976	1.003	.036
9999	460	.970	1.003	.035
Overall	9618	.972	1.005	.046

NOTE: NBHD 9999 = Condominiums

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:





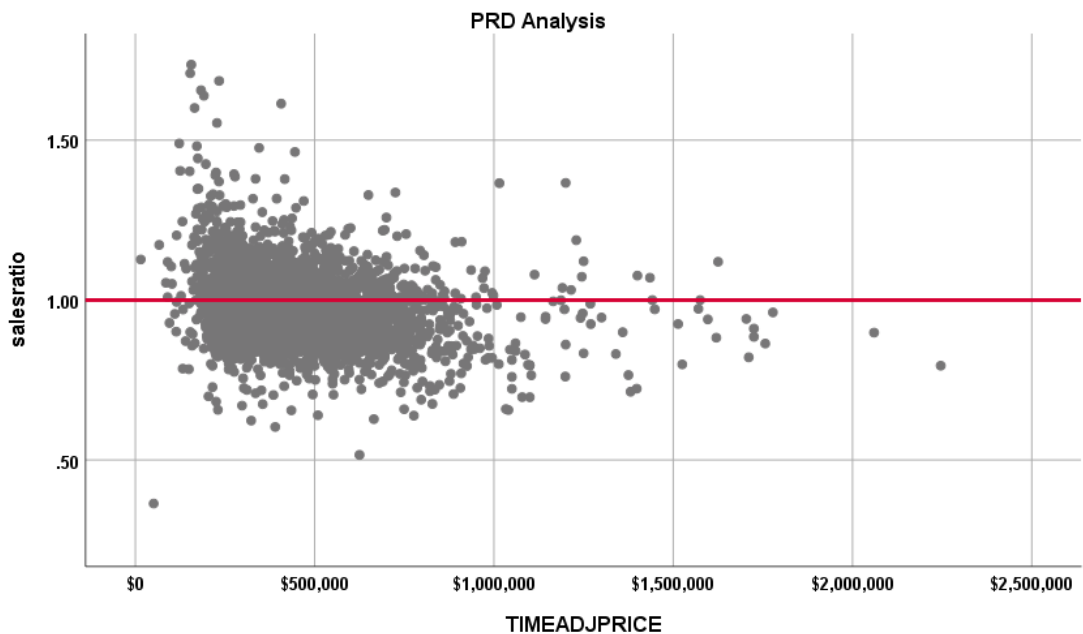
NOTE: Sales over \$2,500,000 excluded for graphic clarity

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 1112 using the state abstract code system. 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 1.005, 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 B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.967	.002		439.744	.000
	CURRTOT	.0000000189	.000	.033	3.500	<.001

a. Dependent Variable: salesratio

The slope of the line at 0.0000000189 indicates that there is virtually no slope in the regression line, which 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.

We also stratified the sales ratio analysis by the sale price range, as follows:

Case Processing Summary

		Count	Percent
SPRec	LT \$300K	1709	15.7%
	\$300K to \$400K	5127	47.0%
	\$400K to \$500K	2396	21.9%
	\$500K to \$600K	963	8.8%
	\$600K to \$750K	502	4.6%
	\$750K to \$1000K	166	1.5%
	\$1000K to \$2000K	54	0.5%
	Over \$2000K	2	0.0%
Overall		10919	100.0%
Excluded		0	
Total		10919	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LT \$300K	.975	1.003	.067	10.5%
\$300K to \$400K	.975	1.000	.038	5.3%
\$400K to \$500K	.968	1.000	.046	6.6%
\$500K to \$600K	.963	1.000	.057	7.5%
\$600K to \$750K	.949	1.000	.070	9.4%
\$750K to \$1000K	.919	1.000	.092	11.5%
\$1000K to \$2000K	.918	.999	.123	16.1%
Over \$2000K	.846	1.003	.061	8.6%
Overall	.972	1.005	.049	7.3%

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 18-month sale period for any residual market trending and broken down by economic area, as follows:

Coefficients^a

ECONAREA	Model		Unstandardized Coefficients B	Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
0	1	(Constant)	.972	.003		278.317	.000
		SalePeriod	.000	.000	.033	1.005	.315
2	1	(Constant)	.969	.002		514.140	.000
		SalePeriod	.000	.000	.027	1.756	.079
3	1	(Constant)	.973	.002		417.292	.000
		SalePeriod	.000	.000	-.018	-.967	.334
4	1	(Constant)	.977	.006		168.209	.000
		SalePeriod	.000	.001	.028	.794	.427
5	1	(Constant)	.982	.018		54.054	<.001
		SalePeriod	-.001	.002	-.043	-.451	.653
6	1	(Constant)	.978	.005		215.538	.000
		SalePeriod	.000	.000	.023	.909	.363
7	1	(Constant)	.858	.055		15.552	<.001
		SalePeriod	.008	.005	.254	1.459	.155
8	1	(Constant)	.932	.032		29.326	<.001
		SalePeriod	.003	.003	.131	1.049	.298
9	1	(Constant)	.967	.008		128.307	.000
		SalePeriod	.000	.001	.027	.520	.603
99	1	(Constant)	.965	.005		180.095	.000
		SalePeriod	.001	.001	.077	1.658	.098

a. Dependent Variable: salesratio

There was no residual market trending present in the sale ratio data for any of the economic areas; we therefore concluded that the assessor has adequately addressed market trending in the valuation of residential properties.

Sold/Unsold Analysis

In terms of the valuation consistency between sold and unsold residential properties, we compared the median actual value per square foot for 2022 between each group. The data was analyzed both as a whole and broken down by economic area, as follows:

Report			
VALSF			
sold	N	Median	Mean
UNSOLD	84627	\$214	\$214
SOLD	11460	\$212	\$217

Report

VALSF

ECONAREA	sold	N	Median	Mean
.00	UNSOLD	6601	\$227	\$225
	SOLD	914	\$226	\$225
2.00	UNSOLD	24877	\$216	\$218
	SOLD	4197	\$211	\$216
3.00	UNSOLD	19119	\$210	\$218
	SOLD	2883	\$211	\$218
4.00	UNSOLD	6655	\$200	\$204
	SOLD	808	\$202	\$208
5.00	UNSOLD	1659	\$191	\$187
	SOLD	114	\$206	\$205
6.00	UNSOLD	17282	\$229	\$223
	SOLD	1610	\$234	\$230
7.00	UNSOLD	817	\$117	\$126
	SOLD	33	\$139	\$158
8.00	UNSOLD	726	\$174	\$177
	SOLD	65	\$198	\$192
9.00	UNSOLD	2881	\$217	\$210
	SOLD	376	\$225	\$220
99.00	UNSOLD	3737	\$182	\$171
	SOLD	419	\$185	\$189

NOTE: Econ Area 99 = Condominiums

Please note that economic areas with significant differences based on the actual value per square foot comparison were also tested using the percent change in value method; in each case, those economic areas showed no significant difference between sold and unsold residential properties using this second method.

We also stratified this analysis by residential neighborhoods with at least 35 sales, as follows:

Report

VALSF

NBHD	sold	N	Median	Mean
0071	UNSOLD	656	\$245	\$242
	SOLD	87	\$244	\$244
0072	UNSOLD	318	\$224	\$225
	SOLD	61	\$214	\$220
0083	UNSOLD	659	\$172	\$178
	SOLD	67	\$177	\$181
0171	UNSOLD	818	\$252	\$246
	SOLD	132	\$232	\$233
0174	UNSOLD	881	\$230	\$226
	SOLD	225	\$227	\$225
2005	UNSOLD	832	\$254	\$248
	SOLD	81	\$262	\$255
2007	UNSOLD	652	\$261	\$260
	SOLD	58	\$269	\$262
2011	UNSOLD	585	\$220	\$234
	SOLD	133	\$238	\$250
2013	UNSOLD	782	\$216	\$220
	SOLD	175	\$233	\$229
2016	UNSOLD	515	\$182	\$182
	SOLD	180	\$173	\$181

2019	UNSOLD	664	\$227	\$228
	SOLD	246	\$240	\$238
2020	UNSOLD	748	\$202	\$205
	SOLD	449	\$196	\$199
2021	UNSOLD	869	\$197	\$201
	SOLD	410	\$194	\$203
2060	UNSOLD	524	\$229	\$225
	SOLD	52	\$225	\$224
2100	UNSOLD	712	\$216	\$214
	SOLD	54	\$218	\$216
2102	UNSOLD	557	\$233	\$230
	SOLD	55	\$240	\$232
2103	UNSOLD	510	\$197	\$205
	SOLD	55	\$194	\$206
2106	UNSOLD	251	\$213	\$215
	SOLD	68	\$226	\$222
2107	UNSOLD	705	\$209	\$211
	SOLD	99	\$217	\$220
2110	UNSOLD	1025	\$222	\$222
	SOLD	99	\$229	\$227
2111	UNSOLD	2346	\$224	\$223
	SOLD	198	\$210	\$216
2112	UNSOLD	904	\$193	\$194
	SOLD	82	\$192	\$195
2117	UNSOLD	199	\$196	\$200
	SOLD	67	\$198	\$207
2118	UNSOLD	467	\$221	\$220
	SOLD	59	\$238	\$230
2120	UNSOLD	512	\$218	\$215
	SOLD	70	\$221	\$217
2121	UNSOLD	331	\$247	\$249
	SOLD	62	\$271	\$266
2122	UNSOLD	190	\$197	\$204
	SOLD	236	\$190	\$199
2151	UNSOLD	716	\$230	\$228
	SOLD	91	\$227	\$227
2152	UNSOLD	422	\$192	\$205
	SOLD	124	\$205	\$214
2155	UNSOLD	114	\$160	\$176
	SOLD	97	\$155	\$173
3003	UNSOLD	324	\$199	\$202
	SOLD	56	\$204	\$199
3004	UNSOLD	124	\$210	\$211
	SOLD	122	\$198	\$199
3008	UNSOLD	820	\$204	\$213
	SOLD	444	\$207	\$219
3012	UNSOLD	566	\$205	\$212
	SOLD	75	\$208	\$214
3013	UNSOLD	1315	\$219	\$229
	SOLD	138	\$221	\$239
3017	UNSOLD	367	\$224	\$224
	SOLD	154	\$225	\$226
3024	UNSOLD	340	\$210	\$214
	SOLD	83	\$208	\$218
3025	UNSOLD	842	\$224	\$230
	SOLD	229	\$200	\$199
3026	UNSOLD	1357	\$213	\$215

	SOLD	151	\$203	\$212
3030	UNSOLD	670	\$195	\$201
	SOLD	138	\$193	\$201
3031	UNSOLD	579	\$269	\$264
	SOLD	62	\$260	\$268
3032	UNSOLD	704	\$206	\$209
	SOLD	135	\$204	\$207
3034	UNSOLD	407	\$202	\$216
	SOLD	225	\$201	\$216
3037	UNSOLD	942	\$198	\$202
	SOLD	130	\$202	\$209
3038	UNSOLD	1155	\$201	\$203
	SOLD	140	\$208	\$211
3122	UNSOLD	298	\$212	\$220
	SOLD	53	\$212	\$218
4000	UNSOLD	457	\$191	\$195
	SOLD	154	\$184	\$183
4002	UNSOLD	408	\$204	\$207
	SOLD	93	\$205	\$210
4004	UNSOLD	571	\$179	\$187
	SOLD	202	\$183	\$195
4102	UNSOLD	265	\$193	\$193
	SOLD	85	\$196	\$193
4103	UNSOLD	592	\$254	\$256
	SOLD	62	\$258	\$259
6021	UNSOLD	732	\$249	\$244
	SOLD	66	\$248	\$247
6025	UNSOLD	823	\$217	\$216
	SOLD	71	\$208	\$214
6027	UNSOLD	395	\$229	\$226
	SOLD	74	\$239	\$232
6029	UNSOLD	987	\$238	\$233
	SOLD	75	\$247	\$243
6030	UNSOLD	772	\$214	\$216
	SOLD	75	\$223	\$223
6031	UNSOLD	1737	\$225	\$221
	SOLD	133	\$229	\$222
6033	UNSOLD	737	\$230	\$230
	SOLD	73	\$257	\$246
6034	UNSOLD	1416	\$242	\$235
	SOLD	163	\$248	\$240
6035	UNSOLD	1283	\$244	\$234
	SOLD	145	\$231	\$228
6037	UNSOLD	1345	\$222	\$221
	SOLD	110	\$228	\$228
6038	UNSOLD	1267	\$241	\$228
	SOLD	105	\$265	\$252
6045	UNSOLD	794	\$255	\$250
	SOLD	58	\$261	\$256
6062	UNSOLD	936	\$242	\$240
	SOLD	161	\$237	\$240
9010	UNSOLD	582	\$224	\$221
	SOLD	62	\$224	\$219
9014	UNSOLD	115	\$227	\$215
	SOLD	52	\$227	\$212
9040	UNSOLD	164	\$216	\$215
	SOLD	87	\$236	\$227

9999	UNSOLD	3907	\$179	\$172
	SOLD	460	\$183	\$185

NOTE: Econ Area 9999 = Condominiums

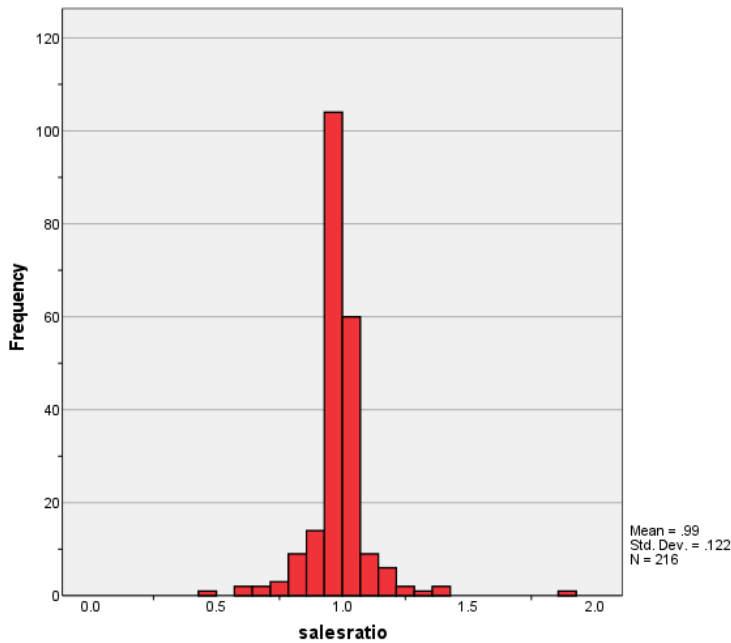
The above results indicate that sold and unsold residential properties were valued in a consistent manner.

IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

There were 216 qualified residential sales that occurred in the 18 month sale period ending June 30, 2020. The sales ratio analysis results were as follows:

Median	0.993
Price Related Differential	1.007
Coefficient of Dispersion	6.4

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





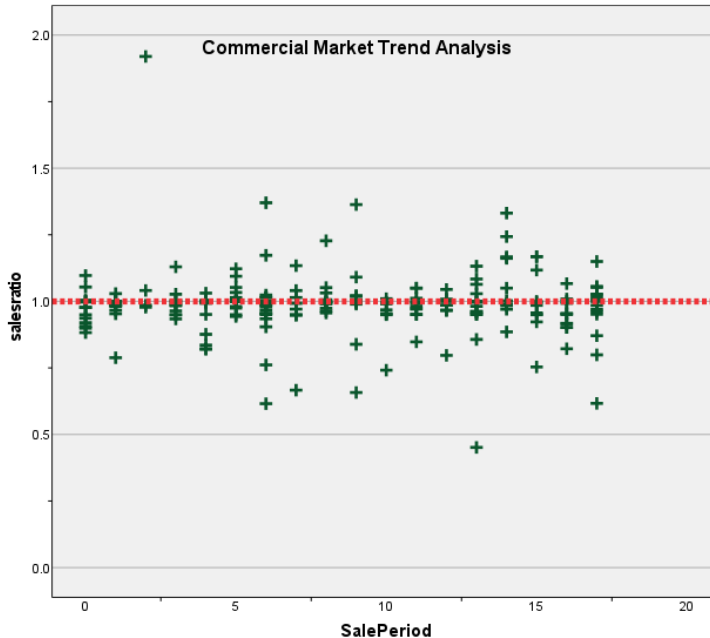
Commercial/Industrial Market Trend Analysis

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

Coefficients^a

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.995	.016		62.707	<.001
	SalePeriod	-.001	.002	-.040	-.590	.556

a. Dependent Variable: salesratio



There was no residual market trending present in the commercial sale ratios. We concluded that the assessor has adequately considered market trending adjustments as part of the vacant land valuation.

Sold/Unsold Analysis

We compared the median change in value between valuation year 2018 and valuation year 2020 between sold and unsold groups to determine if sold and unsold properties were valued consistently, as follows:

Report				
DIFF				
	DIFF	N	Median	Mean
UNSALE	UNSALE	5052	1.05	1.10
SOLD	SOLD	196	1.15	1.21

Based on the number of subclasses for commercial and industrial properties, we chose only major subclasses with at least 10 sales for this analysis: i.e. those with improved abstract codes of 2212, 2220, 2230, 2235, 2245, and 3215. The following analysis was then performed:

Report				
DIFF				
ABSTRIMP	DIFF	N	Median	Mean
2212.00	UNSALE	685	1.02	1.08
	SOLD	31	1.23	1.25
2220.00	UNSALE	354	1.01	1.08
	SOLD	18	1.07	1.18
2230.00	UNSALE	959	1.05	1.10
	SOLD	32	1.16	1.25
2235.00	UNSALE	998	1.08	1.14
	SOLD	19	1.23	1.30
2245.00	UNSALE	989	1.06	1.10
	SOLD	67	1.16	1.18

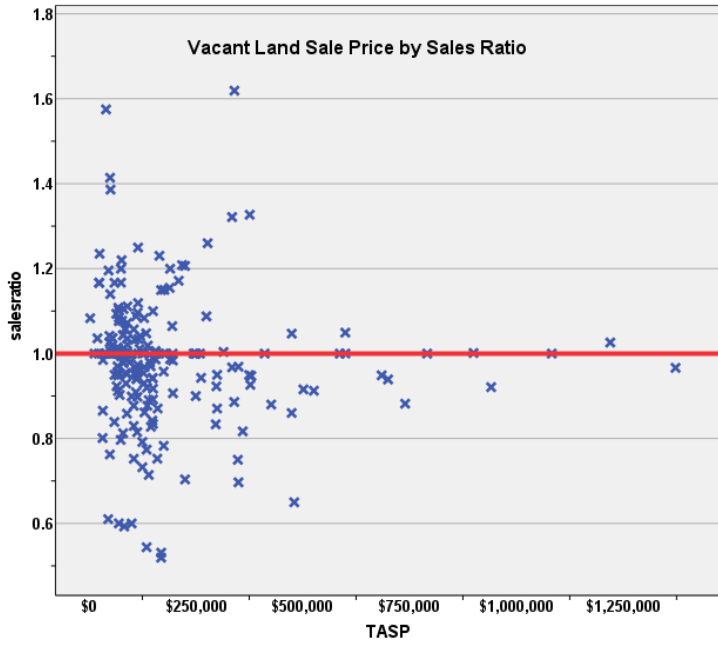
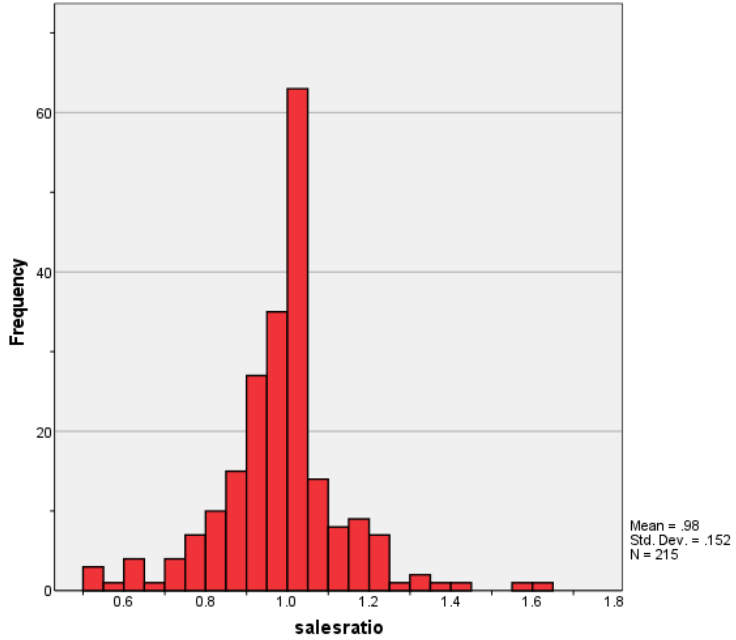
We have consulted with the assessor concerning the significant difference observed for several commercial subclasses.

V. VACANT LAND SALE RESULTS

There were 215 qualified residential sales that occurred in the 18-month sale period ending June 30, 2020. The sales ratio analysis results were as follows:

Median	1.000
Price Related Differential	1.010
Coefficient of Dispersion	10.0

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



The above histogram indicates that the distribution of the vacant land sale ratios was within state mandated limits. No sales were trimmed.

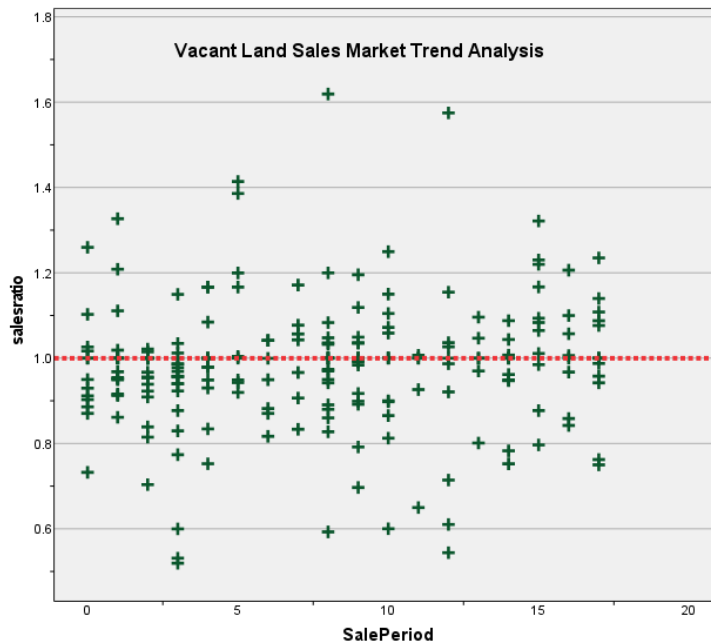
Vacant Land Market Trend Analysis

We next analyzed the vacant land dataset using the 18-month sale period, with the following results:

Coefficients^a

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.961	.018		52.003	<.001
	SalePeriod	.003	.002	.088	1.292	.198

a. Dependent Variable: salesratio



The above analysis indicated that no significant market trending was present in the vacant land sale data. We 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 valuation year 2018 and valuation year 2020 between each group. We stratified the vacant land properties by subdivision and found overall consistency. The following results present the overall comparison results:

Report				
DIFF				
	DIFF	N	Median	Mean
UNSOLD		6181	1.00	.92
SOLD		196	1.13	1.17

We also compared sold and unsold changes in value by subdivision with at least 6 sales, as follows:

Report				
DIFF				
SUBDIVNO	sold	N	Median	Mean
2528	UNSOLD	25	1.12	1.11
	SOLD	17	1.13	1.31
2925	UNSOLD	14	1.30	1.20
	SOLD	5	1.30	1.30
3372	UNSOLD	3	.00	.36
	SOLD	9	1.08	.93
5192	UNSOLD	11	1.00	.95
	SOLD	5	1.06	.97
6903	UNSOLD	9	.46	.50
	SOLD	6	.96	.80
6924	UNSOLD	25	1.00	1.00
	SOLD	5	1.40	1.40
7039	UNSOLD	10	1.00	.72
	SOLD	10	1.00	1.07

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

V. CONCLUSIONS

Based on this 2022 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			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			
0	.975	.972	.979	.974	.971	.977	95.6%	.973	.969	.977	1.002	.041	5.7%
2	.972	.970	.974	.970	.969	.972	95.2%	.968	.966	.971	1.004	.044	6.3%
3	.971	.969	.974	.971	.969	.972	95.2%	.966	.963	.969	1.005	.049	7.0%
4	.982	.976	.987	.979	.976	.984	95.1%	.977	.971	.983	1.005	.048	8.0%
5	.976	.954	.997	.969	.957	.985	95.1%	.967	.943	.991	1.009	.077	11.7%
6	.981	.977	.986	.972	.969	.975	95.1%	.977	.973	.982	1.004	.063	9.4%
7	.928	.872	.985	.958	.883	1.000	96.5%	.901	.842	.966	1.027	.124	17.2%
8	.961	.929	.993	.975	.941	.988	95.4%	.956	.930	.982	1.005	.082	13.4%
9	.971	.963	.978	.970	.966	.975	95.6%	.969	.961	.977	1.002	.049	7.3%
99	.972	.967	.978	.971	.968	.974	95.5%	.970	.966	.974	1.003	.036	6.1%

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.

Commercial Land

Ratio Statistics for CURTOT / 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
.987	.971	1.004	.993	.986	.998	95.2%	.980	.954	1.006	1.007	.064	12.3%	

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
.981	.961	1.002	1.000	.979	1.000	95.9%	.972	.948	.995	1.010	.100	15.5%	

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

Residential Median Ratio Stratification

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	1212.00	10915	95.2%
	1213.50	3	0.0%
	1214.00	2	0.0%
	1215.00	83	0.7%
	1220.00	25	0.2%
	1224.29	1	0.0%
	1225.00	6	0.1%
	1230.00	419	3.7%
	1235.00	1	0.0%
	1466.50	1	0.0%
	1553.00	1	0.0%
	2220.00	1	0.0%
	2227.50	1	0.0%
	2235.00	1	0.0%
	9240.00	1	0.0%
Overall		11461	100.0%
Excluded		0	
Total		11461	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1212.00	.972	1.005	.049	7.3%
1213.50	.931	1.051	.079	14.4%
1214.00	1.116	1.009	.104	14.7%
1215.00	.970	.999	.080	13.7%
1220.00	.980	1.004	.055	8.8%
1224.29	.959	1.000	.000	.
1225.00	1.000	1.006	.042	8.4%
1230.00	.970	1.002	.034	6.0%
1235.00	1.222	1.000	.000	.
1466.50	.740	1.000	.000	.
1553.00	1.096	1.000	.000	.
2220.00	.886	1.000	.000	.
2227.50	.981	1.000	.000	.
2235.00	1.060	1.000	.000	.
9240.00	.921	1.000	.000	.
Overall	.971	1.005	.049	7.3%

Age

Case Processing Summary

		Count	Percent
AgeRec	Over 100	289	2.5%
	75 to 100	185	1.6%
	50 to 75	609	5.3%
	25 to 50	1283	11.2%
	5 to 25	4305	37.6%
	5 or Newer	4790	41.8%
Overall		11461	100.0%
Excluded		0	
Total		11461	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Over 100	.985	1.014	.104	15.4%
75 to 100	.946	1.002	.092	13.4%
50 to 75	.969	1.009	.075	11.0%
25 to 50	.968	1.003	.060	8.7%
5 to 25	.969	1.003	.045	6.5%
5 or Newer	.975	1.005	.040	5.7%
Overall	.971	1.005	.049	7.3%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	LE 500 sf	13	0.1%
	500 to 1,000 sf	638	5.6%
	1,000 to 1,500 sf	3338	29.1%
	1,500 to 2,000 sf	3909	34.1%
	2,000 to 3,000 sf	2924	25.5%
	3,000 sf or Higher	639	5.6%
Overall		11461	100.0%
Excluded		0	
Total		11461	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LE 500 sf	.974	1.020	.197	26.2%
500 to 1,000 sf	.950	1.007	.067	10.0%
1,000 to 1,500 sf	.972	1.003	.044	6.9%
1,500 to 2,000 sf	.971	1.003	.043	6.2%
2,000 to 3,000 sf	.975	1.004	.049	7.0%
3,000 sf or Higher	.967	1.005	.083	11.6%
Overall	.971	1.005	.049	7.3%

Improvement Quality

Case Processing Summary

	Count	Percent
QUALITY	1	0.0%
1	109	1.0%
2	1989	17.4%
3	8853	77.2%
4	442	3.9%
5	60	0.5%
6	7	0.1%
Overall	11461	100.0%
Excluded	0	
Total	11461	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
	1.274	1.000	.000	.
1	.967	1.004	.110	15.0%
2	.968	1.004	.065	10.2%
3	.972	1.004	.043	6.1%
4	.976	1.010	.072	9.6%
5	1.000	1.014	.083	11.9%
6	.941	1.030	.109	19.8%
Overall	.971	1.005	.049	7.3%

Improvement Condition

Case Processing Summary

	Count	Percent
CONDITION	1	0.0%
1	3	0.0%
2	27	0.2%
3	11423	99.7%
4	7	0.1%
Overall	11461	100.0%
Excluded	0	
Total	11461	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
	1.274	1.000	.000	.
1	1.009	.919	.228	45.3%
2	.930	1.044	.158	20.9%
3	.971	1.005	.048	7.2%
4	.993	1.002	.048	6.4%
Overall	.971	1.005	.049	7.3%

Commercial Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	LT \$25K	3	1.4%
	\$50K to \$100K	8	3.7%
	\$100K to \$150K	22	10.2%
	\$150K to \$200K	25	11.6%
	\$200K to \$300K	27	12.5%
	\$300K to \$500K	43	19.9%
	\$500K to \$750K	22	10.2%
	\$750K to \$1,000K	15	6.9%
	Over \$1,000K	51	23.6%
Overall		216	100.0%
Excluded		0	
Total		216	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LT \$25K	1.056	1.128	.300	58.1%
\$50K to \$100K	1.005	1.011	.115	19.4%
\$100K to \$150K	.986	1.002	.067	10.4%
\$150K to \$200K	.985	1.000	.055	8.6%
\$200K to \$300K	1.007	.998	.053	7.0%
\$300K to \$500K	.987	.998	.061	12.7%
\$500K to \$750K	.996	1.000	.052	7.5%
\$750K to \$1,000K	.999	.999	.035	6.1%
Over \$1,000K	.993	1.000	.063	11.8%
Overall	.993	1.007	.064	12.3%

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	1212.00	2	0.9%
	1220.00	1	0.5%
	1712.00	1	0.5%
	2183.85	1	0.5%
	2212.00	31	14.4%
	2215.00	1	0.5%
	2220.00	19	8.8%
	2223.50	1	0.5%
	2223.75	1	0.5%
	2227.50	1	0.5%
	2230.00	35	16.2%
	2232.00	1	0.5%
	2232.50	1	0.5%
	2233.00	1	0.5%
	2235.00	24	11.1%
	2245.00	74	34.3%
	2556.67	1	0.5%
	2725.00	1	0.5%

2779.44	1	0.5%
2917.40	1	0.5%
3212.00	2	0.9%
3215.00	8	3.7%
3225.00	1	0.5%
9239.00	1	0.5%
9249.00	1	0.5%
9259.00	2	0.9%
9279.00	2	0.9%
Overall	216	100.0%
Excluded	0	
Total	216	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1212.00	.867	1.031	.289	40.8%
1220.00	.754	1.000	.000	.
1712.00	1.064	1.000	.000	.
2183.85	1.000	1.000	.000	.
2212.00	.995	1.001	.049	9.5%
2215.00	.616	1.000	.000	.
2220.00	.999	1.048	.079	22.4%
2223.50	.982	1.000	.000	.
2223.75	.968	1.000	.000	.
2227.50	.950	1.000	.000	.
2230.00	.998	.989	.067	11.3%
2232.00	.984	1.000	.000	.
2232.50	.975	1.000	.000	.
2233.00	.993	1.000	.000	.
2235.00	.997	1.079	.062	11.9%
2245.00	.986	1.014	.058	8.4%
2556.67	1.067	1.000	.000	.
2725.00	1.000	1.000	.000	.
2779.44	1.000	1.000	.000	.
2917.40	.987	1.000	.000	.
3212.00	.991	1.000	.000	0.0%
3215.00	.990	1.008	.032	4.5%
3225.00	.452	1.000	.000	.
9239.00	1.243	1.000	.000	.
9249.00	1.000	1.000	.000	.
9259.00	1.002	1.007	.039	5.5%
9279.00	1.017	.971	.036	5.2%
Overall	.993	1.007	.064	12.3%

Age

Case Processing Summary

		Count	Percent
AgeRec	Over 100	15	6.9%
	75 to 100	8	3.7%
	50 to 75	19	8.8%
	25 to 50	39	18.1%
	5 to 25	94	43.5%
	5 or Newer	41	19.0%
Overall		216	100.0%
Excluded		0	
Total		216	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Over 100	.974	.994	.055	10.9%
75 to 100	.961	.996	.054	9.8%
50 to 75	1.004	1.101	.134	25.9%
25 to 50	.993	.999	.035	5.7%
5 to 25	.996	.991	.062	11.2%
5 or Newer	.996	1.024	.066	10.3%
Overall	.993	1.007	.064	12.3%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	LE 500 sf	6	2.8%
	500 to 1,000 sf	19	8.8%
	1,000 to 1,500 sf	38	17.6%
	1,500 to 2,000 sf	19	8.8%
	2,000 to 3,000 sf	34	15.7%
	3,000 sf or Higher	100	46.3%
Overall		216	100.0%
Excluded		0	
Total		216	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LE 500 sf	.999	1.119	.177	29.1%
500 to 1,000 sf	.986	1.055	.111	24.1%
1,000 to 1,500 sf	.989	1.020	.054	7.8%
1,500 to 2,000 sf	.954	1.018	.065	11.6%
2,000 to 3,000 sf	.998	1.006	.042	6.8%
3,000 sf or Higher	.998	1.013	.058	10.7%
Overall	.993	1.007	.064	12.3%

Improvement Quality

Case Processing Summary

		Count	Percent
QUALITY	1	5	2.3%
	2	15	6.9%
	3	159	73.6%
	4	37	17.1%
Overall		216	100.0%
Excluded		0	
Total		216	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1	.998	1.171	.205	46.3%
2	.985	1.000	.031	4.0%
3	.995	1.013	.063	11.1%
4	.986	.980	.062	10.4%
Overall	.993	1.007	.064	12.3%

Improvement Condition

Case Processing Summary

		Count	Percent
CONDITION	2	6	2.8%
	3	209	96.8%
	4	1	0.5%
Overall		216	100.0%
Excluded		0	
Total		216	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
2	.989	.991	.015	2.1%
3	.994	1.009	.064	12.3%
4	.667	1.000	.000	.
Overall	.993	1.007	.064	12.3%

Vacant Land Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	LT \$25K	7	3.3%
	\$25K to \$50K	15	7.0%
	\$50K to \$100K	73	34.0%
	\$100K to \$150K	51	23.7%
	\$150K to \$200K	21	9.8%
	\$200K to \$300K	16	7.4%
	\$300K to \$500K	18	8.4%
	\$500K to \$750K	8	3.7%
	\$750K to \$1,000K	3	1.4%
	Over \$1,000K	3	1.4%
Overall		215	100.0%
Excluded		0	
Total		215	

Ratio Statistics for CURRLND / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LT \$25K	1.083	.987	.070	8.7%
\$25K to \$50K	1.000	.993	.158	24.3%
\$50K to \$100K	1.000	1.004	.069	12.0%
\$100K to \$150K	.942	1.003	.094	12.8%
\$150K to \$200K	1.000	.996	.127	19.4%
\$200K to \$300K	1.000	1.006	.113	15.2%
\$300K to \$500K	.948	1.009	.163	25.2%
\$500K to \$750K	.944	1.001	.046	6.1%
\$750K to \$1,000K	1.000	1.002	.027	5.6%
Over \$1,000K	1.000	1.001	.020	3.0%
Overall	1.000	1.010	.100	15.3%

Subclass

Case Processing Summary

		Count	Percent
ABSTRLND	100.00	39	18.1%
	200.00	19	8.8%
	300.00	4	1.9%
	520.00	1	0.5%
	540.00	1	0.5%
	550.00	1	0.5%
	1112.00	125	58.1%
	1125.00	1	0.5%
	2112.00	3	1.4%
	2115.00	1	0.5%
	2120.00	6	2.8%
	2130.00	7	3.3%
	2135.00	7	3.3%

Overall	215	100.0%
Excluded	0	
Total	215	

Ratio Statistics for CURRLND / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
100.00	.949	1.042	.144	20.4%
200.00	.991	.975	.200	27.3%
300.00	.984	1.010	.137	21.1%
520.00	1.036	1.000	.000	.
540.00	.949	1.000	.000	.
550.00	.950	1.000	.000	.
1112.00	1.000	1.002	.078	12.1%
1125.00	.966	1.000	.000	.
2112.00	1.049	.997	.057	11.1%
2115.00	.921	1.000	.000	.
2120.00	.984	1.026	.047	6.6%
2130.00	.923	1.004	.105	15.8%
2135.00	1.000	1.009	.045	7.1%
Overall	1.000	1.010	.100	15.3%