

EAGLE COUNTY

2021

EAGLE COUNTY  
PROPERTY ASSESSMENT  
STUDY

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**WILDROSE**  
APPRAISAL, INCORPORATED  
**Audit Division**



September 15, 2021

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

**RE: Final Report for the 2021 Colorado Property Assessment Study**

Dear Ms. Mullis:

Wildrose Appraisal Inc.-Audit Division is pleased to submit the Final Reports for the 2021 Colorado Property Assessment Study.

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

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

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

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

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

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

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# INTRODUCTION

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## Colorado

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

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

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

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

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

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

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

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

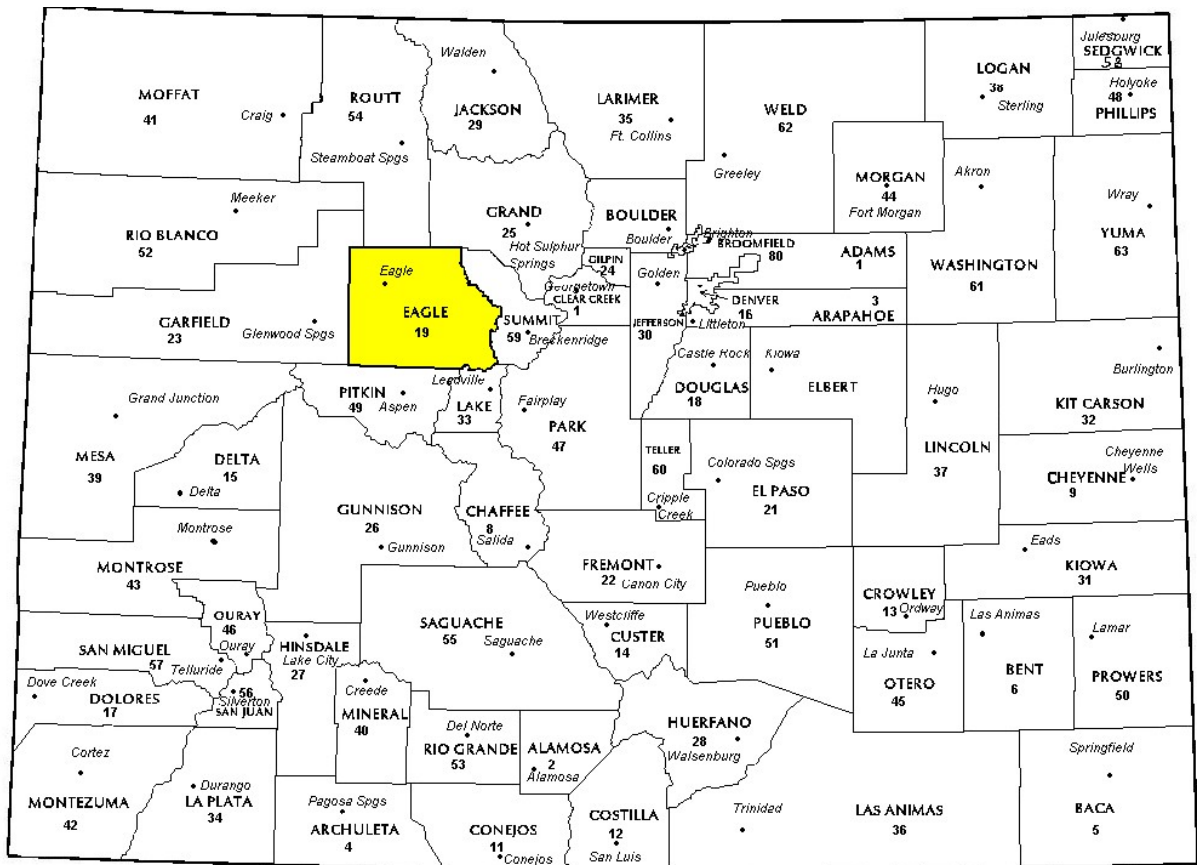
Wildrose Audit has completed the Property Assessment Study for 2021 and is pleased to report its findings for Eagle County in the following report.

# REGIONAL/HISTORICAL SKETCH OF EAGLE COUNTY

## Regional Information

Eagle 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

Eagle County has approximately 1,684.5 square miles and an estimated population of approximately 55,127 people with 31.0 people per square mile, according to the U.S. Census Bureau's 2020 estimated census data. This represents a 5.6 percent change from April 1, 2010 to July 1, 2019.

Eagle County was created by the Colorado legislature on February 11, 1883, from portions of Summit County. It was named after the Eagle River, which runs through the county. The county seat was originally set in Red Cliff, Colorado, but was moved to the town of Eagle in 1921. The Vail and Beaver Creek ski areas are located in Eagle County.

Much of the county is taken up by White River National Forest, and much of the rest is managed by the Bureau of Land Management. Interstate 70 crosses the county from east to west. The Eagle River rises in the southeastern part of the county. It receives Gore Creek at Dowds Junction, and joins the Colorado River in the west. Fryingpan River and the Roaring

Fork River intersect the southwest corner of the county.

The town of Vail was established in 1966 at the base of Vail Ski Resort, which opened in December 1962. The town is famous for having the second largest single ski mountain in North America and other winter sports in addition to being a year round destination for outdoor activities.

The ski area was founded by Pete Seibert and the local rancher Earl Eaton in 1962, between the town of Eagle and Vail Pass. The pass was named after Charles Vail, the highway engineer that routed U.S. Highway 6 through the valley in 1940. Seibert, a New England native, served in the U.S. Army's 10th Mountain Division during World War II, which trained at Camp Hale, just southeast of Vail. He was seriously wounded in Italy and was told he should become a professional skier when he recovered. He was recognized as the best skier in the world for a short time.

*([www.wikipedia.org](http://www.wikipedia.org))*

# RATIO ANALYSIS

## Methodology

All significant classes of property were analyzed. Sales were collected for each property class over the eighteen month period from January 1, 2019 through June 30th, 2020. Property classes with less than thirty sales had the sales period extended in six month increments up to an additional forty-two months. If this extended sales period did not produce the minimum thirty qualified sales, the Audit performed supplemental appraisals to reach the minimum.

Although it was required that we examine the median and coefficient of dispersion for all counties, we also calculated the weighted mean and price-related differential for each class of property. Counties were not passed or failed by these latter measures, but were counseled if there were anomalies noted during our analysis. Qualified sales were based on the qualification code used by each county, which were typically coded as either “Q” or “C.” The ratio analysis included all sales. The data was trimmed for counties with obvious outliers using IAAO standards for data analysis. In

every case, we examined the loss in data from trimming to ensure that only true outliers were excluded. Any county with a significant portion of sales excluded by this trimming method was examined further. No county was allowed to pass the audit if more than 5% of the sales were “lost” because of trimming.

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

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

## Conclusions

For this final analysis report, the minimum acceptable statistical standards allowed by the State Board of Equalization are:

ALLOWABLE STANDARDS RATIO GRID		
Property Class	Unweighted Median Ratio	Coefficient of Dispersion
Commercial/Industrial	Between .95-1.05	Less than 20.99
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 Eagle County are:

<b>Eagle County Ratio Grid</b>					
<b>Property Class</b>	<b>Number of Qualified Sales</b>	<b>Unweighted Median Ratio</b>	<b>Price Related Differential</b>	<b>Coefficient of Dispersion</b>	<b>Time Trend Analysis</b>
Commercial/Industrial	186	0.973	1.054	8.9	Compliant
Residential Condo	1,200	0.989	1.007	4.3	Compliant
Residential	1,822	0.989	1.019	6.7	Compliant
Vacant Land	200	0.968	1.137	16.7	Compliant

After applying the above described methodologies, it is concluded from the sales ratios that Eagle County is in compliance with

SBOE, DPT, and Colorado State Statute valuation guidelines.

**Recommendations**

None





## TIME TRENDING VERIFICATION

### Methodology

While we recommend that counties use the inverted ratio regression analysis method to account for market (time) trending, some counties have used other IAAO-approved methods, such as the weighted monthly median approach. We are not auditing the methods used, but rather the results of the methods used. Given this range of methodologies used to account for market trending, we concluded that the best validation method was to examine the sale ratios for each class across the appropriate sale period. To be specific, if a county has considered and adjusted correctly for market trending, then the sale ratios should remain stable (i.e. flat) across the sale period. If a residual market trend is detected, then the county may or may not have addressed market

trending adequately, and a further examination is warranted. This validation method also considers the number of sales and the length of the sale period. Counties with few sales across the sale period were carefully examined to determine if the statistical results were valid.

### Conclusions

After verification and analysis, it has been determined that Eagle County has complied with the statutory requirements to analyze the effects of time on value in their county. Eagle County has also satisfactorily applied the results of their time trending analysis to arrive at the time adjusted sales price (TASP).

### Recommendations

None

## SOLD / UNSOLD ANALYSIS

### Methodology

Eagle County was tested for the equal treatment of sold and unsold properties to ensure that “sales chasing” has not occurred. The auditors employed a multi-step process to determine if sold and unsold properties were valued in a consistent manner.

We test the hypothesis that the assessor has valued unsold properties consistent with what is observed with the sold properties based on several units of comparison and tests. The units of comparison include the actual value per square foot and the change in value from the previous base year period to the current base year. The first test compares the actual value per square foot between sold and unsold properties by class. The median and mean value per square foot is compared and tested for any significant difference. This is tested using non-parametric methods, such as the Mann-Whitney test for differences in the distributions or medians between sold and unsold groups. It is also examined graphically and from an appraisal perspective. Data can be stratified based on location and subclass. The second test compares the difference in the median change in value from the previous base year to the current base year between sold and unsold properties by class. The same combination of non-parametric and appraisal testing is used as with the first test. A third test employing a valuation model testing a sold/unsold binary variable while controlling for property attributes such as location, size, age and other attributes. The model determines if the sold/unsold variable is statistically and empirically significant. If all three tests indicate a significant difference between sold and unsold properties for a given class, the Auditor may meet with the county to determine if sale chasing is actually occurring,

or if there are other explanations for the observed difference.

If the unsold properties have a higher median value per square foot than the sold properties, or if the median change in value is greater for the unsold properties than the sold properties, the analysis is stopped and the county is concluded to be in compliance with sold and unsold guidelines. All sold and unsold properties in a given class are first tested, although properties with extreme unit values or percent changes can be trimmed to stabilize the analysis. The median is the primary comparison metric, although the mean can also be used as a comparison metric if the distribution supports that type of measure of central tendency.

The first test (unit value method) is applied to both residential and commercial/industrial sold and unsold properties. The second test is applied to sold and unsold vacant land properties. The second test (change in value method) is also applied to residential or commercial sold and unsold properties if the first test results in a significant difference observed and/or tested between sold and unsold properties. The third test (valuation modeling) is used in instances where the results from the first two tests indicate a significant difference between sold and unsold properties. It can also be used when the number of sold and unsold properties is so large that the non-parametric testing is indicating a false rejection of the hypothesis that there is no difference between the sold and unsold property values.

These tests were supported by both tabular and graphics presentations, along with written documentation explaining the methodology used.

<b>Sold/Unsold Results</b>	
<b>Property Class</b>	<b>Results</b>
Commercial/Industrial	Compliant
Residential Condos	Compliant
Residential	Compliant
Vacant Land	Compliant

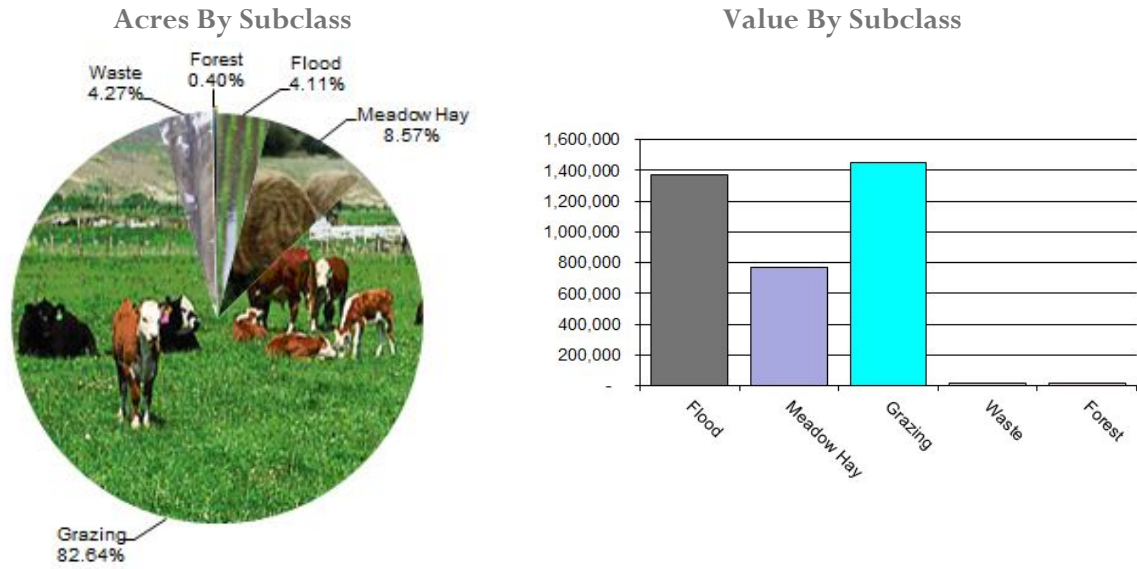
**Conclusions**

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

**Recommendations**

None

# 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 reviewed in order to determine if: Aerial photographs are available and are being used; soil conservation guidelines have been used to classify lands based on productivity; crop rotations have been documented; typical commodities and yields have been determined; orchard lands have been properly classified and valued; expenses reflect a ten year average and are typical landlord expenses; grazing lands have been properly classified and valued; the number of acres in each class and subclass have been determined; the capitalization rate was properly applied. Also, documentation was required for the valuation methods used and any locally developed yields, carrying capacities, and expenses. Records were also checked to ensure that the commodity prices

and expenses, furnished by the Property Tax Administrator (PTA), were applied properly. (See Assessor Reference Library Volume 3 Chapter 5.)

### Conclusions

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



<b>Eagle County Agricultural Land Ratio Grid</b>						
<b>Abstract Code</b>	<b>Land Class</b>	<b>Number Of Acres</b>	<b>County Value Per Acre</b>	<b>County Assessed Total Value</b>	<b>WRA Total Value</b>	<b>Ratio</b>
4117	Flood	5,712	240.15	1,371,729	1,292,207	1.06
4137	Meadow Hay	11,912	64.84	772,396	772,396	1.00
4147	Grazing	114,807	12.61	1,448,066	1,448,066	1.00
4177	Forest	560	37.02	20,731	20,731	1.00
4167	Waste	5,933	2.42	14,347	14,347	1.00
<b>Total/Avg</b>		<b>138,924</b>	<b>26.11</b>	<b>3,627,269</b>	<b>3,547,747</b>	<b>1.02</b>

### Recommendations

None

## Agricultural Outbuildings

### Methodology

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

Property Taxation for the valuation of agricultural outbuildings.

### Recommendations

None

### Conclusions

Eagle County has substantially complied with the procedures provided by the Division of

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## Agricultural Land Under Improvements

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### 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

Eagle 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
- Aerial Photography/Pictometry

Eagle 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
- Aerial Photography/Pictometry

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

### Recommendations

None

## SALES VERIFICATION

According to Colorado Revised Statutes:

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

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

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

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

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

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

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

WRA reviewed the sales verification procedures in 2021 for Eagle County. This study was conducted by checking selected sales from the master sales list for the current valuation period. Specifically WRA selected 44 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.

Eagle County did not qualify for in-depth subclass analysis.

### **Conclusions**

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

### **Recommendations**

None



# ECONOMIC AREA REVIEW AND EVALUATION

## **Methodology**

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

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

## **Recommendations**

None

# NATURAL RESOURCES

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## Earth and Stone Products

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### **Methodology**

Under the guidelines of the Assessor's Reference Library (ARL), Volume 3, Natural Resource Valuation Procedures, the income approach was applied to determine value for production of earth and stone products. The number of tons was multiplied by an economic royalty rate determined by the Division of Property Taxation to determine income. The income was multiplied by a recommended Hoskold factor to determine the actual value. The Hoskold factor is determined by the life of the reserves or the lease. Value is based on two

variables: life and tonnage. The operator determines these since there is no other means to obtain production data through any state or private agency.

### **Conclusions**

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

### **Recommendations**

None

## VACANT LAND

### **Subdivision Discounting**

Subdivisions were reviewed in 2021 in Eagle County. The review showed that subdivisions were discounted pursuant to the Colorado Revised Statutes in Article 39-1-103 (14). Discounting procedures were applied to all subdivisions where less than 80 percent of all sites were sold using the present worth method. The market approach was applied where 80 percent or more of the subdivision sites were sold. An absorption period was estimated for each subdivision that was discounted. An appropriate discount rate was

developed using the summation method. Subdivision land with structures was appraised at full market value.

### **Conclusions**

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

### **Recommendations**

None

# POSSESSORY INTEREST PROPERTIES

## Possessory Interest

Possessory interest property discovery and valuation is described in the Assessor's Reference Library (ARL) Volume 3 section 7 in accordance with the requirements of Chapter 39-1-103 (17)(a) (II) C.R.S. Possessory Interest is defined by the Property Tax Administrator's Publication ARL Volume 3, Chapter 7: A private property interest in government-owned property or the right to the occupancy and use of any benefit in government-owned property that has been granted under lease, permit, license, concession, contract, or other agreement.

Eagle 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

Eagle County has implemented a discovery process to place possessory interest properties on the roll. They have also correctly and consistently applied the correct procedures and valuation methods in the valuation of possessory interest properties.

## Recommendations

None

# PERSONAL PROPERTY AUDIT

Eagle 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.

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

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

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

Eagle County submitted their personal property written audit plan and was current for the 2021 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
- Lowest or highest quartile of value per square foot
- Accounts protested with substantial disagreement

### **Conclusions**

Eagle County has employed adequate discovery, classification, documentation, valuation, and auditing procedures for their personal property assessment and is in statistical compliance with SBOE requirements.

### **Recommendations**

None

## WILDROSE AUDITOR STAFF

**Harry J. Fuller**, *Audit Project Manager*

**Suzanne Howard**, *Audit Administrative Manager*

**Steve Kane**, *Audit Statistician*

**Carl W. Ross**, *Agricultural/Natural Resource Analyst*

**J. Andrew Rodriguez**, *Field Analyst*

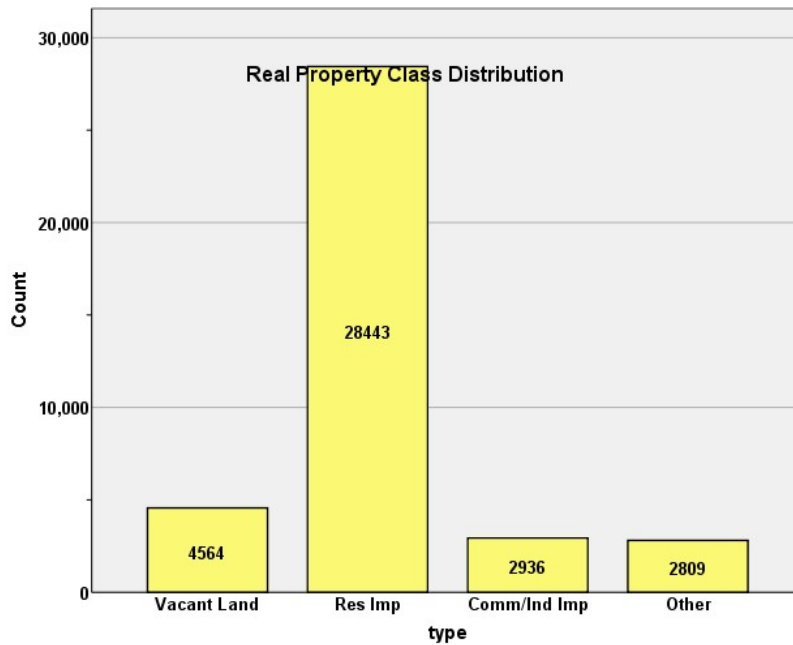
# STATISTICAL APPENDIX



## STATISTICAL COMPLIANCE REPORT FOR EAGLE COUNTY 2021

### I. OVERVIEW

Eagle County is a mountain resort county located in western Colorado. The county has a total of 38,752 real property parcels, according to data submitted by the county assessor's office in 2021. The following provides a breakdown of property classes for this county:



The vacant land class of properties was dominated by residential land. Residential lots (coded 100 and 400) accounted for 39.8% of all vacant land parcels.

For residential improved properties, single family properties accounted for 56.6% of all residential properties. Residential condominiums accounted for 41.8% of all residential improved properties. Based on the large number of residential condominiums in this county, they will be analyzed separately from single family residences in the residential ratio analysis section.

Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial sales accounted for 7.6% of all such properties in this county.

### II. DATA FILES

The following sales analyses were based on the requirements of the 2021 Colorado Property Assessment Study. The data included all 5 property record files as specified by the Auditor.

### III. RESIDENTIAL SALES RESULTS

There were 3,234 qualified residential sales in Eagle County for the 24 month ending June 30, 2020. The sales ratio analysis results were as follows:

**Residential Non-Condo = 1,822**

Median	<b>0.989</b>
Price Related Differential	<b>1.019</b>
Coefficient of Dispersion	<b>6.7</b>

**Residential Condo = 1,200**

Median	<b>0.989</b>
Price Related Differential	<b>1.007</b>
Coefficient of Dispersion	<b>4.3</b>

We next stratified the sale ratio analysis by economic area for residential properties. The results were stratified by residential type (i.e. non-condo and condo) and economic area. The following are the results of this stratification analysis:

**Case Processing Summary**

ResCondo	ECONAREA	Count	Percent
.00	100.00	59	3.2%
	200.00	17	0.9%
	250.00	23	1.3%
	260.00	65	3.6%
	300.00	36	2.0%
	400.00	78	4.3%
	410.00	47	2.6%
	425.00	102	5.6%
	450.00	34	1.9%
	470.00	46	2.5%
	500.00	86	4.7%
	550.00	56	3.1%
	560.00	23	1.3%
	570.00	25	1.4%
	700.00	1	0.1%
	750.00	27	1.5%
	755.00	26	1.4%
	800.00	104	5.7%
	810.00	109	6.0%
	820.00	12	0.7%
	850.00	99	5.4%
	860.00	1	0.1%
	870.00	207	11.4%
	900.00	132	7.3%
	1500.00	45	2.5%
	2800.00	1	0.1%
	2900.00	5	0.3%
	3850.00	1	0.1%
	4100.50	10	0.5%
	4250.50	2	0.1%
	4260.00	1	0.1%

		4260.50	15	0.8%
		4300.50	7	0.4%
		4400.00	7	0.4%
		4400.50	71	3.9%
		4450.50	19	1.0%
		4470.50	2	0.1%
		4500.50	57	3.1%
		4800.50	81	4.5%
		4850.50	18	1.0%
		4900.00	8	0.4%
		4900.10	1	0.1%
		4900.50	53	2.9%
		6000.00	1	0.1%
	Overall		1820	100.0%
	Excluded		2	
	Total		1822	
1.00	ECONAREA	900.00	24	2.0%
		1500.00	36	3.1%
		2900.00	3	0.3%
		4260.00	118	10.1%
		4260.50	1	0.1%
		4400.00	242	20.6%
		4900.00	33	2.8%
		1550.00	1	0.1%
		4100.00	83	7.1%
		4200.00	43	3.7%
		4225.00	67	5.7%
		4250.00	23	2.0%
		4300.00	8	0.7%
		4410.00	62	5.3%
		4450.00	216	18.4%
		4470.00	45	3.8%
		4500.00	93	7.9%
		4800.00	30	2.6%
		4850.00	46	3.9%
	Overall		1174	100.0%
	Excluded		26	
	Total		1200	

### Ratio Statistics for CURRTOT / TASP

ResCondo	Group	Median	Price Related Differential	Coefficient of Dispersion
.00	100.00	.982	1.037	.074
	200.00	.985	1.005	.106
	250.00	.972	1.031	.062
	260.00	.996	1.003	.059
	300.00	.965	1.001	.050
	400.00	.991	1.005	.031
	410.00	.996	1.009	.046
	425.00	.995	1.002	.047
	450.00	.988	1.005	.041
	470.00	.971	1.006	.045
	500.00	.995	.985	.055
	550.00	.992	1.007	.061
	560.00	.935	1.009	.050

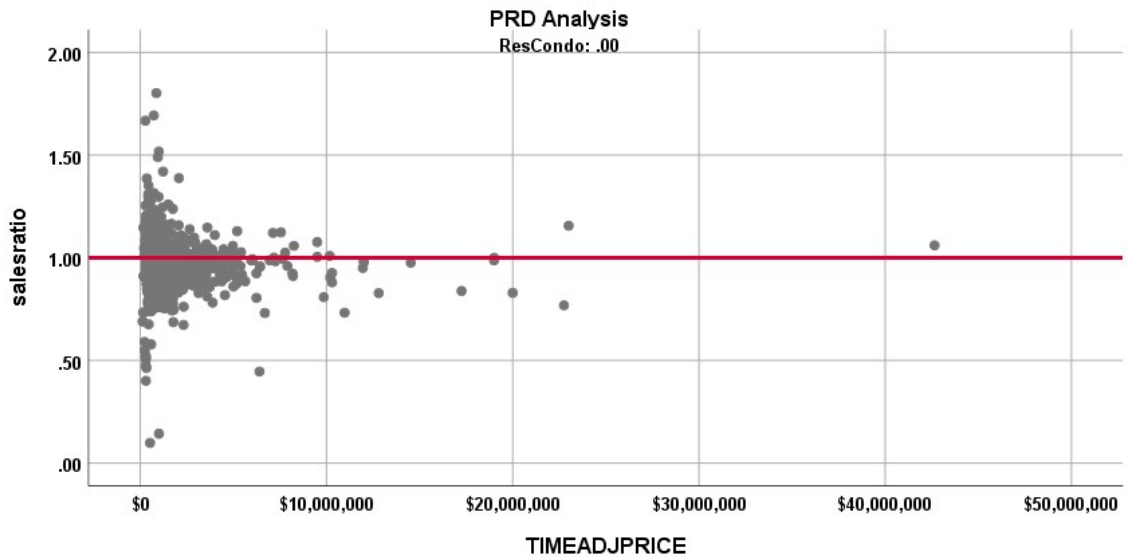
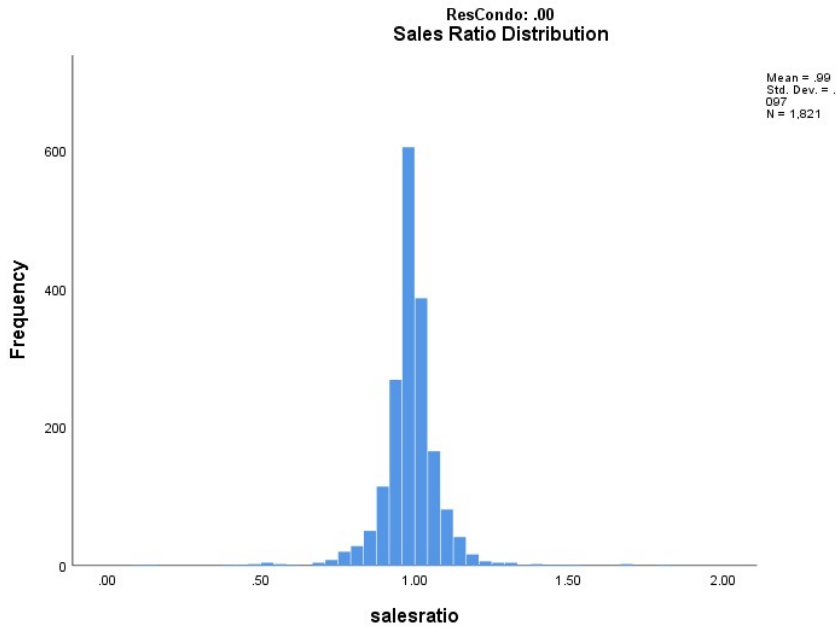
	570.00	.998	1.004	.057
	700.00	.891	1.000	.000
	750.00	.936	1.048	.109
	755.00	.966	.992	.091
	800.00	.986	1.002	.026
	810.00	.990	1.002	.043
	820.00	1.009	1.005	.055
	850.00	.977	.996	.113
	860.00	1.022	1.000	.000
	870.00	.990	1.068	.134
	900.00	.997	1.019	.106
	1500.00	1.023	.988	.076
	2800.00	1.352	1.000	.000
	2900.00	1.000	1.010	.038
	3850.00	.590	1.000	.000
	4100.50	1.000	1.004	.028
	4250.50	1.000	.999	.032
	4260.00	.997	1.000	.000
	4260.50	.973	1.000	.044
	4300.50	.960	.998	.048
	4400.00	.977	.999	.014
	4400.50	.989	1.000	.022
	4450.50	.975	1.002	.035
	4470.50	.989	1.007	.110
	4500.50	.993	1.004	.031
	4800.50	.990	1.001	.020
	4850.50	.998	1.001	.022
	4900.00	1.000	1.008	.054
	4900.10	1.118	1.000	.000
	4900.50	.998	.987	.069
	6000.00	1.130	1.000	.000
	Overall	.989	1.019	.067
1.00	900.00	.955	1.001	.059
	1500.00	1.043	1.001	.025
	2900.00	1.307	1.120	.130
	4260.00	.996	1.002	.042
	4260.50	.962	1.000	.000
	4400.00	.991	.999	.027
	4900.00	.957	.999	.036
	1550.00	1.206	1.000	.000
	4100.00	1.002	1.003	.040
	4200.00	.996	.999	.050
	4225.00	.994	1.001	.030
	4250.00	.994	1.013	.047
	4300.00	.978	1.003	.050
	4410.00	.966	.999	.034
	4450.00	.972	1.005	.048
	4470.00	.981	1.002	.039
	4500.00	.995	1.001	.042
	4800.00	.990	1.000	.020
	4850.00	.994	.998	.033
	Overall	.989	1.007	.042

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 stratification analysis indicated that

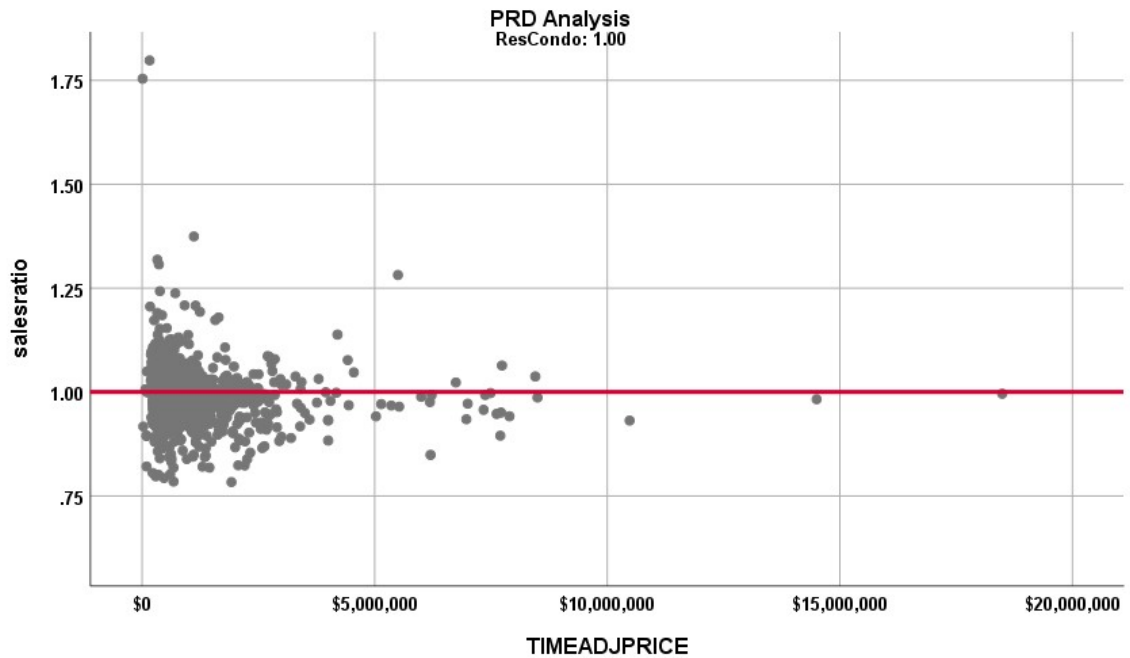
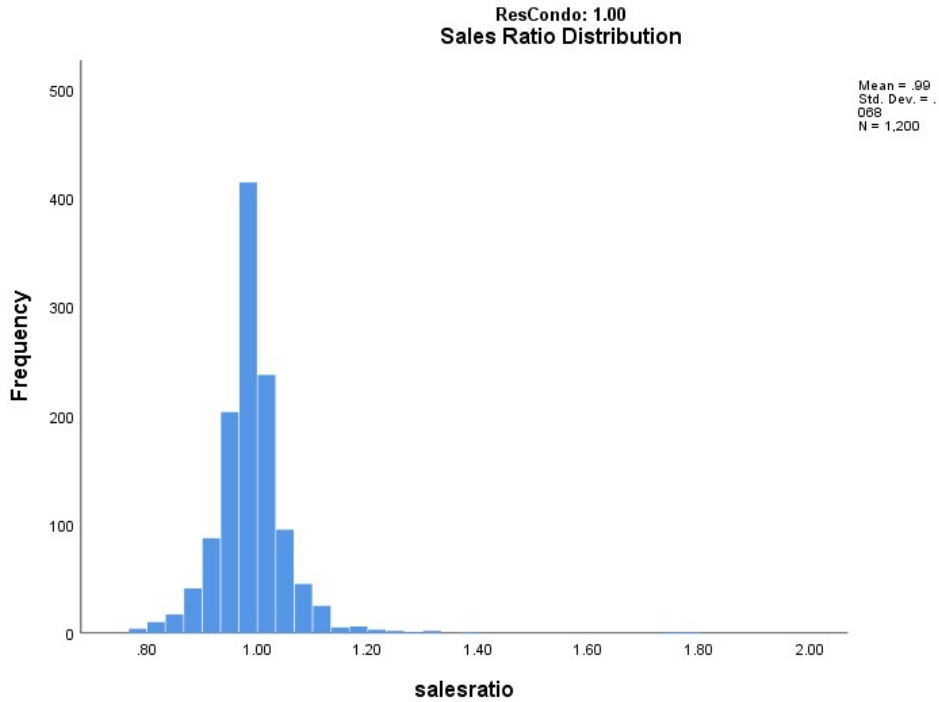
economic areas with at least 20 sales were all in compliance for both residential non-condominiums and for residential condominiums.

The following graphs describe further the sales ratio distribution for these properties:

**RES NON-CONDO**



## RES CONDO



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

## 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>

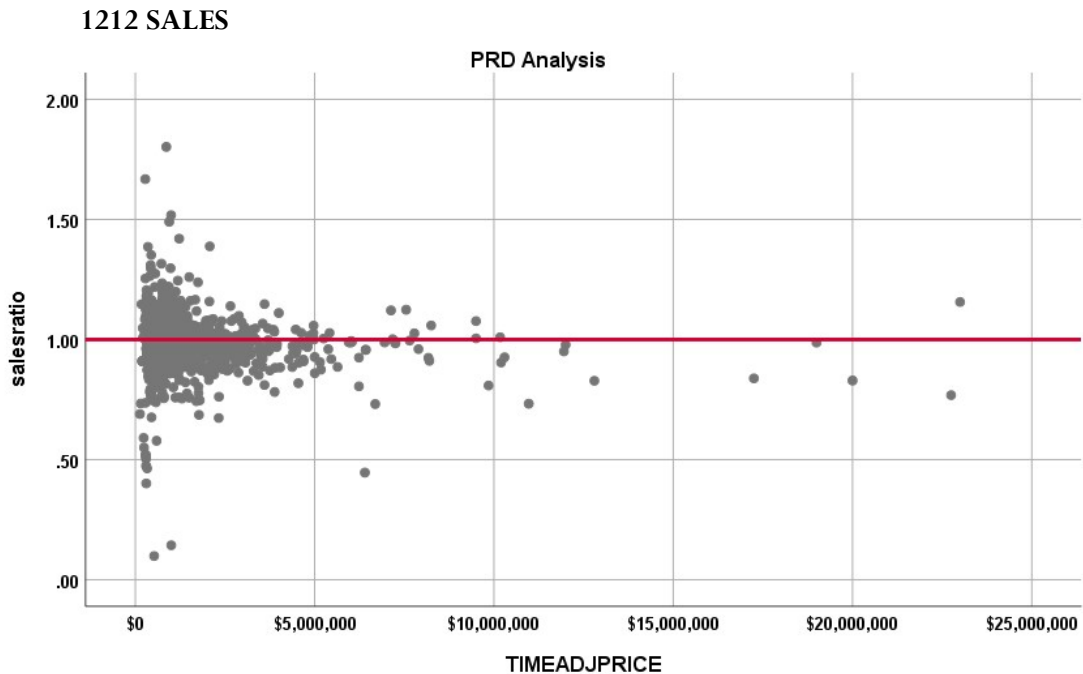
ResCondo	Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
.00	1	(Constant)	.983	.015		67.256	.000
		SalePeriod	.001	.001	.023	.983	.326
1.00	1	(Constant)	.981	.004		263.782	.000
		SalePeriod	.001	.000	.074	2.563	.010

a. Dependent Variable: salesratio

The residential non-condominium and condominium market trend analyses both indicated no significant market trending across the 24-month period used by the assessor.

### 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:



The Price-Related Differential (PRD) for 1212 sales is 1.013, 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<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients Beta		
1	(Constant)	.989	.003		341.192	.000
	CURRTOT	-.00000000143	.000	-.023	-.984	.325

a. Dependent Variable: salesratio

The slope of the line at 0.00000000143 indicates that there is virtually no slope in the regression line, which indicates that sales ratios are similar across the entire sale price array. This indicates no regressivity or progressivity in the residential values assigned by the assessor.

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

**Case Processing Summary**

		Count	Percent
SPRec	LT \$400K	173	9.7%
	\$400K to \$600K	390	21.9%
	\$600K to \$800K	377	21.2%
	\$800K to \$1000K	201	11.3%
	\$1000K to \$3000K	512	28.8%
	\$3000K to \$5000K	81	4.6%
	Over \$5000K	45	2.5%
Overall		1779	100.0%
Excluded		0	
Total		1779	

**Ratio Statistics for CURRTOT / TASP**

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LT \$400K	1.000	.996	.085	15.2%
\$400K to \$600K	.989	1.001	.056	9.4%
\$600K to \$800K	.990	1.000	.049	7.1%
\$800K to \$1000K	.990	1.000	.063	12.2%
\$1000K to \$3000K	.990	1.003	.055	8.0%
\$3000K to \$5000K	.968	1.000	.052	6.8%
Over \$5000K	.960	1.003	.087	12.9%
Overall	.990	1.013	.059	9.7%

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

**Sold/Unsold Analysis**

In terms of the valuation consistency between sold and unsold residential properties, we compared the 2021 median actual value per square foot for 2021 between each group stratified by residential non-condominiums and condominiums, as follows:



**Report**

VALSF

ResCondo	Sold	N	Median	Mean
Residential Non-Condo	UNSOLD	14725	\$408	\$524
	SOLD	1820	\$406	\$528
Residential Condo	UNSOLD	10635	\$555	\$747
	SOLD	1192	\$571	\$692

We applied the same comparison test stratified by economic area. The results indicated some difference between sold and unsold properties, so we next applied the second test, which compares the median change in actual value for valuation year 2018 and valuation year 2020 between sold and unsold residential properties and stratified this analysis for economic areas with at least 25 sales for residential non-condominiums and condominiums, as follows:

**Report**

DIFF

ResCondo	ECONAREA	sold	N	Median	Mean
Residential Non-Condo	100.00	.00	530	1.1231	1.1514
		1.00	58	1.1296	1.4783
		Total	588	1.1240	1.1836
	260.00	.00	694	1.0297	1.0705
		1.00	64	1.0342	1.0698
		Total	758	1.0298	1.0705
	300.00	.00	375	1.1353	1.2077
		1.00	33	1.3311	1.3972
		Total	408	1.1371	1.2231
	400.00	.00	841	1.0705	1.2599
		1.00	78	1.1167	1.2563
		Total	919	1.0711	1.2596
	410.00	.00	412	1.0311	1.1006
		1.00	47	1.0334	1.2847
		Total	459	1.0313	1.1194
	425.00	.00	770	1.0467	1.0419
		1.00	102	1.0510	1.1509
		Total	872	1.0472	1.0547
	450.00	.00	494	.9723	1.0027
		1.00	34	.9879	1.1102
		Total	528	.9735	1.0096
	470.00	.00	421	1.0891	1.1179
		1.00	45	1.1450	1.2971
		Total	466	1.0942	1.1352
	500.00	.00	839	1.1076	1.1574
		1.00	85	1.1525	1.3108
		Total	924	1.1094	1.1715
	550.00	.00	368	1.0939	1.2267
		1.00	55	1.0977	1.1100
		Total	423	1.0945	1.2115
	570.00	.00	139	1.0662	1.1223
		1.00	25	1.1007	1.0906
		Total	164	1.0667	1.1175
	750.00	.00	442	1.1604	1.2435
		1.00	27	1.2186	1.2510
		Total	469	1.1629	1.2440
	755.00	.00	242	1.0047	1.1396

	1.00	26	1.1617	1.1801	
	Total	268	1.0151	1.1435	
800.00	.00	960	1.0671	7.5524	
	1.00	104	1.1008	24.8120	
	Total	1064	1.0682	9.2395	
810.00	.00	631	1.0845	1.2670	
	1.00	109	1.0810	1.1048	
	Total	740	1.0826	1.2431	
850.00	.00	1057	1.0180	1.1419	
	1.00	98	1.0192	3.9356	
	Total	1155	1.0181	1.3790	
870.00	.00	808	1.0292	4.7414	
	1.00	203	1.0629	6.3125	
	Total	1011	1.0330	5.0569	
900.00	.00	1486	1.1240	1.1426	
	1.00	132	1.1298	1.1410	
	Total	1618	1.1249	1.1425	
1500.00	.00	235	1.0929	1.1158	
	1.00	41	1.0898	1.2148	
	Total	276	1.0912	1.1305	
4100.00	.00	37	1.1818	1.1279	
	Total	37	1.1818	1.1279	
4200.00	1.00	1	1.0000	1.0000	
	Total	1	1.0000	1.0000	
4225.00	.00	1	.0000	.0000	
	Total	1	.0000	.0000	
4260.00	.00	24	1.0318	1.0713	
	1.00	1	1.0020	1.0020	
	Total	25	1.0318	1.0685	
4400.00	.00	84	1.0524	1.0756	
	1.00	8	1.2019	1.2961	
	Total	92	1.0539	1.0948	
4400.50	.00	276	1.0615	1.7253	
	1.00	71	1.1337	2.9668	
	Total	347	1.0692	1.9793	
4470.00	1.00	1	1.2500	1.2500	
	Total	1	1.2500	1.2500	
4500.50	.00	338	1.0867	1.1019	
	1.00	57	1.1007	1.1246	
	Total	395	1.0894	1.1051	
4800.00	.00	4	1.1503	1.2115	
	Total	4	1.1503	1.2115	
4800.50	.00	293	1.0678	1.0730	
	1.00	78	1.0890	1.1313	
	Total	371	1.0683	1.0853	
4850.00	.00	3	1.1923	1.1923	
	Total	3	1.1923	1.1923	
4900.00	.00	25	1.1493	2.8398	
	1.00	8	1.1491	3.0809	
	Total	33	1.1493	2.8983	
4900.50	.00	260	1.0481	1.3581	
	1.00	53	1.0481	1.1212	
	Total	313	1.0481	1.3180	
Total	.00	13089	1.0676	1.8560	
	1.00	1644	1.0830	3.5678	
	Total	14733	1.0685	2.0470	
Residential Condo	260.00	.00	3	1.0205	1.0205

	Total	3	1.0205	1.0205
300.00	.00	8	1.0000	1.0000
	Total	8	1.0000	1.0000
400.00	.00	2	1.0747	1.0747
	Total	2	1.0747	1.0747
755.00	.00	5	1.0000	1.0451
	Total	5	1.0000	1.0451
800.00	.00	6	1.0484	1.0487
	Total	6	1.0484	1.0487
850.00	.00	8	1.2593	1.2593
	Total	8	1.2593	1.2593
900.00	.00	34	1.0252	5.6865
	1.00	24	1.0252	27.2286
	Total	58	1.0252	14.6005
1500.00	.00	164	1.1030	1.1251
	1.00	36	1.1232	1.1661
	Total	200	1.1070	1.1324
4100.00	.00	881	1.0616	1.0710
	1.00	83	1.0616	1.0837
	Total	964	1.0616	1.0721
4200.00	.00	1179	1.0298	1.0510
	1.00	42	1.0517	1.0834
	Total	1221	1.0298	1.0521
4225.00	.00	1021	1.0321	1.0432
	1.00	66	1.0519	1.0701
	Total	1087	1.0321	1.0448
4260.00	.00	1170	1.0000	1.0364
	1.00	118	1.0511	1.0889
	Total	1288	1.0000	1.0412
4400.00	.00	2293	1.0531	1.0863
	1.00	241	1.0826	1.1209
	Total	2534	1.0569	1.0896
4410.00	.00	267	1.0406	1.0832
	1.00	39	1.0916	1.1174
	Total	306	1.0406	1.0876
4450.00	.00	1582	1.0264	1.0336
	1.00	216	1.0686	1.0928
	Total	1798	1.0272	1.0407
4470.00	.00	207	1.0000	1.0206
	1.00	44	1.0213	1.0333
	Total	251	1.0000	1.0228
4500.00	.00	693	1.1492	1.1571
	1.00	93	1.1539	1.1712
	Total	786	1.1492	1.1588
4800.00	.00	135	1.1021	1.1088
	1.00	30	1.1024	1.1737
	Total	165	1.1021	1.1206
4850.00	.00	96	1.1910	6.6268
	1.00	46	1.3411	9.3864
	Total	142	1.1910	7.5208
4900.00	.00	242	1.0753	1.1206
	1.00	33	1.0746	1.1258
	Total	275	1.0753	1.1212
Total	.00	9996	1.0450	1.1363
	1.00	1111	1.0896	2.0147
	Total	11107	1.0505	1.2242

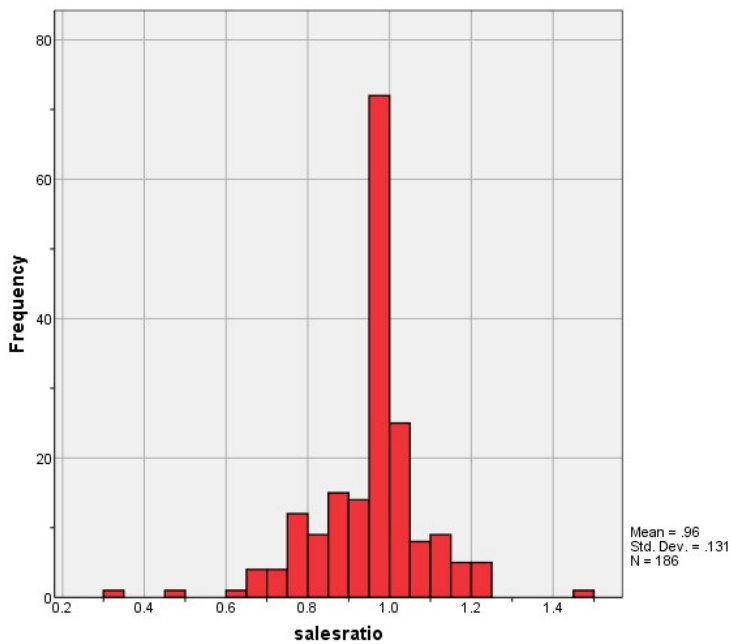
The above results indicate that sold and unsold residential properties were valued in a consistent manner overall.

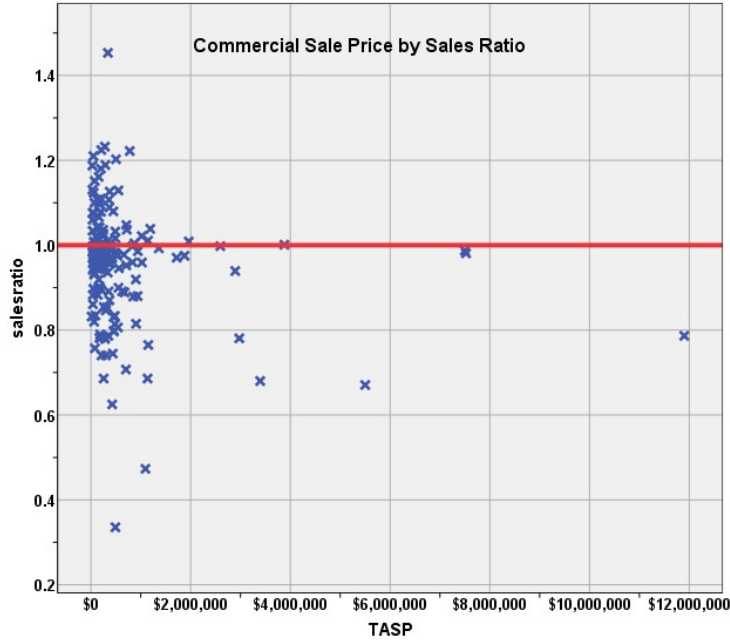
#### IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

There were 187 qualified commercial and industrial sales in Eagle County for the 24 month ending June 30, 2020. Using IAAO standards, one sale was trimmed. The sales ratio analysis results were as follows:

Median	<b>0.973</b>
Price Related Differential	<b>1.054</b>
Coefficient of Dispersion	<b>8.9</b>

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





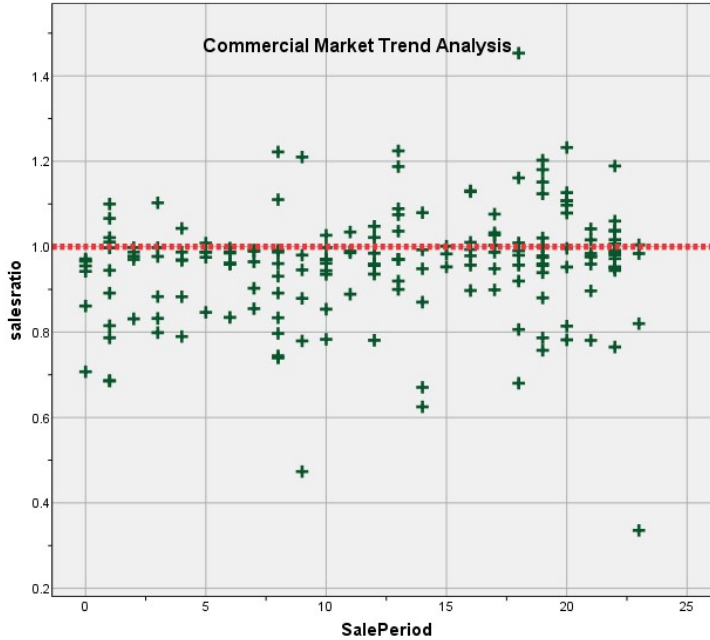
### Commercial Market Trend Analysis

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 B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.920	.019		48.335	.000
	SalePeriod	.003	.001	.164	2.249	.026

a. Dependent Variable: salesratio



The market trend results indicated no significant market trend. We concluded that the assessor adequately considered market trending in their valuation of commercial/industrial properties.

### Sold/Unsold Analysis

For the sold/unsold analysis of commercial properties, we compared the median change in actual value for valuation year 2018 and valuation 2020 between sold and unsold commercial/industrial properties to determine if the assessor was valuing each group consistently, as follows:

#### Report

DIFF			Median	Mean
sold	N			
UNSOLD	2746		.9763	.9860
SOLD	166		1.0285	1.0758

We also stratified this analysis by subclass, as follows:

#### Report

DIFF			Median	Mean
ABSTRIMP	sold	N		
2212.00	UNSOLD	61	.8922	.9663
	SOLD	5	.9723	1.2884
2230.00	UNSOLD	71	.9366	1.0036
	SOLD	2	1.3879	1.3879
2235.00	UNSOLD	119	1.0690	1.1544
	SOLD	3	1.0210	1.0238
2245.00	UNSOLD	2294	.9760	.9772
	SOLD	114	1.0356	1.0586

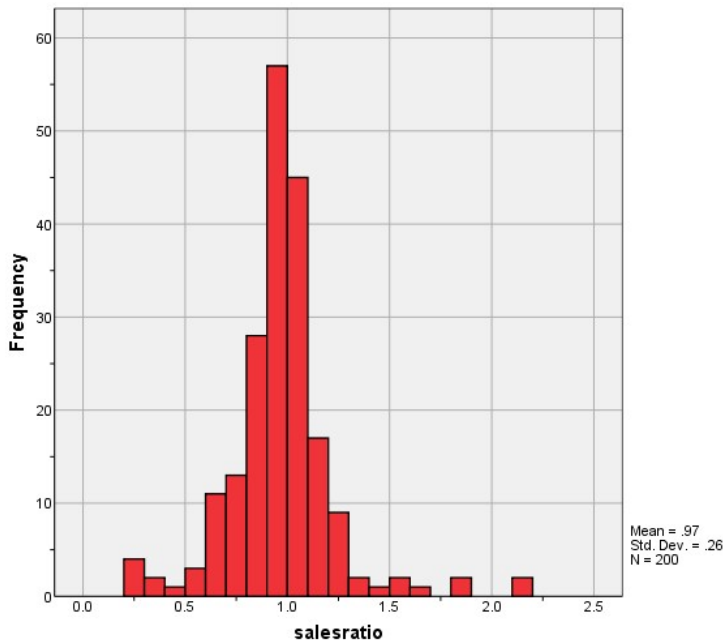
Based on the results of these comparisons, we concluded that the Eagle County assessor was valuing sold and unsold commercial properties consistently.

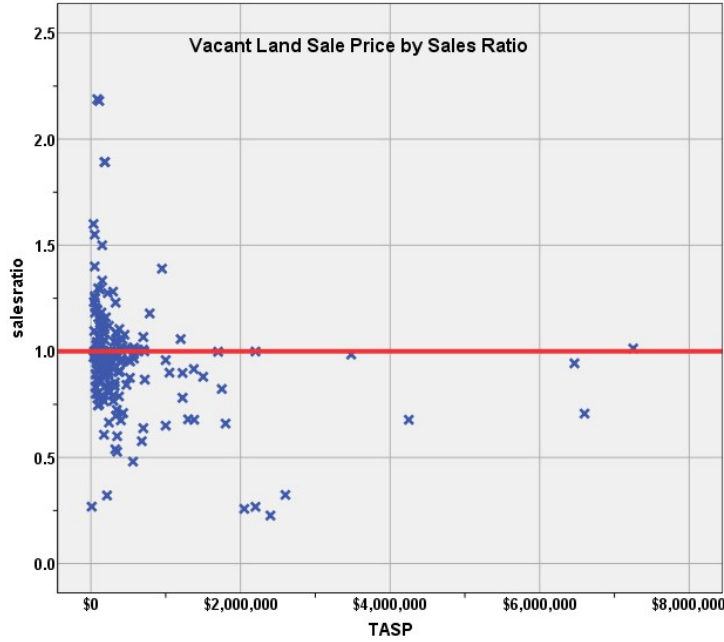
## V. VACANT LAND SALE RESULTS

There were 204 qualified vacant land sales in Eagle County for the 24 month period ending June 30, 2020. We trimmed 4 sales using IAAO standards, resulting in 200 qualified vacant land sales. The sales ratio analysis results were as follows:

Median Sales Ratio	<b>0.968</b>
Price Related Differential	<b>1.137</b>
Coefficient of Dispersion	<b>16.7</b>

The above table indicates that the Eagle 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

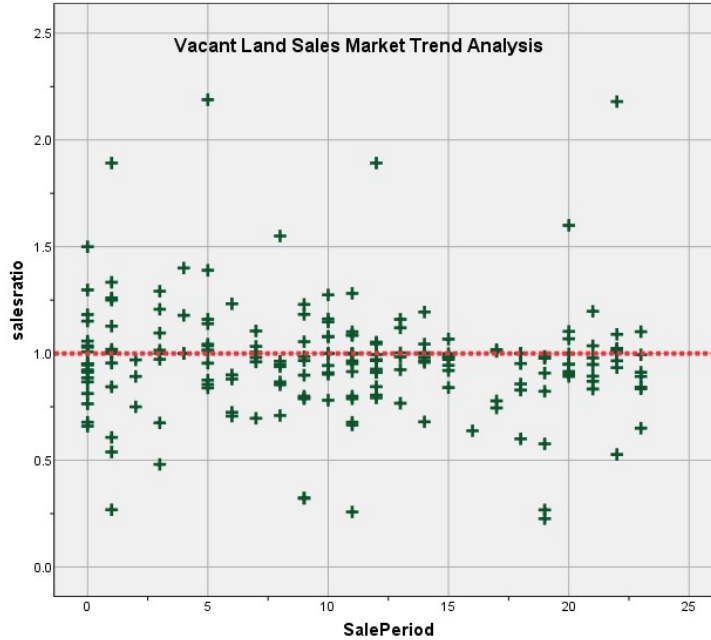
The assessor did not apply any market trend adjustments to the vacant land dataset. The vacant land sales were analyzed, examining the sale ratios across the 24-month sale period with the following results:

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

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.996	.033		30.438	.000
	SalePeriod	-.003	.003	-.079	-1.119	.265

a. Dependent Variable: salesratio





The market trend results indicated no statistically significant trend. We concluded that the assessor has adequately considered market tending in Eagle County’s vacant land valuation for 2021.

### Sold/Unsold Analysis

We compared the median change in actual value between valuation year 2018 and valuation year 2020 for vacant land properties to determine if sold and unsold properties were valued consistently.

#### Report

DIFF

	N	Median	Mean
UNSOLD	2780	1.0000	1.0396
SOLD	188	1.0769	1.1222

We next stratified this analysis by subdivisions with at least 3 sales, as follows:

#### Report

DIFF

SUBDIVNO	sold	N	Median	Mean
943	UNSOLD	11	1.0000	1.0090
	SOLD	3	1.0000	1.0000
1187	UNSOLD	16	1.1600	1.1808
	SOLD	3	1.1600	1.1772
1294	UNSOLD	13	1.0769	1.0710
	SOLD	5	1.0769	1.0769
1351	UNSOLD	50	1.2500	1.2556
	SOLD	3	1.2353	1.1988
1361	UNSOLD	19	1.0769	1.0769
	SOLD	5	1.0769	1.0769
1421	UNSOLD	16	1.0036	1.0266
	SOLD	3	.7168	.7646

1583	UNSOLD	33	1.0000	1.0001
	SOLD	6	.8238	.8181
1626	UNSOLD	51	1.0000	1.0000
	SOLD	3	1.0000	1.0000
1676	UNSOLD	12	1.0545	1.0751
	SOLD	6	1.0440	1.0610
1680	UNSOLD	23	1.0000	1.0147
	SOLD	3	1.0000	.9645
1709	UNSOLD	9	1.2211	1.2276
	SOLD	4	1.0827	1.0620
1768	UNSOLD	16	1.1600	1.1543
	SOLD	3	1.0956	1.1034
1870	UNSOLD	11	1.1600	1.1822
	SOLD	3	1.1600	1.1067
1936	UNSOLD	96	1.0175	1.0161
	SOLD	4	1.0175	1.0175
1959	UNSOLD	19	1.1600	1.2507
	SOLD	8	1.1096	1.1229
2015	UNSOLD	32	1.2104	1.1828
	SOLD	6	1.1208	1.1156

The above results indicated that sold and unsold vacant land properties were valued consistently when stratified by subdivision with significant number of sales.

## V. CONCLUSIONS

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

## STATISTICAL ABSTRACT

### Residential

Ratio Statistics for CURRTOT / TASP													
ResCondo	Mean	95% Confidence Interval for Mean		Median	95% Confidence Interval for Median			Weighted Mean	95% Confidence Interval for Weighted Mean		Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Mean Centered
		Lower Bound	Upper Bound		Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound			
.00	.995	.979	1.010	.989	.986	.992	95.4%	.977	.968	.986	1.019	.067	33.9%
1.00	.989	.986	.993	.989	.986	.991	95.4%	.982	.977	.988	1.007	.043	6.9%

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.

**0 = Residential Non-Condominiums, 1 = Residential Condominiums**

### Commercial/Industrial

Ratio Statistics for CURRTOT / TASP													
Mean	95% Confidence Interval for Mean		Median	95% Confidence Interval for Median			Weighted Mean	95% Confidence Interval for Weighted Mean		Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Mean Centered	
	Lower Bound	Upper Bound		Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound				
.957	.938	.976	.973	.962	.984	95.3%	.908	.863	.954	1.054	.089	13.7%	

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.

### Vacant Land

Ratio Statistics for CURRLND / TASP													
Mean	95% Confidence Interval for Mean		Median	95% Confidence Interval for Median			Weighted Mean	95% Confidence Interval for Weighted Mean		Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Mean Centered	
	Lower Bound	Upper Bound		Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound				
.966	.930	1.002	.968	.949	.995	96.0%	.850	.780	.919	1.137	.167	26.9%	

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

**Residential Median Ratio Stratification**

**Sub Class**

**Case Processing Summary**

		Count	Percent
ABSTRIMP	.00	10	0.3%
	1212.00	1777	58.8%
	1215.00	38	1.3%
	1220.00	1	0.0%
	1225.00	3	0.1%
	1230.00	1192	39.4%
	2777.00	1	0.0%
Overall		3022	100.0%
Excluded		0	
Total		3022	

**Ratio Statistics for CURRTOT / TASP**

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
.00	.895	1.985	.286	46.5%
1212.00	.990	1.019	.065	34.4%
1215.00	.974	1.024	.071	14.0%
1220.00	.801	1.000	.000	.
1225.00	1.061	1.014	.041	6.1%
1230.00	.989	1.007	.042	6.5%
2777.00	.446	1.000	.000	.
Overall	.989	1.014	.057	26.9%

**Age**

**Case Processing Summary**

		Count	Percent
AgeRec	.00	10	0.3%
	Over 100	16	0.5%
	75 to 100	11	0.4%
	50 to 75	83	2.7%
	25 to 50	1186	39.2%
	5 to 25	1358	44.9%
	5 or Newer	358	11.8%
Overall		3022	100.0%
Excluded		0	
Total		3022	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
.00	.895	1.985	.286	46.5%
Over 100	.932	1.007	.106	12.6%
75 to 100	.976	1.010	.057	8.9%
50 to 75	.986	1.008	.050	7.8%
25 to 50	.989	1.007	.051	8.5%
5 to 25	.990	1.016	.051	8.3%
5 or Newer	.987	1.037	.094	74.5%
Overall	.989	1.014	.057	26.9%

### Improved Area

#### Case Processing Summary

	Count	Percent
ImpSFRec	10	0.3%
.00		
LE 500 sf	37	1.2%
500 to 1,000 sf	470	15.6%
1,000 to 1,500 sf	787	26.0%
1,500 to 2,000 sf	710	23.5%
2,000 to 3,000 sf	669	22.1%
3,000 sf or Higher	339	11.2%
Overall	3022	100.0%
Excluded	0	
Total	3022	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
.00	.895	1.985	.286	46.5%
LE 500 sf	.958	1.003	.055	7.7%
500 to 1,000 sf	.989	1.003	.052	9.3%
1,000 to 1,500 sf	.988	1.006	.047	7.2%
1,500 to 2,000 sf	.988	1.009	.050	8.2%
2,000 to 3,000 sf	.992	1.039	.076	54.5%
3,000 sf or Higher	.991	1.013	.062	10.4%
Overall	.989	1.014	.057	26.9%

## Commercial Median Ratio Stratification

### Sale Price

#### Case Processing Summary

		Count	Percent
SPRec	LT \$25K	1	0.5%
	\$25K to \$50K	17	9.1%
	\$50K to \$100K	20	10.8%
	\$100K to \$150K	11	5.9%
	\$150K to \$200K	24	12.9%
	\$200K to \$300K	37	19.9%
	\$300K to \$500K	34	18.3%
	\$500K to \$750K	13	7.0%
	\$750K to \$1,000K	9	4.8%
	Over \$1,000K	20	10.8%
Overall		186	100.0%
Excluded		0	
Total		186	

#### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LT \$25K	.832	1.000	.000	.
\$25K to \$50K	.984	1.004	.072	10.4%
\$50K to \$100K	.990	1.002	.068	9.9%
\$100K to \$150K	.976	1.002	.044	6.4%
\$150K to \$200K	.987	1.000	.083	11.1%
\$200K to \$300K	.969	1.001	.067	11.3%
\$300K to \$500K	.968	1.008	.123	19.0%
\$500K to \$750K	.953	1.004	.099	13.7%
\$750K to \$1,000K	.960	1.004	.083	12.1%
Over \$1,000K	.973	1.011	.118	18.8%
Overall	.973	1.054	.089	13.6%

## Sub Class

### Case Processing Summary

		Count	Percent
ABSTRIMP	.00	20	10.8%
	1230.00	10	5.4%
	1712.00	3	1.6%
	1716.00	1	0.5%
	1723.50	1	0.5%
	1737.50	6	3.2%
	2212.00	6	3.2%
	2220.00	2	1.1%
	2230.00	4	2.2%
	2235.00	4	2.2%
	2240.00	1	0.5%
	2245.00	128	68.8%
Overall		186	100.0%
Excluded		0	
Total		186	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
.00	.996	1.003	.062	9.8%
1230.00	.999	.996	.042	8.3%
1712.00	.953	.944	.061	11.1%
1716.00	.889	1.000	.000	.
1723.50	.879	1.000	.000	.
1737.50	.988	.991	.087	12.9%
2212.00	.863	1.141	.203	32.6%
2220.00	1.041	1.049	.155	21.9%
2230.00	.683	.971	.186	30.4%
2235.00	.689	.971	.268	41.7%
2240.00	1.022	1.000	.000	.
2245.00	.973	1.010	.076	11.1%
Overall	.973	1.054	.089	13.6%

## Age

### Case Processing Summary

		Count	Percent
AgeRec	.00	20	10.8%
	75 to 100	1	0.5%
	50 to 75	7	3.8%
	25 to 50	42	22.6%
	5 to 25	93	50.0%
	5 or Newer	23	12.4%
Overall		186	100.0%
Excluded		0	
Total		186	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
.00	.996	1.003	.062	9.8%
75 to 100	.783	1.000	.000	.
50 to 75	.765	.968	.161	24.6%
25 to 50	.979	1.070	.095	14.3%
5 to 25	.970	1.050	.087	12.8%
5 or Newer	.979	1.054	.076	16.7%
Overall	.973	1.054	.089	13.6%

### Improved Area

#### Case Processing Summary

	Count	Percent
ImpSFRec	20	10.8%
.00		
LE 500 sf	27	14.5%
500 to 1,000 sf	48	25.8%
1,000 to 1,500 sf	36	19.4%
1,500 to 2,000 sf	14	7.5%
2,000 to 3,000 sf	17	9.1%
3,000 sf or Higher	24	12.9%
Overall	186	100.0%
Excluded	0	
Total	186	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
.00	.996	1.003	.062	9.8%
LE 500 sf	.970	1.137	.103	14.2%
500 to 1,000 sf	.970	1.009	.078	11.1%
1,000 to 1,500 sf	.980	1.007	.057	9.1%
1,500 to 2,000 sf	.971	1.013	.066	9.6%
2,000 to 3,000 sf	.960	1.027	.143	21.5%
3,000 sf or Higher	.964	1.039	.136	20.3%
Overall	.973	1.054	.089	13.6%

### Vacant Land Median Ratio Stratification

#### Sale Price

#### Case Processing Summary

	Count	Percent
SFRec		
LT \$25K	1	0.5%
\$25K to \$50K	12	6.0%
\$50K to \$100K	33	16.5%
\$100K to \$150K	31	15.5%
\$150K to \$200K	25	12.5%
\$200K to \$300K	26	13.0%
\$300K to \$500K	32	16.0%



\$500K to \$750K	15	7.5%
\$750K to \$1,000K	4	2.0%
Over \$1,000K	21	10.5%
Overall	200	100.0%
Excluded	0	
Total	200	

### Ratio Statistics for CURRLND / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LT \$25K	.268	1.000	.000	.
\$25K to \$50K	1.048	1.004	.173	25.4%
\$50K to \$100K	.979	.997	.151	26.4%
\$100K to \$150K	1.004	1.002	.148	26.7%
\$150K to \$200K	.945	.998	.173	31.8%
\$200K to \$300K	.952	.998	.122	19.5%
\$300K to \$500K	.951	.996	.142	18.9%
\$500K to \$750K	.986	1.001	.119	20.7%
\$750K to \$1,000K	1.069	1.012	.224	29.7%
Over \$1,000K	.823	.975	.251	33.9%
Overall	.968	1.137	.167	26.9%

### Sub Class

### Case Processing Summary

	Count	Percent
ABSTRLND		
100.00	63	31.5%
200.00	20	10.0%
400.00	55	27.5%
510.00	1	0.5%
520.00	3	1.5%
530.00	1	0.5%
550.00	5	2.5%
560.00	1	0.5%
1112.00	44	22.0%
1115.00	2	1.0%
1125.00	1	0.5%
1618.50	1	0.5%
2130.00	1	0.5%
2135.00	2	1.0%
Overall	200	100.0%
Excluded	0	
Total	200	

### Ratio Statistics for CURRLND / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
100.00	.973	1.064	.176	29.6%
200.00	.951	1.224	.259	43.4%
400.00	1.000	1.102	.129	18.2%
510.00	.268	1.000	.000	.
520.00	.527	1.346	.236	35.5%
530.00	1.500	1.000	.000	.
550.00	.920	1.169	.088	15.6%
560.00	.660	1.000	.000	.
1112.00	.967	1.024	.103	14.8%
1115.00	.818	.898	.221	31.2%
1125.00	.943	1.000	.000	.
1618.50	.480	1.000	.000	.
2130.00	.577	1.000	.000	.
2135.00	.858	.995	.020	2.9%
Overall	.968	1.137	.167	26.9%