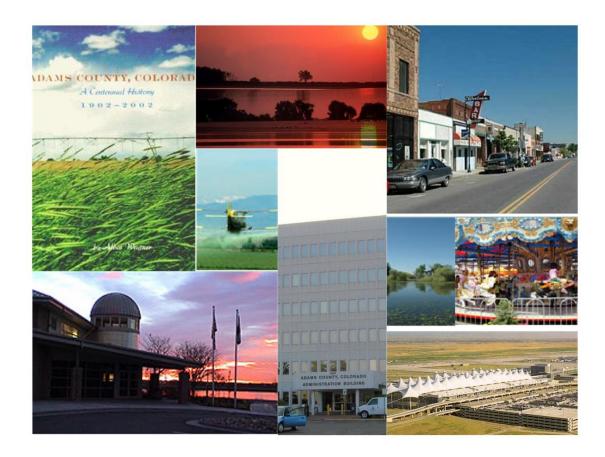


ADAMS COUNTY PROPERTY ASSESSMENT STUDY





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.

Harry J. Hullon

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



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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 twopart 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 subdivision and discounting procedures. Valuation methodology for vacant land, improved residential properties commercial and 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.

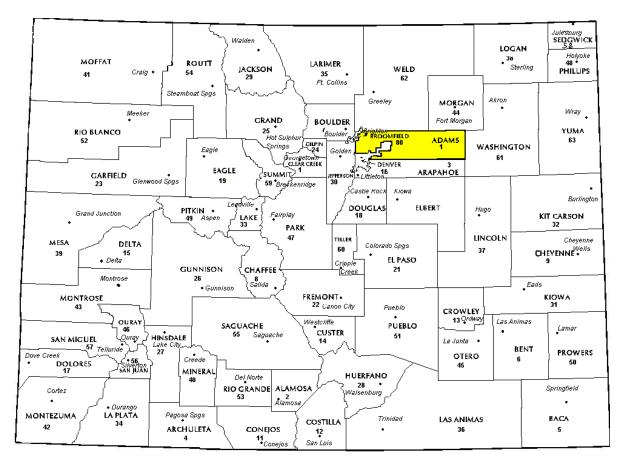
Wildrose Audit has completed the Property Assessment Study for 2022 and is pleased to report its findings for Adams County in the following report.



REGIONAL/HISTORICAL SKETCH OF ADAMS COUNTY

Regional Information

Adams 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

Adams County has approximately 1,167.7 square miles and an estimated population of approximately 517,421 people, 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 proslavery 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, 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 the were sufficient sales data, 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 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	132	0.962	0.983	6.9	Compliant		
Single Family	18,654	0.989	1.010	5	Compliant		
Vacant Land	84	0.969	1.003	6.1	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



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



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 nonparametric 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 R	esults
Property Class	Results
Commercial/Industrial	Compliant
Single Family	Compliant
Vacant Land	Compliant

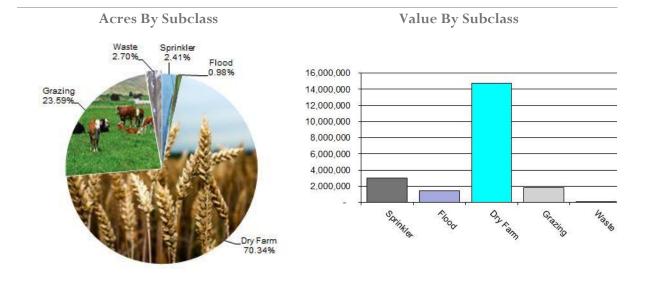
Conclusions

Recommendations

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



AGRICULTURAL LAND STUDY



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 Aerial reviewed in order to determine if: 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							
4107	Sprinkler	13,494	203.99	2,752,718	2,692,030	1.02	
4117	Flood	5,485	238.47	1,307,952	1,267,780	1.03	
4127	Dry Farm	394,562	34.18	13,081,560	12,501,677	1.05	
4147	Grazing	132,310	12.38	1,638,356	1,638,362	1.00	
4167	Waste	15,123	2.20	33,292	33,292	1.00	
Total/Avg		560,975	33.54	18,813,877	18,133,140	1.04	

Recommendations

None

Agricultural Outbuildings

Methodology

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

Conclusions

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

Property Taxation for the valuation of agricultural outbuildings. Recommendations



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.:

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

Adams 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



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)(1) 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 Adams County. This study was conducted by checking selected sales from the master sales list for the current valuation period. Specifically WRA selected 63 sales listed as unqualified.

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

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

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

> The contractor has reviewed with the assessor any analysis indicating that sales data are inadequate, fail to reflect typical properties, or have been disqualified for insufficient cause. In addition, the contractor has reviewed the disqualified sales by assigned code.



If there appears to be any inconsistency in the coding, the contractor has conducted further analysis to determine if the sales included in that code have been assigned appropriately. Conclusions

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

Recommendations



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



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 The operator variables: life and tonnage. 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



VACANT LAND

Subdivision Discounting

Subdivisions were reviewed in 2022 in Adams 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

Adams County has implemented proper procedures to adequately estimate absorption periods, discount rates, and lot values for qualifying subdivisions.

Recommendations



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 C.R.S. Chapter 39-1-103 (17)(a)(II)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 under granted 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



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

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 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:

- 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
- 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



WILDROSE AUDITOR STAFF

Harry J. Fuller, Audit Project Manager

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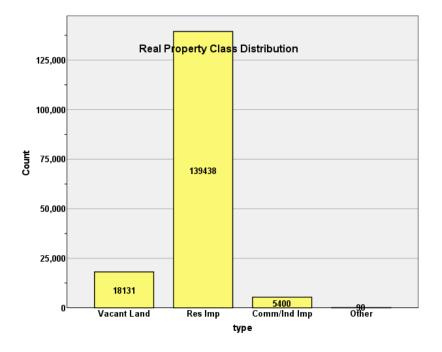
A P P E N D I C E S



STATISTICAL COMPLIANCE REPORT FOR ADAMS COUNTY 2022

I. OVERVIEW

Adams County is an urban county located along Colorado's Front Range. The county has a total of 163,059 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) accounted for 62.3% of all vacant land parcels.

For residential improved properties, single family properties accounted for 82.1% 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 2022 Colorado Property Assessment Study. Information was provided by the Adams 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 18,654 qualified residential sales for the 24-month period prior to June 30, 2020. The sales ratio analysis results were as follows:

Median	0.989
Price Related Differential	1.010
Coefficient of Dispersion	5.0

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

Economic Area Case Processing Summary

		Count	Percent	
ECONAREA	1.00	602	3.2%	
	2.00	4943	26.5%	
	3.00	5240	28.1%	
	4.00	5290	28.4%	
	5.00	1358	7.3%	
	6.00	1221	6.5%	
Overall		18654	100.0%	
Excluded		0		
Total		18654		

Ratio Statistics for CURRTOT / TASP

Group	N	Median	Price Related Differential	Coefficient of Dispersion
1.00	602	1.004	1.009	.059
2.00	4943	.997	1.008	.043
3.00	5240	.979	1.005	.047
4.00	5290	.988	1.011	.051
5.00	1358	.989	1.025	.074
6.00	1221	.987	1.008	.058
Overall	18654	.989	1.010	.050

Neighborhoods with 30 or more sales Ratio Statistics for CURRTOT / TASP

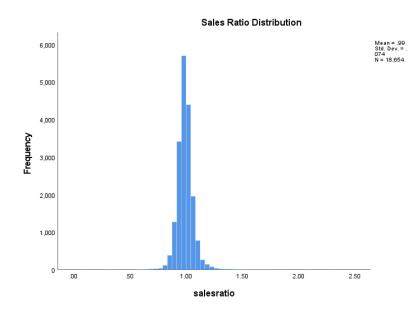
Group	N	Median	Price Related Differential	Coefficient of Dispersion
101	43	.965	1.004	.081
102	104	.995	1.006	.063
115	457	.985	1.011	.056
119	536	.952	1.004	.059
122	550	1.013	1.008	.056
124	1038	.995	1.005	.044
140	168	1.018	1.007	.057
150	220	1.010	1.004	.047
152	31	.961	1.007	.079
200	563	.984	1.019	.074
210	479	.994	1.004	.050
21C	464	.992	1.001	.049
21T	276	.990	1.002	.040



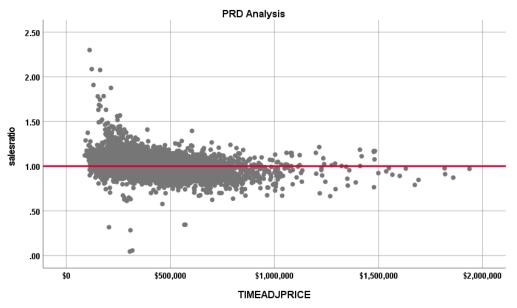
220	391	.999	1.006	.059
225	296	1.002	1.009	.062
22C	306	.983	1.001	.043
22T	628	.996	1.002	.038
230	52	.965	1.007	.066
23C	322	.994	1.011	.062
23T	168	.992	1.004	.045
240	934	.987	1.003	.050
24C	191	.975	.999	.041
24T	355	.983	1.005	.049
25C	117	.994	1.001	.046
25T	130	.989	1.005	.037
26C	322	.988	1.001	.031
26T	94	.997	1.002	.057
300	698	.990	1.004	.051
400	551	.990	1.004	.053
420	1053	.979	1.002	.046
425	1740	.978	1.002	.041
430	902	.964	1.002	.045
500	283	.987	1.012	.081
520	276	.996	1.010	.074
530	2832	.997	1.003	.039
600	389	.998	1.014	.075
610	140	.984	1.007	.064
620	451	.980	1.001	.047
66	30	.961	1.003	.082
Overall	18580	.989	1.006	.050

The above sales ratio analysis indicates that both from an overall perspective and broken down by economic area, the residential sale ratios are in compliance, with the exception of one neighborhood with 35 sales.

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







NOTE: Scale adjusted to sales less than \$2,000,000 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 1.006, 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

Coemic		Unstandardized	Coefficients	Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	1.010	.002		431.478	.000
	CURRTOT	0000000421	.000	065	-7.958	<.001
	1 ()() 1 1	1				

a. Dependent Variable: salesratio

The slope of the line at 0.0000000421 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 Pr	ocessing Summary		
		Count	Percent
SPRec	LT \$300K	839	5.6%
	\$300K to \$400K	6140	40.7%
	\$400K to \$500K	4883	32.3%
	\$500K to \$600K	2002	13.3%
	\$600K to \$750K	933	6.2%
	\$750K to \$1000K	239	1.6%
	\$1000K to \$2000K	64	0.4%
Overall		15100	100.0%
Exclude	d	0	
Total		15100	

Ratio Statistics for CURRTOT / TASP

.

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LT \$300K	1.051	1.009	.090	14.8%
\$300K to \$400K	.997	1.001	.045	5.9%
\$400K to \$500K	.985	1.000	.042	5.6%
\$500K to \$600K	.972	1.000	.048	6.3%
\$600K to \$750K	.956	1.001	.060	8.0%
\$750K to \$1000K	.933	1.001	.080	10.1%
\$1000K to \$2000K	.957	1.002	.103	13.2%
Overall	.988	1.006	.051	7.5%

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

			Unstandardized	l Coefficients	Standardized Coefficients		
ECONAREA	Model		В	Std. Error	Beta	t	Sig.
1.00	1	(Constant)	1.023	.007		142.194	.000
		SalePeriod	002	.001	127	-3.131	.002
2.00	1	(Constant)	1.000	.002		583.303	.000
		SalePeriod	.000	.000	022	-1.549	.122
3.00	1	(Constant)	.978	.002		592.439	.000
		SalePeriod	.000	.000	.027	1.929	.054
4.00	1	(Constant)	.992	.002		535.699	.000
		SalePeriod	.000	.000	.018	1.299	.194
5.00	1	(Constant)	.977	.006		158.775	.000
		SalePeriod	.002	.000	.116	4.311	<.001
6.00	1	(Constant)	.990	.005		200.338	.000
		SalePeriod	.001	.000	.048	1.693	.091

a. Dependent Variable: salesratio

There was no residual market trending present in the sale ratio data for most economic areas. While several economic areas had statistically significant results, the magnitude of each 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 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	120725	\$235	\$248	
SOLD	18653	\$229	\$243	
				-
Report				
VALSF			b a b	h. e
ECONAREA	sold	<u>N</u>	Median	Mean
1.00	UNSOLD	3975	\$224	\$219
	SOLD	602	\$239	\$232
2.00	UNSOLD	20818	\$205	\$214
	SOLD	4943	\$205	\$212
3.00	UNSOLD	30586	\$228	\$233
	SOLD	5240	\$230	\$235
4.00	UNSOLD	44498	\$249	\$265
	SOLD	5290	\$240	\$261
5.00	UNSOLD	11852	\$280	\$287
	SOLD	1358	\$287	\$293
6.00	UNSOLD	8993	\$251	\$259
	SOLD	1220	\$259	\$268

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



Report VALSF

VALSF	NBHD so	old	N	Median	Mean
101	UNSOLD	641	\$184	\$202	
	SOLD	43	\$179	\$198	
102	UNSOLD	825	\$229	\$217	
	SOLD	104	\$246	\$233	
115	UNSOLD	2009	\$235	\$240	
	SOLD	457	\$225	\$238	
119	UNSOLD	2639	\$243	\$238	
115	SOLD	536	\$254	\$249	
122	UNSOLD	4930	\$238	\$248	
122	SOLD	550	\$235	\$250	
124	UNSOLD	3849	\$204		
124				\$209	
4.40	SOLD	1038	\$208	\$212	
140	UNSOLD	831	\$224	\$229	
150	SOLD	168	\$246	\$236	
150	UNSOLD	997	\$249	\$245	
	SOLD	220	\$244	\$244	
200	UNSOLD	3812	\$296	\$310	
	SOLD	563	\$300	\$311	
210	UNSOLD	5119	\$306	\$294	
	SOLD	479	\$301	\$300	
21C	UNSOLD	2630	\$220	\$223	
	SOLD	464	\$221	\$224	
21T	UNSOLD	1634	\$228	\$231	
	SOLD	276	\$232	\$234	
220	UNSOLD	4474	\$328	\$328	
	SOLD	391	\$340	\$336	
225	UNSOLD	2756	\$312	\$303	
	SOLD	296	\$296	\$299	
22C	UNSOLD	1237	\$224	\$225	
220	SOLD	306	\$221	\$221	
22T	UNSOLD	3340	\$231	\$235	
221	SOLD	628	\$232	\$235	
220	UNSOLD	424			
230			\$277	\$269	
220	SOLD	52	\$278	\$272	
23C	UNSOLD	1588	\$216	\$215	
00T	SOLD	322	\$213	\$217	
23T	UNSOLD	882	\$246	\$243	
0.40	SOLD	168	\$249	\$249	
240	UNSOLD	8413	\$242	\$252	
	SOLD	934	\$247	\$256	
24C	UNSOLD	847	\$222	\$222	
	SOLD	191	\$224	\$222	
24T	UNSOLD	1317	\$216	\$214	
	SOLD	355	\$219	\$221	
25C	UNSOLD	463	\$205	\$196	
	SOLD	117	\$210	\$206	
25T	UNSOLD	590	\$229	\$233	
	SOLD	130	\$262	\$264	
26C	UNSOLD	1056	\$201	\$202	
	SOLD	322	\$202	\$203	
26T	UNSOLD	508	\$215	\$219	
	SOLD	94	\$217	\$224	
300	UNSOLD	7215	\$296	\$289	
	00020		\$ 200	Ψ-00	



	SOLD	698	\$311	\$300
400	UNSOLD	5846	\$265	\$265
	SOLD	551	\$269	\$272
420	UNSOLD	8566	\$225	\$235
	SOLD	1053	\$231	\$239
425	UNSOLD	8794	\$215	\$221
	SOLD	1740	\$213	\$222
430	UNSOLD	6403	\$207	\$214
	SOLD	902	\$219	\$224
500	UNSOLD	2907	\$279	\$287
	SOLD	283	\$278	\$285
520	UNSOLD	3424	\$284	\$282
	SOLD	276	\$297	\$295
530	UNSOLD	10073	\$197	\$200
	SOLD	2832	\$201	\$207
600	UNSOLD	3007	\$308	\$309
	SOLD	389	\$324	\$320
610	UNSOLD	1378	\$272	\$263
	SOLD	140	\$284	\$277
620	UNSOLD	3501	\$222	\$229
	SOLD	450	\$229	\$236

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

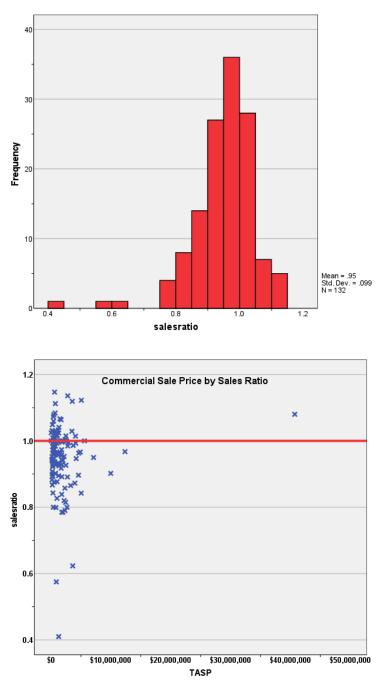
IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

There were 133 qualified commercial and industrial sales for the 24-month period ending June 30, 2020. One sale was trimmed using IAAO standards. The sales ratio analysis had the following results:

Median	0.962
Price Related Differential	0.983
Coefficient of Dispersion	6.9

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

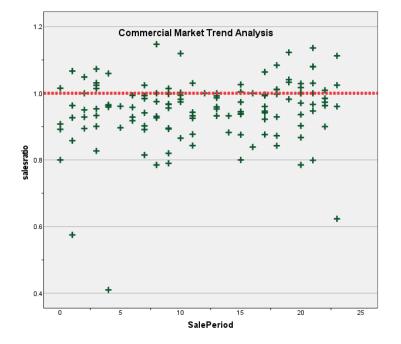
The commercial/industrial sales were next analyzed, examining the sale ratios across the 24 month sale period with the following results:



Coefficients^a

		Unstandardized	Coefficients	Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	.922	.017		54.400	<.001
	SalePeriod	.002	.001	.164	1.901	.060

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 2018 and 2020 for sold and unsold commercial/industrial properties, as follows:

Report DIFF			
sold	Ν	Median	Mean
0	4873	1.05	1.16
1	95	1.24	1.35
Total	4968	1.05	1.16

Hypothesis Test Summary

	Null Hypothesis	Test	Sig. ^{a,b}	Decision
1	The distribution of DIFF is the same across categories of sold.	Independent-Samples Mann- Whitney U Test	<.001	Reject the null hypothesis.

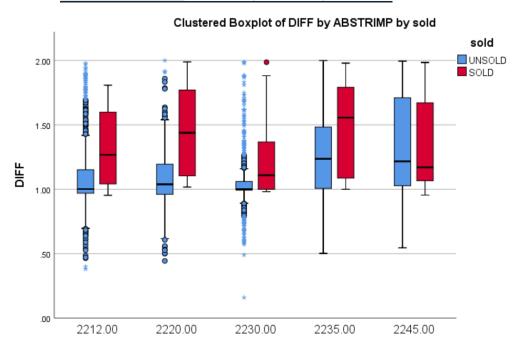
a. The significance level is .001.

b. Asymptotic significance is displayed.



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				
ABSTRIMP	sold	Ν	Median	Mean
2212.00	SOLD	1279	1.00	1.08
	SOLD	26	1.27	1.29
2220.00	SOLD	300	1.04	1.09
	SOLD	14	1.37	1.41
2230.00	SOLD	865	1.00	1.03
	SOLD	13	1.09	1.18
2235.00	SOLD	1172	1.23	1.26
	SOLD	16	1.56	1.47
2245.00	SOLD	738	1.22	1.33
	SOLD	16	1.17	1.35



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 for most subclasses there was some overlap. Based on this pattern, we met with the assessor staff to further analyze the valuation of sold and unsold commercial properties in Adams County.

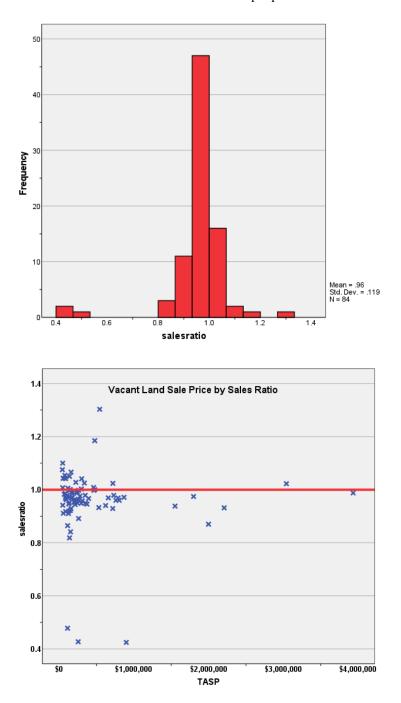
V. VACANT LAND SALE RESULTS

There were 85 qualified vacant land sales for the 24-month period ending June 30, 2020. One sale was trimmed using IAAO standards. The sales ratio analysis results were as follows:



Median	0.969
Price Related Differential	1.003
Coefficient of Dispersion	6.1

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.

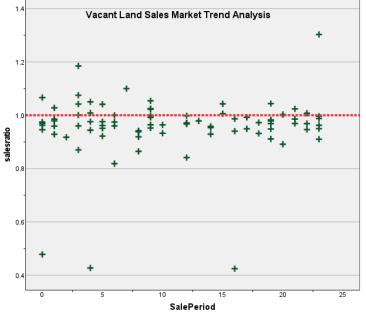
Vacant Land Market Trend Analysis

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

Coefficients^a

		Unstandardized	Coefficients	Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	.944	.023		41.530	<.001
	SalePeriod	.001	.002	.090	.815	.418

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 2018 and 2020 between each group, as follows:

Report			
sold	Ν	Median	Mean
UNSOL D	8112	1.00	.90
SOLD	57	1.15	1.18



Hypothesis Test Summary

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

Asymptotic significances are displayed. The significance level is .05.

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	Ν	Median	Mean	
080IA	0	48	1.31	1.27	
	1	3	1.31	1.42	
	Total	51	1.31	1.28	
086CB	0	42	1.19	1.15	
	1	5	1.00	1.08	
365RA	0	3	1.33	1.22	
	1	3	1.33	1.24	
715AA	0	26	1.00	1.00	
	1	3	1.36	1.22	

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

V. CONCLUSOINS

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												
		95% Confiden Me			95% Cor	nfidence Interval f	or Median		95% Confiden Weighte				Coefficient of Variation
ECONAREA	Mean	Lower Bound	Upper Bound	Median	Lower Bound	Upper Bound	Actual Coverage	Weighted Mean	Lower Bound	Upper Bound	Price Related Differential	Coefficient of Dispersion	Mean Centered
1.00	1.003	.996	1.010	1.004	.998	1.010	95.4%	.995	.987	1.002	1.009	.059	8.9%
2.00	.997	.996	.999	.997	.995	.998	95.0%	.990	.983	.997	1.008	.043	6.5%
3.00	.980	.979	.982	.979	.978	.981	95.2%	.975	.973	.978	1.005	.047	6.3%
4.00	.994	.992	.996	.988	.986	.990	95.1%	.983	.973	.992	1.011	.051	6.9%
5.00	1.000	.994	1.006	.989	.984	.993	95.2%	.975	.962	.988	1.025	.074	11.8%
6.00	.997	.992	1.003	.987	.983	.991	95.5%	.989	.984	.994	1.008	.058	9.7%

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											
	95% Confiden Me			95% Cor	ifidence Interval f	for Median		95% Confiden Weighte				Coefficient of Variation
Mean	Lower Bound	Upper Bound	Median	Lower Bound	Upper Bound	Actual Coverage	Weighted Mean	Lower Bound	Upper Bound	Price Related Differential	Coefficient of Dispersion	Mean Centered
.950	.933	.967	.962	.946	.975	95.5%	.966	.925	1.008	.983	.069	10.4%

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

Vacant Land

				Ratio	Statistics for	CURRLND / T	ASP					
	95% Confiden Me			95% Cor	ifidence Interval f	or Median		95% Confiden Weighte	ce Interval for d Mean			Coefficient of Variation
Mean	Lower Bound	Upper Bound	Median	Lower Bound	Upper Bound	Actual Coverage	Weighted Mean	Lower Bound	Upper Bound	Price Related Differential	Coefficient of Dispersion	Mean Centered
.959	.933	.985	.969	.960	.979	96.2%	.956	.921	.991	1.003	.061	12.4%

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



Residential Median Ratio Stratification

Sub-Class

Case Processing Summary

	U	Count	Percent
ABSTRIMP	.00	1	0.0%
	1212.00	14949	80.1%
	1213.00	1	0.0%
	1214.00	1650	8.8%
	1214.50	138	0.7%
	1215.00	73	0.4%
	1215.33	28	0.2%
	1215.75	4	0.0%
	1217.00	5	0.0%
	1220.00	43	0.2%
	1225.00	27	0.1%
	1225.06	1	0.0%
	1225.07	1	0.0%
	1225.07	1	0.0%
	1225.10	1	0.0%
	1230.00	1722	9.2%
	1981.25	1	0.0%
	2212.00	1	0.0%
	2745.50	6	0.0%
	2748.00	1	0.0%
Overall		18654	100.0%
Excluded		0	
Total		18654	

Ratio Statistics for CURRTOT / TASP								
		Price Related	Coefficient of	Coefficient of Variation				
Group	Median	Differential	Dispersion	Median Centered				
.00	.317	1.000	.000					
1212.00	.989	1.006	.050	7.4%				
1213.00	1.288	1.000	.000					
1214.00	.992	1.003	.043	6.3%				
1214.50	.938	1.009	.094	12.1%				
1215.00	.995	1.010	.084	11.3%				
1215.33	.911	1.020	.105	13.7%				
1215.75	.942	.997	.097	14.2%				
1217.00	.283	1.401	1.176	171.3%				
1220.00	.963	1.011	.088	11.1%				
1225.00	.981	1.048	.082	12.7%				
1225.06	.979	1.000	.000					
1225.07	.881	1.000	.000					
1225.07	.948	1.000	.000					
1225.10	1.078	1.000	.000					
1230.00	.988	1.003	.046	7.1%				
1981.25	.872	1.000	.000					
2212.00	.899	1.000	.000					
2745.50	.925	1.009	.128	17.4%				
2748.00	1.266	1.000	.000					
Overall	.989	1.010	.050	7.5%				



Age

Case Processing Summary

		Count	Percent
AgeRec	0	1	0.0%
	Over 100	57	0.3%
	75 to 100	170	0.9%
	50 to 75	3081	16.5%
	25 to 50	3815	20.5%
	5 to 25	6741	36.1%
	5 or Newer	4789	25.7%
Overall		18654	100.0%
Excluded		0	
Total		18654	

Ratio Statistics for CURRTOT / TASP

Ralio Statist								
Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered				
0	.317	1.000	.000					
Over 100	1.028	1.029	.098	15.1%				
75 to 100	1.021	1.027	.111	18.3%				
50 to 75	.995	1.009	.063	9.6%				
25 to 50	.985	1.012	.054	7.9%				
5 to 25	.990	1.005	.043	5.9%				
5 or Newer	.985	1.010	.046	6.4%				
Overall	.989	1.010	.050	7.5%				

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	0	1	0.0%
	LE 500 sf	12	0.1%
	500 to 1,000 sf	2034	10.9%
	1,000 to 1,500 sf	5576	29.9%
	1,500 to 2,000 sf	5302	28.4%
	2,000 to 3,000 sf	4714	25.3%
	3,000 sf or Higher	1015	5.4%
Overall		18654	100.0%
Excluded		0	
Total		18654	

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered				
0	.317	1.000	.000					
LE 500 sf	1.024	1.144	.201	37.8%				
500 to 1,000 sf	.994	1.008	.065	10.9%				
1,000 to 1,500 sf	.989	1.003	.048	6.9%				
1,500 to 2,000 sf	.989	1.004	.045	6.3%				
2,000 to 3,000 sf	.986	1.006	.049	6.7%				
3,000 sf or Higher	.985	1.024	.064	8.9%				
Overall	.989	1.010	.050	7.5%				



Quality

Case Processing Summary

		Count	Percent
QUALITY		1	0.0%
	Average	9657	51.8%
	Excellent	49	0.3%
	Fair	4839	25.9%
	Good	3765	20.2%
	Low	85	0.5%
	Very Good	258	1.4%
Overall		18654	100.0%
Excluded		0	
Total		18654	

Ratio Statistics for CURRTOT / TASP

				Coefficient of
		Price Related	Coefficient of	Variation
Group	Median	Differential	Dispersion	Median Centered
	.317	1.000	.000	
Average	.988	1.004	.043	6.2%
Excellent	.973	1.022	.095	12.9%
Fair	.993	1.010	.061	9.5%
Good	.986	1.013	.052	7.0%
Low	.971	1.020	.095	12.5%
Very Good	.989	1.008	.069	9.2%
Overall	.989	1.010	.050	7.5%

Condition

Case Processing Summary

		Count	Percent
CONDITION		1	0.0%
	Average	14646	78.5%
	Averageg	1	0.0%
	Fair	229	1.2%
	Good	3744	20.1%
	Low	31	0.2%
	Salvage	2	0.0%
Overall		18654	100.0%
Excluded		0	
Total		18654	

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
	.317	1.000	.000	
Average	.990	1.006	.049	7.2%
Averageg	.985	1.000	.000	
Fair	1.024	.983	.098	15.0%
Good	.982	1.018	.051	7.2%
Low	1.098	1.041	.144	24.7%
Salvage	1.066	.998	.040	5.7%
Overall	.989	1.010	.050	7.5%



Commercial Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	\$25K to \$50K	2	1.5%
	\$150K to \$200K	4	3.0%
	\$200K to \$300K	15	11.4%
	\$300K to \$500K	13	9.8%
	\$500K to \$750K	24	18.2%
	\$750K to \$1,000K	9	6.8%
	Over \$1,000K	65	49.2%
Overall		132	100.0%
Excluded	k	0	
Total		132	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
\$25K to \$50K	1.012	1.001	.012	1.7%
\$150K to \$200K	.943	.999	.020	3.8%
\$200K to \$300K	.939	1.000	.054	6.5%
\$300K to \$500K	.974	.996	.057	8.3%
\$500K to \$750K	.962	.999	.054	7.3%
\$750K to \$1,000K	.931	.996	.104	15.9%
Over \$1,000K	.960	.972	.078	11.9%
Overall	.962	.983	.069	10.3%

Sub-Class

Case Processing Summary

	_	Count	Percent
ABSTRIMP	2212.00	41	31.1%
	2216.00	1	0.8%
	2220.00	16	12.1%
	2221.00	2	1.5%
	2223.50	1	0.8%
	2225.00	1	0.8%
	2230.00	15	11.4%
	2235.00	28	21.2%
	2245.00	20	15.2%
	3212.00	2	1.5%
	3215.00	5	3.8%
Overall		132	100.0%
Excluded		0	
Total		132	



Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
2212.00	.984	1.000	.074	13.3%
2216.00	.927	1.000	.000	
2220.00	.963	.992	.047	6.5%
2221.00	1.030	1.025	.029	4.1%
2223.50	.895	1.000	.000	
2225.00	.986	1.000	.000	
2230.00	.941	1.038	.082	12.1%
2235.00	.940	.947	.083	9.7%
2245.00	.942	.996	.043	5.7%
3212.00	.975	1.010	.059	8.4%
3215.00	.993	.994	.052	8.2%
Overall	.962	.983	.069	10.3%

Age

Case Processing Summary

		Count	Percent
AgeRec	Over 100	2	1.5%
	75 to 100	1	0.8%
	50 to 75	26	19.7%
	25 to 50	60	45.5%
	5 to 25	33	25.0%
	5 or Newer	10	7.6%
Overall		132	100.0%
Excluded		0	
Total		132	

Ratio Statistics for CURRTOT / TASP

Ralio Statis		KIUI/IASP		
Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Over 100	.984	1.003	.025	3.6%
75 to 100	1.073	1.000	.000	
50 to 75	.962	1.005	.084	15.1%
25 to 50	.965	.973	.060	8.1%
5 to 25	.950	1.001	.065	8.2%
5 or Newer	.935	1.011	.099	14.8%
Overall	.962	.983	.069	10.3%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	LE 500 sf	1	0.8%
	500 to 1,000 sf	4	3.0%
	1,000 to 1,500 sf	6	4.5%
	1,500 to 2,000 sf	4	3.0%
	2,000 to 3,000 sf	13	9.8%
	3,000 sf or Higher	104	78.8%
Overall		132	100.0%
Excluded		0	
Total		132	



Ratio Statistics for CURRTOT / TASP

		Price Related	Coefficient of	Coefficient of Variation
Group	Median	Differential	Dispersion	Median Centered
LE 500 sf	.994	1.000	.000	
500 to 1,000 sf	1.012	1.015	.036	6.1%
1,000 to 1,500 sf	.937	.998	.040	6.1%
1,500 to 2,000 sf	.943	1.008	.034	4.7%
2,000 to 3,000 sf	.946	1.062	.088	17.5%
3,000 sf or Higher	.964	.982	.070	9.8%
Overall	.962	.983	.069	10.3%

Quality

Case Processing Summary

Case Frocessing Summary					
		Count	Percent		
QUALITY	Average	118	89.4%		
	Good	13	9.8%		
	Low	1	0.8%		
Overall		132	100.0%		
Excluded		0			
Total		132			

Ratio Statistics for CURRTOT / TASP

				Coefficient of
		Price Related	Coefficient of	Variation
Group	Median	Differential	Dispersion	Median Centered
Average	.962	.981	.071	10.6%
Good	.937	.990	.057	7.6%
Low	1.000	1.000	.000	
Overall	.962	.983	.069	10.3%

Condition

Case Processing Summary

		Count	Percent
CONDITION	Average	118	89.4%
	Fair	3	2.3%
	Good	10	7.6%
	Low	1	0.8%
Overall		132	100.0%
Excluded		0	
Total		132	

				Coefficient of	
		Price Related	Coefficient of	Variation	
Group	Median	Differential	Dispersion	Median Centered	
Average	.963	.983	.070	10.6%	
Fair	.892	.978	.043	6.6%	
Good	.951	.983	.063	8.8%	
Low	1.000	1.000	.000		
Overall	.962	.983	.069	10.3%	



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Vacant Land Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	\$25K to \$50K	3	3.6%
	\$50K to \$100K	13	15.5%
	\$100K to \$150K	13	15.5%
	\$150K to \$200K	9	10.7%
	\$200K to \$300K	17	20.2%
	\$300K to \$500K	11	13.1%
	\$500K to \$750K	7	8.3%
	\$750K to \$1,000K	5	6.0%
	Over \$1,000K	6	7.1%
Overall		84	100.0%
Excluded		0	
Total		84	

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Ratio Statistics for	CURKLIND	TASP		Coefficient of
		Price Related	Coefficient of	Variation
Group	Median	Differential	Dispersion	Median Centered
\$25K to \$50K	1.075	1.000	.029	4.7%
\$50K to \$100K	.975	1.000	.038	5.0%
\$100K to \$150K	.951	.996	.084	15.7%
\$150K to \$200K	.969	.999	.044	6.5%
\$200K to \$300K	.962	1.001	.054	14.3%
\$300K to \$500K	.998	.996	.042	6.8%
\$500K to \$750K	.969	1.006	.074	14.5%
\$750K to \$1,000K	.960	1.011	.116	27.9%
Over \$1,000K	.956	.990	.043	5.6%
Overall	.969	1.003	.061	12.3%



Subclass

Case Processing Summary

		Count	Percent
ABSTRLND	100.00	36	42.9%
	200.00	17	20.2%
	300.00	5	6.0%
	520.00	2	2.4%
	550.00	2	2.4%
	700.00	2	2.4%
	800.00	2	2.4%
	1112.00	9	10.7%
	1114.00	1	1.2%
	1115.00	1	1.2%
	1117.00	1	1.2%
	1125.00	1	1.2%
	1135.00	1	1.2%
	2112.00	2	2.4%
	2130.00	1	1.2%
	2135.00	1	1.2%
Overall		84	100.0%
Excluded		0	
Total		84	

Ratio Statistics for CORREND / TASP					
				Coefficient of	
		Price Related	Coefficient of	Variation	
Group	Median	Differential	Dispersion	Median Centered	
100.00	.973	.999	.063	13.6%	
200.00	.973	.998	.025	3.8%	
300.00	.960	.997	.014	1.9%	
520.00	.936	1.055	.071	10.0%	
550.00	1.126	.975	.053	7.4%	
700.00	.938	.982	.028	4.0%	
800.00	.975	1.000	.034	4.8%	
1112.00	.952	1.010	.051	6.9%	
1114.00	.992	1.000	.000		
1115.00	.949	1.000	.000		
1117.00	.986	1.000	.000		
1125.00	.932	1.000	.000		
1135.00	1.100	1.000	.000		
2112.00	1.116	1.024	.167	23.7%	
2130.00	.425	1.000	.000		
2135.00	1.024	1.000	.000		
Overall	.969	1.003	.061	12.3%	