2023
GRAND COUNTY
PROPERTY ASSESSMENT
STUDY

EastWest
ECONOMETRICS

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
East West Econometrics – Audit Division

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INTRODUCTION

Colorado

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

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

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

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

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

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

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

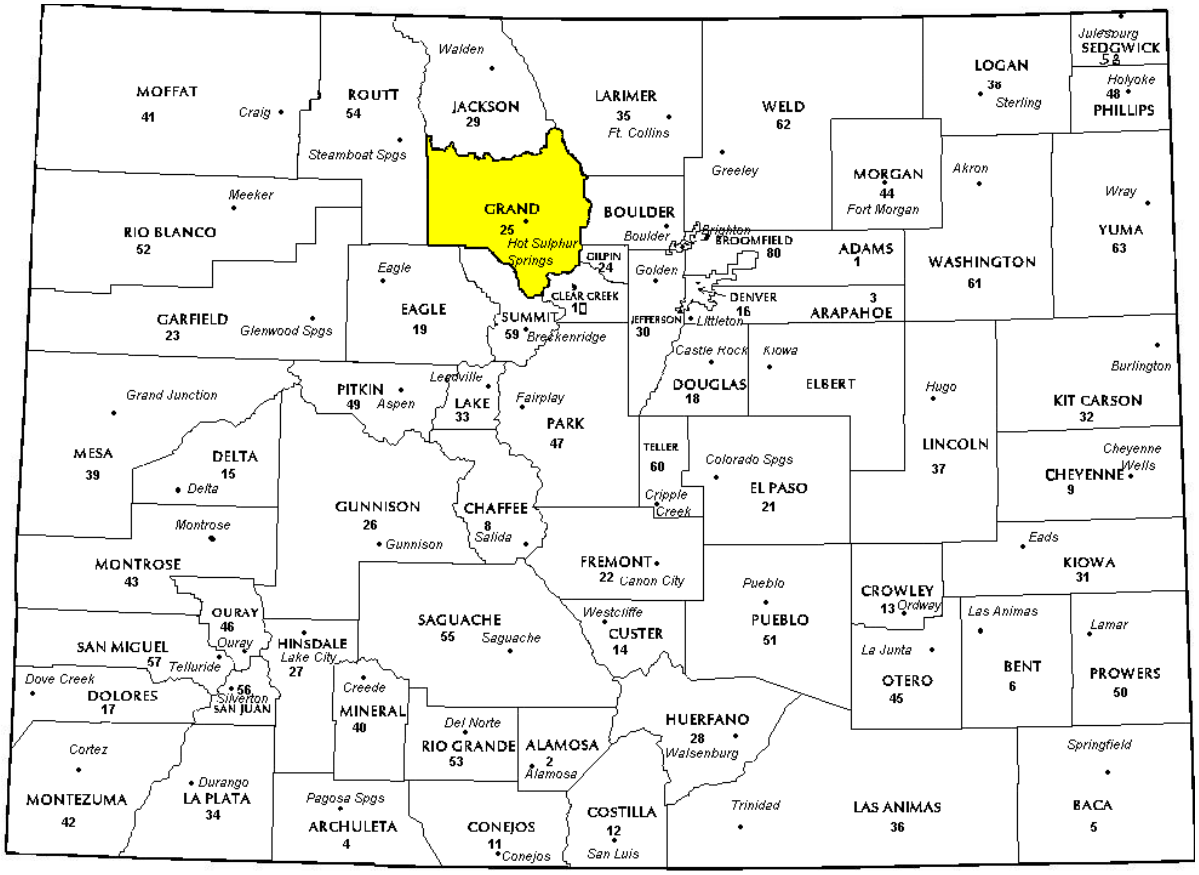
Statistical analysis is performed on vacant land, residential properties, commercial industrial properties, agricultural land, and personal property. The statistical study results are compared with State Board of Equalization compliance requirements and the manuals published by the State Property Tax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

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

Regional / Historical Sketch of Grand County

Regional Information

Grand 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

Grand County has approximately 1,846.3 square miles and an estimated population of approximately 15,734 people with 8.0 people per square mile, according to the U.S. Census Bureau's 2020 estimated census data. This represents a 6.0 percent change from April 1, 2010 to July 1, 2019.

When Grand County was created on February 2, 1874 it was carved out of Summit County and contained land to the western and northern borders of the state, which is now in present day Moffat County and Routt County. It was named after Grand Lake and the Grand River, an old name for the Colorado River, which has its headwaters in the county. On January 29, 1877 Routt County was created and Grand County shrunk down to its current western boundary. When valuable minerals were found in North Park, Grand County claimed the area as part of its county, a claim Larimer County also held. It took a decision by the Colorado Supreme Court in 1886 to declare North Park part of Larimer County, setting Grand County's northern boundary.

Grand Lake is the deepest and largest natural lake in Colorado and the area attracts an impressive diversity of wildlife. Prehistoric peoples, and later Native American Ute, Arapaho and Cheyenne tribes made annual pilgrimages to the area each summer to fish, hunt and reap the bounty of nature's harvest. It wasn't long before trappers, traders and explorers followed.

In the mid-1800s, European hunting parties discovered Grand Lake. Some hunters constructed summer lodges and hired local mountain men as guides. The area was permanently settled in 1867. Grand Lake Village's first full-time, year-round residents were an intriguing mix of miners (who participated in a brief mining boom) and hunting guides. In the late 1870s, silver was discovered in the rivers and mountains near Grand Lake. Prospectors bought supplies in local stores and established small mountain mining communities. Almost overnight, the town of Grand Lake transformed into a bustling economy.

Winter Park Resort is Colorado's longest continually operated ski resort featuring over 3,000 acres of award-winning terrain including groomers, terrain parks, bumps, steeps, trees, and most definitely deeps. Winter Park Resort averages 329 inches of snow, much in part to its ideal location amidst the Rocky Mountains. Just 67 miles northwest of Denver, Winter Park Resort is the closest major destination resort to Denver International Airport.
(Wikipedia.org, www.grandlakechamber.com & http://www.winterparkresort.com/)

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 Grand County are:

Grand County Ratio Grid					
Property Class	Number of Qualified Sales	Unweighted Median Ratio	Price Related Differential	Coefficient of Dispersion	Time Trend Analysis
Commercial/Industrial	69	0.992	0.989	17.8	Compliant
Residential Condo	861	0.990	1.003	6.7	Compliant
Residential	1,422	0.996	1.014	10.3	Compliant
Vacant Land	1,061	0.993	1.058	15.9	Compliant

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

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

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

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

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

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

Sold/Unsold Results	
Property Class	**Results**
Commercial/Industrial	Compliant
Residential Condos	Compliant
Residential	Compliant
Vacant Land	Compliant

Conclusions

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

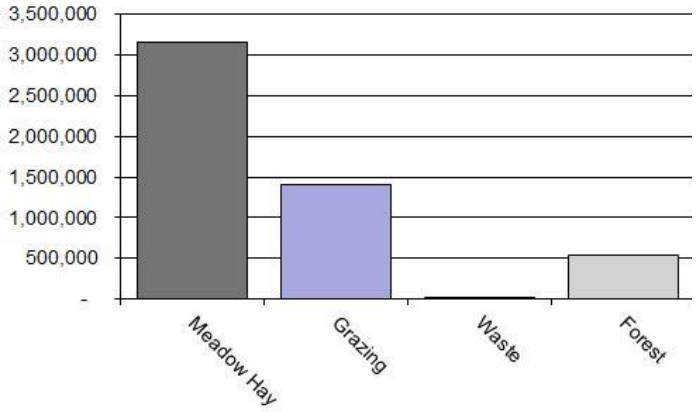
Recommendations

None

AGRICULTURAL LAND STUDY

Acres By Subclass

Value By Subclass



Agricultural Land

County records were reviewed to determine major land categories such as irrigated farm, dry farm, meadow hay, grazing and other lands. In addition, county records were reviewed in order to determine if: Aerial photographs are available and are being used; soil conservation guidelines have been used to classify lands based on productivity; crop rotations have been documented; typical commodities and yields have been determined; orchard lands have been properly classified and valued; expenses reflect a ten year average and are typical landlord expenses; grazing lands have been properly classified and valued; the number of acres in each class and subclass have been determined; the capitalization rate was properly applied. Also, documentation was required for the valuation methods used and any locally developed yields, carrying capacities, and expenses. Records were also checked to ensure that the commodity prices and expenses, furnished by the Property Tax Administrator (PTA), were applied properly. (See Assessor Reference Library Volume 3 Chapter 5.)

Conclusions

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

Grand County Agricultural Land Ratio Grid						
Abstract Code	Land Class	Number Of Acres	County Value Per Acre	County Assessed Total Value	WRA Total Value	Ratio
4137	Meadow Hay	38,438	82.18	3,158,925	3,158,925	1.00
4147	Grazing	198,529	7.04	1,397,867	1,397,867	1.00
4177	Forest	17,492	31.25	546,592	546,592	1.00
4167	Waste	10,722	2.19	23,461	23,461	1.00
Total/Avg		**265,181**	**19.33**	**5,126,846**	**5,126,846**	**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

Grand County has substantially complied with the procedures provided by the Division of Property Taxation for the valuation of agricultural outbuildings.

Recommendations

None

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

Grand 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

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

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

Recommendations

None

SALES VERIFICATION

According to Colorado Revised Statutes:

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

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

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

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

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

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

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

EWE reviewed the sales verification procedures in 2023 for Grand County. This study was conducted by checking selected sales from the master sales list for the current valuation period. Specifically EWE selected 31 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.

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

Conclusions

Grand 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

None

Economic Area Review and Evaluation

Methodology

Grand County has submitted a written narrative describing the economic areas that make up the county's market areas. Grand 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 Grand County has adequately identified homogeneous economic areas comprised of smaller neighborhoods. Each economic area defined is equally subject to a set of economic forces that impact the value of the properties within that geographic area and this has been adequately addressed. Each economic area defined adequately delineates an area that will give "similar values for similar properties in similar areas."

Recommendations

None

NATURAL RESOURCES

Earth and Stone Products

Methodology

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

Conclusions

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

Recommendations

None

Producing Mines

Methodology

Colorado Revised Statutes (CRS) Article 39, Section 6, and the Assessor's Reference Library (ARL), Volume 3 are the basis for valuing producing mine property. The gross value of the ore extracted during the preceding year is determined. All costs of treatment, reduction, transportation and sale are deducted to estimate gross proceeds. The costs of extraction are deducted from the gross proceeds to estimate net proceeds.

The current value for assessment is determined by determining if 25% of the gross proceeds or 100% of the net proceeds is greater, then applying that number as the valuation for assessment.

Conclusions

The County valued the producing mine production using acceptable appraisal procedures.

Recommendations

None

VACANT LAND

Subdivision Discounting

Subdivisions were reviewed in 2023 in Grand 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

Grand 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.

Grand 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

Grand 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

Grand 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.

Grand 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.

Grand 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
- Accounts with greater than 10% change
- Incomplete or inconsistent declarations
- Accounts with omitted property
- Same business type or use

- Businesses with no deletions or additions for 2 or more years
- Non-filing Accounts - Best Information Available
- Accounts close to the $52,000 actual value exemption status
- Lowest or highest quartile of value per square foot
- Accounts protested with substantial disagreement

Conclusions

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

Recommendations

None

East West Econometrics Auditor Staff

Harry J. Fuller, *Audit Project Manager*

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Steve Kane, *Audit Statistician*

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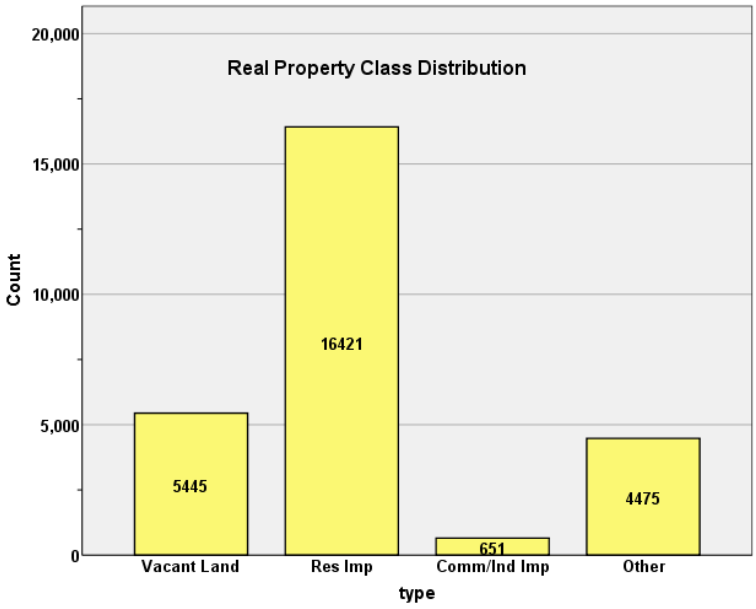
STATISTICAL APPENDIX

STATISTICAL COMPLIANCE REPORT
FOR GRAND COUNTY
2023

I. OVERVIEW

Grand County is a mountain resort located in western Colorado. The county has a total of 26,992 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 80.8% of all vacant land parcels.

For residential improved properties, single family properties accounted for 66.8% of all residential properties. Residential condominiums accounted for 31.3% of all residential improved properties. Based on the guidelines for the state audit statistical compliance analysis, we will analyze residential condominiums separately.

Commercial and industrial properties represented a much smaller proportion of property classes in compariso Commercial/industrial sales accounted for 2.4% 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 Grand 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 1,961 qualified residential sales in the 24-month sale period ending June 30, 2022. The following analysis separated residential condominiums from other residential property types:

Residential Non-Condominiums (1,422 Sales)

Median	**0.996**
Price Related Differential	**1.014**
Coefficient of Dispersion	**10.3**

Residential Condominiums (861 Sales)

Median	**0.990**
Price Related Differential	**1.003**
Coefficient of Dispersion	**6.7**

We next stratified the sale ratio analysis by economic area and neighborhood. The minimum count for the neighborhood analysis was 15 sales. The following are the results of this stratification analysis:

Economic Area – Non Res Condos

Case Processing Summary

		Count	Percent
ECONAREA	1	536	37.7%
	2	264	18.6%
	3	103	7.2%
	4	307	21.6%
	5	37	2.6%
	6	176	12.4%
Overall		1423	100.0%
Excluded		860	
Total		2283	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
1	.994	1.013	.086
2	.995	1.010	.094
3	.996	1.019	.116
4	1.004	1.013	.116
5	.966	1.003	.109
6	.998	1.012	.136
Overall	.996	1.014	.103

Neighborhood – Non Res Condos

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
119400.0	.994	1.028	.136
149025.0	.998	1.012	.111
149027.0	1.002	1.001	.040
224044.0	.995	1.008	.081
224405.0	.999	1.007	.105
247033.0	.992	1.019	.139
248255.0	.990	1.002	.056
248326.0	.990	.994	.100
453101.0	.996	1.009	.139
456052.0	.989	1.016	.140
612131.0	.998	1.051	.153
614130.0	1.006	1.022	.140
615144.0	.998	1.018	.168
615145.0	1.004	1.004	.088
Overall	.998	1.013	.118

Economic Area – Res Condos

Case Processing Summary

		Count	Percent
Ecomonic Area	1	529	65.1%
	2	196	24.1%
	3	8	1.0%
	4	80	9.8%
Overall		813	100.0%
Excluded		1470	
Total		2283	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
1	.994	1.003	.068
2	.991	1.006	.066
3	.982	1.004	.055
4	.965	1.006	.057
Overall	.990	1.003	.067

NBHD – Res Condos

Case Processing Summary

		Count	Percent
NBHDCONDO	132800.00	19	11.6%
	132801.00	19	11.6%
	133521.00	17	10.4%
	134590.00	19	11.6%
	168571.00	15	9.1%
	248534.00	27	16.5%
	268651.13	17	10.4%
	284510.00	31	18.9%
Overall		164	100.0%

Excluded	48	
Total	212	

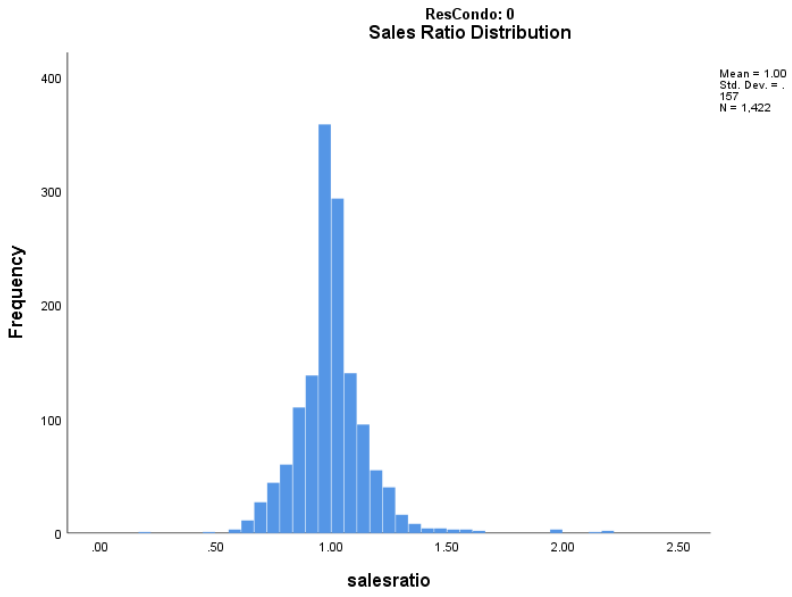
Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
132800.00	.994	1.001	.045
132801.00	1.007	1.006	.074
133521.00	.969	1.009	.079
134590.00	1.003	1.003	.049
168571.00	1.013	1.004	.050
248534.00	.996	1.016	.094
268651.13	.992	1.004	.059
284510.00	1.001	1.005	.065
Overall	.997	1.004	.067

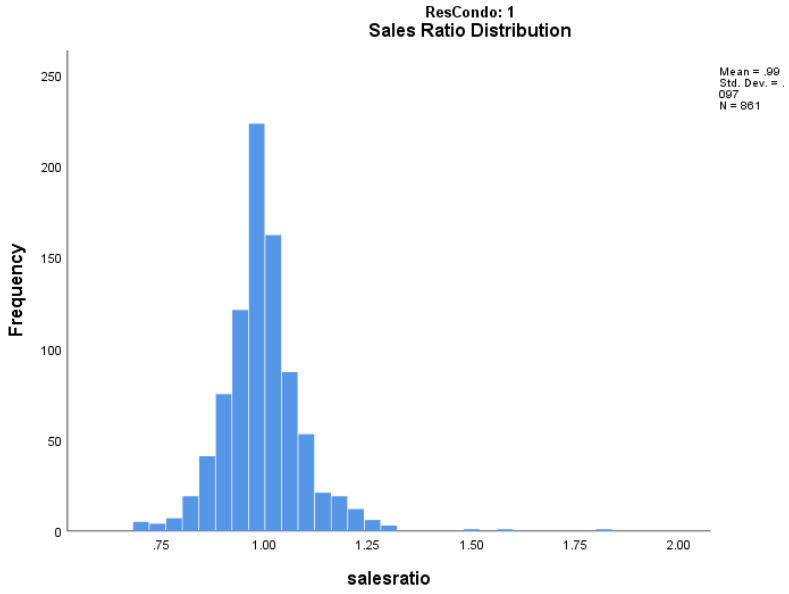
Overall, all economic areas and neighborhoods were in compliance.

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

Residential Non-Condominiums



Residential Condominiums

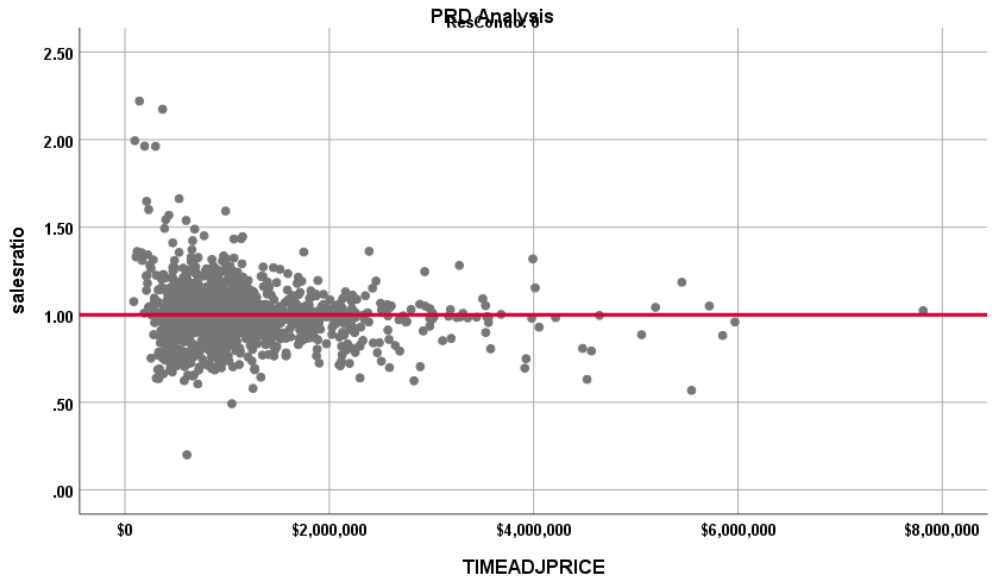


The above graphs indicate that the distribution of the sale ratios was within state mandated limits. No sales were trimmed.

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:

1212 SALES



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[a]

ResCondo	Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
0	1	(Constant)	.989	.007		132.743	.000
		CURRTOT	.0000000110	.000	.053	1.979	.048

a. Dependent Variable: salesratio

The slope of the line at 0.000000011 indicates that there is virtually no slope in the regression line (i.e. sales ratios are similar across the entire sale price array). We therefore concluded that there was no evidence of 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

ResCondo			Count	Percent
0	SPRec	LT $200K	9	0.6%
		$200K to $300K	27	1.9%
		$300K to $400K	45	3.2%
		$400K to $500K	93	6.6%
		$500K to $600K	114	8.1%
		$600K to $700K	102	7.3%
		$700K to $800K	109	7.8%
		$800K to $900K	125	8.9%
		$900K to $1,000K	153	10.9%
		Over $1,000K	626	44.6%
	Overall		1403	100.0%
	Excluded		0	
	Total		1403	

Ratio Statistics for CURRTOT / TASP

ResCondo	Group	Median	Price Related Differential	Coefficient of Dispersion
0	LT $200K	1.354	.998	.231
	$200K to $300K	1.046	1.003	.162
	$300K to $400K	.991	.996	.178
	$400K to $500K	.999	1.000	.113
	$500K to $600K	.999	1.000	.103
	$600K to $700K	1.008	.998	.132
	$700K to $800K	.997	.999	.097
	$800K to $900K	1.000	.999	.094
	$900K to $1,000K	1.004	1.000	.089
	Over $1,000K	.989	1.008	.086
	Overall	.996	1.013	.102

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, as follows:

Coefficients[a]

ResCondo	Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
0	1	(Constant)	.991	.008		119.270	.000
		SalePeriod	.001	.001	.041	1.532	.126
1	1	(Constant)	.986	.007		148.738	.000
		SalePeriod	.001	.000	.045	1.311	.190

a. Dependent Variable: salesratio

The above statistical results indicate that residential non-condominiums had no significant trend in their sales ratios; while residential condominiums had a marginal statistical trend, the magnitude of that trend at 0.1 percent per month was not significant. We therefore concluded that the assessor has adequately addressed market trending in the valuation of residential properties.

Sold/Unsold Analysis

In terms of the valuation consistency between sold and unsold residential properties, we compared the median change in value between taxable years 2020 and 2022 between each group, as follows:

Case Processing Summary

		Count	Percent
CONDITION		39	1.7%
	0 - POOR	2	0.1%
	1 - FAIR	5	0.2%
	2 - AVERAGE	1404	61.5%
	3 - GOOD	833	36.5%
Overall		2283	100.0%
Excluded		0	
Total		2283	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
	1.009	1.027	.089	12.4%
0 - POOR	1.150	.973	.065	9.2%
1 - FAIR	.978	1.043	.157	22.0%
2 - AVERAGE	.991	1.009	.094	14.8%
3 - GOOD	.997	1.013	.083	12.1%
Overall	.994	1.010	.090	13.8%

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

We next stratified the sold unsold analysis by economic area for residential non-condominiums, as follows:

Report
DIFF

ECONAREA	sold	N	Median	Mean
1	UNSOLD	3139	1.69	1.71
	SOLD	533	1.70	1.73
2	UNSOLD	1229	1.65	1.72
	SOLD	261	1.68	1.74
3	UNSOLD	725	1.70	1.74
	SOLD	102	1.81	1.85
4	UNSOLD	2920	1.55	1.58
	SOLD	307	1.57	1.59
5	UNSOLD	297	1.66	1.68
	SOLD	37	1.66	1.70
6	UNSOLD	1036	1.59	1.60
	SOLD	176	1.64	1.67

We next stratified the sold unsold analysis by economic area for residential condo sales, as follows:

Report
DIFF

Ecomonic Area	sold	N	Median	Mean
1	UNSOLD	2963	1.67	1.68
	SOLD	529	1.69	1.68
2	UNSOLD	594	1.84	1.84
	SOLD	196	1.81	1.82
3	UNSOLD	97	1.65	1.60
	SOLD	8	1.66	1.66
4	UNSOLD	355	1.66	1.65
	SOLD	80	1.74	1.74

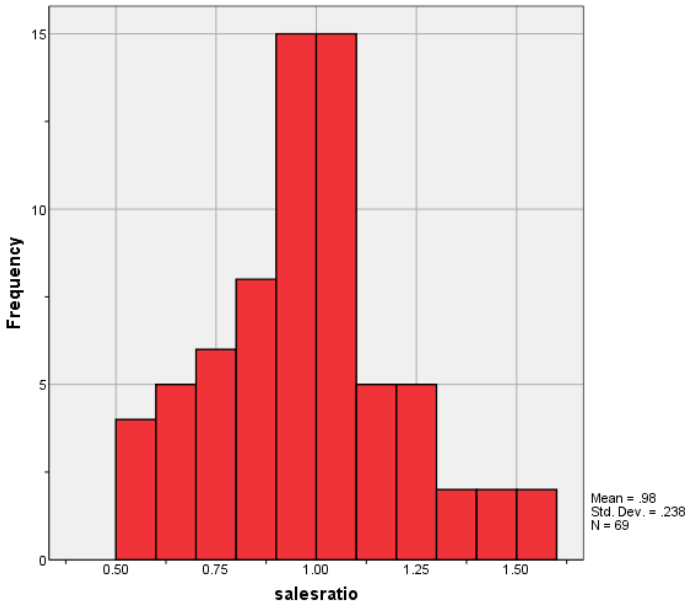
Based on the above analysis, the Grand County assessor has valued sold and unsold residential properties consistently.

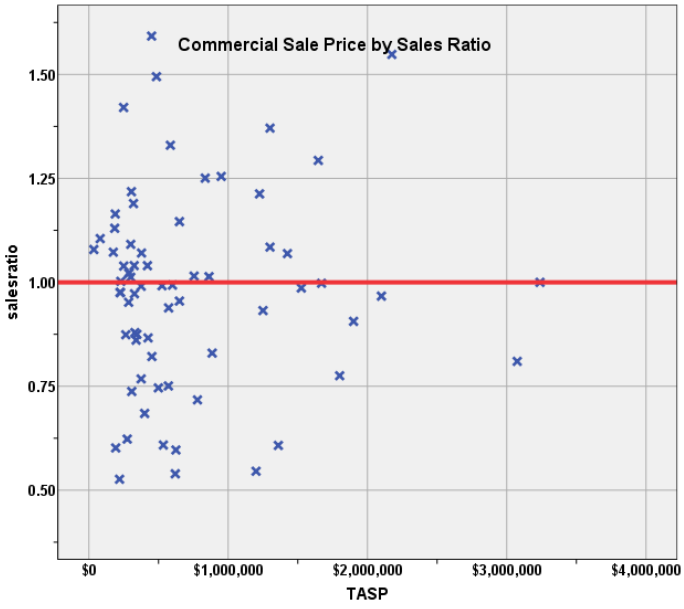
IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

There were 69 qualified commercial and industrial sales in the 24 month sale period ending June 30, 2022.

Median	**0.992**
Price Related Differential	**0.989**
Coefficient of Dispersion	**17.8**

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





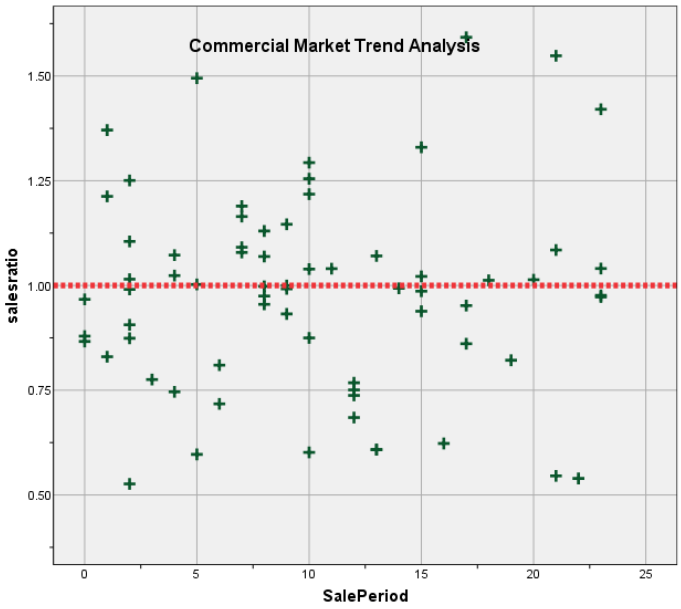
Commercial Market Trend Analysis

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

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.973	.052		18.626	.000
	SalePeriod	.001	.004	.019	.156	.876

a. Dependent Variable: salesratio



The market trend results indicated no statistically significant trend. We concur that no market trend adjustments were warranted for properties in this class for Grand County.

Sold/Unsold Analysis

We compared the median change in actual value between taxable year 2020 and taxable year 2022 for sold and unsold commercial properties to determine if the assessor was valuing each group consistently. While this is a challenge to prove in this county, given the small number of sales and the overall diversity of commercial/industrial properties, the following results indicate that both groups were valued overall in a consistent manner at the class level:

Report

DIFF

sold	N	Median	Mean
UNSOLD	575	1.44	1.58
SOLD	68	1.50	1.85

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of DIFF is the same across categories of sold.	Independent-Samples Mann-Whitney U Test	.006	Retain the null hypothesis.

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

Report

DIFF

ABSTRIMPMAJOR	sold	N	Median	Mean
2212	UNSOLD	90	1.30	1.34
	SOLD	11	1.28	1.42
2215	UNSOLD	43	1.46	1.47
	SOLD	5	1.47	1.71
2220	UNSOLD	52	1.50	1.62
	SOLD	5	1.47	1.50
2230	UNSOLD	156	1.37	1.46
	SOLD	20	1.45	1.63
2235	UNSOLD	59	1.51	1.53
	SOLD	8	1.58	1.91
2240	UNSOLD	42	1.45	2.36
	SOLD	3	1.48	1.52
2245	UNSOLD	106	1.50	1.67
	SOLD	11	1.99	2.46

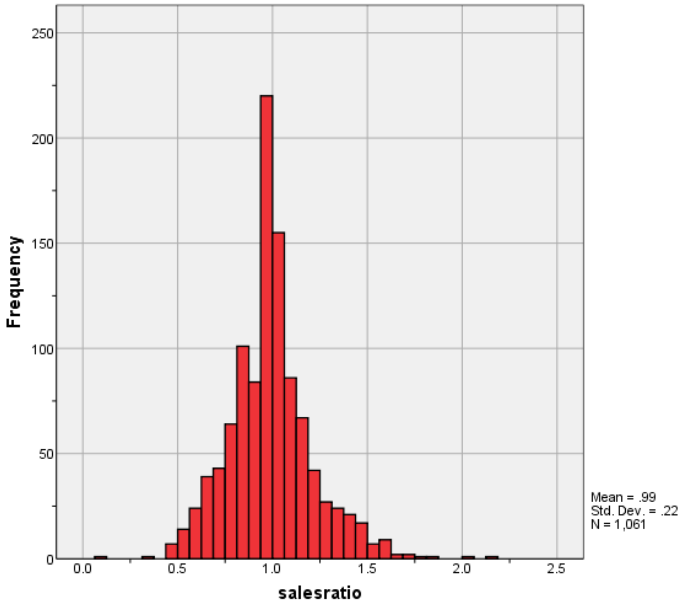
There was no pattern of consistently valuing sold commercial properties by a greater amount than unsold commercial properties when stratified by subclass.

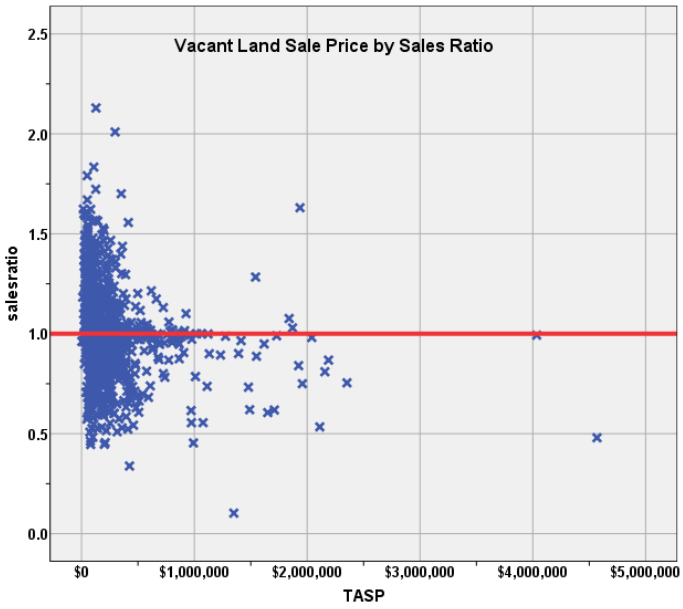
V. VACANT LAND SALE RESULTS

There were 1,061 qualified vacant land sales in the 24 month sale period ending June 30, 2022. The following analysis analyzed qualified vacant land sales as follows

Median	**0.993**
Price Related Differential	**1.058**
Coefficient of Dispersion	**15.9**

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





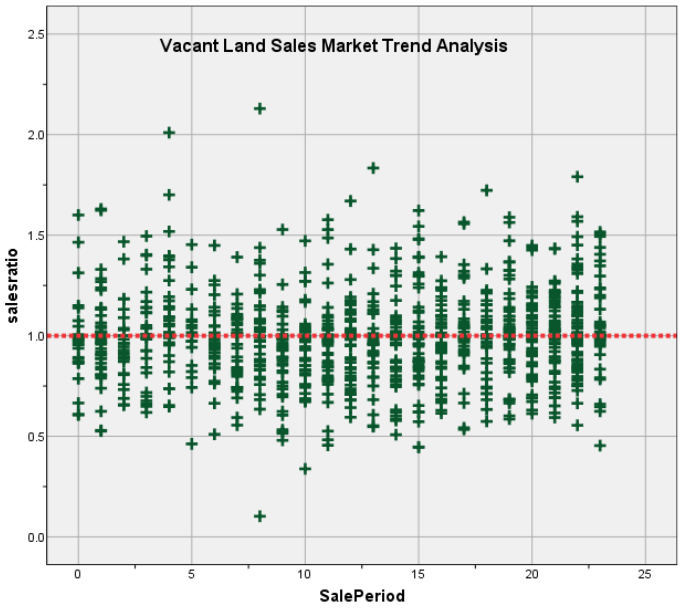
Vacant Land Market Trend Analysis

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

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.966	.014		67.089	.000
	SalePeriod	.002	.001	.059	1.935	.053

a. Dependent Variable: salesratio



The market trend results indicated no statistically significant trend. We concur that no market trend adjustments were warranted for properties in this class for Grand County.

Sold/Unsold Analysis

We compared the median and mean change in actual value between taxable years 2020 and 2022 for vacant land properties to determine if sold and unsold properties were valued consistently, as follows:

Report
DIFF

sold	N	Median	Mean
UNSOLD	3949	2.00	2.19
SOLD	910	2.27	2.40

We also stratified the analysis by subdivisions with at least 5 sales, as follows:

Report
DIFF

SUBDIVNO	sold	N	Median	Mean
71	UNSOLD	37	3.48	3.48
	SOLD	8	1.53	1.92
258	UNSOLD	18	2.16	2.17
	SOLD	20	2.16	2.13
300	UNSOLD	69	1.36	1.43
	SOLD	9	1.36	1.40
520	UNSOLD	50	1.67	1.65
	SOLD	11	1.68	2.11
1110	UNSOLD	31	1.70	1.75
	SOLD	5	1.70	1.91
1115	UNSOLD	34	1.70	1.70
	SOLD	9	1.70	1.69

1120	UNSOLD	40	2.05	1.94
	SOLD	6	2.46	2.28
1130	UNSOLD	16	2.31	2.31
	SOLD	6	2.31	2.43
1219	UNSOLD	21	3.40	3.40
	SOLD	15	3.40	3.31
1236	UNSOLD	30	3.70	3.54
	SOLD	10	3.70	3.70
1250	UNSOLD	31	2.06	2.07
	SOLD	20	2.06	2.06
1262	UNSOLD	60	3.26	3.17
	SOLD	15	3.26	2.43
1273	UNSOLD	7	2.83	2.83
	SOLD	10	2.83	2.83
1280	UNSOLD	83	2.18	2.04
	SOLD	18	1.68	1.94
1325	UNSOLD	1	3.70	3.70
	SOLD	9	3.70	3.38
1470	UNSOLD	2	3.55	3.55
	SOLD	6	3.55	3.55
1496	UNSOLD	9	3.07	3.07
	SOLD	10	3.07	3.12
1526	UNSOLD	12	2.69	2.69
	SOLD	12	2.69	2.69
1710	UNSOLD	34	2.19	2.18
	SOLD	5	2.19	2.15
1713	UNSOLD	10	2.02	2.02
	SOLD	6	2.02	2.01
1773	UNSOLD	179	3.52	3.34
	SOLD	74	3.45	3.28
1853	UNSOLD	15	2.32	2.35
	SOLD	13	2.32	2.35
1854	UNSOLD	31	2.10	2.32
	SOLD	27	2.10	2.31
2104	UNSOLD	5	2.54	2.36
	SOLD	6	2.43	2.43
2140	UNSOLD	44	1.52	1.52
	SOLD	6	1.52	1.83
2141	UNSOLD	29	1.94	1.97
	SOLD	12	1.94	2.18
2160	UNSOLD	27	2.62	2.62
	SOLD	8	2.62	2.62
2215	UNSOLD	15	2.90	2.84
	SOLD	13	2.90	2.76
2225	UNSOLD	16	2.04	1.99
	SOLD	7	2.04	2.04
2226	UNSOLD	19	1.33	1.37
	SOLD	8	1.33	1.33
2229	UNSOLD	13	2.54	2.12
	SOLD	14	2.54	2.33
2230	UNSOLD	61	1.68	1.70
	SOLD	40	1.68	1.76
2237	UNSOLD	15	1.22	1.47
	SOLD	19	1.36	1.54
2238	UNSOLD	22	2.17	2.22
	SOLD	31	2.39	2.32
2272	UNSOLD	1	1.61	1.61

	SOLD	5	1.61	1.61
2416	UNSOLD	12	1.27	1.34
	SOLD	7	1.27	1.28
2507	UNSOLD	6	1.79	1.79
	SOLD	19	1.79	1.79
2546	UNSOLD	22	2.11	2.28
	SOLD	19	2.39	2.36
2554	UNSOLD	14	3.78	3.40
	SOLD	18	3.78	3.78
2562	UNSOLD	12	2.65	2.65
	SOLD	12	2.65	2.87
2650	UNSOLD	3	1.97	1.78
	SOLD	5	1.97	1.86
2658	UNSOLD	2	1.46	1.46
	SOLD	10	1.46	1.46
2670	UNSOLD	30	1.77	1.77
	SOLD	7	1.77	1.77
2745	UNSOLD	21	2.58	2.58
	SOLD	11	2.58	2.58
2750	UNSOLD	11	3.14	3.14
	SOLD	11	3.14	3.14
2755	UNSOLD	31	3.14	3.10
	SOLD	28	3.14	3.05
2840	UNSOLD	5	1.81	1.81
	SOLD	6	1.81	1.94
2870	UNSOLD	23	3.00	3.00
	SOLD	8	3.00	3.05
2920	UNSOLD	19	2.05	2.04
	SOLD	7	2.05	2.05
9030	UNSOLD	134	2.00	2.04
	SOLD	19	2.95	2.71

The above results at the subdivision level indicate that sold and unsold vacant land properties were valued consistently.

V. CONCLUSION

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

STATISTICAL ABSTRACT

Residential

Ratio Statistics for CURRTOT / TASP													
		95% Confidence Interval for Mean			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	1.002	.994	1.010	.996	.993	1.000	95.3%	.989	.980	.997	1.014	.103	15.7%
1	.994	.987	1.000	.990	.983	.995	95.2%	.990	.984	.997	1.003	.067	9.7%

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

Commercial/Industrial

Ratio Statistics for CURRTOT / TASP													
	95% Confidence Interval for Mean			95% Confidence Interval for Median				95% Confidence Interval for Weighted 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
.979	.922	1.036	.992	.939	1.024	97.1%	.990	.913	1.068	.989	.178	24.3%

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

Vacant Land

Ratio Statistics for CURRLND / TASP													
	95% Confidence Interval for Mean			95% Confidence Interval for Median				95% Confidence Interval for Weighted 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
.990	.977	1.004	.993	.985	.998	95.1%	.936	.910	.962	1.058	.159	22.2%

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

Residential Median Ratio Stratification

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	.00	1	0.0%
	1212.00	1403	61.5%
	1215.00	16	0.7%
	1218.67	1	0.0%
	1220.00	2	0.1%
	1230.00	860	37.7%
Overall		2283	100.0%
Excluded		0	
Total		2283	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
.00	1.022	1.000	.000	.
1212.00	.996	1.013	.102	15.5%
1215.00	.993	.984	.112	18.1%
1218.67	1.043	1.000	.000	.
1220.00	1.441	1.418	.473	66.8%
1230.00	.990	1.003	.067	9.8%
Overall	.994	1.010	.090	13.8%

Improvement Age

Case Processing Summary

		Count	Percent
AgeRec	0	1	0.0%
	Over 100	9	0.4%
	75 to 100	45	2.0%
	50 to 75	149	6.5%
	25 to 50	783	34.3%
	5 to 25	938	41.1%
	5 or Newer	358	15.7%
Overall		2283	100.0%
Excluded		0	
Total		2283	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
0	1.022	1.000	.000	.
Over 100	1.020	.904	.132	18.8%
75 to 100	.949	1.036	.187	25.8%
50 to 75	.986	1.020	.128	22.6%
25 to 50	.991	1.010	.087	13.0%
5 to 25	.996	1.011	.080	12.0%
5 or Newer	.999	1.017	.092	13.5%
Overall	.994	1.010	.090	13.8%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	0	1	0.0%
	LE 500 sf	134	5.9%
	500 to 1,000 sf	570	25.0%
	1,000 to 1,500 sf	708	31.0%
	1,500 to 2,000 sf	391	17.1%
	2,000 to 3,000 sf	374	16.4%
	3,000 sf or Higher	105	4.6%
Overall		2283	100.0%
Excluded		0	
Total		2283	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
0	1.022	1.000	.000	.
LE 500 sf	.991	1.009	.080	11.2%
500 to 1,000 sf	.986	1.013	.088	14.0%
1,000 to 1,500 sf	.990	1.007	.084	13.0%
1,500 to 2,000 sf	.997	1.018	.097	14.7%
2,000 to 3,000 sf	1.003	1.020	.091	12.9%
3,000 sf or Higher	1.013	1.033	.115	19.2%
Overall	.994	1.010	.090	13.8%

Improvement Quality

Case Processing Summary

		Count	Percent
QUALITY		1	0.0%
	1 - POOR	6	0.3%
	2 - LOW QUAL.	6	0.3%
	3 - FAIR QUAL.	92	4.0%
	4 - AVERAGE	1258	55.1%
	5 - GOOD QUAL.	801	35.1%
	6 - VERY GOOD	118	5.2%
	7 - EXCELLENT	1	0.0%
Overall		2283	100.0%
Excluded		0	
Total		2283	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
	1.022	1.000	.000	.
1 - POOR	.919	1.188	.284	33.4%
2 - LOW QUAL.	1.247	1.398	.381	51.3%
3 - FAIR QUAL.	.984	1.009	.112	15.1%
4 - AVERAGE	.995	1.014	.095	14.7%
5 - GOOD QUAL.	.992	1.005	.079	11.7%
6 - VERY GOOD	1.003	1.005	.053	7.4%
7 - EXCELLENT	.988	1.000	.000	.
Overall	.994	1.010	.090	13.8%

Improvement Condition

Case Processing Summary

		Count	Percent
CONDITION		39	1.7%
	0 - POOR	2	0.1%
	1 - FAIR	5	0.2%
	2 - AVERAGE	1404	61.5%
	3 - GOOD	833	36.5%
Overall		2283	100.0%
Excluded		0	
Total		2283	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
	1.009	1.027	.089	12.4%
0 - POOR	1.150	.973	.065	9.2%
1 - FAIR	.978	1.043	.157	22.0%
2 - AVERAGE	.991	1.009	.094	14.8%
3 - GOOD	.997	1.013	.083	12.1%
Overall	.994	1.010	.090	13.8%

Commercial Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	$25K to $50K	1	1.4%
	$50K to $100K	1	1.4%
	$150K to $200K	4	5.8%
	$200K to $300K	13	18.8%
	$300K to $500K	18	26.1%
	$500K to $750K	10	14.5%
	$750K to $1,000K	6	8.7%
	Over $1,000K	16	23.2%
Overall		69	100.0%
Excluded		0	
Total		69	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
$25K to $50K	1.079	1.000	.000	.
$50K to $100K	1.105	1.000	.000	.
$150K to $200K	1.101	1.004	.141	26.5%
$200K to $300K	1.002	.996	.129	21.9%
$300K to $500K	.926	.993	.202	28.1%
$500K to $750K	.947	.998	.209	28.0%
$750K to $1,000K	1.014	.993	.158	21.4%
Over $1,000K	.992	1.000	.192	26.6%
Overall	.992	.989	.178	24.0%

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	.00	2	2.9%
	1548.00	1	1.4%
	1716.00	1	1.4%
	1726.00	1	1.4%
	1979.25	1	1.4%
	2212.00	11	15.9%
	2215.00	5	7.2%
	2220.00	4	5.8%
	2225.00	1	1.4%
	2227.50	1	1.4%
	2230.00	21	30.4%
	2235.00	7	10.1%
	2240.00	1	1.4%
	2245.00	11	15.9%
	3212.00	1	1.4%
Overall		69	100.0%
Excluded		0	
Total		69	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
.00	.957	.992	.086	12.2%
1548.00	1.495	1.000	.000	.
1716.00	1.022	1.000	.000	.
1726.00	.955	1.000	.000	.
1979.25	.986	1.000	.000	.
2212.00	.975	1.065	.170	25.9%
2215.00	1.000	.949	.169	30.9%
2220.00	1.055	.951	.122	19.2%
2225.00	1.371	1.000	.000	.
2227.50	.967	1.000	.000	.
2230.00	.939	1.021	.223	27.8%
2235.00	.972	1.068	.185	25.0%
2240.00	.976	1.000	.000	.
2245.00	1.072	.939	.138	18.7%
3212.00	.775	1.000	.000	.
Overall	.992	.989	.178	24.0%

Improvement Age

Case Processing Summary

		Count	Percent
AgeRec	0	2	2.9%
	Over 100	2	2.9%
	75 to 100	9	13.0%
	50 to 75	11	15.9%
	25 to 50	22	31.9%
	5 to 25	21	30.4%
	5 or Newer	2	2.9%
Overall		69	100.0%
Excluded		0	
Total		69	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
0	.957	.992	.086	12.2%
Over 100	.853	1.034	.198	27.9%
75 to 100	.874	1.044	.155	19.4%
50 to 75	.975	1.006	.208	27.9%
25 to 50	1.056	.944	.153	20.4%
5 to 25	.991	.988	.183	26.4%
5 or Newer	.774	.963	.047	6.6%
Overall	.992	.989	.178	24.0%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	0	2	2.9%
	LE 500 sf	2	2.9%
	500 to 1,000 sf	9	13.0%
	1,000 to 1,500 sf	9	13.0%
	1,500 to 2,000 sf	10	14.5%
	2,000 to 3,000 sf	15	21.7%
	3,000 sf or Higher	22	31.9%
Overall		69	100.0%
Excluded		0	
Total		69	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
0	.957	.992	.086	12.2%
LE 500 sf	1.054	1.024	.049	6.9%
500 to 1,000 sf	.991	1.038	.132	16.2%
1,000 to 1,500 sf	1.022	1.056	.151	22.7%
1,500 to 2,000 sf	.864	1.022	.190	24.5%
2,000 to 3,000 sf	.955	.971	.212	27.0%
3,000 sf or Higher	.999	1.019	.193	27.3%
Overall	.992	.989	.178	24.0%

Improvement Quality

Case Processing Summary

		Count	Percent
QUALITY		2	2.9%
	2 - LOW	1	1.4%
	3 - FAIR	8	11.6%
	4 - AVERAGE	3	4.3%
	4 - AVG	45	65.2%
	5 - GOOD	9	13.0%
	5 - GOOD QUAL.	1	1.4%
Overall		69	100.0%
Excluded		0	
Total		69	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
	.957	.992	.086	12.2%
2 - LOW	.775	1.000	.000	.
3 - FAIR	1.095	1.064	.215	31.5%
4 - AVERAGE	1.022	1.016	.157	32.7%
4 - AVG	.972	.971	.172	23.6%
5 - GOOD	1.072	.966	.130	16.9%
5 - GOOD QUAL.	1.000	1.000	.000	.
Overall	.992	.989	.178	24.0%

Improvement Condition

Case Processing Summary

		Count	Percent
QUALITY		2	2.9%
	2 - LOW	1	1.4%
	3 - FAIR	8	11.6%
	4 - AVERAGE	3	4.3%
	4 - AVG	45	65.2%
	5 - GOOD	9	13.0%
	5 - GOOD QUAL.	1	1.4%
Overall		69	100.0%
Excluded		0	
Total		69	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
	.957	.992	.086	12.2%
2 - LOW	.775	1.000	.000	.
3 - FAIR	1.095	1.064	.215	31.5%
4 - AVERAGE	1.022	1.016	.157	32.7%
4 - AVG	.972	.971	.172	23.6%
5 - GOOD	1.072	.966	.130	16.9%
5 - GOOD QUAL.	1.000	1.000	.000	.
Overall	.992	.989	.178	24.0%

Vacant Land Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	LT $25K	13	1.2%
	$25K to $50K	73	6.9%
	$50K to $100K	233	22.0%
	$100K to $150K	184	17.3%
	$150K to $200K	136	12.8%
	$200K to $300K	178	16.8%
	$300K to $500K	145	13.7%
	$500K to $750K	42	4.0%
	$750K to $1,000K	25	2.4%
	Over $1,000K	32	3.0%
Overall		1061	100.0%
Excluded		0	
Total		1061	

Ratio Statistics for CURRLND / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LT $25K	1.225	.971	.161	19.3%
$25K to $50K	1.149	.999	.148	18.4%
$50K to $100K	.997	1.007	.159	21.8%
$100K to $150K	.995	1.000	.167	23.5%
$150K to $200K	.995	1.002	.134	18.9%
$200K to $300K	.979	.998	.164	21.9%
$300K to $500K	.953	1.006	.148	20.7%
$500K to $750K	.987	.999	.091	13.9%
$750K to $1,000K	.987	1.007	.087	16.9%
Over $1,000K	.890	1.012	.207	29.9%
Overall	.993	1.058	.159	22.1%

Subclass

Case Processing Summary

		Count	Percent
ABSTRLND	100.00	826	77.9%
	200.00	13	1.2%
	300.00	2	0.2%
	510.00	3	0.3%
	520.00	11	1.0%
	530.00	3	0.3%
	540.00	6	0.6%
	550.00	11	1.0%
	560.00	2	0.2%
	1112.00	172	16.2%
	1113.00	2	0.2%
	1120.00	1	0.1%
	1125.00	3	0.3%
	1135.00	1	0.1%
	1140.00	1	0.1%
	1811.00	2	0.2%
	2130.00	1	0.1%
	2140.00	1	0.1%
Overall		1061	100.0%
Excluded		0	
Total		1061	

Ratio Statistics for CURRLND / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
100.00	.996	1.042	.160	21.9%
200.00	.983	1.416	.166	37.2%
300.00	.977	1.002	.028	3.9%
510.00	1.006	1.083	.124	23.7%
520.00	.976	1.062	.152	19.4%
530.00	1.003	1.025	.033	6.6%
540.00	.898	.929	.225	31.7%
550.00	.998	1.097	.121	17.4%
560.00	.812	1.008	.037	5.2%
1112.00	.982	1.035	.144	20.9%
1113.00	1.120	1.007	.107	15.1%
1120.00	.619	1.000	.000	.
1125.00	.893	.900	.570	85.6%
1135.00	.743	1.000	.000	.
1140.00	.786	1.000	.000	.
1811.00	.777	1.049	.119	16.8%
2130.00	.534	1.000	.000	.
2140.00	.677	1.000	.000	.
Overall	.993	1.058	.159	22.1%