



2023

DOUGLAS COUNTY PROPERTY ASSESSMENT STUDY





September 15, 2023

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

RE: Final Report for the 2023 Colorado Property Assessment Study

Dear Ms. Castle:

East West Econometrics - Audit Division is pleased to submit the Final Reports for the 2023 Colorado Property Assessment Study.

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

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

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

East West Econometrics – Audit Division appreciates the opportunity to be of service to the State of Colorado. Please contact us with any questions or concerns.

A handwritten signature in dark ink, appearing to read "Harry J. Fuller".

Harry J. Fuller
Project Manager
East West Econometrics – Audit Division

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INTRODUCTION



Colorado

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

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

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

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

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

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

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

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

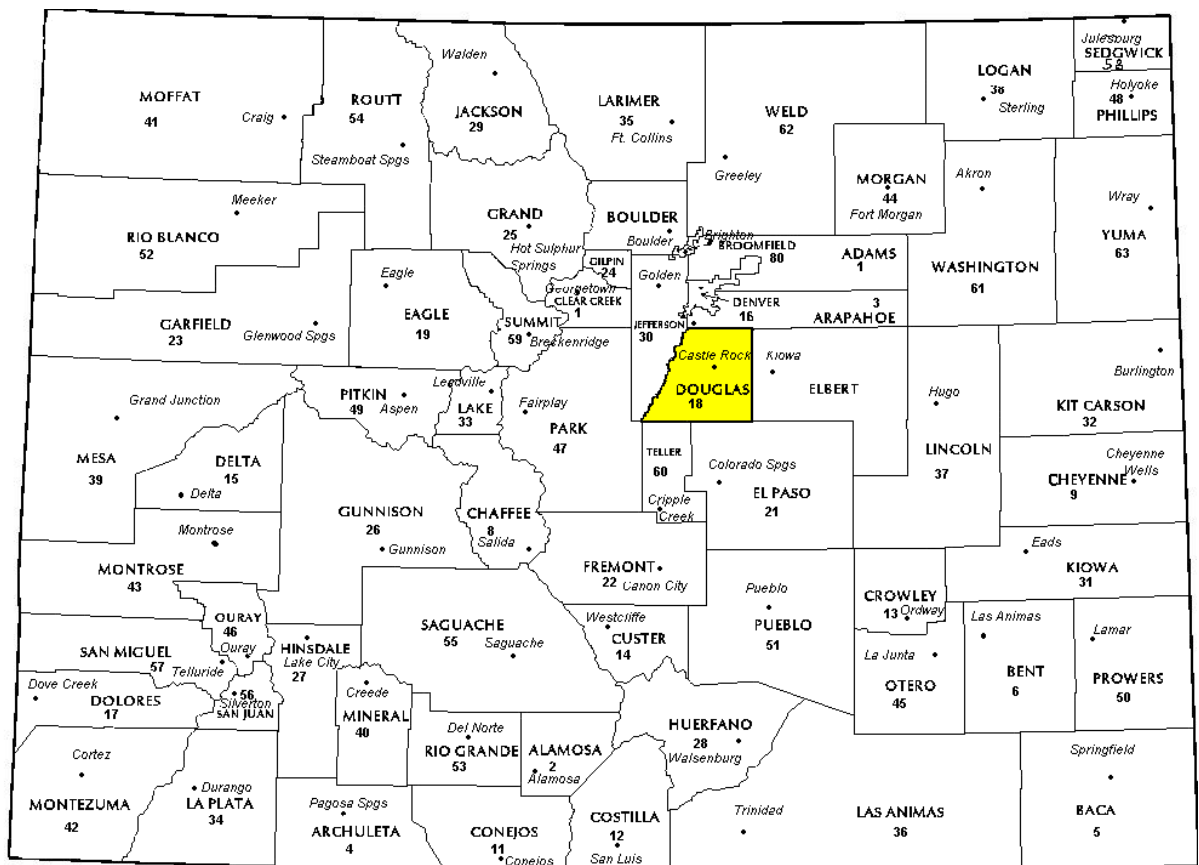
East West Econometrics Audit has completed the Property Assessment Study for 2023 and is pleased to report its findings for Douglas County in the following report.

REGIONAL/HISTORICAL SKETCH OF DOUGLAS COUNTY

Regional Information

Douglas County is located in the Front Range region of Colorado. The Colorado Front Range is a colloquial geographic term for the populated areas of the State that are just east of the foothills of the Front Range. It includes

Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, El Paso, Jefferson, Larimer, Pueblo, and Weld counties.



Historical Information

Douglas County has approximately 840.29 square miles and an estimated population of approximately 351,154 people with 339.7 people per square mile, according to the U.S. Census Bureau's 2020 estimated census data. This represents a 23.0 percent change from April 1, 2010 to July 1, 2019.

Douglas County was one of the original 17 counties created in the Colorado Territory by the Colorado Territorial Legislature on November 1, 1861. The county was named in honor of U.S. Senator Stephen A. Douglas of Illinois, who died five months before the county was created. The county seat was originally Franktown, but was moved to California Ranch in 1863, and then to Castle Rock in 1874. Although the county's boundaries originally extended eastward to the Kansas state border, in 1874 most of the eastern portion of the county became part of Elbert County.

Douglas County is the eighth most populous of the 64 counties of the State of Colorado. The county, sometimes nicknamed Dougco, is located midway between Colorado's two largest cities: Denver and Colorado Springs. The United States Census Bureau estimates that the county population was 280,621 in 2008, a 59.7% increase since U.S. Census 2000, making Douglas County one of the fastest growing counties in the United States. The county seat is Castle Rock, named after a small butte just north of the town.

Douglas County is lightly wooded, mostly with ponderosa pine, with broken terrain characterized by mesas and small streams. Cherry Creek and Plum Creek rise in Douglas County and flow north toward Denver and into the South Platte River. Both were subject to flash flooding in the past, Plum Creek being partially responsible for the Denver flood of 1965. Cherry Creek is now dammed.

(Wikipedia.org)

RATIO ANALYSIS

Methodology

All significant classes of property were analyzed. Sales were collected for each property class over the eighteen month period from January 1, 2021 through June 30th, 2022. Property classes with less than thirty sales had the sales period extended in six month increments up to an additional forty-two months. If this extended sales period did not produce the minimum thirty qualified sales, the Audit performed supplemental appraisals to reach the minimum.

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

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

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

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

Conclusions

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

ALLOWABLE STANDARDS RATIO GRID		
Property Class	Unweighted Median Ratio	Coefficient of Dispersion
Commercial/Industrial	Between .95-1.05	Less than 20.99
Residential Condominium	Between .95-1.05	Less than 15.99
Residential	Between .95-1.05	Less than 15.99
Vacant Land	Between .95-1.05	Less than 20.99

The results for Douglas County are:

Douglas County Ratio Grid					
Property Class	Number of Qualified Sales	Unweighted Median Ratio	Price Related Differential	Coefficient of Dispersion	Time Trend Analysis
Commercial/Industrial	248	0.981	1.079	16.1	Compliant
Residential	22,713	0.999	1.006	6.4	Compliant
Vacant Land	695	0.991	1.065	15.1	Compliant

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

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

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

or if there are other explanations for the observed difference.

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

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

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

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

Conclusions

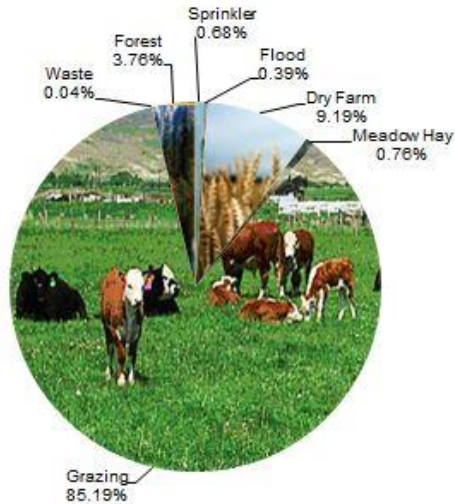
After applying the above described methodologies, it is concluded that Douglas County is reasonably treating its sold and unsold properties in the same manner.

Recommendations

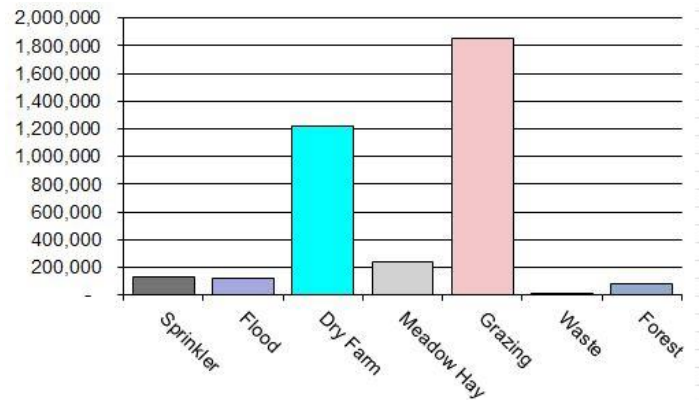
None

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:

Douglas County Agricultural Land Ratio Grid						
Abstract Code	Land Class	Number Of Acres	County Value Per Acre	County Assessed Total Value	WRA Total Value	Ratio
4107	Sprinkler	1,216	106.17	129,106	127,395	1.01
4117	Flood	696	172.60	120,131	120,312	1.00
4127	Dry Farm	16,393	74.37	1,219,157	1,234,935	0.99
4137	Meadow Hay	1,350	179.38	242,164	242,164	1.00
4147	Grazing	151,985	12.18	1,851,747	1,851,747	1.00
4177	Forest	6,712	11.86	79,602	79,602	1.00
4167	Waste	63	2.19	138	138	1.00
Total/ Avg		178,415	20.41	3,642,046	3,656,294	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.

of Property Taxation for the valuation of agricultural outbuildings.

Recommendations

None

Conclusions

Douglas County has substantially complied with the procedures provided by the Division

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

Douglas 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

Douglas 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
- Written Correspondence other than Questionnaire
- Personal Knowledge of Occupants at Assessment Date
- Aerial Photography/Pictometry

Douglas 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 Douglas County. This study was conducted by checking selected sales from the master sales list for the current valuation period. Specifically EWE selected 61 sales listed as unqualified.

All but 2 of the sales selected in the sample gave reasons that were clear and supportable. Two sales had insufficient reason for disqualification.

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

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

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.

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

Conclusions

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

Recommendations

None

ECONOMIC AREA REVIEW AND EVALUATION

Methodology

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

VACANT LAND

Subdivision Discounting

Subdivisions were reviewed in 2023 in Douglas 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

Douglas 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.

Douglas County has been reviewed for their procedures and adherence to guidelines when assessing and valuing agricultural and

commercial possessory interest properties. The county has also been queried as to their confidence that the possessory interest properties have been discovered and placed on the tax rolls.

Conclusions

Douglas 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

Douglas 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.

Douglas 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
- Internet
- Co_Star
- LoopNet

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.

Douglas 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

Douglas County's median ratio is 1.00. This is in compliance with the State Board of Equalization (SBOE) compliance requirements which range from .90 to 1.10 with no COD requirements.

Conclusions

Douglas 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*

Suzanne Howard, *Audit Administrative Manager*

Steve Kane, *Audit Statistician*

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

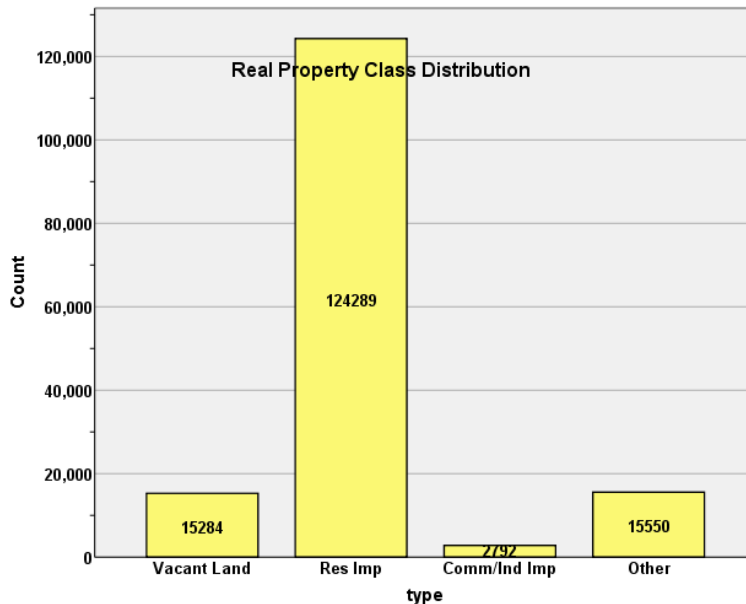
J. Andrew Rodriguez, *Field Analyst*

STATISTICAL APPENDIX

STATISTICAL COMPLIANCE REPORT FOR DOUGLAS COUNTY 2023

I. OVERVIEW

Douglas County is a metropolitan county located along Colorado’s Front Range urban corridor. The county has a total of 157,915 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 and 1112) accounted for over 91.4% of all vacant land parcels.

For residential improved properties, residential properties coded 1212 accounted for 93.5% of all residential properties.

Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial properties accounted for 1.8% of all such properties in this county.

II. DATA FILES

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

III. RESIDENTIAL SALES RESULTS

There were 22,713 qualified residential sales for the 24-month sale period ending June 30, 2022. The sales ratio analysis results were as follows:

Median	0.999
Price Related Differential	1.006
Coefficient of Dispersion	6.4

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

Economic Area Case Processing Summary

		Count	Percent
ECONAREA	1.00	6693	31.6%
	2.00	4545	21.5%
	3.00	1801	8.5%
	4.00	7398	34.9%
	5.00	286	1.4%
	6.00	384	1.8%
	7.00	62	0.3%
	1112.00	15	0.1%
	4177.00	1	0.0%
Overall		21169	100.0%
Excluded		1544	
Total		22713	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
1.00	.999	1.005	.061
2.00	.999	1.003	.063
3.00	.995	1.008	.068
4.00	1.000	1.008	.064
5.00	.989	1.017	.113
6.00	.999	1.020	.106
7.00	.988	1.019	.175
Overall	.999	1.007	.065

Neighborhoods with 25 or more sale Case Processing Summary

		Count	Percent
NBHD		1398	6.3%
	4 2ND A"	39	0.2%
	4 2ND AM"	32	0.1%
	1112	130	0.6%
	13201	113	0.5%
	13202	64	0.3%
	13203	34	0.2%

13204	54	0.2%
13205	61	0.3%
1BB	113	0.5%
1CC	2499	11.2%
1DD	1403	6.3%
1EE	2027	9.1%
23201	88	0.4%
23202	77	0.3%
23203	163	0.7%
23206	34	0.2%
2AA	430	1.9%
2BB	1599	7.2%
2CA	125	0.6%
2CC	1995	8.9%
33203	74	0.3%
3AA	34	0.2%
3CC	90	0.4%
3DD	1522	6.8%
43201	48	0.2%
43202	205	0.9%
43204	143	0.6%
4AA	288	1.3%
4AB	29	0.1%
4BB	1769	7.9%
4CC	1298	5.8%
4DD	1942	8.7%
4EE	1465	6.6%
4FF	109	0.5%
4GG	26	0.1%
9AA	112	0.5%
9BB	242	1.1%
9C1	87	0.4%
9C2	105	0.5%
9CC	177	0.8%
9DD	105	0.5%
Overall	22348	100.0%
Excluded	0	
Total	22348	

Ratio Statistics for CURRTOT / TASP

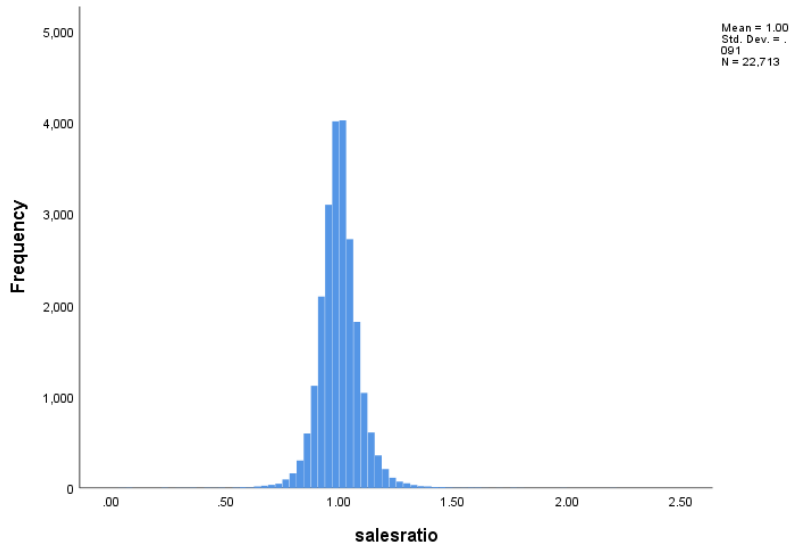
Group	Median	Price Related Differential	Coefficient of Dispersion
	1.000	1.003	.053
4 2ND A"	.999	1.007	.037
4 2ND AM"	.999	1.011	.060
1112	.998	1.001	.044
13201	1.000	1.003	.067
13202	1.000	1.003	.050
13203	1.000	1.005	.053
13204	1.001	1.001	.035
13205	.994	1.004	.046
1BB	.975	1.019	.097
1CC	.997	1.005	.063
1DD	1.000	1.003	.051
1EE	1.000	1.004	.058

23201	1.001	1.002	.038
23202	1.001	1.005	.059
23203	1.000	1.007	.048
23206	1.000	1.022	.070
2AA	1.000	1.011	.090
2BB	1.000	1.007	.063
2CA	1.000	1.006	.070
2CC	.996	1.005	.059
33203	1.000	1.002	.036
3AA	1.000	1.010	.091
3CC	.991	1.016	.113
3DD	.995	1.005	.068
43201	.999	1.004	.048
43202	.998	1.003	.045
43204	1.009	1.001	.050
4AA	1.000	1.029	.119
4AB	.969	1.005	.126
4BB	1.000	1.014	.068
4CC	.997	1.005	.060
4DD	1.000	1.007	.059
4EE	1.000	1.005	.056
4FF	.979	1.015	.098
4GG	1.001	1.017	.101
9AA	.984	1.021	.099
9BB	1.001	1.018	.112
9C1	.991	1.039	.119
9C2	1.001	1.028	.134
9CC	.994	1.021	.100
9DD	1.017	1.016	.112
Overall	.999	1.008	.063

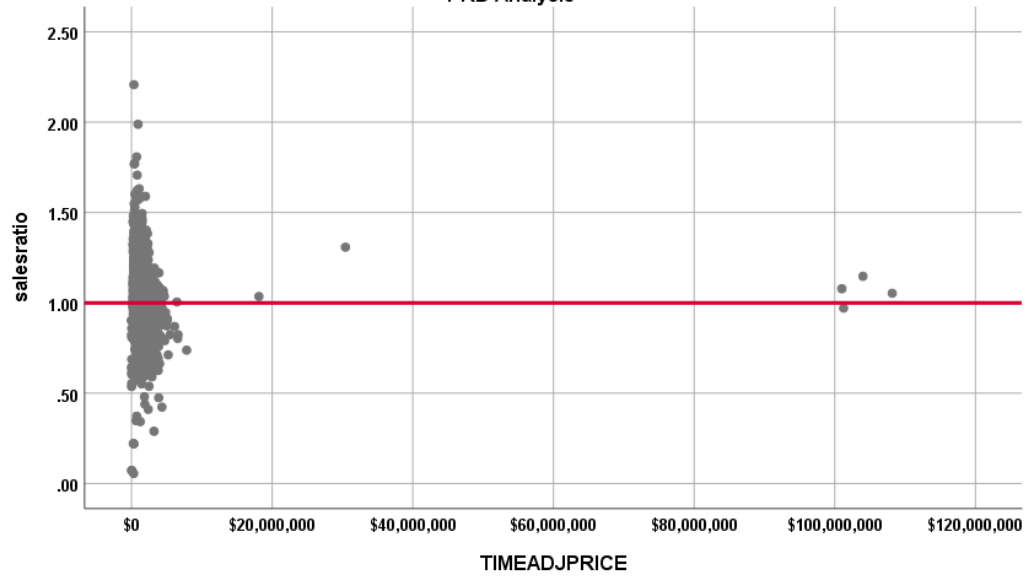
The above ratio statistics were in compliance with the standards set forth by the Colorado State Board of Equalization (SBOE) for the overall residential sales and for neighborhoods with at least 25 sales.

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

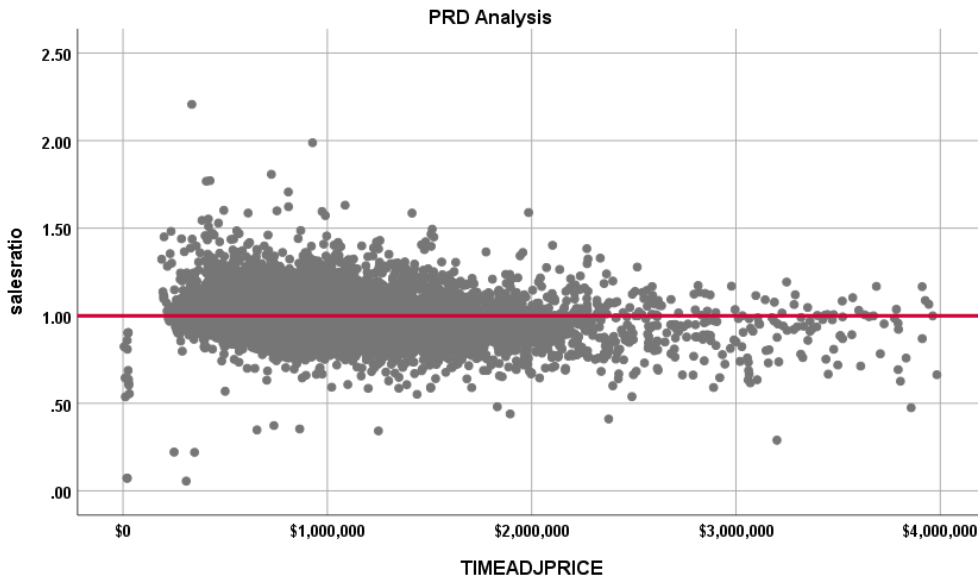
Sales Ratio Distribution



PRD Analysis



ALL SALES



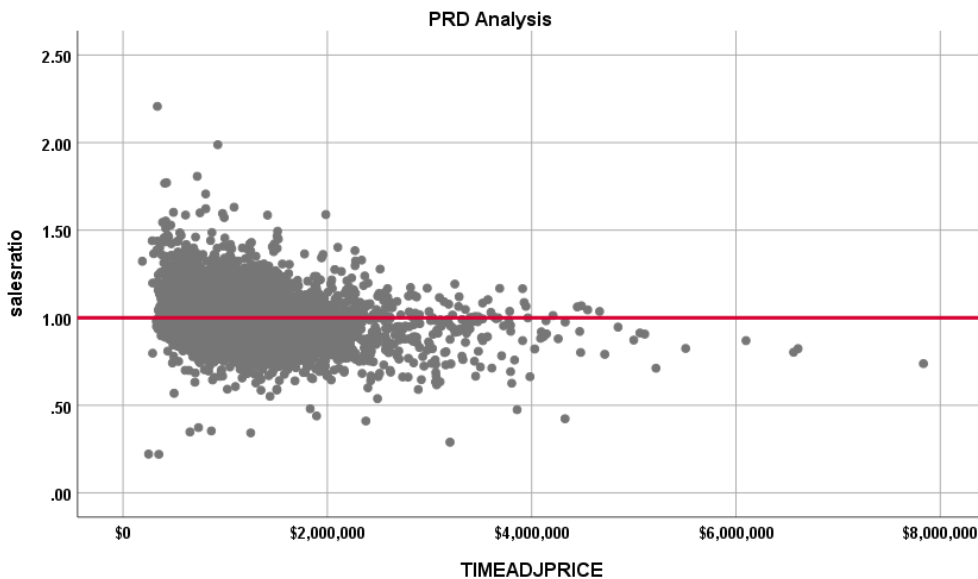
NOTE: SALES OVER \$4,000,000 NOT INCLUDED FOR ILLUSTRATION

The above graphs indicate that the distribution of the sale ratios at the class level was within state mandated limits.

Subclass 1212 PRD Analysis

We next analyzed residential properties identified as 1112 using the state abstract code system (Douglas County used the predominant use land code 1112 for 1212 properties). 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 1.009, which is within IAAO standards for the PRD. We also performed a regression analysis between the sales ratio and the assessor's current value to further test for regressivity or progressivity in the residential sales valuation, as follows:

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1	(Constant)	.993		651.314	.000
	CURRTOT	.00000000821	.034	4.984	.000

a. Dependent Variable: salesratio

The slope of the line at 0.00000000821 indicates that there is virtually no slope in the regression line, which indicates that sales ratios are similar across the entire sale price array. This indicates no regressivity or progressivity in the residential values assigned by the assessor.

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

Case Processing Summary

		Count	Percent
SPRec	LT \$300K	6	0.0%
	\$300K to \$400K	69	0.3%
	\$400K to \$500K	588	2.8%
	\$500K to \$600K	2938	13.8%
	\$600K to \$750K	7270	34.1%
	\$750K to \$1000K	6469	30.4%
	\$1000K to \$2000K	3491	16.4%
	Over \$2000K	473	2.2%
Overall		21304	100.0%
Excluded		0	
Total		21304	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LT \$300K	1.260	.995	.253	41.2%
\$300K to \$400K	1.044	1.002	.113	21.0%
\$400K to \$500K	1.033	1.001	.071	11.1%
\$500K to \$600K	1.013	1.000	.049	6.7%
\$600K to \$750K	1.000	1.000	.053	7.2%
\$750K to \$1000K	.994	1.000	.064	8.6%
\$1000K to \$2000K	.974	1.003	.091	12.1%
Over \$2000K	.935	1.006	.118	15.5%
Overall	.999	1.009	.065	9.1%

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

Residential Market Trend Analysis

We next analyzed the residential dataset using the 24-month sale period for any residual market trending and stratified by economic area, as follows:

Coefficients^a

ECONAREA	Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
.	1	(Constant)	.990	.004		227.393	.000
		SalePeriod	.001	.000	.058	2.289	.022
1.00	1	(Constant)	.993	.002		499.631	.000
		SalePeriod	.001	.000	.056	4.610	.000
2.00	1	(Constant)	.985	.003		380.419	.000
		SalePeriod	.001	.000	.102	6.945	.000
3.00	1	(Constant)	.990	.004		232.636	.000
		SalePeriod	.000	.000	.023	.970	.332
4.00	1	(Constant)	.996	.002		515.355	.000
		SalePeriod	.000	.000	.039	3.332	.001
5.00	1	(Constant)	.999	.018		54.459	.000
		SalePeriod	.000	.001	.009	.151	.880
6.00	1	(Constant)	.969	.014		71.161	.000
		SalePeriod	.003	.001	.155	3.071	.002
7.00	1	(Constant)	.987	.059		16.753	.000
		SalePeriod	2.479E-5	.005	.001	.005	.996
1112.00	1	(Constant)	1.081	.094		11.519	.000
		SalePeriod	-.010	.006	-.447	-1.803	.095

a. Dependent Variable: salesratio

The above results indicated that there is no significant residual market trending for residential property sales when broken down by economic area. We therefore concluded that the assessor has adequately considered market trending in their residential valuations overall.

Sold/Unsold Analysis

In terms of the valuation consistency between sold and unsold residential properties, we compared the median actual value per square foot between each group. The data was analyzed both as a whole and broken down by economic area and neighborhoods with at least 30 sales, as follows:

Report

VALSF

	N	Median	Mean
sold			
UNSOLD	100565	\$338	\$347
SOLD	22713	\$338	\$350

Report

VALSF

ECONAREA	sold	N	Median	Mean
1.00	UNSOLD	28038	\$323	\$332
	SOLD	6693	\$330	\$338
2.00	UNSOLD	31591	\$357	\$362
	SOLD	4545	\$368	\$374
3.00	UNSOLD	5575	\$336	\$363
	SOLD	1801	\$333	\$357
4.00	UNSOLD	22778	\$323	\$343
	SOLD	7398	\$323	\$341
5.00	UNSOLD	1927	\$324	\$343
	SOLD	286	\$373	\$386
6.00	UNSOLD	3064	\$368	\$377
	SOLD	384	\$371	\$385
7.00	UNSOLD	479	\$338	\$356
	SOLD	62	\$386	\$378

Report

VALSF

NBHD	sold	N	Median	Mean
4 2ND A"	UNSOLD	254	\$298	\$303
	SOLD	39	\$288	\$296
4 2ND AM"	UNSOLD	164	\$300	\$307
	SOLD	32	\$300	\$310
1112	UNSOLD	550	\$301	\$308
	SOLD	130	\$309	\$313
13201	UNSOLD	548	\$353	\$348
	SOLD	113	\$368	\$354
13202	UNSOLD	158	\$300	\$315
	SOLD	64	\$300	\$305
13203	UNSOLD	153	\$303	\$290
	SOLD	34	\$304	\$296
13204	UNSOLD	197	\$337	\$339
	SOLD	54	\$337	\$336
13205	UNSOLD	60	\$313	\$281
	SOLD	61	\$316	\$321
1BB	UNSOLD	80	\$525	\$503
	SOLD	113	\$420	\$434
1CC	UNSOLD	6139	\$326	\$336
	SOLD	2499	\$327	\$333
1DD	UNSOLD	8066	\$307	\$312
	SOLD	1403	\$319	\$324
1EE	UNSOLD	9807	\$337	\$342
	SOLD	2027	\$337	\$343
23201	UNSOLD	524	\$323	\$326
	SOLD	88	\$319	\$317
23202	UNSOLD	383	\$332	\$344
	SOLD	77	\$333	\$340
23203	UNSOLD	873	\$385	\$399
	SOLD	163	\$378	\$389
23206	UNSOLD	92	\$382	\$384
	SOLD	34	\$377	\$381
2AA	UNSOLD	2129	\$462	\$461
	SOLD	430	\$471	\$464

2BB	UNSOLD	11885	\$344	\$344
	SOLD	1599	\$353	\$351
2CA	UNSOLD	928	\$364	\$392
	SOLD	125	\$367	\$412
2CC	UNSOLD	14595	\$361	\$360
	SOLD	1995	\$373	\$373
33203	UNSOLD	94	\$318	\$292
	SOLD	74	\$360	\$342
3AA	UNSOLD	113	\$797	\$694
	SOLD	34	\$882	\$833
3CC	UNSOLD	418	\$505	\$491
	SOLD	90	\$495	\$497
3DD	UNSOLD	4575	\$341	\$350
	SOLD	1522	\$331	\$339
43201	UNSOLD	300	\$333	\$349
	SOLD	48	\$325	\$338
43202	UNSOLD	714	\$303	\$298
	SOLD	205	\$304	\$302
43204	UNSOLD	201	\$312	\$319
	SOLD	143	\$287	\$300
4AA	UNSOLD	1278	\$508	\$502
	SOLD	288	\$515	\$514
4BB	UNSOLD	3545	\$315	\$333
	SOLD	1769	\$330	\$345
4CC	UNSOLD	3325	\$314	\$325
	SOLD	1298	\$296	\$311
4DD	UNSOLD	5146	\$318	\$326
	SOLD	1942	\$319	\$330
4EE	UNSOLD	6639	\$326	\$337
	SOLD	1465	\$336	\$344
4FF	UNSOLD	749	\$347	\$358
	SOLD	109	\$324	\$337
9AA	UNSOLD	764	\$380	\$398
	SOLD	112	\$456	\$469
9BB	UNSOLD	2179	\$327	\$347
	SOLD	242	\$331	\$342
9C1	UNSOLD	839	\$274	\$303
	SOLD	87	\$286	\$302
9C2	UNSOLD	612	\$290	\$306
	SOLD	105	\$359	\$346
9CC	UNSOLD	1513	\$342	\$362
	SOLD	177	\$373	\$391
9DD	UNSOLD	779	\$381	\$388
	SOLD	105	\$396	\$409

The majority of residential neighborhoods had similar values per square foot for sold and unsold residential properties. The neighborhoods with significant differences then had their sold and unsold properties compared using the median percent change in value methods using valuation year 2020 and valuation year 2022, which indicated that sold and unsold residential properties were valued in a similar manner

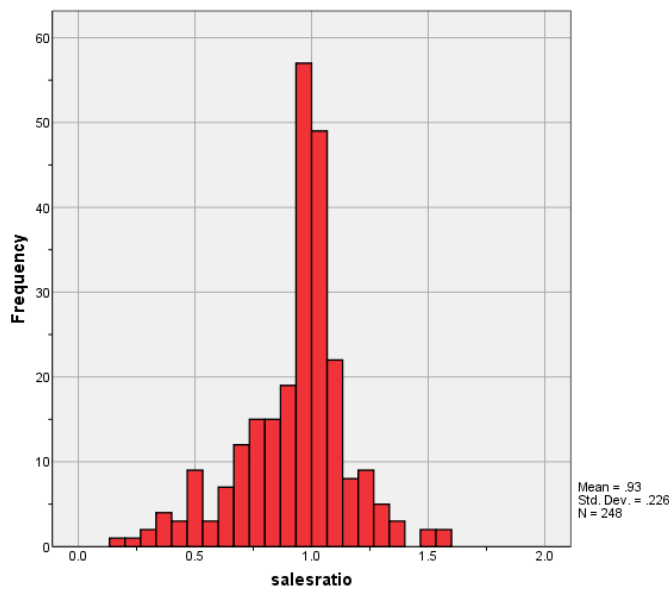
Based on these results, we concluded that the assessor valued sold and unsold residential properties consistently in 2023.

IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

There were 248 qualified commercial and industrial sales for the 24-month sale period ending June 30, 2022. The sales ratio analysis results were as follows:

Median	0.981
Price Related Differential	1.079
Coefficient of Dispersion	16.1

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



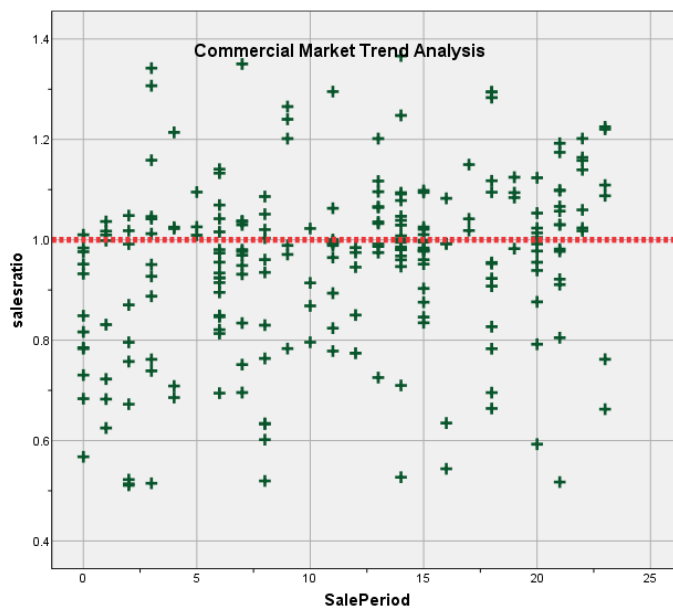
Commercial/Industrial Market Trend Analysis

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

Coefficients^a

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.878	.021		40.976	.000
	SalePeriod	.007	.002	.264	4.141	.000

a. Dependent Variable: salesratio



While there was residual market trending present in the commercial/industrial sale ratios, when stratified, there was no residential market trending for subclasses with at least 16 sales. We concluded that the assessor has adequately considered market trending adjustments as part of the commercial/industrial valuation.

Sold/Unsold Analysis

We compared the valuation sold and unsold commercial properties using the median change in value method both overall and by subclass, as follows:

Report

DIFF			
sold	N	Median	Mean
UNSOLD	2486	1.20	1.50
SOLD	247	1.19	1.30

Report

DIFF

ABSTRIMP	sold	N	Median	Mean
2212.00	UNSOLD	488	1.16	1.24
	SOLD	43	1.24	1.36
2215.00	UNSOLD	23	1.41	1.52
	SOLD	4	1.40	1.40
2220.00	UNSOLD	206	1.10	1.16
	SOLD	21	1.25	1.59
2230.00	UNSOLD	571	1.21	1.94
	SOLD	20	1.23	1.26
2235.00	UNSOLD	125	1.29	1.52
	SOLD	5	1.29	1.62
2245.00	UNSOLD	194	1.11	1.21
	SOLD	19	1.11	1.27

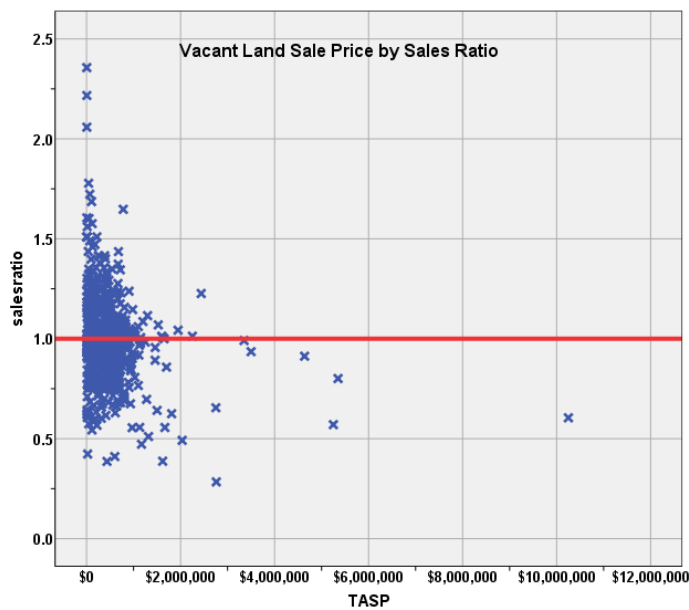
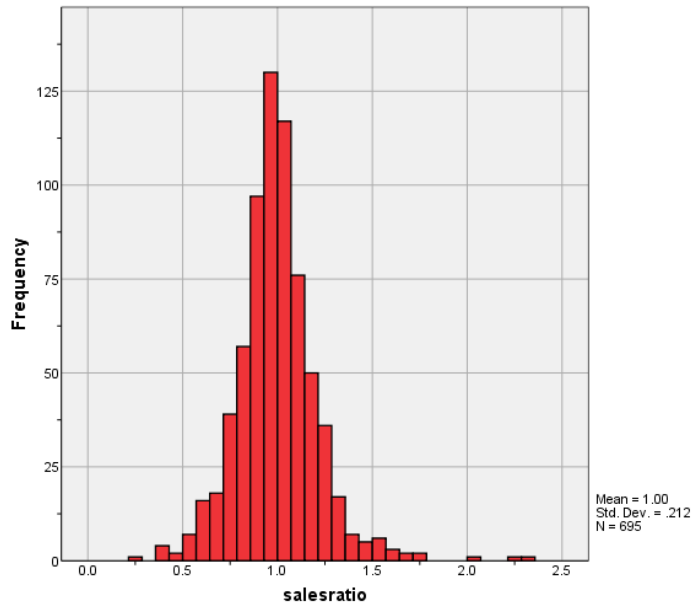
The above comparison analyses indicate that there is no consistent pattern of sold properties being valued more than unsold properties.

V. VACANT LAND SALE RESULTS

There were 702 qualified vacant land sales for the 24-month sale period ending June 30, 2022. 7 sales were trimmed using IAAO standards, resulting in a final total of 695 vacant land sales. The sales ratio analysis was analyzed as follows:

Median	0.991
Price Related Differential	1.065
Coefficient of Dispersion	15.1

The above ratio statistics were in compliance overall with the standards set forth by the Colorado State Board of Equalization (SBOE) for the overall vacant land sales. The following graphs describe further the sales ratio distribution for all of these properties:



The above histogram indicates that the distribution of the vacant land sale ratios was within state mandated limits.

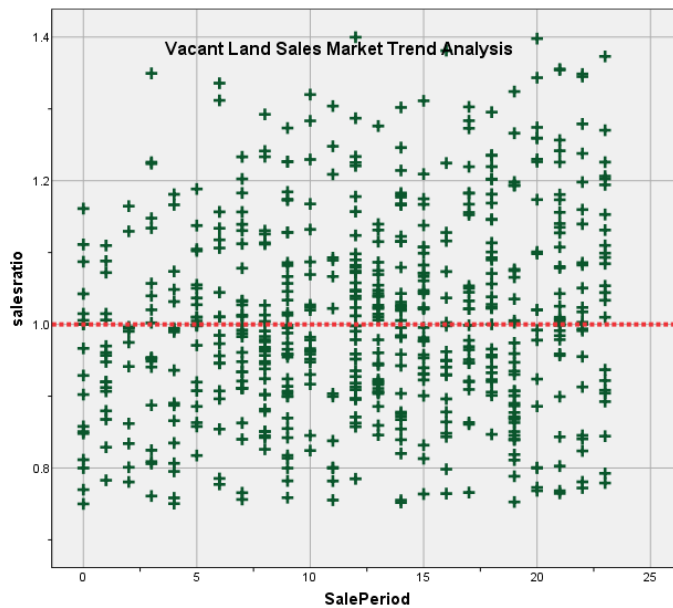
Vacant Land Market Trend Analysis

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

Coefficients^a

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.963	.012		80.111	.000
	SalePeriod	.004	.001	.168	4.206	.000

a. Dependent Variable: salesratio



The above analysis indicated that there was a marginal though significant market trending present in the vacant land sale data. We stratified the vacant land sale data by neighborhood and found that Economic Area 6 had a significant trend while the other economic areas did not. We will contact the assessor's office for clarifications, although the assessor did account for most of the market trending for vacant land over the 24 month sale period.

Sold/Unsold Analysis

In terms of the valuation consistency between sold and unsold vacant land properties, we compared the median change in actual value for valuation year 2020 and valuation year 2022 between each group, as follows:

Report

DIFF			
sold	N	Median	Mean
UNSOLD	8569	1.41	1.38
SOLD	651	1.50	1.52

Based on the above difference, we next compared sold and unsold vacant land properties stratified by subdivisions with at least 6 sales:

Report

DIFF

SUBDIVNO	sold	N	Median	Mean
51	UNSOLD	523	1.38	1.40
	SOLD	15	1.58	1.60
44700	UNSOLD	7	1.37	1.36
	SOLD	6	1.23	1.25
123177	UNSOLD	25	1.73	1.56
	SOLD	9	1.61	1.49
124558	UNSOLD	35	2.36	2.26
	SOLD	6	2.36	2.34
134957	UNSOLD	315	1.79	1.83
	SOLD	29	1.79	1.76
136477	UNSOLD	65	1.98	1.95
	SOLD	24	1.98	1.92
139865	UNSOLD	52	1.95	1.94
	SOLD	17	1.95	1.93
139958	UNSOLD	7	1.53	1.61
	SOLD	7	1.53	1.52
144862	UNSOLD	324	1.07	1.07
	SOLD	45	1.07	1.07
164775	UNSOLD	13	1.52	1.67
	SOLD	8	1.77	1.77
2003034870	UNSOLD	3	1.34	1.36
	SOLD	14	1.33	1.41
2005004587	UNSOLD	1	1.16	1.16
	SOLD	15	1.16	1.16
2005122094	UNSOLD	11	1.15	1.17
	SOLD	37	1.16	1.18
2006007568	UNSOLD	5	1.43	1.56
	SOLD	11	1.38	1.43
2006019898	UNSOLD	2	1.45	1.45
	SOLD	6	1.43	1.45
2006078510	UNSOLD	2	1.33	1.33
	SOLD	46	1.74	1.60
2015070148	UNSOLD	4	1.31	1.30
	SOLD	7	1.38	1.37
2016045809	UNSOLD	5	1.59	1.55
	SOLD	6	1.49	1.47
2020011759	UNSOLD	17	1.50	1.50
	SOLD	27	1.50	1.50
2021116937	UNSOLD	10	1.38	1.38
	SOLD	8	1.38	1.39

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

V. CONCLUSIONS

Based on this 2023 audit statistical analysis, residential, commercial/industrial and vacant land properties were found to be in compliance with state guidelines.

STATISTICAL ABSTRACT

Residential

Ratio Statistics for CURRTOT / TASP													
ECONAREA	Mean	95% Confidence Interval for Mean		Median	95% Confidence Interval for Median			Weighted Mean	95% Confidence Interval for Weighted Mean		Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Mean Centered
		Lower Bound	Upper Bound		Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound			
.	.999	.994	1.003	1.000	.997	1.002	95.1%	.996	.991	1.001	1.002	.052	8.5%
1.00	1.001	.999	1.003	.999	.997	1.000	95.2%	.996	.992	1.000	1.005	.061	8.4%
2.00	1.000	.998	1.003	.999	.996	1.000	95.3%	.997	.991	1.003	1.003	.063	8.9%
3.00	.993	.989	1.003	.995	.990	.999	95.2%	.985	.979	.992	1.008	.068	9.7%
4.00	1.001	.999	1.003	1.000	.998	1.000	95.1%	.993	.988	.999	1.008	.064	8.7%
5.00	1.001	.983	1.019	.989	.974	1.014	96.2%	.985	.967	1.003	1.017	.113	15.7%
6.00	1.005	.991	1.019	.999	.986	1.012	95.4%	.985	.968	1.002	1.020	.106	13.9%
7.00	.988	.928	1.047	.988	.897	1.047	97.0%	.969	.911	1.027	1.019	.175	23.9%
1112.00	.925	.843	1.006	.975	.899	.999	96.5%	.902	.814	.990	1.025	.090	15.9%
4177.00	.221	.	.	.221221	.	.	1.000	.000	.

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

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
.933	.905	.961	.981	.968	.992	95.1%	.864	.806	.923	1.079	.161	24.2%

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.

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
.997	.981	1.013	.991	.974	1.000	95.2%	.936	.904	.968	1.065	.151	21.3%

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.

Residential Median Ratio Stratification

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	1212.00	21292	93.7%
	1215.00	2	0.0%
	1216.00	1	0.0%
	1220.00	1	0.0%
	1224.35	1	0.0%
	1225.00	5	0.0%
	1230.00	1398	6.2%
	1712.00	1	0.0%
	1885.67	1	0.0%
	2026.40	1	0.0%
	3335.77	1	0.0%
	3512.25	1	0.0%
	3808.00	1	0.0%
	4277.00	3	0.0%
	4278.00	1	0.0%
	9250.00	2	0.0%
	9270.00	1	0.0%
Overall		22713	100.0%
Excluded		0	
Total		22713	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1212.00	.999	1.009	.065	9.1%
1215.00	.900	.996	.026	3.6%
1216.00	.585	1.000	.000	.
1220.00	1.052	1.000	.000	.
1224.35	1.053	1.000	.000	.
1225.00	1.078	1.021	.083	12.4%
1230.00	1.000	1.003	.053	8.7%
1712.00	.759	1.000	.000	.
1885.67	1.005	1.000	.000	.
2026.40	1.068	1.000	.000	.
3335.77	.423	1.000	.000	.
3512.25	.895	1.000	.000	.
3808.00	.864	1.000	.000	.
4277.00	.673	.814	.260	48.1%
4278.00	.718	1.000	.000	.
9250.00	1.097	1.009	.036	5.1%
9270.00	.938	1.000	.000	.
Overall	.999	1.006	.064	9.1%

Improvement Age

Case Processing Summary

		Count	Percent
AgeRec	Over 100	12	0.1%
	75 to 100	18	0.1%
	50 to 75	93	0.4%
	25 to 50	4156	18.3%
	5 to 25	9792	43.1%
	5 or Newer	8642	38.0%
Overall		22713	100.0%
Excluded		0	
Total		22713	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Over 100	.898	1.019	.237	32.2%
75 to 100	.929	1.025	.156	18.5%
50 to 75	.975	1.026	.125	16.8%
25 to 50	.999	1.007	.070	10.2%
5 to 25	1.000	1.003	.061	8.7%
5 or Newer	.998	1.010	.064	8.7%
Overall	.999	1.006	.064	9.1%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	LE 500 sf	21	0.1%
	500 to 1,000 sf	343	1.5%
	1,000 to 1,500 sf	2713	11.9%
	1,500 to 2,000 sf	5743	25.3%
	2,000 to 3,000 sf	9254	40.7%
	3,000 sf or Higher	4639	20.4%
Overall		22713	100.0%
Excluded		0	
Total		22713	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LE 500 sf	.687	1.145	.344	44.5%
500 to 1,000 sf	.997	1.006	.063	10.5%
1,000 to 1,500 sf	.997	1.005	.051	7.1%
1,500 to 2,000 sf	.998	1.005	.054	7.5%
2,000 to 3,000 sf	.999	1.008	.063	8.6%
3,000 sf or Higher	1.002	1.009	.085	11.7%
Overall	.999	1.006	.064	9.1%

Improvement Quality

Case Processing Summary

	Count	Percent
QUALITY	1	0.0%
Average	16629	73.2%
Excellent	227	1.0%
Fair	44	0.2%
Good	4578	20.2%
Low	9	0.0%
Very Good	1225	5.4%
Overall	22713	100.0%
Excluded	0	
Total	22713	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
	.289	1.000	.000	.
Average	.998	1.004	.057	7.9%
Excellent	.994	1.022	.114	15.6%
Fair	.989	1.125	.146	23.8%
Good	1.002	1.007	.077	10.5%
Low	1.024	1.032	.139	18.0%
Very Good	1.000	1.013	.104	13.8%
Overall	.999	1.006	.064	9.1%

Improvement Condition

Case Processing Summary

	Count	Percent
CONDITION	1	0.0%
Average	9976	43.9%
Badly Worn	13	0.1%
Good	12711	56.0%
Very Good	9	0.0%
Worn Out	3	0.0%
Overall	22713	100.0%
Excluded	0	
Total	22713	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
	.289	1.000	.000	.
Average	1.000	1.010	.067	9.5%
Badly Worn	.993	1.011	.158	27.1%
Good	.998	1.005	.061	8.6%
Very Good	1.003	.851	.089	13.7%
Worn Out	1.262	1.046	.117	17.7%
Overall	.999	1.006	.064	9.1%

Commercial Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	\$100K to \$150K	6	2.4%
	\$150K to \$200K	20	8.1%
	\$200K to \$300K	55	22.2%
	\$300K to \$500K	29	11.7%
	\$500K to \$750K	11	4.4%
	\$750K to \$1,000K	11	4.4%
	Over \$1,000K	116	46.8%
Overall		248	100.0%
Excluded		0	
Total		248	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
\$100K to \$150K	1.008	1.002	.069	11.0%
\$150K to \$200K	1.121	1.000	.073	10.1%
\$200K to \$300K	1.017	1.001	.105	16.4%
\$300K to \$500K	.976	1.004	.096	13.6%
\$500K to \$750K	.955	1.004	.224	34.3%
\$750K to \$1,000K	.980	1.001	.085	13.2%
Over \$1,000K	.912	.997	.216	28.3%
Overall	.981	1.079	.161	23.5%

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	1720.00	1	0.4%
	1722.25	1	0.4%
	1973.50	1	0.4%
	2212.00	43	17.3%
	2215.00	4	1.6%
	2220.00	21	8.5%

2221.00	1	0.4%
2223.50	1	0.4%
2225.00	1	0.4%
2226.00	1	0.4%
2230.00	20	8.1%
2233.33	1	0.4%
2235.00	5	2.0%
2245.00	19	7.7%
3212.00	19	7.7%
3214.00	1	0.4%
3215.00	3	1.2%
3230.00	103	41.5%
9249.00	1	0.4%
9259.00	1	0.4%
Overall	248	100.0%
Excluded	0	
Total	248	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1720.00	1.036	1.000	.000	.
1722.25	.484	1.000	.000	.
1973.50	.876	1.000	.000	.
2212.00	.895	1.066	.238	30.7%
2215.00	.928	1.081	.212	40.4%
2220.00	.987	.998	.154	24.5%
2221.00	.796	1.000	.000	.
2223.50	1.023	1.000	.000	.
2225.00	.386	1.000	.000	.
2226.00	.664	1.000	.000	.
2230.00	.746	.934	.297	36.7%
2233.33	.458	1.000	.000	.
2235.00	.778	1.022	.132	18.2%
2245.00	.975	1.057	.107	16.3%
3212.00	.980	.981	.141	22.8%
3214.00	.960	1.000	.000	.
3215.00	.602	.803	.465	88.6%
3230.00	1.017	1.017	.099	14.6%
9249.00	1.004	1.000	.000	.
9259.00	1.295	1.000	.000	.
Overall	.981	1.079	.161	23.5%

Improvement Age

Case Processing Summary

		Count	Percent
AgeRec	Over 100	1	0.4%
	75 to 100	4	1.6%
	50 to 75	5	2.0%
	25 to 50	34	13.7%
	5 to 25	91	36.7%
	5 or Newer	113	45.6%
Overall		248	100.0%
Excluded		0	
Total		248	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Over 100	.751	1.000	.000	.
75 to 100	.982	1.020	.175	23.2%
50 to 75	.484	1.058	.530	74.9%
25 to 50	.965	1.039	.168	23.9%
5 to 25	.955	1.002	.181	26.1%
5 or Newer	1.002	1.237	.128	19.2%
Overall	.981	1.079	.161	23.5%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	LE 500 sf	2	0.8%
	500 to 1,000 sf	36	14.5%
	1,000 to 1,500 sf	57	23.0%
	1,500 to 2,000 sf	19	7.7%
	2,000 to 3,000 sf	18	7.3%
	3,000 sf or Higher	116	46.8%
Overall		248	100.0%
Excluded		0	
Total		248	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LE 500 sf	.865	1.009	.094	13.4%
500 to 1,000 sf	1.025	1.025	.115	16.1%
1,000 to 1,500 sf	1.017	1.024	.111	17.1%
1,500 to 2,000 sf	.998	1.000	.070	10.5%
2,000 to 3,000 sf	.916	1.071	.220	29.1%
3,000 sf or Higher	.924	1.008	.206	27.7%
Overall	.981	1.079	.161	23.5%

Improvement Quality

Case Processing Summary

		Count	Percent
QUALITY	Average	158	63.7%
	Fair	1	0.4%
	Good	84	33.9%
	Low	3	1.2%
	Very Good	2	0.8%
Overall		248	100.0%
Excluded		0	
Total		248	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Average	.980	1.106	.169	24.9%
Fair	.602	1.000	.000	.
Good	.986	1.030	.136	19.6%
Low	1.010	1.151	.225	37.2%
Very Good	.640	1.109	.191	27.0%
Overall	.981	1.079	.161	23.5%

Improvement Condition

Case Processing Summary

		Count	Percent
CONDITION	Average	77	31.0%
	Badly Worn	1	0.4%
	Good	170	68.5%
Overall		248	100.0%
Excluded		0	
Total		248	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Average	.931	.991	.209	27.9%
Badly Worn	.908	1.000	.000	.
Good	.995	1.114	.140	20.9%
Overall	.981	1.079	.161	23.5%

Vacant Land Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	LT \$25K	61	8.8%
	\$25K to \$50K	18	2.6%
	\$50K to \$100K	64	9.2%
	\$100K to \$150K	33	4.7%
	\$150K to \$200K	33	4.7%
	\$200K to \$300K	53	7.6%
	\$300K to \$500K	200	28.8%
	\$500K to \$750K	146	21.0%
	\$750K to \$1,000K	46	6.6%
	Over \$1,000K	41	5.9%
Overall		695	100.0%
Excluded		0	
Total		695	

Ratio Statistics for CURRLND / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LT \$25K	.983	1.081	.236	37.8%
\$25K to \$50K	1.054	.992	.203	28.0%
\$50K to \$100K	1.010	1.010	.140	19.6%
\$100K to \$150K	.954	.993	.181	26.1%
\$150K to \$200K	.999	.999	.146	19.5%
\$200K to \$300K	1.036	.995	.169	21.1%
\$300K to \$500K	1.008	.997	.125	15.8%
\$500K to \$750K	.959	1.001	.122	16.1%
\$750K to \$1,000K	.977	1.002	.129	18.5%
Over \$1,000K	.920	1.052	.198	26.4%
Overall	.991	1.065	.151	21.4%

Subclass

Case Processing Summary

		Count	Percent
ABSTRLND	.00	2	0.3%
	8.00	1	0.1%
	100.00	397	57.1%
	200.00	23	3.3%
	300.00	5	0.7%
	510.00	2	0.3%
	530.00	2	0.3%
	540.00	4	0.6%
	550.00	3	0.4%
	1112.00	231	33.2%
	1125.00	6	0.9%
	2112.00	5	0.7%
	2125.00	1	0.1%

	2130.00	10	1.4%
	2135.00	1	0.1%
	3112.00	1	0.1%
	9159.00	1	0.1%
Overall		695	100.0%
Excluded		0	
Total		695	

Ratio Statistics for CURRLND / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
.00	1.236	1.052	.145	20.6%
8.00	.658	1.000	.000	.
100.00	.983	1.052	.162	23.7%
200.00	1.013	1.039	.096	14.5%
300.00	.642	1.309	.319	43.6%
510.00	1.086	1.017	.143	20.3%
530.00	.788	.917	.281	39.7%
540.00	1.070	1.064	.094	11.9%
550.00	.674	1.075	.213	32.0%
1112.00	.991	1.026	.133	16.8%
1125.00	.857	1.219	.296	46.2%
2112.00	1.086	1.018	.066	10.0%
2125.00	1.000	1.000	.000	.
2130.00	1.017	.976	.083	20.2%
2135.00	1.028	1.000	.000	.
3112.00	.845	1.000	.000	.
9159.00	1.013	1.000	.000	.
Overall	.991	1.065	.151	21.4%