

## 2020

# DENVER COUNTY PROPERTY ASSESSMENT STUDY







September 15, 2020

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

RE: Final Report for the 2020 Colorado Property Assessment Study

Dear Ms. Mullis:

Wildrose Appraisal Inc.-Audit Division is pleased to submit the Final Reports for the 2020 Colorado Property Assessment Study.

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

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

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

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

Harry J. Fuller Project Manager

Harry J. Dulla

Wildrose Appraisal Inc. - Audit Division



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### INTRODUCTION



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

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

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

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

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

The property assessment audit conducts a 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 subdivision discounting procedures. Valuation methodology for vacant land, improved residential properties commercial and properties is examined. Procedures for producing mines, oil and gas leaseholds and lands producing, producing coal mines, producing earth and stone products, severed mineral interests and non-producing patented mining claims are also reviewed.

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

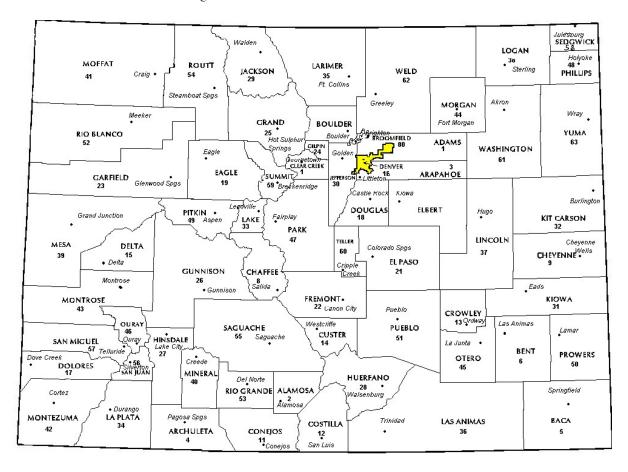
Wildrose Audit has completed the Property Assessment Study for 2020 and is pleased to report its findings for Denver County in the following report.



## REGIONAL/HISTORICAL SKETCH OF DENVER COUNTY

#### **Regional Information**

Denver 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**

Denver County had an estimated population of approximately 693,060 people with 4,529.8 people per square mile, according to the U.S. Census Bureau's 2016 estimated census data. This represents a 15.47 percent change from April 1, 2010 to July 1, 2016.

Denver is the capital and the most populous city of the state of Colorado. Denver is a consolidated city-county located in the South Platte River Valley on the High Plains just east of the Front Range of the Rocky Mountains.

Denver City was founded in November 1858 as a mining town during the Pikes Peak Gold Rush in western Kansas Territory. That summer, a group of gold prospectors from Lawrence, Kansas, arrived and established Montana City on the banks of the South Platte River. This was the first settlement in what was later to become the city of Denver. The site faded quickly, however, and was abandoned in favor of Auraria (named after the gold-mining town of Auraria, Georgia) and St. Charles City by the summer of 1859. The Montana City site is now Grant-Frontier Park and includes mining equipment and a log cabin replica.

On November 22, 1858, General William Larimer, a land speculator from eastern Kansas, placed cottonwood logs to stake a claim on the hill overlooking the confluence of the South Platte River and Cherry Creek, across the creek from the existing mining settlement of Auraria. Larimer named the town site Denver City to curry favor with Kansas Territorial Governor James W. Denver. Larimer hoped that the town's name would help make it the county seat of Arapaho County, but ironically Governor Denver had already resigned from office. The location was accessible to existing trails and was across the South Platte River

from the site of seasonal encampments of the Cheyenne and Arapaho. The site of these first towns is now the site of Confluence Park in downtown Denver. Larimer, along with associates in the St. Charles City Land Company, sold parcels in the town to merchants and miners, with the intention of creating a major city that would cater to new emigrants. Denver City was a frontier town, with an economy based on servicing local miners with gambling, saloons, livestock and goods trading. In the early years, land parcels were often traded for grubstakes or gambled away by miners in Auraria.

The Colorado Territory was created on February 28, 1861. Arapahoe County was formed on November 1, 1861 and Denver City was incorporated on November 7, 1861. Denver City served as the Arapahoe County Seat from 1861 until consolidation in 1902. In 1865, Denver City became the Territorial Capital and became the State Capital when Colorado was admitted to the Union.

In 1901 the Colorado General Assembly voted to split Arapahoe County into three parts: a new consolidated City and County of Denver, a new Adams County, and the remainder of the Arapahoe County to be renamed South Arapahoe County. A ruling by the Colorado Supreme Court, subsequent legislation, and a referendum delayed the creation of the City and County of Denver until November 15, 1902.

Denver has hosted the Democratic National Convention twice, during the years of 1908 and again in 2008, taking the opportunity to promote the city's status on the national, political, and socioeconomic stage. (Wikipedia.org)



## RATIO ANALYSIS

#### Methodology

All significant classes of properties were analyzed. Sales were collected for each property class over the appropriate sale period, which was typically defined as the 18-month period between January 1, 2017 and June 30, 2018. Counties with less than 30 sales typically extended the sale period back up to 5 years prior to June 30, 2018 in 6-month increments. If there were still fewer than 30 sales, supplemental appraisals were performed and treated as proxy sales. Residential sales for all counties using this method totaled at least 30 per county. For commercial sales, the total number analyzed was allowed, in some cases, to fall below 30. There were no sale quantity issues for counties requiring vacant land analysis or condominium analysis. Although it was required that we examine the median and coefficient of dispersion for all counties, we also calculated the weighted mean and pricerelated 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. For the largest 11 counties, the residential ratio statistics were broken down by economic area as well.

#### **Conclusions**

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

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



#### The results for Denver County are:

Denver County Ratio Grid					
Property Class	Number of Qualified Sales	Unweighted Median Ratio	Price Related Differential	Coefficient of Dispersion	Time Trend Analysis
Commercial/Industrial	466	0.989	1.038	13.1	Compliant
Condominium	6,799	1.000	1.004	4.3	Compliant
Single Family	15,312	1.000	1.003	4.2	Compliant
Vacant Land	855	0.955	1.056	12.6	Compliant

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

with SBOE, DPT, and Colorado State Statute valuation guidelines.

Recommendations



## TIME TRENDING VERIFICATION

#### Methodology

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

#### **Conclusions**

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

#### Recommendations



### SOLD/UNSOLD ANALYSIS

#### Methodology

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

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

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

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



Sold/Unsold Results		
Property Class	Results	
Commercial/Industrial	Compliant	
Condominium	Compliant	
Single Family	Compliant	
Vacant Land	Compliant	

#### Conclusions

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

#### Recommendations



## AGRICULTURAL LAND STUDY

Acres By Subclass

80,000
70,000
60,000
40,000
30,000
20,000
10,000
0

10,000
0

10,000

#### 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: 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:



Denver County Agricultural Land Ratio Grid						
Abstract		Number Of	County Value	County Assessed	WRA Total	
Code	Land Class	Acres		otal Value	Value	Ratio
4127	Dry Farm	1,362	50.85	69,252	69,252	1.00
Total/Avg		1,362	50.85	69,252	69,252	1.00

Recommendations

None

DenverCounty is Exempt from the Agricultural Outbuildings Study

Denver County is exempt from the Agricultural Land Under Improvements Study



## SALES VERIFICATION

According to Colorado Revised Statutes:

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

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

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

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

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

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

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

WRA reviewed the sales verification procedures in 2020 for Denver County. This study was conducted by checking selected sales from the master sales list for the current valuation period. Specifically WRA selected 60 sales listed as unqualified.

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

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

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

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



conducted further analysis to determine if the sales included in that code have been assigned appropriately.

#### **Conclusions**

Denver County appears to be doing a good job of verifying their sales.

#### Recommendations



## ECONOMIC AREA REVIEW AND EVALUATION

#### Methodology

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

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

#### Recommendations



## NATURAL RESOURCES

DenverCounty is exempt from the Natural Resources Study.



#### VACANT LAND

#### **Subdivision Discounting**

Subdivisions were reviewed in 2020 in Denver County. The review showed that subdivisions were discounted pursuant to the Colorado Revised Statutes in Article 39-1-103 (14) and by applying the recommended methodology in ARL Vol 3, Chap 4. Subdivision Discounting in the intervening year can be accomplished by reducing the absorption period by one year.

In instances where the number of sales within an approved plat was less than the absorption

rate per year calculated for the plat, the absorption period was left unchanged.

#### Conclusions

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

#### Recommendations



## POSSESSORY INTEREST PROPERTIES

#### **Possessory Interest**

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

Denver 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**

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

#### Recommendations



## PERSONAL PROPERTY AUDIT

Denver 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.

Denver 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
- 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.

Denver County submitted their personal property written audit plan and was current for the 2020 valuation period. The number and listing of businesses audited was also submitted and was in conformance with the written audit plan. The following audit triggers were used by the county to select accounts to be audited:

- Accounts with obvious discrepancies
- New businesses filing for the first time
- Accounts with greater than 10% change
- Incomplete or inconsistent declarations
- Accounts with omitted property
- Businesses with no deletions or additions for 2 or more years
- Non-filing Accounts Best Information Available
- As part of sales tax audit



Denver 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**

Denver County has employed adequate discovery, classification, documentation,

valuation, and auditing procedures for their personal property assessment and is in statistical compliance with SBOE requirements.

#### Recommendations



## WILDROSE AUDITOR STAFF

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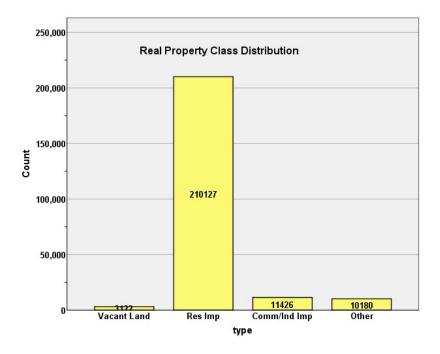
## APPENDICES



#### STATISTICAL COMPLIANCE REPORT FOR DENVER COUNTY 2020

#### I. OVERVIEW

Denver County is an urban county located along Colorado's Front Range. The county has a total of 234,855 real property parcels, according to data submitted by the county assessor's office in 2020. 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, 101 and 200) accounted for 85.7% of all vacant land parcels.

For residential improved properties, single family properties accounted for 63.8% of all residential properties, while condominiums accounted for 21.4% of all residential properties. We broke down our residential analysis by both economic area and residential subclass.

Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial properties accounted for 4.9% of all such properties in this county.

Based on the Audit questionnaire filled out by the assessor (see below), the following geographic levels were used by the assessor to value residential, commercial and vacant land properties:



Geo Area	Residential	Comm/Ind	Vacant Land
Economic Area	V/N	V	N
Neighborhood	V/N	N	V
Subdivision	N	N	N

Codes

*V=Valid Geographic Level – used for modeling* 

N = Not used as Geographic Level for modeling

*Note:* Too difficult to describe succinctly and varies by type

#### II. DATA FILES

The following sales analyses were based on the requirements of the 2020 Colorado Property Assessment Study. Information was provided by the Denver Assessor's Office in June 2020. The data included all 5 property record files as specified by the Auditor.

#### III. RESIDENTIAL SALES RESULTS

There were 27,213 qualified residential sales in the 24 month sale period ending June 30, 2018. We stratified the sales ratio results by residential subclass and economic area, as follows:

SINGLE FAMILY Ratio Statistics for currtot / tasp N = 15,312 Ratio Statistics for CURTOT / TASP

		Price Related	Coefficient of
Group	Median	Differential	Dispersion
1.00	.999	1.002	.030
2.00	.999	1.003	.036
3.00	1.002	1.002	.032
4.00	.998	1.005	.056
5.00	.998	1.004	.048
6.00	1.000	1.002	.033
7.00	.999	1.002	.035
8.00	1.001	1.003	.040
9.00	1.003	1.005	.048
10.00	1.002	1.004	.050
11.00	1.001	1.005	.057
12.00	1.001	1.004	.047
13.00	1.001	1.002	.038
14.00	1.001	1.003	.031
15.00	1.007	1.002	.053
16.00	1.001	1.003	.042
17.00	1.003	1.004	.043
18.00	1.001	1.005	.055
19.00	1.002	1.003	.038
20.00	.998	1.005	.047
21.00	.999	1.002	.041
22.00	1.000	1.002	.038
23.00	.999	1.004	.048
24.00	1.002	1.002	.043



25.00	.998	1.007	.080	
26.00	.999	1.002	.039	
27.00	.998	1.002	.037	
28.00	1.000	1.002	.034	
29.00	1.001	1.003	.035	
30.00	.998	1.006	.054	
31.00	1.004	1.005	.045	
32.00	1.002	1.004	.045	
33.00	1.004	1.005	.058	
34.00	1.001	1.002	.026	
Overall	1.000	1.003	.042	

## **ROWHOUSE/TOWN HOMES** Ratio Statistics for currtot / tasp N = 4.605

#### Ratio Statistics for CURTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
51.00	.999	1.006	.053
52.00	1.001	1.004	.035
53.00	1.000	1.002	.030
54.00	.998	1.006	.053
55.00	1.000	1.004	.039
56.00	.999	1.004	.039
57.00	1.001	1.003	.034
58.00	1.000	1.002	.028
266.00	1.012	1.000	.000
Overall	1.000	1.004	.037

## **DUPLEX/TRIPLEX** Ratio Statistics for currtot / tasp N = 258

#### **Ratio Statistics for CURTOT / TASP**

	Price Related	Coefficient of
Median	Differential	Dispersion
1.000	1.009	.076

#### **MULTI-FAM UNITS 4-8** Ratio Statistics for currtot / tasp

N = 91

#### **Ratio Statistics for CURTOT / TASP**

	Price Related	Coefficient of
Median	Differential	Dispersion
1.009	1.011	.083

#### MULTI-FAM UNITS 9 AND UP Ratio Statistics for currtot / tasp

N = 148

#### **Ratio Statistics for CURTOT / TASP**

B.4 11	Price Related	Coefficient of
Median	Differential	Dispersion
1.005	1.004	.078

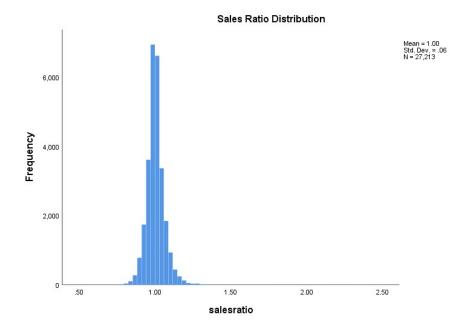


**CONDOMINIUM** Ratio Statistics for currtot / tasp N = 6,799

#### **Ratio Statistics for CURTOT / TASP**

		Price Related	Coefficient of
Group	Median	Differential	Dispersion
37.00	1.001	1.004	.043
38.00	.999	1.003	.039
39.00	1.001	1.006	.044
41.00	1.000	1.004	.046
42.00	1.000	1.003	.039
43.00	1.001	1.004	.043
44.00	1.001	1.005	.047
45.00	1.000	1.002	.036
46.00	1.000	1.003	.040
47.00	1.004	1.008	.064
48.00	1.001	1.004	.049
50.00	1.002	1.003	.030
Overall	1.000	1.004	.043

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



#### **Residential Market Trend Analysis**

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



## SINGLE FAMILY ANALYSIS Coefficients<sup>a</sup>

ECONAREA	Model		Unstandardiz B	ed Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1.00	1	(Constant)	.995	.003		309.597	.000
		SalePeriod	.001	.000	.110	2.737	.006
2.00	1	(Constant)	.989	.004		264.524	.000
		SalePeriod	.001	.000	.178	4.492	.000
3.00	1	(Constant)	1.000	.004	.170	253.234	.000
5.00	1				000		
1.00	4	SalePeriod	.000	.000	.033	.666	.506
1.00	1	(Constant)	.996	.007		146.518	.000
		SalePeriod	.001	.001	.075	1.523	.129
5.00	1	(Constant)	.979	.011		85.487	.000
		SalePeriod	.002	.001	.197	2.188	.031
5.00	1	(Constant)	.989	.002		482.850	.000
		SalePeriod	.001	.000	.167	6.687	.000
7.00	1	(Constant)	.993	.004		227.221	.000
		SalePeriod	.001	.000	.078	1.689	.092
3.00	1	(Constant)	1.005	.005		207.161	.000
		SalePeriod	5.271E-5	.000	.007	.143	.886
0.00	1	(Constant)	1.004	.009		114.377	.000
	·	SalePeriod	.001	.001	.058	1.063	.289
0.00	1	(Constant)	1.002	.006	.036	158.447	.000
10.00				007			
1.00	1	SalePeriod (Constant)	.000	.000	.027	.540	.590
11.00 1	(Constant)	.997	.006		169.638	.000	
		SalePeriod	.001	.000	.133	3.108	.002
2.00	1	(Constant)	1.004	.007		152.576	.000
		SalePeriod	1.479E-5	.000	.002	.030	.976
3.00	1	(Constant)	1.003	.007		142.272	.000
		SalePeriod	.000	.001	.028	.620	.536
4.00	1	(Constant)	1.005	.004		241.066	.000
		SalePeriod	.000	.000	026	470	.638
5.00	1	(Constant)	1.010	.008		121.649	.000
		SalePeriod	.000	.001	031	492	.623
6.00	1	(Constant)	.981	.004		217.942	.000
		SalePeriod	.002	.000	.246	5.692	.000
7.00	1	(Constant)	1.001	.005	.240	193.638	.000
	·		.000	.000	025	.516	
8.00	1	SalePeriod (Constant)	1.000	.008	.025	118.259	.606
0.00	1	· · · · · ·			000		
0.00		SalePeriod	8.432E-5	.001	.008	.130	.897
9.00	1	(Constant)	1.007	.004		254.542	.000
		SalePeriod	.000	.000	020	486	.627
20.00	1	(Constant)	.995	.008		120.558	.000
		SalePeriod	.001	.001	.134	2.217	.027
21.00	1	(Constant)	1.006	.006		162.900	.000
		SalePeriod	-7.458E-5	.000	010	171	.865
22.00	1	(Constant)	.994	.003		364.406	.000
		SalePeriod	.001	.000	.129	4.280	.000
		Jaior Oriod		1.000		150	1.000



23.00	1	(Constant)	.981	.005		204.402	.000
		SalePeriod	.002	.000	.206	5.493	.000
24.00	1	(Constant)	.992	.005		204.801	.000
		SalePeriod	.001	.000	.128	3.063	.002
25.00	1	(Constant)	.995	.005		201.695	.000
		SalePeriod	.001	.000	.092	1.853	.065
26.00	1	(Constant)	1.001	.005		184.037	.000
		SalePeriod	.000	.000	.030	.530	.597
27.00	1	(Constant)	.991	.005		200.248	.000
	SalePeriod	.001	.000	.131	2.462	.014	
28.00	1	(Constant)	.995	.005		208.108	.000
		SalePeriod	.001	.000	.109	1.946	.053
29.00	1	(Constant)	1.004	.005		200.638	.000
		SalePeriod	-1.595E-5	.000	002	041	.967
30.00	1	(Constant)	.979	.007		149.515	.000
		SalePeriod	.002	.000	.213	4.477	.000
31.00	1	(Constant)	1.002	.007		142.772	.000
		SalePeriod	.001	.001	.065	1.005	.316
32.00	1	(Constant)	.993	.005		220.402	.000
		SalePeriod	.001	.000	.110	2.678	.008
33.00	1	(Constant)	1.016	.011		90.743	.000
		SalePeriod	.000	.001	021	299	.765
34.00	1	(Constant)	.999	.005		197.293	.000
		SalePeriod	.000	.000	.025	.341	.733

a. Dependent Variable: salesratio

## ROWHOUSE/TOWN HOME ANALYSIS Coefficients<sup>a</sup>

			l locate o de valio	ad Caefficiants	Standardized		
ECONAREA	Model		Unstandardiz B	ed Coefficients Std. Error	Coefficients Beta	+	Sig.
51.00	1	(Constant)	1.007	.008	Deta	126.945	.000
		SalePeriod	.000	.001	027	472	.637
52.00	1	(Constant)	.997	.004		239.047	.000
		SalePeriod	.001	.000	.107	2.601	.010
53.00	1	(Constant)	.989	.003		319.830	.000
		SalePeriod	.001	.000	.166	4.370	.000
54.00	1	(Constant)	1.001	.007		142.316	.000
		SalePeriod	.000	.001	.024	.537	.592
55.00	1	(Constant)	.990	.005		184.033	.000
		SalePeriod	.001	.000	.147	2.919	.004
56.00	1	(Constant)	.986	.004		247.667	.000
		SalePeriod	.001	.000	.175	4.682	.000
57.00	1	(Constant)	.999	.004		284.207	.000
		SalePeriod	.000	.000	.038	.954	.340
58.00	1	(Constant)	.996	.003		362.631	.000
		SalePeriod	.001	.000	.100	2.859	.004

a. Dependent Variable: salesratio



#### **DUPLEX/TRIPLEX ANALYSIS**

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

		Unstandardized	Coefficients	Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	.994	.012		81.094	.000
	SalePeriod	.001	.001	.101	1.623	.106

a. Dependent Variable: salesratio

#### **MULTI-FAM UNITS 4-8 ANALYSIS**

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

		Unstandardized		Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	.982	.024		41.364	.000
	SalePeriod	.003	.002	.176	1.690	.095

a. Dependent Variable: salesratio

#### **MULTI-FAM UNITS 9 AND UP ANALYSIS**

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

		Unstandardized		Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	1.028	.016		64.262	.000
	SalePeriod	001	.001	076	918	.360

a. Dependent Variable: salesratio

#### **CONDOMINIUM ANALYSIS**

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

					Standardized		
				dized Coefficients	Coefficients		
ECONAREA	Model		В	Std. Error	Beta	t	Sig.
37.00	1	(Constant)	1.000	.005		188.486	.000
		SalePeriod	.000	.000	.045	1.000	.318
38.00	1	(Constant)	1.001	.005		200.321	.000
		SalePeriod	.000	.000	.040	.806	.421
39.00	1	(Constant)	1.003	.006		179.530	.000
		SalePeriod	.000	.000	.022	.476	.634
41.00	1	(Constant)	.983	.003		287.921	.000
		SalePeriod	.002	.000	.214	7.493	.000
42.00	1	(Constant)	.989	.004		238.766	.000
		SalePeriod	.001	.000	.156	4.159	.000
43.00	1	(Constant)	1.002	.004		222.976	.000
		SalePeriod	.000	.000	.036	.977	.329
44.00	1	(Constant)	.989	.004		224.908	.000
		SalePeriod	.001	.000	.132	3.605	.000
45.00	1	(Constant)	.991	.003		283.180	.000
		SalePeriod	.001	.000	.138	3.653	.000
46.00	1	(Constant)	.995	.004		249.776	.000
		SalePeriod	.001	.000	.085	2.226	.026
47.00	1	(Constant)	.999	.011		86.868	.000
		SalePeriod	.001	.001	.099	1.417	.158



48.00	1	(Constant)	.992	.006		153.577	.000
		SalePeriod	.001	.000	.114	2.286	.023
50.00	1	(Constant)	.992	.009		111.937	.000
		SalePeriod	.001	.001	.111	1.171	.244

a. Dependent Variable: salesratio

The above indicates that market trending was insignificant from either a statistical or a relative magnitude perspective for each subclass and economic area. Based on this analysis, we concluded that Denver County adequately addressed market trending.

#### Sold/Unsold Analysis

In terms of the valuation consistency between sold and unsold residential properties, we compared the median and mean change in actual value for taxable years 2018 and 2020 between sold and unsold groups. The data was analyzed by subclass and economic area, as follows:

#### **OVERALL ANALYSIS**

#### Report

VALSF

sold	N	Median	Mean	
UNSOLD	178510	\$336	\$350	
SOLD	27211	\$345	\$354	

#### **SINGLE FAMILY ANALYSIS**

#### Report

**VALSF** 

ECONAREA	sold	N	Median	Mean
1.00	UNSOLD	3980	\$204	\$214
1.00	SOLD	613	\$216	\$227
2.00	UNSOLD	6370	\$282	\$272
2.00	SOLD	619	\$291	\$279
3.00	UNSOLD	3161	\$384	\$382
0.00	SOLD	408	\$424	\$425
4.00	UNSOLD	3355	\$444	\$450
4.00	SOLD	416	\$473	\$475
5.00	UNSOLD	2085	\$323	\$330
5.00	SOLD	121	\$346	\$338
6.00	UNSOLD	4546	\$181	\$184
0.00	SOLD	1555	\$183	\$188
7.00	UNSOLD	3508	\$435	\$446
7.00	SOLD	460	\$460	\$479
8.00	UNSOLD	3698	\$437	\$446
0.00			<u> </u>	•
0.00	SOLD	464	\$454	\$471
9.00	UNSOLD	2283	\$477	\$486
40.00	SOLD	340	\$491	\$506
10.00	UNSOLD	3403	\$400	\$412
11.00	SOLD	414	\$432	\$446
11.00	UNSOLD	5607	\$339	\$341
	SOLD	538	\$351	\$355
12.00	UNSOLD	2703	\$448	\$465
	SOLD	310	\$478	\$497
13.00	UNSOLD	3442	\$430	\$431
	SOLD	475	\$458	\$460
14.00	UNSOLD	3111	\$521	\$542



	SOLD	321	\$547	\$570
15.00	UNSOLD	2126	\$583	\$583
	SOLD	258	\$615	\$610
16.00	UNSOLD	5278	\$325	\$327
	SOLD	506	\$345	\$348
17.00	UNSOLD	3431	\$426	\$446
	SOLD	426	\$446	\$461
18.00	UNSOLD	2297	\$460	\$466
	SOLD	251	\$462	\$467
19.00	UNSOLD	5051	\$327	\$325
	SOLD	597	\$375	\$375
20.00	UNSOLD	2027	\$318	\$321
	SOLD	270	\$345	\$345
21.00	UNSOLD	1230	\$301	\$312
	SOLD	290	\$322	\$330
22.00	UNSOLD	4344	\$301	\$303
	SOLD	1091	\$300	\$304
23.00	UNSOLD	6645	\$314	\$313
	SOLD	683	\$326	\$328
24.00	UNSOLD	5691	\$314	\$310
	SOLD	567	\$329	\$323
25.00	UNSOLD	3682	\$290	\$296
	SOLD	405	\$312	\$314
26.00	UNSOLD	2866	\$492	\$498
	SOLD	309	\$493	\$505
27.00	UNSOLD	3242	\$440	\$458
	SOLD	349	\$449	\$463
28.00	UNSOLD	3011	\$278	\$281
	SOLD	316	\$302	\$312
	Total	3327	\$281	\$284
29.00	UNSOLD	2655	\$270	\$273
	SOLD	277	\$298	\$309
30.00	UNSOLD	2765	\$367	\$367
	SOLD	424	\$371	\$375
31.00	UNSOLD	2079	\$446	\$461
	SOLD	243	\$446	\$469
32.00	UNSOLD	5158	\$389	\$398
	SOLD	592	\$406	\$419
33.00	UNSOLD	1754	\$360	\$372
	SOLD	199	\$387	\$399
34.00	UNSOLD	1602	\$351	\$352
	SOLD	195	\$366	\$374

#### **ROWHOUSE/TOWN HOME ANALYSIS**

ROWHOUSE/TOWN HOME ANALTSIS					
Report					
VALSF					
ECONAREA	sold	N	Median	Mean	
51.00	UNSOLD	1559	\$421	\$437	
	SOLD	314	\$428	\$440	
52.00	UNSOLD	3044	\$248	\$279	
	SOLD	589	\$298	\$298	
53.00	UNSOLD	2768	\$261	\$244	
	SOLD	674	\$270	\$275	
54.00	UNSOLD	2526	\$428	\$431	
	SOLD	502	\$443	\$444	
55.00	UNSOLD	2888	\$246	\$260	
				-	



	SOLD	389	\$249	\$260
56.00	UNSOLD	2489	\$326	\$334
	SOLD	698	\$340	\$338
57.00	UNSOLD	1774	\$408	\$421
	SOLD	632	\$403	\$407
58.00	UNSOLD	2121	\$376	\$400
	SOLD	804	\$366	\$382

#### **DUPLEX/TRIPLEX ANALYSIS**

#### Report

VALSF

sold	N	Median	Mean	
UNSOLD	3153	\$315	\$334	
SOLD	258	\$265	\$272	

#### **MULTI-FAM UNITS 4-8 ANALYSIS**

#### Report

VALSF

sold	N	Median	Mean
UNSOLD	867	\$306	\$326
SOLD	91	\$239	\$250

#### **MULTI-FAM UNITS 9 AND UP ANALYSIS**

#### Report

VALSF

sold	N	Median	Mean	
UNSOLD	1460	\$264	\$346	
SOLD	123	\$265	\$266	

#### **CONDOMINIUM ANALYSIS**

## **Report** VALSF

<b>ECONAREA</b>	sold	N	Median	Mean
37.00	UNSOLD	2258	\$479	\$497
	SOLD	486	\$488	\$502
38.00	UNSOLD	2886	\$376	\$377
	SOLD	414	\$386	\$387
39.00	UNSOLD	2676	\$287	\$262
	SOLD	480	\$304	\$295
41.00	UNSOLD	6009	\$188	\$187
	SOLD	1173	\$191	\$189
42.00	UNSOLD	3933	\$222	\$226
	SOLD	698	\$223	\$224
43.00	UNSOLD	4302	\$271	\$251
	SOLD	731	\$285	\$286
44.00	UNSOLD	3290	\$342	\$339
	SOLD	732	\$346	\$348
45.00	UNSOLD	2856	\$380	\$367
	SOLD	694	\$386	\$387
46.00	UNSOLD	2687	\$432	\$428
	SOLD	678	\$437	\$437
47.00	UNSOLD	1672	\$497	\$539
	SOLD	203	\$508	\$543
48.00	UNSOLD	2293	\$177	\$179
	SOLD	397	\$184	\$188
50.00	UNSOLD	718	\$522	\$530
	SOLD	112	\$575	\$589



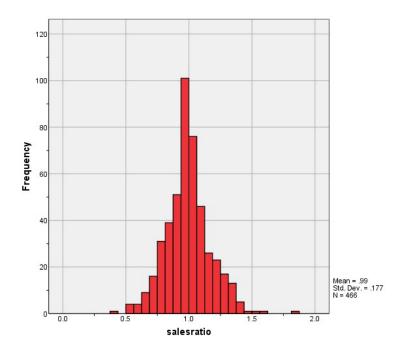
The above results indicate that sold and unsold residential properties were valued in a consistent manner.

#### IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

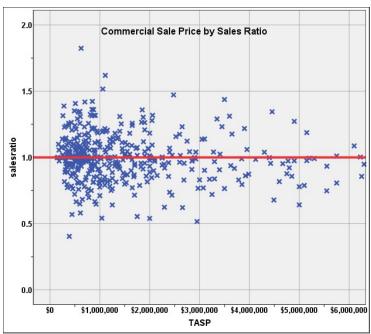
There were 466 qualified commercial/industrial sales in the 24 month sale period ending June 30, 2018. We performed the following sales ratio analysis, as follows:

Median	0.989
Price Related Differential	1.038
Coefficient of Dispersion	13.1

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







NOTE: HIGH END SALES EXCLUDED

#### **Commercial/Industrial Market Trend Analysis**

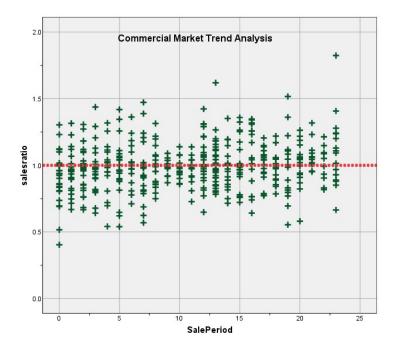
The commercial/industrial sales were analyzed, examining the sale ratios across the 24 month sale period with the following results:

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

Model		Unstandardized B	Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.948	.015		64.198	.000
	SalePeriod	.004	.001	.168	3.660	.000

a. Dependent Variable: salesratio





There was a statistically significant trend, although the magnitude of that trend, when considering the number of subclasses, was not significant; therefore, we concluded that the assessor has adequately considered market trending adjustments as part of the commercial/industrial valuation.

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

We compared the median change in value between taxable years 2018 and 2020 for unsold and sold commercial/industrial properties overall and by subclass, as follows:

Re	port
	_

DIFF			
sold	N	Median	Mean
UNSOLD	10118	1.2420	1.2869
SOLD	433	1.3172	1.3377

#### Report DIFF

ABSTRIMP	sold	N	Median	Mean
2112	UNSOLD	1527	1.3377	1.3537
	SOLD	64	1.3933	1.3921
2120	UNSOLD	1373	1.2879	1.3267
	SOLD	116	1.3339	1.3638
2125	UNSOLD	161	1.1597	1.1839
	SOLD	8	1.1604	1.1987
2130	UNSOLD	2547	1.2299	1.2903
	SOLD	55	1.2825	1.3132
2135	UNSOLD	1991	1.2994	1.3239
	SOLD	121	1.3411	1.3434
2230	UNSOLD	1512	1.1134	1.1836
	SOLD	55	1.1951	1.2674



3115	UNSOLD	236	1.2994	1.3393
	SOLD	12	1.2368	1.2897

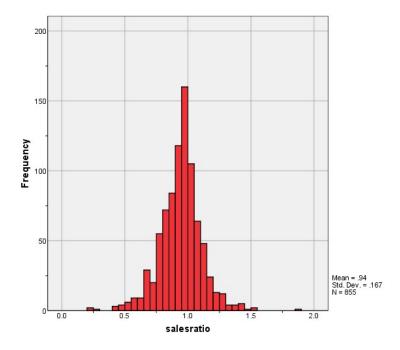
The above results indicated that sold and unsold commercial/industrial properties were valued consistently.

#### V. VACANT LAND SALE RESULTS

There were 855 qualified vacant land sales in the 24 month sale period ending June 30, 2018. The following sales ratio analysis was performed:

Median	0.955
Price Related Differential	1.056
Coefficient of Dispersion	12.6

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. No sales were trimmed.

## **Vacant Land Market Trend Analysis**

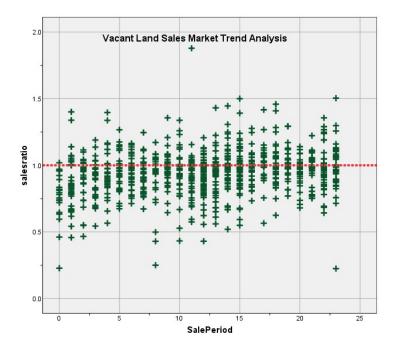
We next analyzed the vacant land dataset using the 24-month sale period, with the following results:

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

		Unstandardized		Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	.881	.011		77.348	.000
	SalePeriod	.005	.001	.209	6.254	.000

a. Dependent Variable: salesratio





There was a statistically significant trend in the vacant land data. According to the sale file submitted by the assessor, no market trending was applied to vacant land sales. We recommend that the assessor reconsider applying market trending during the next appraisal cycle if current upward market trends continue.

#### **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 2018 and 2020 between each group. We stratified the vacant land properties by subdivisions with at least 10 sales and found overall consistency. The following results present the overall comparison results:

Report				
DIFF				
sold	N	Median	Mean	
UNSOLD	1914	1.1110	1.1712	
SOLD	558	1.2500	1.3151	

Report DIFF				
NBHD	sold	N	Median	Mean
211	UNSOLD	8	1.3332	1.2979
	SOLD	12	1.3333	1.2564
218	UNSOLD	17	1.2283	1.1700
	SOLD	14	1.3605	1.3325
230	UNSOLD	21	1.1579	1.1807
	SOLD	16	1.1627	1.3206
235	UNSOLD	21	1.0523	1.0776
	SOLD	9	1.0526	1.1015
245	UNSOLD	12	.9178	.9472



SOLD	3	1.2306	1.2306
UNSOLD	18	1.2141	1.1077
SOLD	16	1.2144	1.2629
UNSOLD	29	1.2501	1.2600
SOLD	23	1.2855	1.2585
UNSOLD	6	1.4954	1.2217
SOLD	23	1.6667	1.6568
UNSOLD	6	1.6347	1.5278
SOLD	19	1.7285	1.7716
UNSOLD	9	1.1820	1.2164
SOLD	47	1.1819	1.2007
UNSOLD	14	1.0713	1.0476
SOLD	30	1.1290	1.1388
UNSOLD	11	1.1852	1.2111
SOLD	11	1.1852	1.2035
UNSOLD	13	1.0833	1.1466
SOLD	36	1.2500	1.1747
UNSOLD	18	1.2941	1.2699
SOLD	12	1.5341	1.5117
UNSOLD	15	1.1999	1.1665
SOLD	16	1.2000	1.1877
	UNSOLD SOLD	UNSOLD 18 SOLD 16 UNSOLD 29 SOLD 23 UNSOLD 6 SOLD 23 UNSOLD 6 SOLD 19 UNSOLD 9 SOLD 47 UNSOLD 14 SOLD 30 UNSOLD 11 SOLD 11 UNSOLD 11 SOLD 11 UNSOLD 13 SOLD 18 SOLD 12 UNSOLD 18 SOLD 12 UNSOLD 15	UNSOLD 18 1.2141 SOLD 16 1.2144 UNSOLD 29 1.2501 SOLD 23 1.2855 UNSOLD 6 1.4954 SOLD 23 1.6667 UNSOLD 6 1.6347 SOLD 19 1.7285 UNSOLD 9 1.1820 SOLD 47 1.1819 UNSOLD 14 1.0713 SOLD 30 1.1290 UNSOLD 11 1.1852 SOLD 11 1.1852 UNSOLD 13 1.0833 SOLD 36 1.2500 UNSOLD 18 1.2941 SOLD 12 1.5341 UNSOLD 15 1.1999

The same pattern was found when subdivisions with at least three sales were also analyzed. Overall, we concluded that the county assessor valued sold and unsold vacant land properties consistently.

#### **V. CONCLUSIONS**

Based on this 2020 audit statistical analysis, residential, commercial, and vacant land properties were found to be in compliance with state guidelines.



#### **STATISTICAL ABSTRACT**

#### **Residential**

	Ratio Statistics for CURrTOT / TASP												
		95% Confiden Me	ice Interval for an		95% Cor	nfidence Interval fo	or Median		95% Confider Weighte				Coefficient of Variation
PREDUSE	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
1112	1.004	1.003	1.005	1.000	1.000	1.001	95.0%	1.001	1.000	1.002	1.003	.041	5.8%
1114	1.003	1.001	1.004	1.000	.999	1.001	95.2%	.999	.997	1.001	1.004	.037	5.6%
1115	1.011	.999	1.023	1.000	.990	1.011	96.0%	1.002	.990	1.015	1.009	.076	9.9%
1120	1.017	.991	1.042	1.009	1.000	1.020	96.5%	1.005	.982	1.029	1.011	.083	11.9%
1125	1.015	.998	1.032	1.005	.991	1.019	96.0%	1.011	.996	1.027	1.004	.078	10.3%
1130	1.004	1.003	1.006	1.000	.999	1.001	95.1%	1.000	.998	1.002	1.004	.043	6.1%

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

#### **Commercial Land**

#### Ratio Statistics for CURRTOT / TASP

	95% Confiden Me	ce Interval for an		95% Con	ifidence Interval f	or Median		95% Confiden Weighte	ice Interval for ed Mean			Coefficient of Variation
Mean	Lower Bound	Upper Bound	Median	Lower Bound	Upper Bound	Actual Coverage	Weighted Mean	Lower Bound	Upper Bound	Price Related Differential	Coefficient of Dispersion	Mean Centered
.993	.977	1.010	.989	.975	.999	95.4%	.957	.929	.984	1.038	.131	17.8%

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

#### **Vacant Land**

#### Ratio Statistics for CURRLND / TASP

	95% Confiden Me			95% Con	fidence Interval fo	or Median		95% Confiden Weighte	ice Interval for ed Mean			Coefficient of Variation
Mean	Lower Bound	Upper Bound	Median	Lower Bound	Upper Bound	Actual Coverage	Weighted Mean	Lower Bound	Upper Bound	Price Related Differential	Coefficient of Dispersion	Mean Centered
.943	.932	.954	.955	.943	.965	95.3%	.893	.867	.918	1.056	.126	17.7%

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.



## Residential Median Ratio Stratification

#### **Sale Price**

	SE		Count	Percent
112	SPRec	\$150K to \$200K	6	0.0%
		\$200K to \$300K	1120	7.3%
		\$300K to \$500K	7258	47.4%
		\$500K to \$750K	4270	27.9%
		\$750K to \$1,000K	1421	9.3%
		Over \$1,000K	1237	8.1%
	Overall		15312	100.0%
	Excluded		0	
	Total		15312	
114	SPRec	\$150K to \$200K	17	0.4%
		\$200K to \$300K	588	12.8%
		\$300K to \$500K	1752	38.0%
		\$500K to \$750K	1556	33.8%
		\$750K to \$1,000K	535	11.6%
		Over \$1,000K	155	3.4%
		\$100K to \$150K	2	0.0%
	Overall		4605	100.0%
	Excluded		0	
	Total		4605	
115	SPRec	\$200K to \$300K	4	1.6%
		\$300K to \$500K	102	39.5%
		\$500K to \$750K	108	41.9%
		\$750K to \$1,000K	36	14.0%
		Over \$1,000K	8	3.1%
	Overall		258	100.0%
	Excluded		0	
	Total		258	
120	SPRec	\$300K to \$500K	5	5.5%
		\$500K to \$750K	24	26.4%
		\$750K to \$1,000K	35	38.5%
		Over \$1,000K	27	29.7%
	Overall		91	100.0%
	Excluded		0	
	Total		91	
125	SPRec	\$750K to \$1,000K	1	0.7%
		Over \$1,000K	147	99.3%
	Overall		148	100.0%
	Excluded		0	
	Total		148	
130	SPRec	\$150K to \$200K	1000	14.7%
		\$200K to \$300K	2182	32.1%
		\$300K to \$500K	2147	31.6%
		\$500K to \$750K	695	10.2%
		\$750K to \$1,000K	187	2.8%
		Over \$1,000K	142	2.1%



	\$100K to \$150K	440	6.5%
	\$50K to \$100K	6	0.1%
Overall		6799	100.0%
Excluded		0	
Total		6799	

DDEDUCE	Crown	Madian	Price Related	Coefficient of	Coefficient of Variation
PREDUSE 1112	Group \$150K to \$200K	Median 1.225	Differential 1.001	Dispersion .116	Median Centered 15.2%
1112					
	\$200K to \$300K	1.028	1.001	.048	6.5%
	\$300K to \$500K	1.000	1.000	.039	5.6%
	\$500K to \$750K	.998	1.000	.040	6.0%
	\$750K to \$1,000K	.997	1.000	.041	5.5%
	Over \$1,000K	.996	1.001	.044	5.7%
	Overall	1.000	1.003	.041	5.9%
1114	\$150K to \$200K	1.077	1.001	.125	19.4%
	\$200K to \$300K	1.008	1.001	.040	6.2%
	\$300K to \$500K	1.000	1.000	.036	5.3%
	\$500K to \$750K	.999	1.000	.033	4.9%
	\$750K to \$1,000K	.996	1.000	.036	5.1%
	Over \$1,000K	.979	1.000	.057	8.0%
	\$100K to \$150K	1.298	.990	.191	27.0%
	Overall	1.000	1.004	.037	5.7%
1115	\$200K to \$300K	1.078	1.000	.032	7.0%
	\$300K to \$500K	1.033	1.001	.075	10.1%
	\$500K to \$750K	.983	1.002	.070	9.4%
	\$750K to \$1,000K	1.000	.999	.070	9.6%
	Over \$1,000K	.938	1.006	.047	8.7%
	Overall	1.000	1.009	.076	10.1%
1120	\$300K to \$500K	1.094	.999	.060	10.5%
	\$500K to \$750K	1.011	1.002	.066	11.7%
	\$750K to \$1,000K	1.014	.998	.084	12.0%
	Over \$1,000K	.969	.993	.084	11.1%
	Overall	1.009	1.011	.083	12.0%
1125	\$750K to \$1,000K	1.147	1.000	.000	
	Over \$1,000K	1.005	1.003	.078	10.5%
	Overall	1.005	1.004	.078	10.5%
1130	\$150K to \$200K	1.005	1.000	.048	6.9%
	\$200K to \$300K	.998	1.001	.041	5.6%
	\$300K to \$500K	1.000	1.000	.039	5.4%
	\$500K to \$750K	.999	1.000	.042	6.0%
	\$750K to \$1,000K	.992	1.000	.050	7.1%
	Over \$1,000K	.981	.999	.053	7.0%
	\$100K to \$150K	1.025	1.001	.054	7.2%
	\$50K to \$100K	1.190	1.003	.067	10.6%
	Overall	1.000	1.004	.043	6.1%



# Improvement Age

112	AgeRec	Over 100	Count 2229	14.6%
	. 1907 100	75 to 100	2288	14.9%
		50 to 75	4737	30.9%
		25 to 50	1486	9.7%
		5 to 25	2313	15.1%
		5 or Newer	2259	14.8%
	Overall	3 01 1101101	15312	100.0%
	Excluded		0	. 33.370
	Total		15312	
14	AgeRec	Over 100	493	10.7%
		75 to 100	142	3.1%
		50 to 75	362	7.9%
		25 to 50	455	9.9%
		5 to 25	925	20.1%
		5 or Newer	2228	48.4%
	Overall		4605	100.0%
	Excluded		0	
	Total		4605	
115	AgeRec	Over 100	37	14.3%
		75 to 100	34	13.2%
		50 to 75	161	62.4%
		25 to 50	23	8.9%
		5 to 25	3	1.2%
	Overall		258	100.0%
	Excluded		0	
	Total		258	
20	AgeRec	Over 100	12	13.2%
		75 to 100	5	5.5%
		50 to 75	65	71.4%
		25 to 50	7	7.7%
		5 to 25	1	1.1%
		5 or Newer	1	1.1%
	Overall		91	100.0%
	Excluded		0	
	Total		91	
25	AgeRec	Over 100	10	6.8%
		75 to 100	14	9.5%
		50 to 75	60	40.5%
		25 to 50	28	18.9%
		5 to 25	10	6.8%
		5 or Newer	26	17.6%
	Overall		148	100.0%
	Excluded		0	
	Total		148	
30	AgeRec	Over 100	493	7.3%
		75 to 100	258	3.8%
		50 to 75	1152	16.9%
		25 to 50	2782	40.9%



	5 to 25	2033	29.9%
	5 or Newer	81	1.2%
Overall		6799	100.0%
Excluded		0	
Total		6799	

			L		Coefficient of
PPEDUCE	0	NA - di	Price Related	Coefficient of	Variation
PREDUSE	Group	Median	Differential	Dispersion	Median Centered
1112	Over 100	.999	1.003	.046	6.5%
	75 to 100	1.001	1.004	.045	6.3%
	50 to 75	1.001	1.003	.043	6.5%
	25 to 50	1.000	1.003	.037	5.1%
	5 to 25	1.000	1.001	.036	4.8%
	5 or Newer	1.000	1.003	.037	5.0%
	Overall	1.000	1.003	.041	5.9%
1114	Over 100	.999	1.005	.050	7.3%
	75 to 100	1.000	1.002	.048	6.2%
	50 to 75	1.001	1.006	.050	8.0%
	25 to 50	1.000	1.008	.043	6.3%
	5 to 25	1.000	1.002	.042	5.9%
	5 or Newer	1.000	1.003	.028	4.3%
	Overall	1.000	1.004	.037	5.7%
1115	Over 100	.954	1.012	.070	9.2%
	75 to 100	1.025	1.001	.077	9.3%
	50 to 75	1.000	1.009	.077	10.5%
	25 to 50	1.013	1.007	.057	8.4%
	5 to 25	1.040	1.024	.046	7.6%
	Overall	1.000	1.009	.076	10.1%
1120	Over 100	.998	1.019	.097	12.1%
	75 to 100	1.082	1.016	.076	11.0%
	50 to 75	1.008	1.007	.079	11.8%
	25 to 50	1.024	1.020	.104	15.9%
	5 to 25	.981	1.000	.000	
	5 or Newer	1.013	1.000	.000	
	Overall	1.009	1.011	.083	12.0%
1125	Over 100	1.013	1.019	.118	15.6%
	75 to 100	.989	1.006	.066	9.1%
	50 to 75	1.011	1.019	.087	11.5%
	25 to 50	1.021	1.017	.087	10.8%
	5 to 25	1.008	1.004	.034	4.5%
	5 or Newer	.995	.985	.049	6.9%
	Overall	1.005	1.004	.078	10.5%
1130	Over 100	1.000	1.004	.054	7.4%
1100	75 to 100	.997	1.006	.050	6.9%
	50 to 75	1.000	1.003	.047	6.6%
	25 to 50	1.000	1.003	.047	6.2%
	5 to 25	1.000	1.004	.036	5.2%
	5 or Newer	.998	1.003	.034	5.1%
	Overall	1.000	1.003	.034	6.1%
	Overall	1.000	1.004	.043	U. 1 /0



# Improvement Size

PREDL			Count	Percent
112	ImpSFRec	LE 500 sf	9	0.1%
		500 to 1,000 sf	3377	22.1%
		1,000 to 1,500 sf	5075	33.1%
		1,500 to 2,000 sf	2989	19.5%
		2,000 to 3,000 sf	2754	18.0%
		3,000 sf or Higher	1108	7.2%
	Overall		15312	100.0%
	Excluded		0	
	Total		15312	
114	ImpSFRec	LE 500 sf	18	0.4%
		500 to 1,000 sf	814	17.7%
		1,000 to 1,500 sf	1439	31.2%
		1,500 to 2,000 sf	1354	29.4%
		2,000 to 3,000 sf	920	20.0%
		3,000 sf or Higher	60	1.3%
	Overall		4605	100.0%
	Excluded		0	
	Total		4605	
115	ImpSFRec	500 to 1,000 sf	2	0.8%
	·	1,000 to 1,500 sf	29	11.2%
		1,500 to 2,000 sf	109	42.2%
		2,000 to 3,000 sf	75	29.1%
		3,000 sf or Higher	43	16.7%
	Overall		258	100.0%
	Excluded		0	
	Total		258	
120	ImpSFRec	1,500 to 2,000 sf	1	1.1%
		2,000 to 3,000 sf	17	18.7%
		3,000 sf or Higher	73	80.2%
	Overall		91	100.0%
	Excluded		0	
	Total		91	
125	ImpSFRec	3,000 sf or Higher	148	100.0%
	Overall		148	100.0%
	Excluded		0	
	Total		148	
130	ImpSFRec	LE 500 sf	161	2.4%
		500 to 1,000 sf	3284	48.3%
		1,000 to 1,500 sf	2519	37.0%
		1,500 to 2,000 sf	601	8.8%
		2,000 to 3,000 sf	199	2.9%
		3,000 sf or Higher	35	0.5%
	Overall		6799	100.0%
	Excluded		0	
	Total			



					Coefficient of
			Price Related	Coefficient of	Variation
PREDUSE	Group	Median	Differential	Dispersion	Median Centered
1112	LE 500 sf	.964	.985	.119	22.5%
	500 to 1,000 sf	1.000	1.003	.044	6.1%
	1,000 to 1,500 sf	1.000	1.003	.041	6.1%
	1,500 to 2,000 sf	1.001	1.003	.039	5.3%
	2,000 to 3,000 sf	1.000	1.003	.039	5.8%
	3,000 sf or Higher	1.002	1.004	.042	5.6%
	Overall	1.000	1.003	.041	5.9%
1114	LE 500 sf	1.009	1.025	.114	18.3%
	500 to 1,000 sf	.997	1.005	.046	6.5%
	1,000 to 1,500 sf	1.001	1.004	.035	5.7%
	1,500 to 2,000 sf	1.000	1.002	.030	4.4%
	2,000 to 3,000 sf	1.001	1.005	.040	5.9%
	3,000 sf or Higher	.999	1.004	.047	6.4%
	Overall	1.000	1.004	.037	5.7%
1115	500 to 1,000 sf	.973	1.000	.007	0.9%
	1,000 to 1,500 sf	1.011	1.010	.070	9.2%
	1,500 to 2,000 sf	1.000	1.008	.074	10.1%
	2,000 to 3,000 sf	.994	1.006	.076	10.2%
	3,000 sf or Higher	.997	1.011	.084	10.8%
	Overall	1.000	1.009	.076	10.1%
1120	1,500 to 2,000 sf	.997	1.000	.000	
	2,000 to 3,000 sf	1.005	1.004	.074	11.5%
	3,000 sf or Higher	1.010	1.013	.086	12.2%
	Overall	1.009	1.011	.083	12.0%
1125	3,000 sf or Higher	1.005	1.004	.078	10.5%
	Overall	1.005	1.004	.078	10.5%
1130	LE 500 sf	.998	1.006	.051	6.9%
	500 to 1,000 sf	1.000	1.004	.043	6.1%
	1,000 to 1,500 sf	1.001	1.002	.042	5.9%
	1,500 to 2,000 sf	1.001	1.007	.045	6.4%
	2,000 to 3,000 sf	1.000	1.009	.052	7.0%
	3,000 sf or Higher	1.007	1.005	.043	5.6%
	Overall	1.000	1.004	.043	6.1%

# **Improvement Condition**

PREDU	ISE	Count	Percent	
1112	CONDITION		2	0.0%
		AV	10402	67.9%
		EX	4	0.0%
		GD	4275	27.9%
		VG	629	4.1%
	Overall		15312	100.0%
	Excluded		0	
	Total		15312	
1114	CONDITION	AV	4110	89.3%
		GD	494	10.7%
		3	1	0.0%
	Overall		4605	100.0%



	Excluded		0	
	Total		4605	
1115	CONDITION	3	254	98.4%
		1	4	1.6%
	Overall		258	100.0%
	Excluded		0	
	Total		258	
1120	CONDITION	3	89	97.8%
		1	1	1.1%
		2	1	1.1%
	Overall		91	100.0%
	Excluded		0	
	Total		91	
1125	CONDITION	3	140	94.6%
		2	7	4.7%
		4	1	0.7%
	Overall		148	100.0%
	Excluded		0	
	Total		148	
1130	CONDITION	AV	6046	88.9%
		GD	750	11.0%
		VG	3	0.0%
	Overall		6799	100.0%
	Excluded		0	
	Total		6799	

PREDUSE	Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1112		1.272	.965	.214	30.3%
	AV	1.000	1.003	.043	6.2%
	EX	1.003	.994	.021	3.3%
	GD	1.002	1.003	.039	5.3%
	VG	.998	1.001	.032	4.3%
	Overall	1.000	1.003	.041	5.9%
1114	AV	1.000	1.004	.037	5.7%
	GD	1.001	1.003	.037	5.3%
	3	1.012	1.000	.000	
	Overall	1.000	1.004	.037	5.7%
1115	3	.999	1.008	.075	9.8%
	1	1.093	1.022	.119	17.5%
	Overall	1.000	1.009	.076	10.1%
1120	3	1.009	1.011	.082	11.8%
	1	1.251	1.000	.000	
	2	1.008	1.000	.000	
	Overall	1.009	1.011	.083	12.0%
1125	3	1.006	1.004	.080	10.7%
	2	.991	1.014	.050	7.2%
	4	.952	1.000	.000	
	Overall	1.005	1.004	.078	10.5%
1130	AV	1.000	1.004	.043	6.0%
	GD	1.007	1.006	.049	6.7%



VG	.940	.994	.064	12.2%
Overall	1.000	1.004	.043	6.1%

# **Improvement Quality**

REDU			Count	Percent
112	QUALITY		2	0.0%
		A	432	2.8%
		В	3459	22.6%
		С	11188	73.1%
		D	199	1.3%
		X	32	0.2%
	Overall		15312	100.0%
	Excluded		0	
	Total		15312	
114	QUALITY	Α	97	2.1%
		В	2251	48.9%
		С	2243	48.7%
		X	14	0.3%
	Overall		4605	100.0%
	Excluded		0	
	Total		4605	
15	QUALITY	В	1	0.4%
		С	247	95.7%
		D	3	1.2%
		C-	4	1.6%
		C+	3	1.2%
	Overall		258	100.0%
	Excluded		0	
	Total		258	
20	QUALITY	Α	1	1.1%
		В	3	3.3%
		С	80	87.9%
		D	5	5.5%
		X	1	1.1%
		C-	1	1.1%
	Overall		91	100.0%
	Excluded		0	
	Total		91	
25	QUALITY	A	28	18.9%
		В	8	5.4%
		C	103	69.6%
		D	7	4.7%
		X	2	1.4%
	Overall		148	100.0%
	Excluded		0	
	Total		148	
30	QUALITY	A	164	2.4%
		В	1953	28.7%
		C	4539	66.8%
		D	136	2.0%



	Χ	7	0.1%
Overall		6799	100.0%
Excluded		0	
Total		6799	

PPEDUOF	0	NA - di	Price Related	Coefficient of	Coefficient of Variation
PREDUSE 1112	Group	Median 1.272	Differential	Dispersion	Median Centered 30.3%
1112			.965	.214	
	Α	1.002	1.004	.044	5.7%
	В	1.001	1.003	.040	5.8%
	С	1.000	1.003	.041	5.9%
	D	1.002	1.006	.059	8.1%
	Χ	1.003	1.002	.034	4.3%
	Overall	1.000	1.003	.041	5.9%
1114	Α	.997	1.009	.057	8.6%
	В	1.000	1.003	.032	4.8%
	С	1.000	1.004	.041	6.3%
	X	.990	.998	.046	6.9%
	Overall	1.000	1.004	.037	5.7%
1115	В	.965	1.000	.000	
	С	1.000	1.008	.073	9.6%
	D	1.040	.993	.052	8.5%
	C-	1.120	1.037	.113	17.4%
	C+	.934	.982	.177	28.0%
	Overall	1.000	1.009	.076	10.1%
1120	Α	.941	1.000	.000	
	В	.981	1.012	.029	5.7%
	С	1.009	1.012	.083	12.0%
	D	1.014	.984	.109	15.4%
	X	1.013	1.000	.000	
	C-	.795	1.000	.000	
	Overall	1.009	1.011	.083	12.0%
1125	Α	.995	.989	.044	6.5%
	В	1.040	1.023	.057	7.9%
	С	1.007	1.010	.087	11.5%
	D	1.040	.999	.090	11.7%
	X	.929	1.005	.028	3.9%
	Overall	1.005	1.004	.078	10.5%
1130	A	1.006	1.007	.049	6.7%
	В	1.001	1.004	.041	5.9%
	C	1.000	1.004	.044	6.2%
	D	.991	1.004	.050	6.7%
	X	1.006	1.003	.043	5.7%
	Overall	1.000	1.004	.043	6.1%



## **Commercial Median Ratio Stratification**

#### **Sale Price**

# **Case Processing Summary**

		Count	Percent
SPRec	\$100K to \$150K	1	0.2%
	\$150K to \$200K	4	0.9%
	\$200K to \$300K	11	2.4%
	\$300K to \$500K	60	12.9%
	\$500K to \$750K	74	15.9%
	\$750K to \$1,000K	60	12.9%
	Over \$1,000K	256	54.9%
Overall		466	100.0%
Excluded		0	
Total		466	

# **Ratio Statistics for CURRTOT / TASP**

		Price Related	Coefficient of	Coefficient of Variation
Group	Median	Differential	Dispersion	Median Centered
\$100K to \$150K	.998	1.000	.000	
\$150K to \$200K	1.028	1.001	.044	5.5%
\$200K to \$300K	1.072	.999	.111	15.3%
\$300K to \$500K	1.001	1.001	.116	16.3%
\$500K to \$750K	1.004	1.000	.125	19.0%
\$750K to \$1,000K	.997	1.002	.156	19.5%
Over \$1,000K	.975	1.024	.131	17.7%
Overall	.989	1.038	.131	17.9%

#### **Subclass**

		Count	Percent
ABSTRIMP	2112	70	15.0%
	2115	1	0.2%
	2120	123	26.4%
	2125	10	2.1%
	2130	57	12.2%
	2135	131	28.1%
	2150	1	0.2%
	2230	59	12.7%
	3115	14	3.0%
Overall		466	100.0%
Excluded		0	
Total		466	



		Price Related	Coefficient of	Coefficient of Variation
Group	Median	Differential	Dispersion	Median Centered
2112	.992	1.041	.130	18.6%
2115	1.117	1.000	.000	
2120	.988	1.046	.119	16.1%
2125	1.012	.980	.051	9.3%
2130	.973	1.032	.145	19.0%
2135	.981	1.056	.162	21.0%
2150	1.175	1.000	.000	
2230	.998	1.034	.087	14.2%
3115	.990	1.011	.144	17.1%
Overall	.989	1.038	.131	17.9%

# Improvement Age

# **Case Processing Summary**

		Count	Percent
AgeRec	Over 100	299	64.2%
	75 to 100	25	5.4%
	50 to 75	48	10.3%
	25 to 50	44	9.4%
	5 to 25	39	8.4%
	5 or Newer	11	2.4%
Overall		466	100.0%
Excluded		0	
Total		466	

		•••••		
Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Over 100	.988	1.035	.137	18.4%
75 to 100	.992	1.076	.148	19.7%
50 to 75	1.000	1.012	.117	16.1%
25 to 50	1.000	1.057	.151	21.0%
5 to 25	.988	1.047	.076	11.9%
5 or Newer	.912	.951	.063	8.8%
Overall	.989	1.038	.131	17.9%



## Improvement Size

# **Case Processing Summary**

		Count	Percent
ImpSFRec	500 to 1,000 sf	11	2.4%
	1,000 to 1,500 sf	31	6.7%
	1,500 to 2,000 sf	28	6.0%
	2,000 to 3,000 sf	43	9.2%
	3,000 sf or Higher	353	75.8%
Overall		466	100.0%
Excluded		0	
Total		466	

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

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
500 to 1,000 sf	.954	1.018	.059	9.0%
1,000 to 1,500 sf	1.002	1.013	.126	19.5%
1,500 to 2,000 sf	.959	1.058	.114	13.9%
2,000 to 3,000 sf	.973	1.023	.110	15.9%
3,000 sf or Higher	.992	1.049	.137	18.4%
Overall	.989	1.038	.131	17.9%

## **Improvement Condition**

## **Case Processing Summary**

		Count	Percent
CONDITION	3	465	99.8%
	4	1	0.2%
Overall		466	100.0%
Excluded		0	
Total		466	

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
3	.989	1.038	.131	17.9%
4	.941	1.000	.000	
Overall	.989	1.038	.131	17.9%



## **Improvement Quality**

# **Case Processing Summary**

		Count	Percent
QUALITY	Α	15	3.2%
	A+	1	0.2%
	В	76	16.3%
	B-	4	0.9%
	B+	4	0.9%
	C C- C+	350	75.1%
	C-	1	0.2%
	C+	3	0.6%
	D	1	0.2%
	X	6	1.3%
	X+	5	1.1%
Overall		466	100.0%
Excluded		0	
Total		466	

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

		Price Related	Coefficient of	Coefficient of Variation
Group	Median	Differential	Dispersion	Median Centered
Α	.980	.975	.081	10.8%
A+	1.003	1.000	.000	
В	.988	1.043	.108	15.2%
B-	.980	1.024	.024	5.0%
B+	.973	1.096	.113	20.4%
С	.995	1.048	.142	19.0%
C-	1.043	1.000	.000	
C+	1.118	.968	.055	8.6%
D	.907	1.000	.000	
Χ	.963	1.054	.067	11.1%
X+	.983	1.004	.030	4.2%
Overall	.989	1.038	.131	17.9%

## **Vacant Land Median Ratio Stratification**

#### Sale Price

		Count	Percent
SPRec	LT \$25K	1	0.1%
	\$25K to \$50K	3	0.4%
	\$50K to \$100K	18	2.1%
	\$100K to \$150K	20	2.3%
	\$150K to \$200K	17	2.0%
	\$200K to \$300K	51	6.0%
	\$300K to \$500K	274	32.0%



\$500K to \$750K	192	22.5%
\$750K to \$1,000K	113	13.2%
Over \$1,000K	166	19.4%
Overall	855	100.0%
Excluded	0	
Total	855	

#### **Ratio Statistics for CURRLND / TASP**

		Price Related	Coefficient of	Coefficient of Variation Median
Group	Median	Differential	Dispersion	Centered
LT \$25K	.430	1.000	.000	
\$25K to \$50K	1.248	1.016	.216	34.6%
\$50K to \$100K	.971	.995	.130	18.2%
\$100K to \$150K	1.005	1.005	.239	32.4%
\$150K to \$200K	.961	1.000	.099	13.7%
\$200K to \$300K	.994	1.001	.114	15.9%
\$300K to \$500K	.978	1.000	.113	15.8%
\$500K to \$750K	.940	.999	.105	13.5%
\$750K to \$1,000K	.937	1.000	.100	12.8%
Over \$1,000K	.899	1.004	.162	21.6%
Overall	.955	1.056	.126	17.5%

## Subclass

		Count	Percent
ABSTRLND	100.00	83	9.7%
	101.00	81	9.5%
	200.00	49	5.7%
	300.00	10	1.2%
	510.00	1	0.1%
	520.00	7	0.8%
	530.00	3	0.4%
	1112.00	363	42.5%
	1114.00	140	16.4%
	1115.00	7	0.8%
	1120.00	4	0.5%



	1125.00	13	1.5%
	1130.00	3	0.4%
	2112.00	7	0.8%
	2115.00	2	0.2%
	2120.00	14	1.6%
	2125.00	3	0.4%
	2130.00	49	5.7%
	2135.00	12	1.4%
	2140.00	3	0.4%
	3115.00	1	0.1%
Overall		855	100.0%
Excluded		0	
Total		855	

# **Ratio Statistics for CURRLND / TASP**

				Coefficient of
				Variation
		Price Related	Coefficient of	Median
Group	Median	Differential	Dispersion	Centered
100.00	.973	1.035	.135	17.7%
101.00	.914	1.008	.150	18.9%
200.00	.919	1.025	.129	18.1%
300.00	.846	1.063	.229	32.1%
510.00	1.338	1.000	.000	
520.00	.736	1.052	.255	35.8%
530.00	1.097	.995	.053	9.7%
1112.00	.956	1.020	.105	13.9%
1114.00	.987	1.037	.116	16.8%
1115.00	.813	.972	.136	20.0%
1120.00	.870	1.006	.047	6.5%
1125.00	.947	1.112	.233	32.1%
1130.00	.700	.978	.045	7.9%
2112.00	.975	1.032	.073	13.2%
2115.00	.880	.993	.162	22.9%
2120.00	.940	1.032	.085	12.6%
2125.00	1.052	.999	.023	4.3%
2130.00	.962	.997	.153	23.3%
2135.00	.918	1.058	.192	25.4%



2140.00	.972	.933	.085	16.1%
3115.00	.941	1.000	.000	
Overall	.955	1.056	.126	17.5%