



2023

ADAMS COUNTY PROPERTY ASSESSMENT STUDY





September 15, 2023

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

RE: Final Report for the 2023 Colorado Property Assessment Study

Dear Ms. Castle:

East West Econometrics - Audit Division is pleased to submit the Final Reports for the 2023 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 locally assessed 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.

A handwritten signature in black ink that reads "Harry J. Fuller".

Harry J. Fuller
Project Manager
East West Econometrics – 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.

East West Econometrics Audit has completed the Property Assessment Study for 2023 and is pleased to report its findings for Adams County in the following report.

Historical Information

Adams County has approximately 1,167.7 square miles and an estimated population of approximately 517,421 people with 378.2 people per square mile, according to the U.S. Census Bureau's 2020 estimated census data. This represents a 17.1 percent change from April 1, 2010 to July 1, 2019.

Adams County is the fifth most populous of the 64 counties of the State of Colorado. It is named for Alva Adams, Governor of the State of Colorado 1887-1889, 1897-1899, and 1905. The county seat is Brighton.

On May 30, 1854, the Kansas-Nebraska Act created the Territory of Nebraska and Territory of Kansas, divided by the Parallel 40° North (168th Avenue in present-day Adams County). The future Adams County, Colorado, occupied a strip of northern Arapahoe County, Kansas Territory, immediately south of the Nebraska Territory.

In 1859, John D. "Colonel Jack" Henderson built a ranch, trading post, and hotel on Henderson Island in the South Platte River in Arapahoe County, Kansas Territory. Jack Henderson was the former editor and proprietor of the Leavenworth (Kansas Territory) Journal and an outspoken pro-slavery politician who had been accused of vote fraud in eastern Kansas. Henderson sold meat and provisions to gold seekers on their way up the South Platte River Trail to the gold fields during the Pike's Peak Gold Rush. Henderson Island was the first permanent settlement in the South Platte River Valley between Fort Saint Vrain in the Nebraska Territory and the Cherry Creek Diggings in the Kansas Territory. Jack Henderson eventually returned to eastern Kansas and (ironically) fought for the Union in the American Civil War. Henderson Island is

today the site of the Adams County Regional Park and Fairgrounds.

The eastern portion of the Kansas Territory was admitted to the Union as the State of Kansas on January 29, 1861, and on February 28, 1861, the remaining western portion of the territory was made part of the new Colorado Territory. The Colorado Territory created Arapahoe County, on November 1, 1861, and Colorado was admitted to the Union on August 1, 1876.

In 1901, the Colorado General Assembly voted to split Arapahoe County into three parts: a new Adams County, a new consolidated City and County of Denver, and the remainder of the Arapahoe County to be renamed South Arapahoe County. A ruling by the Colorado Supreme Court, subsequent legislation, and a referendum delayed the creation of Adams County until November 15, 1902. Governor James Bradley Orman designated Brighton as the temporary Adams County Seat. Adams County originally stretched 160 miles from present-day Sheridan Boulevard to the Kansas state border. On May 12, 1903, the eastern 88 miles of Adams County was transferred to the new Washington County and the new Yuma County, reducing the length of Adams County to the present 72 miles. On November 8, 1904, Adams County voters chose Brighton as the permanent county seat.

A 1989 vote transferred 53 square miles of Adams County to the City and County of Denver for the proposed Denver International Airport, leaving the densely populated western portion of the county as two oddly-shaped peninsulas. Adams County lost the tip of its northwest corner when the consolidated City and County of Broomfield was created on November 15, 2001.

(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, 2021 through June 30th, 2022. 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
Residential Condominium	Between .95-1.05	Less than 15.99
Residential	Between .95-1.05	Less than 15.99
Vacant Land	Between .95-1.05	Less than 20.99

The results for Adams County are:

Adams County Ratio Grid					
Property Class	Number of Qualified Sales	Unweighted Median Ratio	Price Related Differential	Coefficient of Dispersion	Time Trend Analysis
Commercial/Industrial	219	0.985	1.019	13.8	Compliant
Residential	23,463	0.974	1.021	7.2	Compliant
Vacant Land	86	0.978	0.996	4.6	Compliant

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

Adams 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
Residential	Compliant
Vacant Land	Compliant

Conclusions

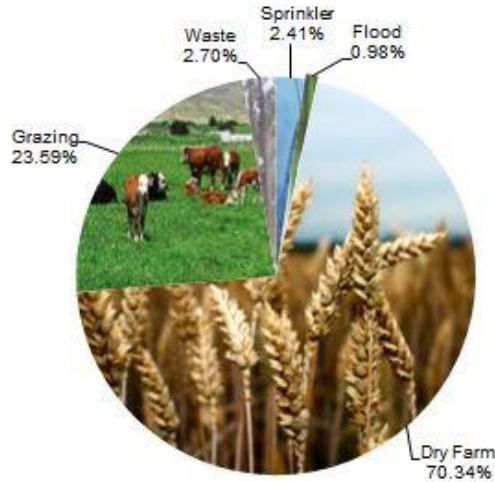
After applying the above described methodologies, it is concluded that Adams County is reasonably treating its sold and unsold properties in the same manner.

Recommendations

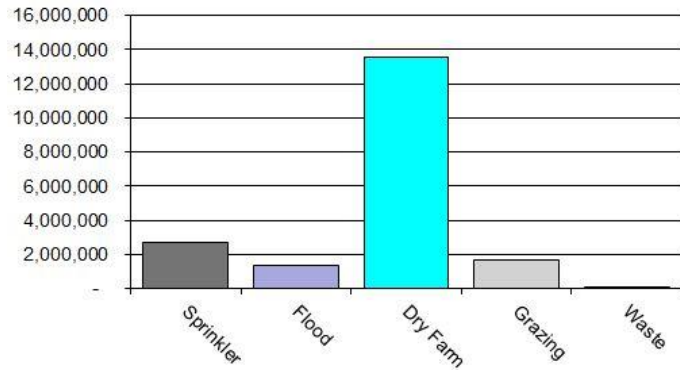
None

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:

Adams 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	13,494	198.55	2,679,305	2,693,349	0.99
4117	Flood	5,485	245.47	1,346,376	1,341,300	1.00
4127	Dry Farm	394,562	34.29	13,528,948	13,474,868	1.00
4147	Grazing	132,310	12.76	1,687,693	1,687,553	1.00
4167	Waste	15,123	2.19	33,092	33,092	1.00
Total/ Avg		560,975	34.36	19,275,416	19,230,162	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

Adams County has substantially 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

Adams 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
- Personal Knowledge of Occupants at Assessment Date
- Aerial Photography/Pictometry

Adams 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
- Personal Knowledge of Occupants at Assessment Date
- Aerial Photography/Pictometry

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

Recommendations

None

SALES VERIFICATION

According to Colorado Revised Statutes:

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

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

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

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

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

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

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

EWE reviewed the sales verification procedures in 2023 for Adams County. This study was conducted by checking selected sales from the master sales list for the current valuation period. Specifically EWE selected 572 sales listed as unqualified.

All but 1 of the sales selected in the sample gave reasons that were clear and supportable. One sale had insufficient reason for disqualification.

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

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

When less than 50 percent of sales are qualified in any of the three property classes (residential, commercial, and vacant land), the contractor analyzed the reasons for disqualifying sales in any subclass that constitutes at least 20 percent of the class, either by number of properties or by value, from the prior year. The contractor has

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

If 50 percent or more of the sales are qualified, the contractor has reviewed a statistically significant sample of

unqualified sales, excluding sales that were disqualified for obvious reasons.

The following subclasses were analyzed for Adams County:

- 2212 Merchandising
- 2235 Warehouse/Storage

Conclusions

Adams County appears to be doing an adequate job of verifying their sales.

Recommendations

None

ECONOMIC AREA REVIEW AND EVALUATION

Methodology

Adams County has submitted a written narrative describing the economic areas that make up the county's market areas. Adams 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 Adams 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 2023 in Adams County. The review showed that subdivisions were discounted pursuant to 39-1-103 (14) C.R.S. Discounting procedures were applied to all subdivisions where less than 80 percent of vacant land parcels were sold. An absorption rate was estimated for each discounted subdivision. An appropriate discount rate was developed using the Summation Method,

following Division of Property Taxation guidelines.

Conclusions

Adams 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.

Adams 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

Adams 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

Adams 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.

Adams 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
- Questionnaires, Letters and/or Phone Calls to Buyer, Seller and/or Realtor
- Canvassing The County November to March

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.

Adams County submitted their personal property written audit plan and was current for the 2023 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
- 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 \$52,000 actual value exemption status
- Lowest or highest quartile of value per square foot
- Accounts protested with substantial disagreement

Adams 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

Adams 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

Harry J. Fuller, *Audit Project Manager*

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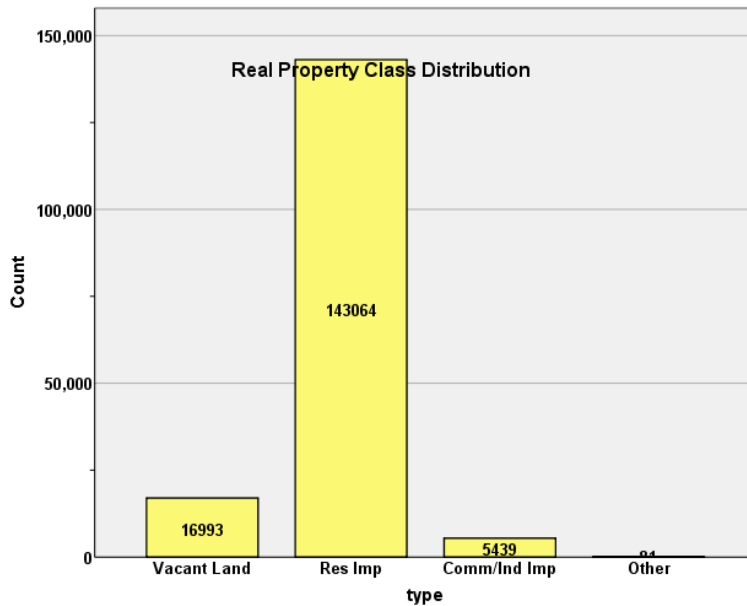
J. Andrew Rodriguez, *Field Analyst*

STATISTICAL APPENDIX

**STATISTICAL COMPLIANCE REPORT
FOR ADAMS COUNTY
2023**

I. OVERVIEW

Adams County is an urban county located along Colorado’s Front Range. The county has a total of 165,577 real property parcels, according to data submitted by the county assessor’s office in 2023. 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) accounted for 59.0% of all vacant land parcels.

For residential improved properties, single family properties accounted for 82.2% of all residential properties.

Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial properties accounted for 3.3% of all such properties in this county.

II. DATA FILES

The following sales analyses were based on the requirements of the 2023 Colorado Property Assessment Study. Information was provided by the Adams Assessor’s Office in May 2023. The data included all 5 property record files as specified by the Auditor.

III. RESIDENTIAL SALES RESULTS

There were 23,463 qualified residential sales for the 24-month period ending June 30, 2022. The sales ratio analysis results were as follows:

Median	0.974
Price Related Differential	1.021
Coefficient of Dispersion	7.2

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

Economic Area Case Processing Summary

		Count	Percent
ECONAREA	1.00	1101	4.7%
	2.00	6409	27.3%
	3.00	5818	24.8%
	4.00	6270	26.7%
	5.00	1652	7.0%
	6.00	2211	9.4%
Overall		23461	100.0%
Excluded		2	
Total		23463	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
1.00	.994	1.010	.071
2.00	.973	1.014	.065
3.00	.976	1.012	.067
4.00	.967	1.033	.067
5.00	.960	1.016	.092
6.00	.999	1.045	.094
Overall	.974	1.021	.072

Neighborhoods with 35 or more sales

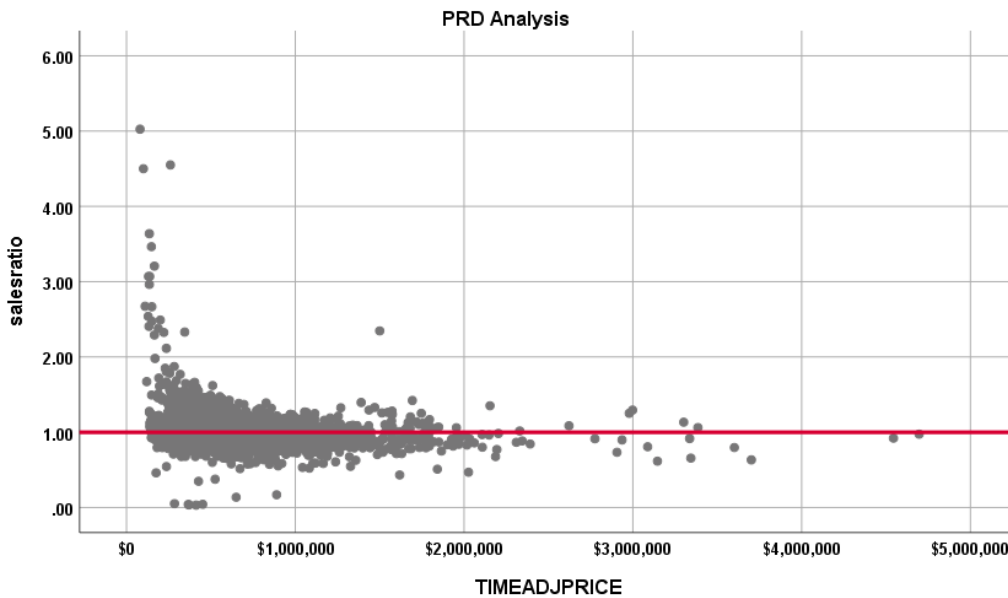
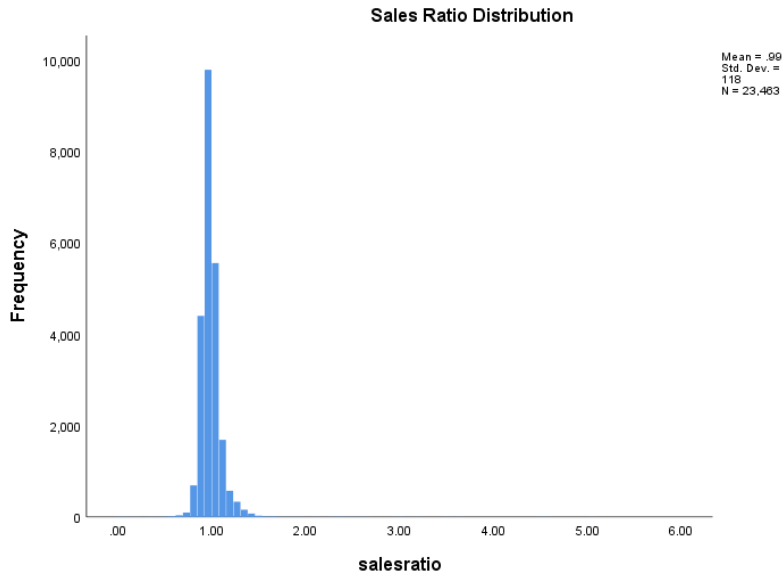
Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
101	.991	1.004	.117
102	.961	1.011	.083
115	.987	1.015	.071
119	.995	1.011	.078
122	.965	1.016	.087
124	.979	1.004	.052
130	1.002	1.015	.079
140	.996	1.004	.063
150	.999	1.004	.056
200	.967	1.027	.104
210	.970	1.009	.070

21C	.962	1.011	.069
21T	.972	1.003	.054
220	.964	1.010	.075
225	.973	1.008	.076
22C	.974	1.002	.058
22T	.968	1.007	.066
230	.955	1.004	.051
23C	.966	1.013	.073
23T	.977	1.011	.075
240	.959	1.007	.071
24C	.980	1.003	.047
24T	.992	1.008	.084
25C	.965	1.007	.058
25T	.987	1.013	.105
26C	.968	1.007	.088
26T	.958	1.010	.076
300	.958	1.011	.070
400	.969	1.006	.062
420	.968	1.004	.056
425	.980	1.005	.066
430	.972	1.006	.054
500	.950	1.006	.075
520	.950	1.015	.094
530	.974	1.009	.062
600	.987	1.019	.093
610	.987	1.041	.118
620	1.011	1.014	.090
64	.950	1.113	.090
66	.989	1.007	.128
Overall	.974	1.016	.071

The above sales ratio analysis indicates that both from an overall perspective and broken down by economic area and neighborhood, the county was in compliance in terms of the median sales ratio and COD for residential sales.

The following graphs describe the overall sales ratio results for Adams County:



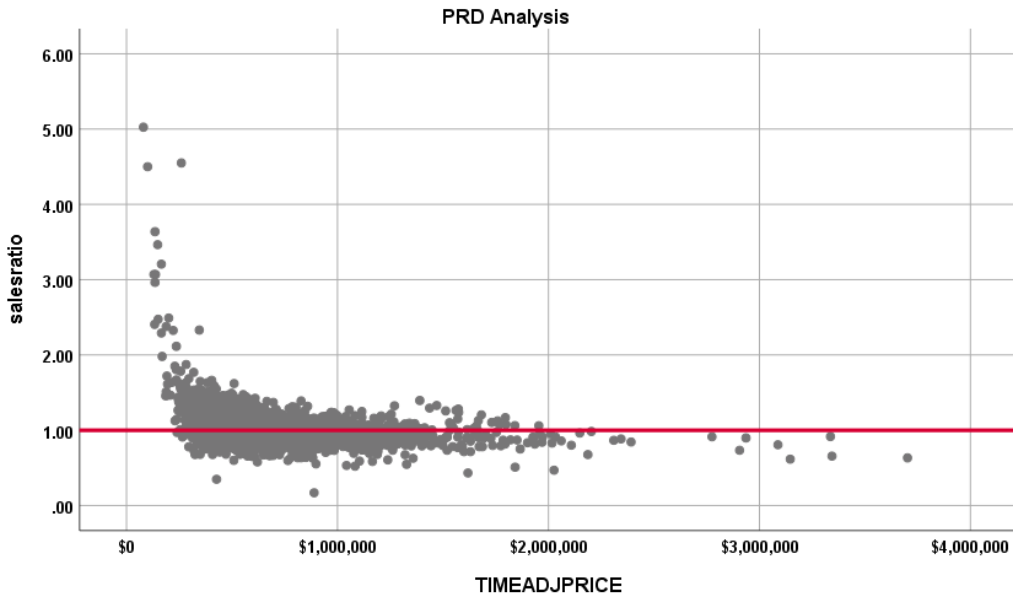
NOTE: Scale adjusted to sales less than \$5,000,000 for above chart for illustration purposes.

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. 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 1.010, 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:

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	.980	.003		301.056	.000
	CURRTOT	.0000000133	.000	.018	2.485	.013

a. Dependent Variable: salesratio

The slope of the line at 0.000000133 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	87	0.5%
	\$300K to \$400K	785	4.2%
	\$400K to \$500K	4055	21.5%
	\$500K to \$600K	6380	33.8%
	\$600K to \$750K	4961	26.3%
	\$750K to \$1000K	2137	11.3%
	\$1000K to \$2000K	458	2.4%
	Over \$2000K	20	0.1%
Overall		18883	100.0%
Excluded		0	
Total		18883	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LT \$300K	1.451	1.086	.334	58.5%
\$300K to \$400K	1.078	1.002	.116	15.0%
\$400K to \$500K	.996	1.001	.072	10.0%
\$500K to \$600K	.974	1.000	.056	7.9%
\$600K to \$750K	.967	1.000	.056	7.6%
\$750K to \$1000K	.948	1.000	.067	9.0%
\$1000K to \$2000K	.923	1.000	.099	13.4%
Over \$2000K	.851	1.010	.122	16.9%
Overall	.975	1.010	.070	12.2%

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	1	(Constant)	1.009	.006		166.404	.000
		SalePeriod	-.001	.000	-.043	-1.423	.155
2.00	1	(Constant)	.985	.003		360.392	.000
		SalePeriod	8.394E-6	.000	.001	.041	.967
3.00	1	(Constant)	.974	.002		408.534	.000
		SalePeriod	.001	.000	.074	5.684	.000
4.00	1	(Constant)	.975	.003		381.228	.000
		SalePeriod	.000	.000	.013	1.062	.288
5.00	1	(Constant)	.971	.008		125.007	.000
		SalePeriod	.000	.001	.006	.227	.820
6.00	1	(Constant)	1.019	.007		150.536	.000
		SalePeriod	.001	.001	.038	1.781	.075

a. Dependent Variable: salesratio

There was no residual market trending present in the sale ratio data for most economic areas. While Economic Area 3 had a statistically significant result, the magnitude of the trend was not significant; 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 2023 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		119446	\$324	\$338
SOLD		23452	\$313	\$331

Report

VALSF				
ECONAREA	sold	N	Median	Mean
1.00	UNSOLD	3877	\$295	\$294
	SOLD	1101	\$300	\$300
2.00	UNSOLD	20723	\$282	\$290
	SOLD	6409	\$279	\$288
3.00	UNSOLD	31086	\$320	\$328
	SOLD	5817	\$324	\$332
4.00	UNSOLD	43608	\$343	\$357
	SOLD	6270	\$339	\$361
5.00	UNSOLD	11599	\$372	\$380
	SOLD	1644	\$378	\$390
6.00	UNSOLD	8546	\$350	\$355
	SOLD	2209	\$309	\$334

We next stratified this analysis by neighborhoods with at least 30 sales, as follows:

Report

VALSF				
NBHD	sold	N	Median	Mean
101	UNSOLD	626	\$272	\$290
	SOLD	69	\$290	\$311
102	UNSOLD	801	\$315	\$300
	SOLD	135	\$348	\$327
115	UNSOLD	2106	\$344	\$352
	SOLD	398	\$312	\$336
119	UNSOLD	2871	\$360	\$351
	SOLD	540	\$361	\$356
122	UNSOLD	4829	\$321	\$330
	SOLD	657	\$333	\$345
124	UNSOLD	3878	\$282	\$287
	SOLD	1363	\$287	\$293
130	UNSOLD	374	\$252	\$248
	SOLD	144	\$332	\$305

140	UNSOLD	689	\$290	\$298
	SOLD	390	\$269	\$279
150	UNSOLD	946	\$322	\$316
	SOLD	305	\$324	\$320
200	UNSOLD	3696	\$394	\$409
	SOLD	631	\$400	\$419
210	UNSOLD	5022	\$408	\$393
	SOLD	574	\$418	\$413
21C	UNSOLD	2487	\$293	\$300
	SOLD	607	\$292	\$301
21T	UNSOLD	1586	\$308	\$312
	SOLD	327	\$314	\$317
220	UNSOLD	4387	\$428	\$431
	SOLD	477	\$444	\$444
225	UNSOLD	2659	\$414	\$405
	SOLD	393	\$419	\$416
22C	UNSOLD	1192	\$297	\$300
	SOLD	339	\$287	\$295
22T	UNSOLD	3366	\$303	\$310
	SOLD	792	\$316	\$317
230	UNSOLD	421	\$369	\$364
	SOLD	55	\$376	\$377
23C	UNSOLD	1515	\$281	\$287
	SOLD	407	\$288	\$295
23T	UNSOLD	754	\$317	\$322
	SOLD	353	\$332	\$339
240	UNSOLD	8270	\$342	\$355
	SOLD	1123	\$348	\$360
24C	UNSOLD	844	\$302	\$305
	SOLD	194	\$300	\$304
24T	UNSOLD	1271	\$291	\$291
	SOLD	444	\$291	\$293
25C	UNSOLD	459	\$274	\$267
	SOLD	121	\$277	\$273
25T	UNSOLD	576	\$306	\$315
	SOLD	177	\$295	\$305
26C	UNSOLD	1075	\$269	\$267
	SOLD	373	\$270	\$272
26T	UNSOLD	426	\$286	\$294
	SOLD	197	\$274	\$277
300	UNSOLD	7142	\$393	\$380
	SOLD	772	\$431	\$414
400	UNSOLD	5681	\$351	\$352
	SOLD	716	\$376	\$377
420	UNSOLD	8534	\$321	\$331
	SOLD	1135	\$338	\$349
425	UNSOLD	8998	\$305	\$312
	SOLD	1984	\$313	\$322
430	UNSOLD	6535	\$302	\$309
	SOLD	875	\$315	\$322
500	UNSOLD	2860	\$375	\$382
	SOLD	316	\$385	\$397
520	UNSOLD	3422	\$367	\$369
	SOLD	316	\$370	\$376
530	UNSOLD	10158	\$272	\$276
	SOLD	3679	\$274	\$280
600	UNSOLD	2941	\$408	\$411

	SOLD	445	\$434	\$435
610	UNSOLD	1352	\$372	\$364
	SOLD	165	\$396	\$382
620	UNSOLD	3175	\$317	\$322
	SOLD	1290	\$289	\$303
64	UNSOLD	354	\$250	\$258
	SOLD	39	\$242	\$265
66	UNSOLD	227	\$242	\$252
	SOLD	46	\$249	\$260

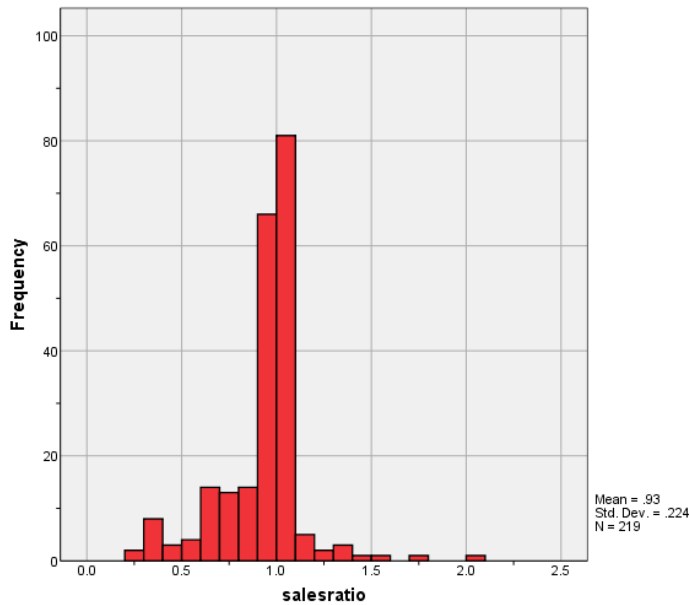
The above results indicate that sold and unsold residential properties were valued in a consistent manner.

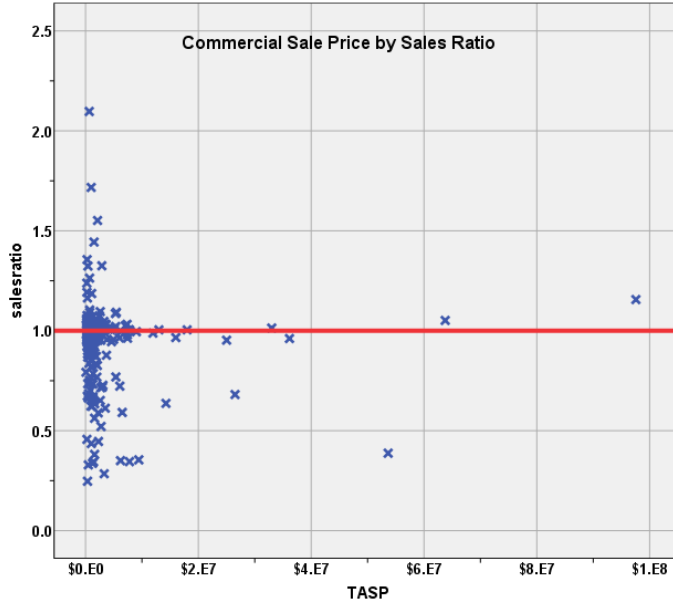
IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

There were 219 qualified commercial and industrial sales for the 24-month period ending June 30, 2022. The sales ratio analysis had the following results:

Median	0.985
Price Related Differential	1.019
Coefficient of Dispersion	13.8

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





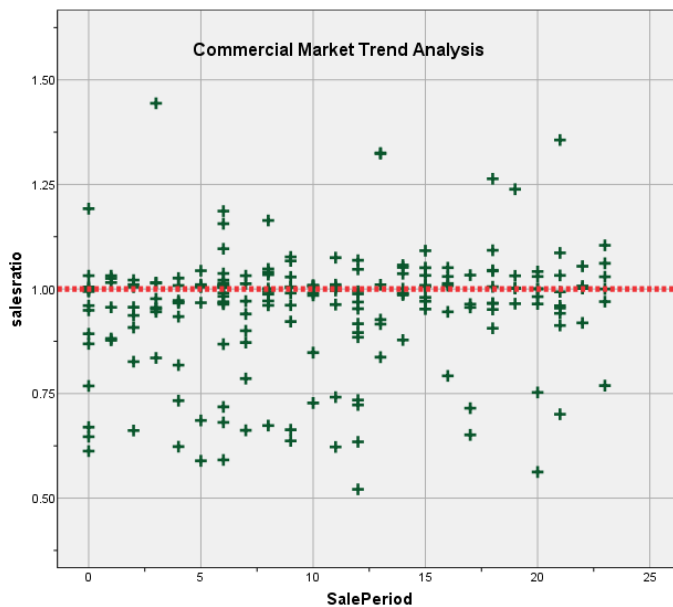
Commercial/Industrial Market Trend Analysis

The commercial/industrial sales were next analyzed, examining the sale ratios across the 24 month sale period with the following results:

Coefficients^a

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.923	.018		50.103	.000
	SalePeriod	.003	.001	.135	1.938	.054

a. Dependent Variable: salesratio



There was no residual market trending present in the commercial/industrial 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 change in value for valuation years 2020 and 2022 for sold and unsold commercial/industrial properties, as follows:

Report

DIFF			
	N	Median	Mean
UNSOLD	5063	1.34	1.38
SOLD	189	1.41	1.50

Hypothesis Test Summary

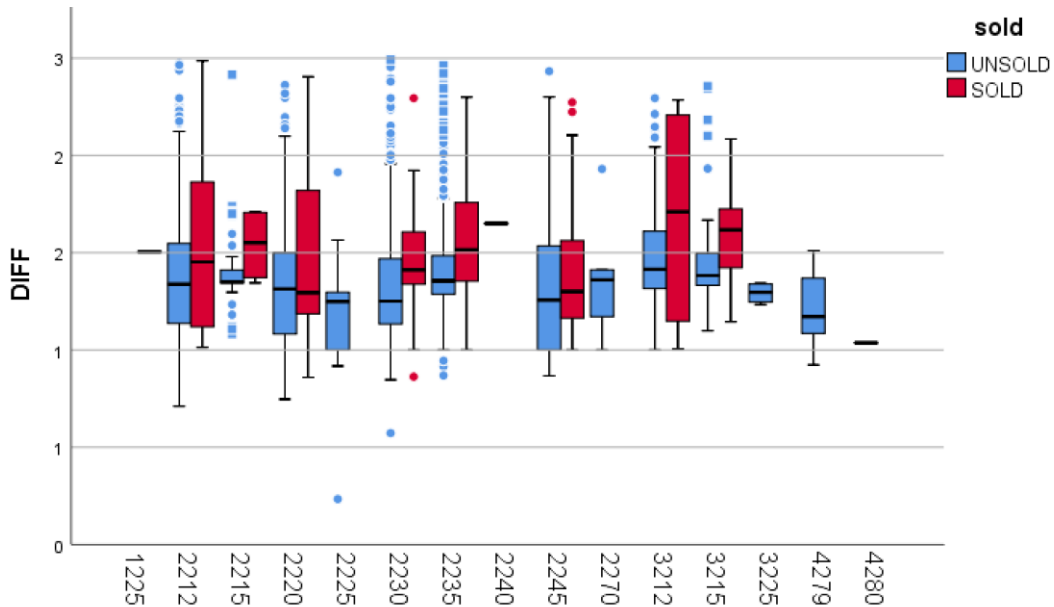
	Null Hypothesis	Test	Sig.	Decision
1	The distribution of DIFF is the same across categories of sold.	Independent-Samples Mann-Whitney U Test	.000	Reject the null hypothesis.

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

Given that there was a marginally significant difference between sold and unsold properties, we next stratified this comparison by subclass. The following table compared sold and unsold commercial/industrial properties for major subclasses:

Report

DIFF				
ABSTRIMPMAJOR	sold	N	Median	Mean
2212	UNSOLD	1385	1.34	1.38
	SOLD	50	1.45	1.53
2215	UNSOLD	59	1.35	1.41
	SOLD	4	1.55	1.54
2220	UNSOLD	334	1.31	1.33
	SOLD	20	1.29	1.49
2230	UNSOLD	941	1.25	1.34
	SOLD	22	1.41	1.45
2235	UNSOLD	1355	1.36	1.42
	SOLD	38	1.52	1.56
2245	UNSOLD	735	1.26	1.38
	SOLD	43	1.30	1.40
3215	UNSOLD	98	1.38	1.44
	SOLD	7	1.62	1.59



The above tabular and graphic comparison indicates that when stratified by subclass, there were instances where the sold property subclass had a median value change greater than the unsold properties in the same subclass, although there was significant overlap. A portion of the difference is due to the marginally superior condition and quality of the sold commercial properties versus unsold commercial properties.

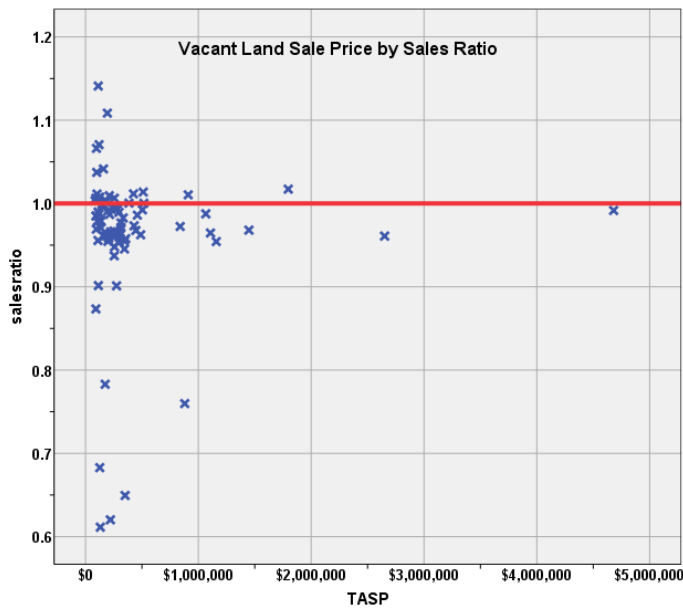
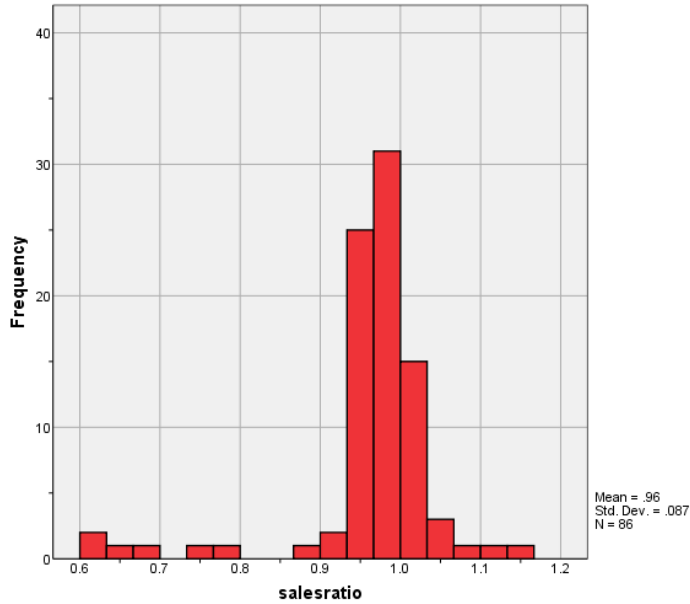
Based on the above analysis, we conclude that the Assessor has valued sold and unsold commercial properties consistently for 2023.

V. VACANT LAND SALE RESULTS

There were 86 qualified vacant land sales for the 24-month period ending June 30, 2022. The sales ratio analysis results were as follows:

Median	0.978
Price Related Differential	0.996
Coefficient of Dispersion	4.6

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.

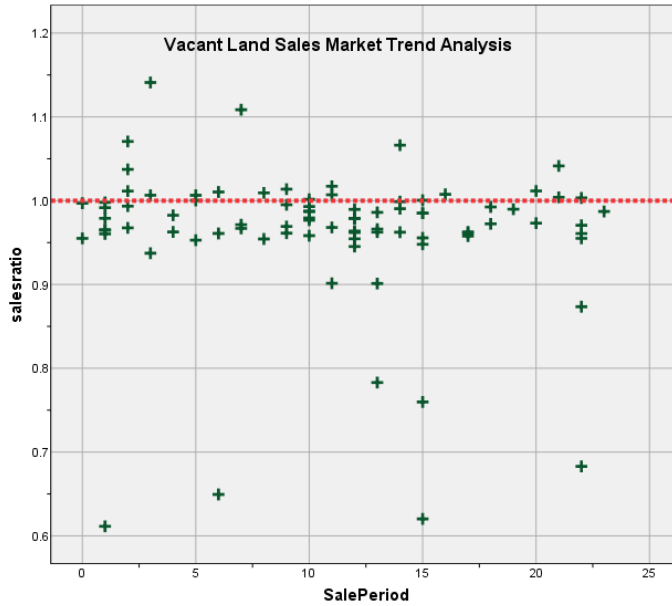
Vacant Land Market Trend Analysis

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

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	.977	.018		53.782	.000
	SalePeriod	-.001	.001	-.097	-.890	.376

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 years 2020 and 2022 between each group, as follows:

Report

DIFF	N	Median	Mean
UNSOLD	10628	1.13	1.43
SOLD	68	1.35	1.60

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of DIFF is the same across categories of sold.	Independent-Samples Mann-Whitney U Test	.000	Reject the null hypothesis.

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

Although there was a significant difference in the above comparison, when broken down by subdivisions with at least 3 sales, there was no pattern of sold properties being consistently adjusted at a greater rate than unsold vacant land properties:

Report

DIFF				
SUBDIVNO	sold	N	Median	Mean
017BB	UNSOLD	2	1.23	1.23
	SOLD	3	1.02	1.02
195BB	UNSOLD	12	1.00	1.02
	SOLD	5	1.05	1.07
339GA	UNSOLD	4	1.00	1.02
	SOLD	5	1.19	1.23
365RA	UNSOLD	3	1.04	1.02
	SOLD	3	1.22	1.40

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

V. CONCLUSIONS

Based on the results of these analyses, we concluded that there were no significant compliance issues with Adams County, with the possible exception of commercial sold and unsold consistency.

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 Mean Centered
		Lower Bound	Upper Bound		Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound			
.	1.375	-.024	2.774	1.375	1.265	1.485	100.0%	1.370	-.026	2.767	1.003	.080	11.3%
1.00	1.002	.996	1.008	.994	.989	.998	95.3%	.992	.983	1.001	1.010	.071	10.8%
2.00	.985	.982	.988	.973	.971	.975	95.2%	.972	.960	.983	1.014	.065	11.4%
3.00	.985	.983	.988	.976	.974	.978	95.2%	.973	.964	.982	1.012	.067	9.5%
4.00	.977	.975	.980	.967	.965	.969	95.3%	.946	.928	.964	1.033	.067	10.7%
5.00	.972	.964	.981	.960	.954	.965	95.4%	.957	.949	.964	1.016	.092	17.5%
6.00	1.029	1.022	1.036	.999	.994	1.005	95.4%	.984	.933	1.036	1.045	.094	16.2%

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.

Commercial Land

Ratio Statistics for CURRTOT / TASP													
Mean	95% Confidence Interval for Mean		Median	95% Confidence Interval for Median			Weighted Mean	95% Confidence Interval for Weighted Mean		Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Mean Centered	
	Lower Bound	Upper Bound		Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound				
.929	.899	.959	.985	.967	1.000	95.8%	.912	.811	1.013	1.019	.138	24.1%	

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			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	Actual Coverage		Lower Bound	Upper Bound				
.963	.944	.981	.978	.966	.987	96.0%	.966	.949	.984	.996	.046	9.0%	

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

Residential Median Ratio Stratification

Sub-Class

Case Processing Summary

		Count	Percent
ABSTRIMP	.00	1	0.0%
	1212.00	18643	79.5%
	1213.50	4	0.0%
	1214.00	2289	9.8%
	1214.50	200	0.9%
	1215.00	114	0.5%
	1215.33	41	0.2%
	1215.75	6	0.0%
	1216.00	1	0.0%
	1217.00	9	0.0%
	1220.00	64	0.3%
	1225.00	43	0.2%
	1225.03	1	0.0%
	1225.05	1	0.0%
	1225.06	1	0.0%
	1225.07	1	0.0%
	1225.09	1	0.0%
	1225.11	2	0.0%
	1230.00	2041	8.7%
Overall		23463	100.0%
Excluded		0	
Total		23463	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
.00	.170	1.000	.000	.
1212.00	.975	1.010	.070	12.2%
1213.50	.756	1.058	.260	34.2%
1214.00	.974	1.009	.074	10.7%
1214.50	.974	1.012	.096	13.3%
1215.00	.944	1.023	.123	16.1%
1215.33	.986	.979	.147	26.6%
1215.75	.999	1.003	.053	7.9%
1216.00	.890	1.000	.000	.
1217.00	.051	1.162	2.955	498.0%
1220.00	.949	1.007	.091	12.0%
1225.00	1.000	1.196	.131	17.3%
1225.03	.685	1.000	.000	.
1225.05	.788	1.000	.000	.
1225.06	.962	1.000	.000	.
1225.07	.817	1.000	.000	.
1225.09	.841	1.000	.000	.
1225.11	.862	.974	.161	22.7%
1230.00	.968	1.007	.069	11.2%
Overall	.974	1.021	.072	12.2%

Age

Case Processing Summary

		Count	Percent
AgeRec	0	1	0.0%
	Over 100	106	0.5%
	75 to 100	232	1.0%
	50 to 75	3697	15.8%
	25 to 50	4537	19.3%
	5 to 25	7259	30.9%
	5 or Newer	7631	32.5%
Overall		23463	100.0%
Excluded		0	
Total		23463	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
0	.170	1.000	.000	.
Over 100	.960	1.020	.110	17.8%
75 to 100	.972	1.039	.129	21.0%
50 to 75	.963	1.015	.083	18.0%
25 to 50	.962	1.040	.068	10.3%
5 to 25	.966	1.006	.055	8.9%
5 or Newer	.999	1.026	.076	11.5%
Overall	.974	1.021	.072	12.2%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	0	1	0.0%
	LE 500 sf	22	0.1%
	500 to 1,000 sf	2521	10.7%
	1,000 to 1,500 sf	6989	29.8%
	1,500 to 2,000 sf	6529	27.8%
	2,000 to 3,000 sf	6208	26.5%
	3,000 sf or Higher	1193	5.1%
Overall		23463	100.0%
Excluded		0	
Total		23463	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
0	.170	1.000	.000	.
LE 500 sf	.982	1.128	.294	49.2%
500 to 1,000 sf	.963	1.015	.078	13.7%
1,000 to 1,500 sf	.968	1.009	.070	12.9%
1,500 to 2,000 sf	.978	1.010	.071	11.7%
2,000 to 3,000 sf	.981	1.009	.068	10.7%
3,000 sf or Higher	.986	1.094	.085	12.5%
Overall	.974	1.021	.072	12.2%

Quality

Case Processing Summary

	Count	Percent
QUALITY	1	0.0%
Average	12764	54.4%
Excellent	59	0.3%
Fair	5834	24.9%
Good	4402	18.8%
Low	138	0.6%
Very Good	265	1.1%
Overall	23463	100.0%
Excluded	0	
Total	23463	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
	.170	1.000	.000	.
Average	.975	1.016	.066	10.5%
Excellent	.996	1.040	.156	24.5%
Fair	.966	1.016	.079	15.5%
Good	.986	1.039	.072	10.2%
Low	.960	1.000	.089	11.6%
Very Good	.981	1.024	.101	25.4%
Overall	.974	1.021	.072	12.2%

Condition

Case Processing Summary

	Count	Percent
CONDITION	2	0.0%
Average	18757	79.9%
Fair	285	1.2%
Good	4381	18.7%
Low	30	0.1%
p	1	0.0%
Salvage	6	0.0%
Very Good	1	0.0%
Overall	23463	100.0%
Excluded	0	
Total	23463	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
	.601	1.303	.717	101.4%
Average	.977	1.011	.073	12.7%
Fair	.918	1.054	.105	15.2%
Good	.968	1.047	.061	9.1%
Low	.853	1.038	.157	21.5%
p	.992	1.000	.000	.
Salvage	.821	1.125	.318	44.0%
Very Good	.751	1.000	.000	.
Overall	.974	1.021	.072	12.2%

Commercial Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	\$50K to \$100K	1	0.5%
	\$150K to \$200K	4	1.8%
	\$200K to \$300K	21	9.6%
	\$300K to \$500K	33	15.1%
	\$500K to \$750K	27	12.3%
	\$750K to \$1,000K	16	7.3%
	Over \$1,000K	117	53.4%
Overall		219	100.0%
Excluded		0	
Total		219	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
\$50K to \$100K	.792	1.000	.000	.
\$150K to \$200K	1.007	1.002	.039	4.7%
\$200K to \$300K	1.009	.999	.086	16.3%
\$300K to \$500K	.969	1.001	.117	21.5%
\$500K to \$750K	.972	.996	.126	25.7%
\$750K to \$1,000K	.969	.998	.133	24.1%
Over \$1,000K	.985	.983	.157	25.1%
Overall	.985	1.019	.138	23.4%

Sub-Class

Case Processing Summary

	Count	Percent	
ABSTRIMP	1225.00	1	0.5%
	1880.67	1	0.5%
	2212.00	59	26.9%
	2215.00	4	1.8%
	2216.00	1	0.5%
	2220.00	20	9.1%
	2221.00	3	1.4%
	2227.50	2	0.9%
	2230.00	22	10.0%
	2231.67	1	0.5%
	2235.00	46	21.0%
	2245.00	48	21.9%
	3212.00	4	1.8%
	3215.00	7	3.2%
Overall	219	100.0%	
Excluded	0		
Total	219		

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1225.00	1.032	1.000	.000	.
1880.67	1.032	1.000	.000	.
2212.00	.954	1.077	.207	32.1%
2215.00	1.010	1.158	.095	18.9%
2216.00	.934	1.000	.000	.
2220.00	.931	1.152	.166	23.6%
2221.00	1.007	1.008	.109	20.7%
2227.50	.984	.986	.025	3.5%
2230.00	.863	1.053	.247	34.1%
2231.67	1.075	1.000	.000	.
2235.00	.999	1.019	.099	17.6%
2245.00	1.000	1.018	.071	12.1%
3212.00	.989	1.001	.013	2.2%
3215.00	1.002	1.006	.010	1.5%
Overall	.985	1.019	.138	23.4%

Age

Case Processing Summary

		Count	Percent
AgeRec	Over 100	8	3.7%
	75 to 100	5	2.3%
	50 to 75	34	15.5%
	25 to 50	79	36.1%
	5 to 25	62	28.3%
	5 or Newer	31	14.2%
Overall		219	100.0%
Excluded		0	
Total		219	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Over 100	1.003	1.006	.051	10.2%
75 to 100	1.001	1.035	.073	13.3%
50 to 75	.978	.946	.170	26.5%
25 to 50	.985	1.033	.140	24.1%
5 to 25	.982	1.077	.121	20.3%
5 or Newer	.972	.950	.162	28.2%
Overall	.985	1.019	.138	23.4%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	500 to 1,000 sf	5	2.3%
	1,000 to 1,500 sf	13	5.9%
	1,500 to 2,000 sf	7	3.2%
	2,000 to 3,000 sf	25	11.4%
	3,000 sf or Higher	169	77.2%
Overall		219	100.0%
Excluded		0	
Total		219	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
500 to 1,000 sf	.457	.839	.621	88.3%
1,000 to 1,500 sf	.965	1.651	.172	28.4%
1,500 to 2,000 sf	.969	.934	.109	16.2%
2,000 to 3,000 sf	.982	1.000	.132	21.8%
3,000 sf or Higher	.988	1.030	.129	22.3%
Overall	.985	1.019	.138	23.4%

Quality

Case Processing Summary

		Count	Percent
QUALITY	Average	185	84.5%
	Fair	2	0.9%
	Good	26	11.9%
	Low	6	2.7%
Overall		219	100.0%
Excluded		0	
Total		219	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Average	.985	.970	.144	23.9%
Fair	1.013	1.008	.013	1.8%
Good	.984	1.342	.089	18.7%
Low	.931	1.180	.194	32.2%
Overall	.985	1.019	.138	23.4%

Condition

Case Processing Summary

		Count	Percent
CONDITION	Average	197	90.0%
	Good	22	10.0%
Overall		219	100.0%
Excluded		0	
Total		219	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Average	.983	1.015	.142	23.9%
Good	1.001	1.068	.097	19.6%
Overall	.985	1.019	.138	23.4%

Vacant Land Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	\$50K to \$100K	8	9.3%
	\$100K to \$150K	18	20.9%
	\$150K to \$200K	11	12.8%
	\$200K to \$300K	21	24.4%
	\$300K to \$500K	15	17.4%
	\$500K to \$750K	3	3.5%
	\$750K to \$1,000K	3	3.5%
	Over \$1,000K	7	8.1%
Overall		86	100.0%
Excluded		0	
Total		86	

Ratio Statistics for CURRLND / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
\$50K to \$100K	.994	.999	.038	5.7%
\$100K to \$150K	.983	1.002	.066	12.8%
\$150K to \$200K	.990	.999	.049	8.1%
\$200K to \$300K	.963	.998	.035	8.4%
\$300K to \$500K	.968	.998	.035	9.0%
\$500K to \$750K	1.000	1.000	.007	1.1%
\$750K to \$1,000K	.972	1.000	.086	15.7%
Over \$1,000K	.968	.997	.017	2.5%
Overall	.978	.996	.046	9.0%

Subclass

Case Processing Summary

		Count	Percent
ABSTRLND	100.00	54	62.8%
	200.00	19	22.1%
	300.00	3	3.5%
	520.00	1	1.2%
	530.00	2	2.3%
	700.00	3	3.5%
	1112.00	3	3.5%
	2130.00	1	1.2%
Overall		86	100.0%
Excluded		0	
Total		86	

Ratio Statistics for CURRLND / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
100.00	.979	1.001	.056	10.7%
200.00	.973	1.000	.027	5.5%
300.00	.961	1.007	.011	2.1%
520.00	.968	1.000	.000	.
530.00	1.014	.998	.003	0.4%
700.00	.965	1.008	.018	3.1%
1112.00	.971	1.019	.060	12.4%
2130.00	.962	1.000	.000	.
Overall	.978	.996	.046	9.0%