

# 2023 ROUTT 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.

Harry J. Fuller Project Manager

Harry J. Zulln

East West Econometrics - Audit Division



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# INTRODUCTION



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

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

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

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

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

The property assessment audit conducts a 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 and subdivision discounting procedures. Valuation methodology for vacant land, improved residential and commercial properties 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.

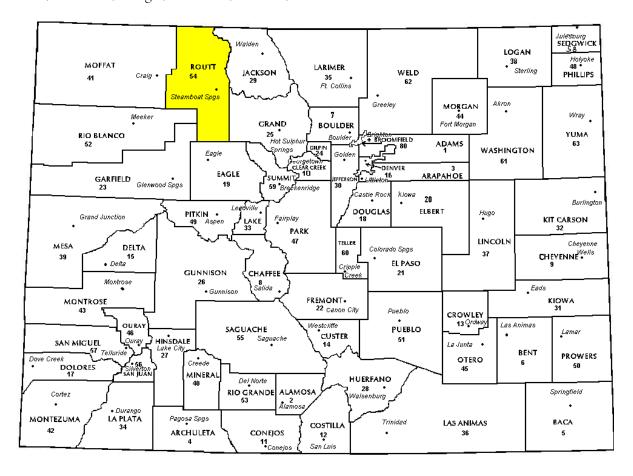
East West Econometrics Audit has completed the Property Assessment Study for 2023 and is pleased to report its findings for Routt County in the following report.



# REGIONAL/HISTORICAL SKETCH OF ROUTT COUNTY

#### **Regional Information**

Routt County is located in the Western Slope region of Colorado. The Western Slope of Colorado refers to the region west of the Rocky Mountains. It includes Archuleta, Delta, Dolores, Eagle, Garfield, Grand, Gunnison, Hinsdale, Jackson, La Plata, Mesa, Moffat, Montezuma, Montrose, Ouray, Pitkin, Rio Blanco, Routt, San Juan, San Miguel, and Summit counties.





#### **Historical Information**

Routt County has approximately 2,362 square miles and an estimated population of approximately 25,638 people with 10.0 people per square mile, according to the U.S. Census Bureau's 2020 estimated census data. This represents a 9.1 percent change from April 1, 2010 to July 1, 2019.

Routt County was created out of the western portion of Grand County on January 29, 1877. It was named in honor of John Long Routt, the last territorial and first state governor of Colorado. The western portion of Routt County was split off to form Moffat County on February 27, 1911.

Routt County is a diverse environment offering breathtaking mountain vistas and picturesque ranch lands. Communities located in Routt County include Clark, Hahns Peak, Milner, Phippsburg, and Toponas, the towns of Hayden, Oak Creek and Yampa, and the city of Steamboat Springs.

About 50% of the land in Routt County is publicly owned. The Medicine Bow-Routt National Forest makes up a large portion of the county. This includes the Mt Zirkel and Sarvis Creek Wilderness areas. The local State Parks are Stagecoach Reservoir, Steamboat Lake, Elkhead Reservoir and Pearl Lake. These public lands provide residents and visitors with scenic recreational areas for hiking, picnicking, boating, hunting, fishing and water-skiing.

The City of Steamboat Springs is a Home Rule Municipality that is the county seat and the most populous city of Routt County. The city known as "Steamboat," "The Boat," or "Ski Town USA" had a population of 16,818 at the U.S. Census 2010. The town is an internationally known winter resort

destination. The Steamboat Springs tourism industry is highlighted by the Steamboat Ski Resort, which is on Mount Werner in the Park Range just east of the town. It also contains the much smaller Howelsen Ski Area. It is located in the upper valley of the Yampa River, along U.S. Highway 40 just west of the Continental Divide at Rabbit Ears Pass.

The area surrounding Steamboat Springs was originally inhabited by the Yampatikas Utes, who hunted in the valley during the summer. Trappers began to move into the area during the first decades of the 19th century. Ranchers soon followed, and ranching traditions are still preserved by the large ranching community.

Originally, skiing was the only method of transportation during harsh Rocky Mountain winters. In turn, the popularity of skiing as a winter pastime catalyzed development of the town and other communities all over the Rocky Mountains. In 1913, Carl Howelsen, Norwegian, moved to town and introduced ski jumping. Howelsen built the first jump on namesake Howelsen Hill, now part of the Howelsen Ski Area. He also founded the annual Winter Carnival, a celebration still held each winter. Traditionally, the festival includes ski racing and jumping, dog sledding, and chariot events down Lincoln Avenue, the city's main street. Light shows on both Mount Werner and Howelsen Hill are highlights.

The Steamboat Ski Resort was largely established by two local men, Jim Temple and John Fetcher. Temple led the effort to develop the area. Fetcher, a local rancher, was the main designer and builder. The resort opened on what was then called Storm Mountain in 1963. (www.co.routt.co.us, www.Wikipedia.org)



# RATIO ANALYSIS

#### Methodology

All significant classes of property were analyzed. Sales were collected for each property class over the eighteen month period from January 1, 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 Routt County are:

Routt County Ratio Grid						
Property Class	Number of Qualified Sales	Unweighted Median Ratio	Price Related Differential	Coefficient of Dispersion	Time Trend Analysis	
Commercial/Industrial	209	1.002	0.987	10.6	Compliant	
Residential Condo	915	0.996	1.001	2.9	Compliant	
Residential	1,262	1.001	1.007	6.6	Compliant	
Vacant Land	677	0.993	1.058	17.6	Compliant	

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

Routt 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. 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 The second test is and unsold properties. 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 Results				
Property Class	Results			
Commercial/Industrial	Compliant			
Residential Condos	Compliant			
Residential	Compliant			
Vacant Land	Compliant			

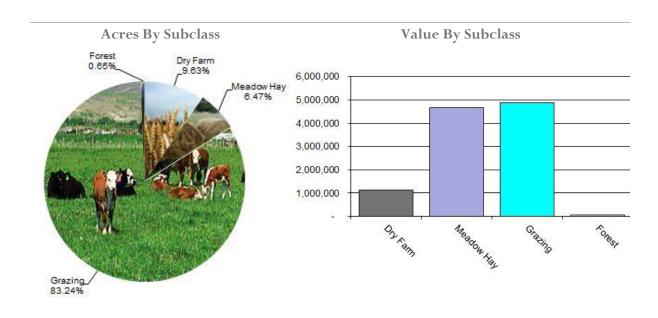
#### Conclusions

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

### Recommendations



# 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 In addition, county records were lands. 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 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:



	Routt County Agricultural Land Ratio Grid					
Abstract Code	Land Class	Number Of Acres	County Value Per Acre	County Assessed Total Value	WRA Total Value	Ratio
4127	Dry Farm	67,999	16.75	1,139,015	1,198,296	0.95
4137	Meadow Hay	45,692	102.42	4,679,749	4,663,273	1.00
4147	Grazing	587,518	8.32	4,890,790	4,890,790	1.00
4177	Forest	4,602	11.29	51,953	51,953	1.00
Total/Avg		705,811	15.25	10,761,507	10,804,311	1.00

#### Recommendations

None

# **Agricultural Outbuildings**

### Methodology

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

#### **Conclusions**

Routt County has substantially 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

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

- Questionnaires
- Field Inspections
- Phone Interviews
- In-Person Interviews with Owners/Tenants
- Written Correspondence other than Questionnaire

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

Routt 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
- Aerial Photography/Pictometry

Routt 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



# 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 Routt County. This study was conducted by checking selected sales from the master sales list for the current valuation period. Specifically EWE selected 33 sales listed as unqualified.

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

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

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

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.

Routt County did not qualify for indepth subclass analysis.

#### Conclusions

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

#### Recommendations



# ECONOMIC AREA REVIEW AND EVALUATION

#### Methodology

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



#### **Producing Coal Mines**

#### Methodology

Under the guidelines of the Assessor's Reference Library (ARL), Volume 3, Section 6, Valuation of Producing Coal Leaseholds and Lands, the income approach is the primary method applied to find value for the valuation of coalmines. This methodology estimates annual economic royalty income based on previous year's production, then capitalizes that income to value using a Hoskold factor to

estimate the present worth of the permitted acres. The operator provides production data and the life of the leases.

#### Conclusions

County has applied the correct formulas and state guidelines to coal mine valuation.

#### Recommendations



# VACANT LAND

#### **Subdivision Discounting**

Subdivisions were reviewed in 2023 in Routt 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**

Routt 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 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 granted under lease, permit, concession, contract, or other agreement.

Routt County has been reviewed for their procedures and adherence to guidelines when assessing and valuing agricultural, commercial and ski area 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

Routt 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

Routt 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.

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

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

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

Routt 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:

- Businesses in a selected area
- Accounts with obvious discrepancies
- New businesses filing for the first time
- Incomplete or inconsistent declarations
- Accounts with omitted property
- Businesses with no deletions or additions for 2 or more years
- Non-filing Accounts Best Information Available



- Accounts close to the \$52,000 actual value exemption status
- Accounts protested with substantial disagreement

#### **Conclusions**

Routt 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



# EAST WEST ECONOMETRICS AUDITOR STAFF

Harry J. Fuller, Audit Project Manager

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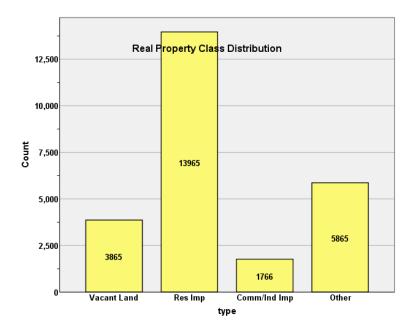
# STATISTICAL APPENDIX



#### STATISTICAL COMPLIANCE REPORT FOR ROUTT COUNTY 2023

#### I. OVERVIEW

Routt County is located in northwestern Colorado. The county has a total of 25,461 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 82.7% of all vacant land parcels.

For residential improved properties, single family properties accounted for 48.2% of all residential properties. Residential condominiums, coded as 1230, accounted for 33.6% of all residential properties. Based on the guidelines of the 2023 audit, we will analyze residential condominiums separately in the following analysis.

Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial sales accounted for 6.8% 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 Routt 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 2,177 qualified residential sales for the 24-month period ending June 30, 2022. We first stratified our sales ratio analysis by residential non-condominiums and condominiums. The sales ratio analysis results were as follows:

Residential Non-Condo = 1,262

Median	1.001
Price Related Differential	1.007
Coefficient of Dispersion	6.6

#### **Residential Condo = 915**

Median	0.996
Price Related Differential	1.001
Coefficient of Dispersion	2.9

We next stratified the sale ratio analysis by economic area and neighborhood. The minimum count for the neighborhood stratification is 15 sales and includes residential properties except for townhomes and condominiums. The following are the results of this stratification analysis:

**Economic Area Case Processing Summary** 

		Count	Percent
ECONAREA	1.00	352	16.2%
	2.00	97	4.5%
	3.00	92	4.2%
	4.00	136	6.2%
	5.00	101	4.6%
	7.00	5	0.2%
	8.00	57	2.6%
	9.00	65	3.0%
	88.00	357	16.4%
	99.00	915	42.0%
Overall		2177	100.0%
Excluded		0	
Total		2177	



#### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
1.00	1.005	1.012	.077
2.00	1.017	.993	.081
3.00	.995	1.007	.069
4.00	.998	1.003	.053
5.00	.982	1.048	.148
7.00	.983	.999	.192
8.00	1.026	.998	.073
9.00	.994	1.007	.057
88.00	.997	1.005	.047
99.00	.996	1.008	.053
Overall	.998	1.007	.063

Econ Area 88 = Townhomes

Econ Area 99 = Condominiums

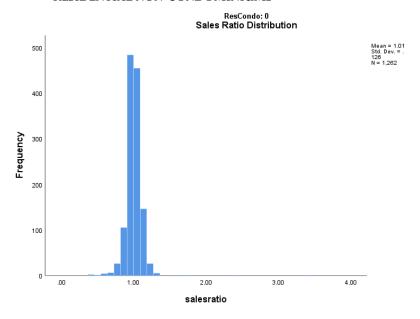
# Neighborhoods with at least 15 sales Ratio Statistics for CURRTOT / TASP

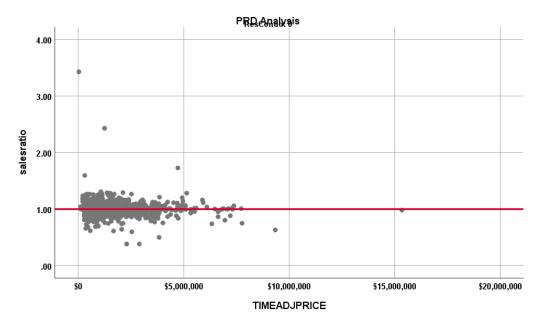
Group	Median	Price Related Differential	Coefficient of Dispersion
335	1.058	.987	.107
575	1.009	1.002	.033
576	.988	1.001	.044
725	1.002	1.006	.066
740	1.000	1.002	.044
900	.990	1.016	.079
950	.994	1.008	.071
1000	1.005	1.005	.067
4490	.982	1.000	.089
4495	1.026	1.002	.072
11400	1.024	1.013	.080
13200	1.024	1.026	.069
16000	.998	1.001	.064
19350	1.032	.997	.044
Overall	1.009	1.007	.069

The above ratio statistics were in compliance with the standards set forth by the Colorado State Board of Equalization (SBOE) for the overall residential sales. The following graphs describe further the sales ratio distribution for these properties (0 = Residential Non-Condominiums, 1 = Residential Condominiums):



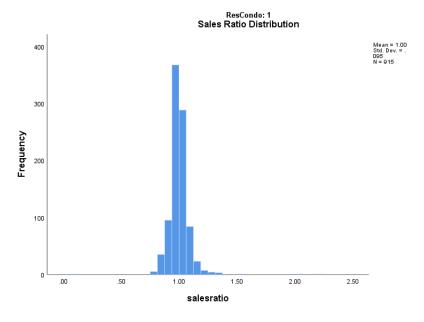
#### RESIDENTIAL NON-CONDOMINIUMS

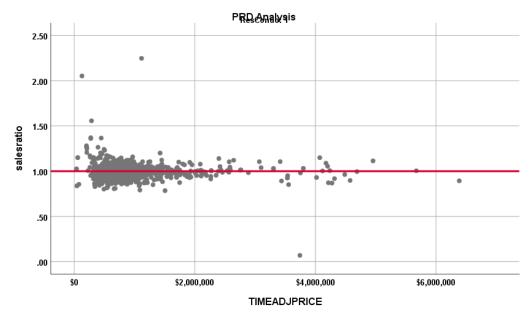






#### RESIDENTIAL CONDOMINIUMS



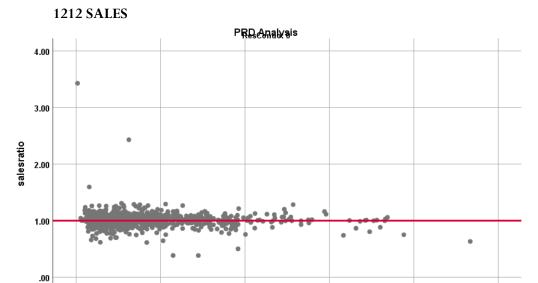


The above graphs indicate that the distribution of the sale ratios was within state mandated limits. No sales were trimmed.

#### **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:





\$4,000,000

The Price-Related Differential (PRD) for 1212 sales is 1.009, 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:

TIMEADJPRICE

\$6,000,000

\$8,000,000

\$10,000,000

#### Coefficients<sup>a</sup>

\$0

\$2,000,000

ResCondo	Model		Unstandardized	Coefficients Std. Error	Standardized Coefficients Beta		Sig.
Rescondo	Model		D	Std. Lifti	Deta	L	Sig.
0	1	(Constant)	.999	.007		134.473	.000
		CURRTOT	5.164E-9	.000	.048	1.422	.155

a. Dependent Variable: salesratio

The slope of the line was not statistically significant, which indicates that there is virtually no slope in the regression line (i.e. the sales ratios are similar across the entire sale price array). We concluded that there was no evidence that there is 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**

ResC			Count	Percent
0	SPRec	LT \$250K	15	1.7%
		\$250K to \$350K	34	3.9%
		\$350K to \$400K	25	2.8%
		\$400K to \$450K	26	3.0%
		\$450K to \$500K	34	3.9%
		\$500K to \$600K	68	7.7%
		\$600K to \$750K	86	9.8%
		\$750K to \$1000K	108	12.3%
		\$1000K to \$2000K	265	30.1%
		\$2000K to \$3000K	103	11.7%



Over \$3000K	116	13.2%
Overall	880	100.0%
Excluded	0	
Total	880	

#### Ratio Statistics for CURRTOT / TASP

ResCondo	Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
0	LT \$250K	1.044	1.117	.209	61.6%
	\$250K to \$350K	1.021	.999	.087	13.2%
	\$350K to \$400K	.987	.999	.079	11.9%
	\$400K to \$450K	.993	1.000	.060	7.8%
	\$450K to \$500K	.984	1.000	.066	9.7%
	\$500K to \$600K	.996	1.001	.066	9.4%
	\$600K to \$750K	.996	1.001	.071	9.1%
	\$750K to \$1000K	.996	.999	.078	10.7%
	\$1000K to \$2000K	1.017	1.000	.080	13.0%
	\$2000K to \$3000K	1.020	1.000	.082	12.9%
	Over \$3000K	.996	1.004	.075	11.1%
	Overall	1.003	1.009	.080	14.2%

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. We again stratified the analysis between residential non-condominiums and condominiums, with the following results:

#### Coefficients<sup>a</sup>

ResCondo	Model		Unstandardized B	Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
0	1	(Constant)	1.008	.007		134.580	.000
		SalePeriod	.000	.001	011	378	.706
1	1	(Constant)	1.004	.007		152.744	.000
		SalePeriod	.000	.000	014	437	.662

a. Dependent Variable: salesratio

With no significant market trend evident in the sales ratio data, the above analysis indicated 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 stratified by residential non-condominium and condominiums, as follows:



#### Report

VALSF

ResCondo	sold	N	Median	Mean
Residential Non-Condo	UNSOLD	7966	\$618	\$627
	SOLD	1265	\$614	\$636
Residential Condo	UNSOLD	3725	\$771	\$791
	SOLD	906	\$811	\$844

#### **RESIDENTIAL NON-CONDOS**

#### Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of VALSF is the same across categories of sold.	Independent- Samples Mann- Whitney U Test	.345	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .01.

#### **RESIDENTIAL CONDOS**

#### Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of VALSF 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 .01.

We also stratified the residential non-condominiums by both economic area and by neighborhoods with at least 10 sales. For these analyses, we used the second comparison test, which compares the median change in value between taxable year 2020 and tasable year 2022 for sold and unsold residential properties, as follows:

#### **Economic Area**

#### Report

DIFF

ECONAREA	ResCondo	sold	N	Median	Mean
1.00	Residential Non-Condo	UNSOLD	2678	1.80	1.92
		SOLD	362	1.82	1.84
2.00	Residential Non-Condo	UNSOLD	967	1.75	1.86
		SOLD	97	1.82	1.89
3.00	Residential Non-Condo	UNSOLD	586	1.63	1.68
		SOLD	93	1.69	1.79
4.00	Residential Non-Condo	UNSOLD	526	1.59	1.77
		SOLD	153	1.58	1.62
5.00	Residential Non-Condo	UNSOLD	732	1.66	3.17
		SOLD	101	1.76	1.77



6.00	Residential Non-Condo	UNSOLD	944	2.00	2.11	
		SOLD	179	2.02	2.04	
7.00	Residential Non-Condo	UNSOLD	71	1.50	1.94	
		SOLD	5	1.74	2.03	
8.00	Residential Non-Condo	UNSOLD	347	1.72	1.74	
		SOLD	57	1.77	1.83	
9.00	Residential Non-Condo	UNSOLD	324	1.70	2.96	
		SOLD	65	1.66	1.65	

# Neighborhoods with at least 10 Sales Report DIFF

NBHD	sold	N	Median	Mean
265	UNSOLD	53	1.51	1.61
	SOLD	11	1.64	1.60
335	UNSOLD	153	1.88	1.97
	SOLD	24	1.94	1.98
575	UNSOLD	114	1.60	1.67
	SOLD	24	1.60	1.62
576	UNSOLD	48	1.59	1.58
	SOLD	28	1.58	1.59
577	UNSOLD	18	1.56	5.07
	SOLD	14	1.54	1.54
725	UNSOLD	248	1.57	1.59
	SOLD	61	1.58	1.63
740	UNSOLD	31	1.58	1.91
	SOLD	19	1.60	1.70
900	UNSOLD	117	1.65	1.73
	SOLD	16	1.84	1.89
950	UNSOLD	97	1.56	1.59
	SOLD	16	1.57	1.56
1000	UNSOLD	237	1.64	1.67
	SOLD	39	1.75	1.81
1350	UNSOLD	55	1.72	1.76
	SOLD	10	1.83	1.86
1650	UNSOLD	45	1.70	1.69
	SOLD	11	1.82	1.91
4480	UNSOLD	69	1.70	1.70
	SOLD	11	1.68	1.69
4490	UNSOLD	186	1.73	1.74
	SOLD	17	1.78	1.91
4495	UNSOLD	97	1.74	1.76
	SOLD	30	1.79	1.82
10300	UNSOLD	50	1.73	1.75
	SOLD	11	1.82	1.83
10850	UNSOLD	28	2.09	2.08
	SOLD	10	2.07	1.99
11400	UNSOLD	54	1.88	3.32
	SOLD	25	1.83	1.86
13200	UNSOLD	235	1.84	1.86
	SOLD	34	1.89	1.92
13400	UNSOLD	57	1.95	2.11
	SOLD	13	1.88	1.88
14000	UNSOLD	106	1.88	1.90
	SOLD	12	1.88	1.91
14600	UNSOLD	169	1.97	2.03



	SOLD	33	1.99	2.01
14800	UNSOLD	53	1.96	1.95
	SOLD	11	1.96	1.93
16000	UNSOLD	90	1.76	1.81
	SOLD	20	1.79	1.79
17300	UNSOLD	49	1.69	1.79
	SOLD	10	1.89	1.89
17600	UNSOLD	73	1.85	1.88
	SOLD	16	1.85	1.96
18000	UNSOLD	105	1.82	1.86
	SOLD	13	1.82	1.97
19000	UNSOLD	57	2.06	2.01
	SOLD	20	2.10	2.08
19350	UNSOLD	122	1.82	1.83
	SOLD	18	1.87	1.92
19600	UNSOLD	34	1.77	1.76
	SOLD	12	1.78	1.77
19800	UNSOLD	93	1.62	1.70
	SOLD	14	1.64	1.71

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

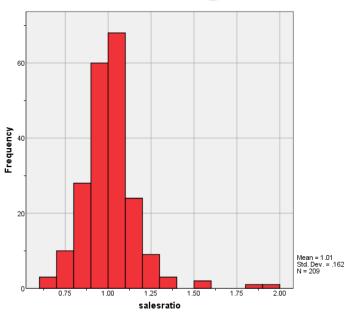
#### IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

There were 209 qualified commercial and industrial sales in the 24-month period ending June 30, 2022. The sales ratio analysis results were as follows:

Median	1.002
Price Related Differential	0.987
Coefficient of Dispersion	10.6

The above table indicates that the Routt 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 Market Trend Analysis**

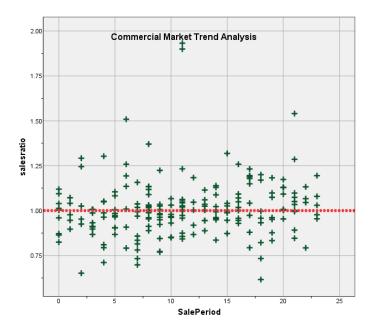
The commercial/industrial sales were next analyzed by subclass for any residual market trending, examining the sale ratios across the 24-month sale period with the following results:

#### **Coefficients**<sup>a</sup>

Model		Unstandardized	Coefficients Std. Error	Coefficients Beta		Sia.
Model		D	Sta. Elloi	Dela	ι	Sig.
1	(Constant)	.974	.022		44.188	.000
	SalePeriod	.003	.002	.135	1.959	.051

a. Dependent Variable: salesratio





Based on the above results, we concluded that the assessor adequately considered market trending in their valuation of commercial/industrial properties.

#### **Sold/Unsold Analysis**

We compared the 2023 median actual value per square foot between sold and unsold commercial properties to determine if the assessor was valuing each group consistently. This analysis was performed both for the entire class and by subclass, as follows:

### Report

VALSF

sold	N	Median	Mean
UNSOLD	1577	\$322	\$381
SOLD	207	\$305	\$330

# Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of VALSF is the same across categories of sold.	Independent- Samples Mann- Whitney U Test	.019	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .01.



#### Report

VALSF

ABSTRIMPMAJOR	sold	N	Median	Mean
1212	UNSOLD	3	604.16	541.08
	SOLD	5	453.69	735.81
2212	UNSOLD	96	292.24	350.53
	SOLD	14	250.84	338.41
2215	UNSOLD	188	639.69	631.40
	SOLD	3	150.46	249.94
2220	UNSOLD	43	283.53	326.87
	SOLD	12	429.94	472.78
2230	UNSOLD	102	220.34	280.55
	SOLD	11	247.38	284.03
2235	UNSOLD	102	105.21	160.86
	SOLD	16	172.42	211.85
2240	UNSOLD	7	164.90	172.70
	SOLD	2	84.33	84.33
2244	UNSOLD	3	366.26	368.91
	SOLD	1	157.82	157.82
2245	UNSOLD	651	281.12	307.24
	SOLD	123	329.45	326.21

Based on the results of these comparisons, we concluded that the Routt County assessor was valuing sold and unsold commercial properties consistently.

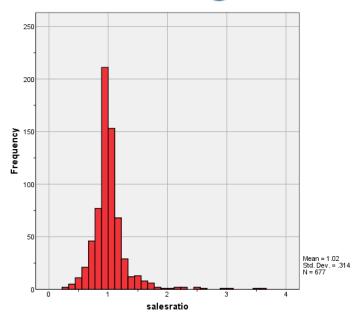
#### V. VACANT LAND SALE RESULTS

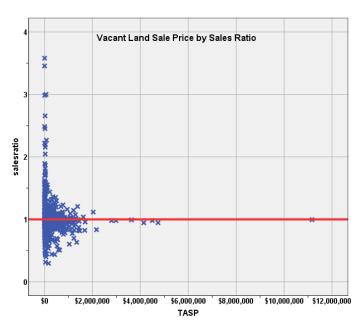
There were 677 qualified commercial and industrial sales in the 24 month period ending June 30, 2022. The sales ratio analysis results were as follows:

Median	0.993
Price Related Differential	1.058
Coefficient of Dispersion	17.6

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







# **Vacant Land Market Trend Analysis**

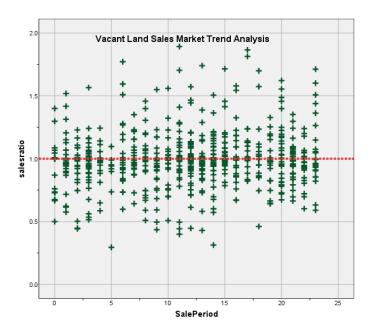
The vacant land sales were analyzed, examining the sale ratios across the 24 month sale period with the following results:

## **Coefficients**<sup>a</sup>

		Unstandardized		Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	.955	.017		54.588	.000
	SalePeriod	.003	.001	.100	2.578	.010

a. Dependent Variable: salesratio





The market trend results indicated no statistically significant trend. We concluded that the assessor has adequately considered market tending in Routt County's vacant land valuation for 2023.

#### **Sold/Unsold Analysis**

We compared the median change in actual value for taxable year 2020 and taxable year 2022 for vacant land properties to determine if sold and unsold properties were valued consistently. We first performed the analysis by class, as follows:

Report DIFF			
sold	N	Median	Mean
UNSOLD	3019	1.90	1.95
SOLD	657	1.73	1.85

We next stratified the comparison results by subdivision with at least 5 sales, as follows:

Report DIFF				
SUBDIVNO	sold	N	Median	Mean
1061	UNSOLD	65	1.60	1.60
	SOLD	22	1.60	1.61
1391	UNSOLD	23	1.62	1.73
	SOLD	12	1.62	1.66
1417	UNSOLD	114	2.27	1.93
	SOLD	33	2.27	1.92
1567	UNSOLD	45	1.75	1.75
	SOLD	13	1.75	1.75
1570	UNSOLD	63	1.73	1.70
	SOLD	13	1.73	1.73
1585	UNSOLD	165	2.00	1.93



	SOLD	31	2.00	1.85
1586	UNSOLD	201	1.50	1.50
	SOLD	18	1.50	1.50
1596	UNSOLD	144	2.40	2.40
	SOLD	23	2.40	2.40
1608	UNSOLD	130	2.00	1.93
	SOLD	32	1.92	1.85
1779	UNSOLD	115	2.38	2.38
	SOLD	16	2.38	2.38
2527	UNSOLD	12	1.68	1.68
	SOLD	21	1.68	1.71
2703	UNSOLD	9	1.71	1.72
	SOLD	15	1.79	1.77
2721	UNSOLD	27	1.97	1.96
	SOLD	13	1.97	1.98
2793	UNSOLD	8	3.22	3.09
	SOLD	17	3.22	3.21
2802	UNSOLD	12	1.55	1.57
	SOLD	14	1.55	1.52

The above results indicated that sold and unsold vacant land properties were valued consistently overall.

#### **V. CONCLUSIONS**

Based on this statistical analysis, there were no significant compliance issues concluded for Routt County as of the date of this report.



#### **STATISTICAL ABSTRACT**

#### Residential

	Ratio Statistics for CURRTOT / TASP												
			nce Interval for ean		95% Confidence Interval for Median			95% Confidence Interval for Weighted Mean					Coefficient of Variation
ResCondo	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
0	1.006	.999	1.013	1.000	.996	1.005	95.4%	.999	.990	1.008	1.007	.071	12.6%
1	1.001	.995	1.007	.996	.994	.999	95.3%	.993	.983	1.003	1.008	.053	9.5%

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

#### Commercial/Industrial

	Ratio Statistics for CURRTOT / TASP											
	95% Confidence Interval for Mean 95% Confidence Interval for Median					95% Confiden Weighte	ice Interval for ed 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
1.011	.989	1.033	1.002	.984	1.016	96.2%	1.024	.970	1.079	.987	.106	16.0%

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.

#### **Vacant Land**

	Ratio Statistics for CURRLND / TASP											
	95% Confiden Me	ce Interval for an		95% Cor	fidence Interval fo	or 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
.994	.977	1.011	.991	.983	.997	95.6%	.965	.950	.979	1.031	.150	22.1%

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.



## Residential Median Ratio Stratification

#### **Subclass**

## **Case Processing Summary**

		Count	Percent
ABSTRIMP	1212	880	40.4%
	1215	22	1.0%
	1218	357	16.4%
	1225	3	0.1%
	1226	3	0.1%
	1230	912	41.9%
Overall		2177	100.0%
Excluded		0	
Total		2177	

## **Ratio Statistics for CURRTOT / TASP**

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1212	1.003	1.009	.080	14.2%
1215	.989	1.016	.062	10.4%
1218	.997	1.005	.047	6.5%
1225	1.008	1.110	.247	50.6%
1226	.963	1.001	.031	5.9%
1230	.997	1.008	.053	9.6%
Overall	.998	1.007	.063	11.5%

## Improvement Age

		Count	Percent
AgeRec	0	11	0.5%
	Over 100	53	2.4%
	75 to 100	63	2.9%
	50 to 75	90	4.1%
	25 to 50	947	43.5%
	5 to 25	859	39.5%
	5 or Newer	154	7.1%
Overall		2177	100.0%
Excluded		0	
Total		2177	



		Price Related	Coefficient of	Coefficient of Variation
Group	Median	Differential	Dispersion	Median Centered
0	1.009	.961	.130	24.6%
Over 100	.993	1.016	.083	13.2%
75 to 100	.991	1.030	.082	11.2%
50 to 75	.999	1.029	.094	27.4%
25 to 50	.997	1.006	.063	11.5%
5 to 25	1.000	1.006	.056	8.3%
5 or Newer	.995	1.013	.064	8.9%
Overall	.998	1.007	.063	11.5%

# Improved Area

# **Case Processing Summary**

		Count	Percent
ImpSFRec	0	6	0.3%
	LE 500 sf	38	1.7%
	500 to 1,000 sf	480	22.0%
	1,000 to 1,500 sf	611	28.1%
	1,500 to 2,000 sf	389	17.9%
	2,000 to 3,000 sf	388	17.8%
	3,000 sf or Higher	265	12.2%
Overall		2177	100.0%
Excluded		0	
Total		2177	

## **Ratio Statistics for CURRTOT / TASP**

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Group				
0	1.023	1.005	.100	13.4%
LE 500 sf	1.027	1.342	.212	47.0%
500 to 1,000 sf	.994	1.003	.057	7.9%
1,000 to 1,500 sf	.998	1.006	.052	7.7%
1,500 to 2,000 sf	.995	1.004	.059	8.8%
2,000 to 3,000 sf	1.000	1.008	.064	10.6%
3,000 sf or Higher	1.008	1.014	.082	14.5%
Overall	.998	1.007	.063	11.5%

# **Improvement Quality**

		Count	Percent
QUALITY		6	0.3%
	10 - LOW	6	0.3%
	20 - FAIR	143	6.6%
	3 - Average	2	0.1%
	30 - AVERAGE	982	45.1%
	4 - Superior +	2	0.1%
	40 - GOOD	514	23.6%



	50 - VERY GOOD	399	18.3%
	55 - EXCELLENT - OLDER	8	0.4%
	60 - EXCELLENT	108	5.0%
	7 - Superior + + + +	1	0.0%
	70 - EXCEPTIONAL	6	0.3%
Overall		2177	100.0%
Excluded		0	
Total		2177	

		Price Related	Coefficient of	Coefficient of Variation
Group	Median	Differential	Dispersion	Median Centered
	1.023	1.005	.100	13.4%
10 - LOW	1.005	1.047	.082	15.5%
20 - FAIR	.996	1.023	.085	22.6%
3 - Average	1.356	1.170	.275	38.9%
30 - AVERAGE	.998	1.009	.064	9.8%
4 - Superior +	1.008	1.001	.001	0.1%
40 - GOOD	.996	1.006	.064	11.3%
50 - VERY GOOD	.997	1.002	.047	7.1%
55 - EXCELLENT - OLDER	1.080	.983	.078	10.5%
60 - EXCELLENT	1.005	1.014	.069	15.0%
7 - Superior + + + +	.948	1.000	.000	
70 - EXCEPTIONAL	.988	1.022	.096	17.4%
Overall	.998	1.007	.063	11.5%

# **Improvement Condition**

		Count	Percent
CONDITION		6	0.3%
	3 - FAIR	35	1.6%
	4 - Normal	2	0.1%
	4 - NORMAL	1823	83.7%
	5 - Good	2	0.1%
	5 - GOOD	287	13.2%
	6 - EXCELLENT	21	1.0%
	6 - Very Good	1	0.0%
Overall		2177	100.0%
Excluded		0	
Total		2177	



		Price Related	Coefficient of	Coefficient of Variation
Group	Median	Differential	Dispersion	Median Centered
	1.023	1.005	.100	13.4%
3 - FAIR	.985	1.015	.063	9.2%
4 - Normal	1.338	.832	.292	41.3%
4 - NORMAL	.998	1.006	.062	11.6%
5 - Good	1.008	1.001	.001	0.1%
5 - GOOD	.996	1.016	.071	10.8%
6 - EXCELLENT	.998	1.015	.039	5.8%
6 - Very Good	.983	1.000	.000	
Overall	.998	1.007	.063	11.5%

## **Commercial Median Ratio Stratification**

#### Sale Price

# **Case Processing Summary**

		Count	Percent
SPRec	\$25K to \$50K	6	2.9%
	\$50K to \$100K	5	2.4%
	\$100K to \$150K	9	4.3%
	\$150K to \$200K	8	3.8%
	\$200K to \$300K	36	17.2%
	\$300K to \$500K	41	19.6%
	\$500K to \$750K	30	14.4%
	\$750K to \$1,000K	20	9.6%
	Over \$1,000K	54	25.8%
Overall		209	100.0%
Excluded		0	
Total		209	

#### **Ratio Statistics for CURRTOT / TASP**

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
\$25K to \$50K	1.143	1.006	.058	8.2%
\$50K to \$100K	.793	.995	.116	18.2%
\$100K to \$150K	1.035	.998	.087	13.4%
\$150K to \$200K	.964	1.006	.147	25.2%
\$200K to \$300K	1.004	1.002	.091	11.3%
\$300K to \$500K	1.003	1.001	.123	23.2%
\$500K to \$750K	1.027	1.008	.092	12.2%
\$750K to \$1,000K	.995	.997	.083	11.7%
Over \$1,000K	.988	.954	.104	15.1%
Overall	1.002	.987	.106	16.2%



## Subclass

# **Case Processing Summary**

		Count	Percent
ABSTRIMP	1218	12	5.7%
	1225	2	1.0%
	1230	3	1.4%
	1416	1	0.5%
	1468	1	0.5%
	1545	1	0.5%
	1712	1	0.5%
	1714	2	1.0%
	1719	1	0.5%
	1724	2	1.0%
	1725	1	0.5%
	1738	23	11.0%
	1897	1	0.5%
	1968	1	0.5%
	2212	9	4.3%
	2215	3	1.4%
	2220	11	5.3%
	2221	1	0.5%
	2223	1	0.5%
	2228	1	0.5%
	2230	11	5.3%
	2232	1	0.5%
	2235	15	7.2%
	2243	1	0.5%
	2245	102	48.8%
	3215	1	0.5%
Overall		209	100.0%
Excluded		0	
Total		209	

# Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1218	.949	1.034	.135	18.8%
1225	1.384	1.003	.091	12.8%
1230	1.900	.971	.069	13.4%
1416	1.195	1.000	.000	
1468	1.193	1.000	.000	
1545	.995	1.000	.000	
1712	1.003	1.000	.000	
1714	.955	.985	.071	10.0%
1719	.987	1.000	.000	
1724	1.068	1.002	.048	6.7%
1725	.961	1.000	.000	
1738	1.030	1.011	.061	7.5%
1897	.988	1.000	.000	
1968	1.026	1.000	.000	
2212	.987	.974	.082	14.6%
2215	.977	.915	.090	17.7%



2220	.960	.988	.099	16.2%
2221	.879	1.000	.000	
2223	1.018	1.000	.000	
2228	1.105	1.000	.000	
2230	.995	1.017	.100	13.3%
2232	.822	1.000	.000	
2235	1.023	1.026	.088	15.4%
2243	1.005	1.000	.000	
2245	1.001	1.025	.097	12.4%
3215	1.012	1.000	.000	
Overall	1.002	.987	.106	16.2%

# Improvement Age

# **Case Processing Summary**

		Count	Percent
AgeRec	0	184	88.0%
	Over 100	1	0.5%
	75 to 100	4	1.9%
	50 to 75	3	1.4%
	25 to 50	13	6.2%
	5 to 25	2	1.0%
	5 or Newer	2	1.0%
Overall		209	100.0%
Excluded		0	
Total		209	

## **Ratio Statistics for CURRTOT / TASP**

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
0	1.001	.979	.095	13.0%
Over 100	1.018	1.000	.000	
75 to 100	1.000	1.065	.140	31.2%
50 to 75	1.193	1.014	.048	10.1%
25 to 50	.953	1.025	.126	17.9%
5 to 25	1.916	.999	.008	1.2%
5 or Newer	1.068	1.002	.048	6.7%
Overall	1.002	.987	.106	16.2%

# Improved Area Case Processing Summary

		Count	Percent
ImpSFRec	0	2	1.0%
	LE 500 sf	13	6.2%
	500 to 1,000 sf	50	23.9%
	1,000 to 1,500 sf	21	10.0%
	1,500 to 2,000 sf	15	7.2%
	2,000 to 3,000 sf	52	24.9%
	3,000 sf or Higher	56	26.8%
Overall		209	100.0%
Excluded		0	
Total		209	



Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
0	1.208	.909	.135	19.1%
LE 500 sf	.984	1.047	.145	17.6%
500 to 1,000 sf	.982	.995	.126	19.1%
1,000 to 1,500 sf	1.025	1.016	.156	26.2%
1,500 to 2,000 sf	1.001	1.019	.104	13.0%
2,000 to 3,000 sf	1.018	1.007	.073	9.8%
3,000 sf or Higher	.992	.954	.086	13.7%
Overall	1.002	.987	.106	16.2%

# **Improvement Quality**

# **Case Processing Summary**

		Count	Percent
QUALITY		2	1.0%
	1 - Inferior	5	2.4%
	2 - Inferior -	3	1.4%
	20 - FAIR	3	1.4%
	3 - Average	53	25.4%
	30 - AVERAGE	15	7.2%
	4 - Superior +	74	35.4%
	40 - GOOD	3	1.4%
	5 - Superior + +	41	19.6%
	6 - Superior + + +	8	3.8%
	7 - Superior + + + +	2	1.0%
Overall		209	100.0%
Excluded		0	
Total		209	

#### **Ratio Statistics for CURRTOT / TASP**

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
	1.208	.909	.135	19.1%
1 - Inferior	1.049	.968	.039	5.6%
2 - Inferior -	1.002	1.001	.003	0.5%
20 - FAIR	1.195	1.053	.146	23.0%
3 - Average	1.012	1.018	.090	12.7%
30 - AVERAGE	.961	.963	.139	18.1%
4 - Superior +	.996	1.028	.108	13.8%
40 - GOOD	1.900	1.279	.160	32.7%
5 - Superior + +	.972	.939	.074	9.8%
6 - Superior + + +	.997	.774	.122	21.5%
7 - Superior + + + +	.992	.996	.004	0.6%
Overall	1.002	.987	.106	16.2%



# **Improvement Condition**

# **Case Processing Summary**

		Count	Percent
CONDITION		2	1.0%
	3 - Fair	10	4.8%
	4 - Normal	153	73.2%
	4 - NORMAL	15	7.2%
	5 - Good	22	10.5%
	5 - GOOD	6	2.9%
	6 - Very Good	1	0.5%
Overall		209	100.0%
Excluded		0	
Total		209	

#### **Ratio Statistics for CURRTOT / TASP**

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
	1.208	.909	.135	19.1%
3 - Fair	1.000	.983	.032	4.2%
4 - Normal	1.003	.975	.095	12.9%
4 - NORMAL	1.023	1.028	.233	37.8%
5 - Good	.967	1.023	.099	13.1%
5 - GOOD	1.064	.946	.154	17.6%
6 - Very Good	.987	1.000	.000	
Overall	1.002	.987	.106	16.2%

## **Vacant Land Median Ratio Stratification**

#### Sale Price

		Count	Percent
SPRec	LT \$25K	148	22.3%
	\$25K to \$50K	72	10.8%
	\$50K to \$100K	119	17.9%
	\$100K to \$150K	41	6.2%
	\$150K to \$200K	29	4.4%
	\$200K to \$300K	34	5.1%
	\$300K to \$500K	78	11.7%
	\$500K to \$750K	67	10.1%
	\$750K to \$1,000K	31	4.7%
	Over \$1,000K	46	6.9%
Overall		665	100.0%
Excluded		0	
Total		665	



Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LT \$25K	1.019	1.042	.194	25.7%
\$25K to \$50K	1.007	.998	.288	36.9%
\$50K to \$100K	.989	1.006	.122	18.4%
\$100K to \$150K	.972	1.001	.126	18.3%
\$150K to \$200K	.954	1.001	.151	22.4%
\$200K to \$300K	.997	.998	.113	15.5%
\$300K to \$500K	.990	.997	.109	16.8%
\$500K to \$750K	.972	.998	.096	14.3%
\$750K to \$1,000K	.988	1.000	.063	9.8%
Over \$1,000K	.981	.990	.085	12.7%
Overall	.991	1.031	.150	22.2%

#### **Subclass**

		Count	Percent
ABSTRLND	100.00	487	73.2%
	200.00	43	6.5%
	300.00	8	1.2%
	400.00	2	0.3%
	520.00	3	0.5%
	530.00	3	0.5%
	540.00	2	0.3%
	550.00	6	0.9%
	1111.00	5	0.8%
	1112.00	84	12.6%
	1115.00	6	0.9%
	1122.50	2	0.3%
	1125.00	2	0.3%
	1135.00	3	0.5%
	2112.00	1	0.2%
	2135.00	7	1.1%
	2629.50	1	0.2%
Overall		665	100.0%
Excluded		0	
Total		665	



		Price Related	Coefficient of	Coefficient of Variation
Group	Median	Differential	Dispersion	Median Centered
Group				
100.00	.993	1.032	.159	23.1%
200.00	.987	1.042	.100	14.6%
300.00	1.009	1.002	.055	8.9%
400.00	1.001	1.005	.005	0.8%
520.00	.988	1.050	.356	56.0%
530.00	.879	1.216	.140	22.1%
540.00	.521	1.015	.026	3.6%
550.00	.820	1.002	.142	23.2%
1111.00	1.093	.997	.069	8.8%
1112.00	.992	1.026	.110	17.7%
1115.00	.964	1.016	.102	16.6%
1122.50	1.074	.991	.045	6.4%
1125.00	.913	.979	.086	12.2%
1135.00	1.508	.867	.193	38.7%
2112.00	.945	1.000	.000	
2135.00	.943	1.126	.192	30.3%
2629.50	.964	1.000	.000	
Overall	.991	1.031	.150	22.2%