

2017 DOUGLAS COUNTY PROPERTY ASSESSMENT STUDY





WILDROSE Appraisal Incorporated Audit Division



September 15, 2017

Mr. Mike Mauer Director of Research Colorado Legislative Council Room 029, State Capitol Building Denver, Colorado 80203

RE: Final Report for the 2017 Colorado Property Assessment Study

Dear Mr. Mauer:

Wildrose Appraisal Inc.-Audit Division is pleased to submit the Final Reports for the 2017 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. Hullon

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



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

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

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

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

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

The property assessment audit conducts a twopart analysis: A procedural analysis and a statistical analysis. The procedural analysis includes all classes of property and specifically looks at how the assessor develops economic areas, confirms and qualifies sales, and develops time adjustments. The audit also examines the procedures for adequately discovering, classifying and valuing agricultural outbuildings, discovering subdivision build-out subdivision and 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 2017 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 had an estimated population of approximately 328,632 people with 391.2 people per square mile, according to the U.S. Census Bureau's 2016 estimated census data. This represents a 15.1 percent change from April 1, 2010 to July 1, 2016.

Douglas County was one of the original 17 counties created in the Colorado Territory by Colorado Territorial Legislature the 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, 2015 through June 20, 2016. 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. 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 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	182	0.974	1.058	15.4	Compliant		
Condominium	N/A	N/A	N/A	N/A	N/A		
Single Family	18,138	0.975	1.009	5.7	Compliant		
Vacant Land	614	0.994	1.084	16.8	Compliant		

Group	Median	Price Related Differential	Coefficient of Dispersion
1	.975	1.006	.054
2	.975	1.008	.056
3	.974	1.008	.061
4	.975	1.012	.057
5	.988	1.016	.087
6	.971	1.015	.088
7	.962	1.030	.153
Overall	.975	1.009	.057

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



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



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 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	N/A
Single Family	Compliant
Vacant Land	Compliant

Conclusions

Recommendations

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



AGRICULTURAL LAND STUDY



Agricultural Land

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

(See Assessor Reference Library Volume 3 Chapter 5.)

Conclusions

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



	Douglas County Agricultural Land Ratio Grid							
Abstract Code	Land Class	Number Of Acres	County Value Per Acre T	County Assessed Fotal Value	WRA Total Value	Ratio		
4107	Sprinkler	1,675	103.30	173,028	179,068	0.97		
4117	Flood	939	127.70	119,915	124,174	0.97		
4127	Dry Farm	17,716	62.97	1,115,592	1,136,137	0.98		
4137	Meadow Hay	1,447	129.74	187,735	187,735	1.00		
4147	Grazing	168,910	11.95	2,018,946	2,018,946	1.00		
4177	Forest	6,983	11.61	81,096	81,096	1.00		
4167	Waste	292	2.22	649	649	1.00		
Total/Avg		197,962	18.68	3,696,961	3,727,805	0.99		

Recommendations

None

Agricultural Outbuildings

Methodology

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

Conclusions

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

of Property Taxation for the valuation of agricultural outbuildings.

Recommendations



Agricultural Land Under Improvements

Methodology

Data was collected and reviewed to determine if the guidelines found in the Assessor's Reference Library (ARL) Volume 3, pages 5.19 and 5.20 were being followed.

Conclusions

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
- 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



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)(1) 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 2017 for Douglas County. This study was conducted by checking selected sales from the master sales list for the current valuation period. Specifically WRA selected 55 sales listed as unqualified.

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

For residential, commercial, and vacant land sales with considerations over \$500, 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 indepth subclass analysis.

Conclusions

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

Recommendations



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



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



VACANT LAND

Subdivision Discounting

Subdivisions were reviewed in 2017 in Douglas County. The review showed that subdivisions were discounted pursuant to the Colorado Revised Statutes in Article 39-1-103 (14). Discounting procedures were applied to all subdivisions where less than 80 percent of all sites were sold using the present worth method. The market approach was applied where 80 percent or more of the subdivision sites were sold. An absorption period was estimated for each subdivision that was discounted. An appropriate discount rate was developed using the summation method. Subdivision land with structures was appraised at full market value.

Conclusions

Douglas 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 granted 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



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
- Costar
- 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 2017 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 \$7,400 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



WILDROSE AUDITOR STAFF

Harry J. Fuller, Audit Project Manager

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A P P E N D I C E S



STATISTICAL COMPLIANCE REPORT FOR DOUGLAS COUNTY 2017

I. OVERVIEW

Douglas County is a metropolitan county located along Colorado's Front Range urban corridor. The county has a total of 138,443 real property parcels, according to data submitted by the county assessor's office in 2017. 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 91.2% of all vacant land parcels.

For residential improved properties, residential properties coded 1212 and 1213 accounted for 89.7% of all residential properties.

Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial properties accounted for 1.7% of all such properties in this county.



II. DATA FILES

The following sales analyses were based on the requirements of the 2017 Colorado Property Assessment Study. Information was provided by the Douglas Assessor's Office in May 2017. The data included all 5 property record files as specified by the Auditor.

III. RESIDENTIAL SALES RESULTS

There were 18,144 qualified residential sales for the 24-month sale period ending June 30, 2016; 5 sales in Economic Area 7 were trimmed due to extreme sales ratios, resulting in a final total of 18,138 sales. The sales ratio analysis results were as follows:

	,	
	Count	Percent
1	5829	32.1%
2	5823	32.1%
3	1100	6.1%
4	4910	27.1%
5	134	0.7%
6	310	1.7%
7	32	0.2%
-	18138	100.0%
	0	
Total		
	$ \begin{array}{c} 1\\ 2\\ 3\\ 4\\ 5\\ 6\\ 7\\ \end{array} $	Count 1 5829 2 5823 3 1100 4 4910 5 134 6 310 7 32 18138 0 18138 0

Case Processing Summary

Ratio Statistics for CURRTOT / TASP

		Price Related	Coefficient of
Group	Median	Differential	Dispersion
1	.975	1.006	.054
2	.975	1.008	.056
3	.974	1.008	.061
4	.975	1.012	.057
5	.988	1.016	.087
6	.971	1.015	.088
7	.962	1.030	.153
Overall	.975	1.009	.057

The above ratio statistics were in compliance with the standards set forth by the Colorado State Board of Equalization (SBOE) for residential sales. Please note that Economic Area 7 had only 16 sales, so its ratio analysis results was not valid. The following graphs describe further the sales ratio distribution for these properties:







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



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

	•				Standardized			
ECONAREA	Model		Unstandard B	lized Coefficients Std. Error	Coefficients Beta	t	Sig.	
1	1	(Constant)	.975	.002		539.682	.000	
		SalePeriod	.000	.000	.032	2.477	.013	
2	1	(Constant)	.982	.002		516.129	.000	
		SalePeriod	.000	.000	011	851	.395	
3	1	(Constant)	.979	.005		201.671	.000	
		SalePeriod	.000	.000	.014	.450	.653	
4	1	(Constant)	.979	.002		454.440	.000	
		SalePeriod	.000	.000	.021	1.491	.136	
5	1	(Constant)	1.010	.022		46.460	.000	
		SalePeriod	001	.002	043	491	.625	
6	1	(Constant)	.980	.015		67.306	.000	
		SalePeriod	.000	.001	.007	.130	.897	
7	1	(Constant)	.995	.062		15.934	.000	
		SalePeriod	.001	.005	.040	.218	.829	

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, based on either statistical significance or the magnitude of any residual trending that was significant. 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 and mean actual values per square foot for 2017 between each group. The data was analyzed both as a whole and broken down by economic area, as follows:

Report VALSF			
sold	N	Median	Mean
UNSOLD	85,571	\$193	\$207
SOLD	18,137	\$195	\$205



Report					
VALSF					
ECONAREA	sold	N	Median	Mean	
1.00	UNSOLD	24,364	\$182	\$205	
	SOLD	5,828	\$187	\$194	
2.00	UNSOLD	32,395	\$203	\$214	
	SOLD	5,823	\$215	\$224	
3.00	UNSOLD	6,380	\$198	\$214	
	SOLD	1,100	\$202	\$217	
4.00	UNSOLD	16,580	\$178	\$199	
	SOLD	4,910	\$179	\$191	
5.00	UNSOLD	1,882	\$194	\$196	
	SOLD	134	\$247	\$246	
6.00	UNSOLD	2,961	\$204	\$210	
	SOLD	310	\$223	\$232	
7.00	UNSOLD	486	\$187	\$196	
	SOLD	32	\$195	\$201	

Given that there was minor but consistent gaps between sold and unsold residential properties by economic area and that there was a statistically significant difference using the non-parametric Mann Whitney U test, we next compared the percent change in actual value between 2016 and 2017 for sold and unsold residential properties in Douglas County, as follows:

Report				
sold	Ν	Median	Mean	
UNSOLD	86,543	1.18	1.40	
SOLD	18,138	1.20	1.34	
Report				
DIFF				
ECONAREA	sold	Ν	Median	Mean
1.00	UNSOLD	24816	1.19	1.65
	SOLD	5829	1.20	1.39
2.00	UNSOLD	32488	1.18	1.21
	SOLD	5823	1.19	1.24
3.00	UNSOLD	6413	1.17	1.24
	SOLD	1100	1.20	1.21
4.00	UNSOLD	16933	1.20	1.50
	SOLD	4910	1.21	1.46
5.00	UNSOLD	1887	1.16	1.27
	SOLD	134	1.18	1.21
6.00	UNSOLD	2992	1.12	1.33
	SOLD	310	1.16	1.17
7.00	UNSOLD	493	1.28	1.34
	SOLD	32	1.32	1.34

Based on these results, we concluded that the assessor valued sold and unsold residential properties consistently in 2017.



IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

There were 182 qualified commercial and industrial sales for the 24-month sale period ending June 30, 2016. The sales ratio analysis was analyzed as follows:

Median	0.974
Price Related Differential	1.058
Coefficient of Dispersion	15.4

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

Coefficients^a

Unstandardized Coefficients Co	oefficients	
Model B Std. Error Be	eta t	Sig.
1 (Constant) .951 .037	25.5	.000
SalePeriod .001 .003 .03	.506	613

a. Dependent Variable: salesratio





There was no residual market trending present in the commercial/industrial sale ratios. 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 and mean values per square foot between sold and unsold properties, as follows:

Report VALSF			
sold	Ν	Median	Mean
UNSOLD	2.106	\$148	\$169
SOLD	182	\$160	\$168

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of VALSF is the same across categories of sold.	Independent- Samples Mann- Whitney U Test	.327	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Report

VALSF				
ABSTRIMP	sold	N	Median	Mean
2212.00	UNSOLD	448	\$192	\$206
	SOLD	43	\$215	\$208
2215.00	UNSOLD	24	\$89	\$91
	SOLD	3	\$121	\$113
2220.00	UNSOLD	194	\$160	\$159
	SOLD	25	\$180	\$199
2225.00	UNSOLD	37	\$141	\$241
	SOLD	3	\$148	\$151
2230.00	UNSOLD	422	\$208	\$216
	SOLD	23	\$211	\$219
2235.00	UNSOLD	115	\$83	\$92
	SOLD	7	\$89	\$106
2245.00	UNSOLD	178	\$228	\$215
	SOLD	16	\$228	\$194
3212.00	UNSOLD	152	\$97	\$110
	SOLD	19	\$97	\$119
3215.00	UNSOLD	37	\$85	\$122
	SOLD	2	\$88	\$88
3230.00	UNSOLD	234	\$109	\$111
	SOLD	34	\$109	\$105



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

V. VACANT LAND SALE RESULTS

There were 614 qualified vacant land sales for the 24-month sale period ending June 30, 2016. The sales ratio analysis was analyzed as follows:

Median	0.994
Price Related Differential	1.084
Coefficient of Dispersion	16.8

The above ratio statistics were in compliance 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

		Unstandardized	Coefficients	Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	1.009	.021		48.505	.000
	SalePeriod	.001	.002	.027	.668	.504
-						

a. Dependent Variable: salesratio





The above analysis indicated that no significant market trending was present in the vacant land sale data. We concluded that the assessor has adequately dealt with market trending for vacant land properties.

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 taxable years 2016 and 2017 between each group, as follows:

Report DIFF			
sold	Ν	Median	Mean
UNSOLD	7,714	1.18	1.19
SOLD	585	1.14	1.18

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of DIFF is the sam across categories of sold.	Independent- Samples Mann- Whitney U Test	.001	Retain the null hypothesis.

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

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



VI. AGRICULTURAL IMPROVEMENTS ANALYSIS

Based on the parameters of the state audit analysis, this county was exempt from this analysis for 2017.

VII. CONCLUSIONS

Based on this 2017 audit statistical analysis, residential, commercial/industrial and vacant land properties were found to be in compliance with state guidelines.



STATISTICAL ABSTRACT

<u>Residential</u>

Ratio Statistics for CURRTOT / TASP

		95% Confidence Interval for Mean		i% Confidence Interval for Mean			95% Confidence Interval for Median			95% Confidence Interval for Weighted Mean			Coefficient of Variation
ECON AREA	Mean	Lower Bound	Upper Bound	Median	Lower Bound	Upper Bound	Actual Coverage	Weighted Mean	Lower Bound	Upper Bound	Price Related Differential	Coefficient of Dispersion	Mean Centered
1	.979	.977	.981	.975	.974	.976	95.1%	.973	.970	.976	1.006	.054	7.5%
2	.980	.978	.982	.975	.974	.976	95.1%	.972	.968	.977	1.008	.056	7.7%
3	.980	.975	.985	.974	.971	.977	95.0%	.972	.965	.980	1.008	.061	8.7%
4	.981	.979	.984	.975	.974	.977	95.3%	.970	.964	.976	1.012	.057	8.1%
5	1.000	.979	1.022	.988	.970	1.007	95.3%	.985	.965	1.004	1.016	.087	12.7%
6	.981	.967	.996	.971	.961	.983	95.3%	.967	.952	.981	1.015	.088	13.4%
7	1.006	.935	1.078	.962	.896	1.061	98.0%	.977	.908	1.047	1.030	.153	19.6%

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% Confiden Me	ice Interval for an		95% Cor	fidence Interval fo	erval 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
.967	.930	1.004	.974	.948	.997	95.5%	.914	.867	.961	1.058	.154	26.2%

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% Confiden Me	ce Interval for an		95% Confidence Interval for Median			95% Confiden Weighte	ce Interval for d Mean			Coefficient of Variation	
Mean	Lower Bound	Upper Bound	Median	Lower Bound	Upper Bound	Actual Coverage	Weighted Mean	Lower Bound	Upper Bound	Price Related Differential	Coefficient of Dispersion	Mean Centered
1.021	1.000	1.042	.994	.979	1.005	95.2%	.942	.904	.980	1.084	.168	26.0%

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



Residential Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	\$50K to \$100K	18	0.1%
	\$100K to \$150K	73	0.4%
	\$150K to \$200K	312	1.7%
	\$200K to \$300K	2102	11.6%
	\$300K to \$500K	10258	56.6%
	\$500K to \$750K	3975	21.9%
	\$750K to \$1,000K	897	4.9%
	Over \$1,000K	503	2.8%
Overall		18138	100.0%
Excluded		0	
Total		18138	

Ratio Statistics for CURRTOT / TASP

				Coefficient of
		Price Related	Coefficient of	Variation
Group	Median	Differential	Dispersion	Median Centered
\$50K to \$100K	1.099	1.010	.204	30.9%
\$100K to \$150K	1.009	1.003	.097	15.1%
\$150K to \$200K	1.007	1.000	.077	11.9%
\$200K to \$300K	.985	1.000	.060	9.0%
\$300K to \$500K	.978	1.000	.049	6.6%
\$500K to \$750K	.962	1.000	.060	7.9%
\$750K to \$1,000K	.968	1.000	.075	10.1%
Over \$1,000K	.920	.996	.104	13.9%
Overall	.975	1.009	.057	8.1%

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	1212	15188	83.7%
	1213	1297	7.2%
	1215	2	0.0%
	1220	2	0.0%
	1225	6	0.0%
	1230	1632	9.0%
	1246	9	0.0%
	1257	1	0.0%
	2746	1	0.0%
Overall		18138	100.0%
Excluded		0	
Total		18138	



Ratio Statistics for CURRTOT / TASP

		Price Related	Coefficient of	Coefficient of Variation
Group	Median	Differential	Dispersion	Median Centered
1212	.975	1.008	.058	8.1%
1213	.975	1.005	.049	6.8%
1215	.932	1.024	.072	10.2%
1220	.998	1.000	.005	0.6%
1225	.950	.972	.137	21.2%
1230	.975	1.007	.058	8.2%
1246	1.012	1.016	.086	11.8%
1257	.694	1.000	.000	
2746	1.277	1.000	.000	
Overall	.975	1.009	.057	8.1%

Improvement Age

Case Processing Summary

		Count	Percent
AgeRec	Over 100	8	0.0%
	75 to 100	6	0.0%
	50 to 75	65	0.4%
	25 to 50	2506	13.8%
	5 to 25	11050	60.9%
	5 or Newer	4503	24.8%
Overall	-	18138	100.0%
Excluded		0	
Total		18138	

itutio otut				
Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Over 100	.939	1.099	.249	53.8%
75 to 100	.966	1.005	.060	9.7%
50 to 75	.989	1.025	.114	15.8%
25 to 50	.975	1.008	.070	10.3%
5 to 25	.975	1.007	.053	7.4%
5 or Newer	.976	1.011	.059	7.9%
Overall	.975	1.009	.057	8.1%



Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	LE 500 sf	4	0.0%
	500 to 1,000 sf	426	2.3%
	1,000 to 1,500 sf	2938	16.2%
	1,500 to 2,000 sf	4692	25.9%
	2,000 to 3,000 sf	6878	37.9%
	3,000 sf or Higher	3200	17.6%
Overall		18138	100.0%
Excluded		0	
Total		18138	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LE 500 sf	.866	1.726	.229	41.8%
500 to 1,000 sf	.988	1.011	.079	12.4%
1,000 to 1,500 sf	.969	1.004	.055	7.8%
1,500 to 2,000 sf	.976	1.005	.051	7.4%
2,000 to 3,000 sf	.975	1.006	.054	7.5%
3,000 sf or Higher	.977	1.015	.070	9.6%
Overall	.975	1.009	.057	8.1%

Improvement Quality

Case Processing Summary

		Count	Percent
QUALITY		1	0.0%
	Average	12529	69.1%
	Excellent	148	0.8%
	Fair	25	0.1%
	Good	4431	24.4%
	Very Good	1004	5.5%
Overall		18138	100.0%
Excluded		0	
Total		18138	



Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
	.247	1.000	.000	
Average	.975	1.006	.052	7.2%
Excellent	.978	1.031	.124	17.4%
Fair	.975	1.133	.193	33.4%
Good	.976	1.009	.062	8.4%
Very Good	.979	1.023	.088	11.8%
Overall	.975	1.009	.057	8.1%

Improvement Condition

Case Processing Summary

		Count	Percent
CONDITION	-	1	0.0%
	Average	1972	10.9%
	Badly Worn	3	0.0%
	Good	16148	89.0%
	Very Good	14	0.1%
Overall		18138	100.0%
Excluded		0	
Total		18138	

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
	.247	1.000	.000	
Average	.976	1.007	.073	11.0%
Badly Worn	.924	1.027	.151	23.3%
Good	.975	1.008	.055	7.6%
Very Good	.991	1.049	.054	8.1%
Overall	.975	1.009	.057	8.1%



Commercial Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	LT \$25K	1	0.5%
	\$50K to \$100K	12	6.6%
	\$100K to \$150K	8	4.4%
	\$150K to \$200K	6	3.3%
	\$200K to \$300K	21	11.5%
	\$300K to \$500K	14	7.7%
	\$500K to \$750K	18	9.9%
	\$750K to \$1,000K	14	7.7%
	Over \$1,000K	88	48.4%
Overall		182	100.0%
Excluded		0	
Total		182	

				Coefficient of
		Price Related	Coefficient of	Variation
Group	Median	Differential	Dispersion	Median Centered
LT \$25K	3.076	1.000	.000	
\$50K to \$100K	.964	1.003	.121	19.5%
\$100K to \$150K	1.032	.986	.121	18.5%
\$150K to \$200K	1.020	1.005	.072	13.2%
\$200K to \$300K	.962	1.003	.094	13.5%
\$300K to \$500K	.964	1.002	.119	16.2%
\$500K to \$750K	.993	.992	.202	30.1%
\$750K to \$1,000K	.897	.995	.175	23.6%
Over \$1,000K	.968	1.020	.147	20.6%
Overall	.974	1.058	.154	26.0%



Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	1323.70	1	0.5%
	1712.00	1	0.5%
	1721.00	1	0.5%
	2212.00	43	23.6%
	2213.60	1	0.5%
	2215.00	3	1.6%
	2220.00	25	13.7%
	2225.00	3	1.6%
	2230.00	23	12.6%
	2233.33	1	0.5%
	2235.00	7	3.8%
	2245.00	16	8.8%
	2928.57	1	0.5%
	3212.00	19	10.4%
	3215.00	2	1.1%
	3230.00	34	18.7%
	9242.00	1	0.5%
Overall		182	100.0%
Excluded		0	
Total		182	

				Coefficient of		
		Price Related	Coefficient of	Variation		
Group	Median	Differential	Dispersion	Median Centered		
1323.70	.797	1.000	.000			
1712.00	.630	1.000	.000			
1721.00	.880	1.000	.000			
2212.00	.979	1.021	.128	19.1%		
2213.60	1.073	1.000	.000			
2215.00	.573	1.164	.201	42.1%		
2220.00	.970	1.053	.151	21.5%		
2225.00	1.008	.979	.028	4.2%		
2230.00	.894	.986	.245	33.0%		
2233.33	1.039	1.000	.000			
2235.00	.874	.983	.112	16.7%		
2245.00	1.005	1.096	.120	19.0%		
2928.57	.749	1.000	.000			
3212.00	.975	1.001	.116	15.2%		
3215.00	.956	.978	.045	6.4%		
3230.00	1.008	1.058	.148	38.5%		
9242.00	.642	1.000	.000			
Overall	.974	1.058	.154	26.0%		



Improvement Age

Case Processing Summary

		Count	Percent
AgeRec	Over 100	4	2.2%
	75 to 100	6	3.3%
	50 to 75	4	2.2%
	25 to 50	40	22.0%
	5 to 25	119	65.4%
	5 or Newer	9	4.9%
Overall		182	100.0%
Excluded		0	
Total		182	

Ratio Statistics for CURRTOT / TASP

Ralio Slai	131163 101	CURRIOI / IF	JJF	
Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Over 100	.932	.989	.059	7.6%
75 to 100	1.136	.923	.216	27.0%
50 to 75	.897	1.003	.145	22.3%
25 to 50	.993	.964	.127	18.9%
5 to 25	.965	1.045	.155	28.1%
5 or Newer	.988	1.151	.202	30.2%
Overall	.974	1.058	.154	26.0%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	500 to 1,000 sf	15	8.2%
	1,000 to 1,500 sf	25	13.7%
	1,500 to 2,000 sf	6	3.3%
	2,000 to 3,000 sf	17	9.3%
	3,000 sf or Higher	119	65.4%
Overall		182	100.0%
Excluded		0	
Total		182	

Ratio Statistics for CURRTOT / TASP

Group	Modian	Price Related	Coefficient of	Variation
Gloup		Differential	Dispersion	Median Centered
500 to 1,000 sf	.935	1.006	.109	14.8%
1,000 to 1,500 sf	1.001	1.151	.217	47.3%
1,500 to 2,000 sf	.956	1.251	.208	33.0%
2,000 to 3,000 sf	.955	1.024	.099	12.8%
3,000 sf or Higher	.976	1.044	.150	21.4%
Overall	.974	1.058	.154	26.0%

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Improvement Quality

Case Processing Summary

		Count	Percent
QUALITY	Average	103	56.6%
	Fair	2	1.1%
	Good	73	40.1%
	Low	3	1.6%
	Very Good	1	0.5%
Overall		182	100.0%
Excluded		0	
Total		182	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Average	.960	1.054	.161	29.6%
Fair	.832	1.007	.099	14.0%
Good	.988	1.064	.146	21.6%
Low	1.082	.978	.061	10.8%
Very Good	.873	1.000	.000	
Overall	.974	1.058	.154	26.0%

Improvement Condition

Case Processing Summary

		Count	Percent
CONDITION	Average	54	29.7%
	Badly Worn	2	1.1%
	Good	126	69.2%
Overall		182	100.0%
Excluded		0	
Total		182	

				Coefficient of
		Price Related	Coefficient of	Variation
Group	Median	Differential	Dispersion	Median Centered
Average	.978	1.061	.158	23.7%
Badly Worn	.835	1.066	.103	14.5%
Good	.974	1.060	.151	27.1%
Overall	.974	1.058	.154	26.0%



Economic Area

Case Processing Summary

		Count	Percent
ECONAREA	1.00	39	23.9%
	2.00	59	36.2%
	3.00	12	7.4%
	4.00	43	26.4%
	5.00	2	1.2%
	6.00	8	4.9%
Overall		163	100.0%
Excluded		19	
Total		182	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
1.00	.962	1.098	.096
2.00	1.003	1.021	.164
3.00	1.020	1.047	.130
4.00	.931	1.030	.156
5.00	1.014	.979	.058
6.00	.868	1.018	.201
Overall	.970	1.044	.146

Vacant Land Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	LT \$25K	47	7.7%
	\$25K to \$50K	51	8.3%
	\$50K to \$100K	83	13.5%
	\$100K to \$150K	92	15.0%
	\$150K to \$200K	67	10.9%
	\$200K to \$300K	130	21.2%
	\$300K to \$500K	81	13.2%
	\$500K to \$750K	33	5.4%
	\$750K to \$1,000K	11	1.8%
	Over \$1,000K	19	3.1%
Overall		614	100.0%
Excluded		0	
Total		614	



Ratio Statistics for CURRLND / TASP

			0 55 1 5	Coefficient of
		Price Related	Coefficient of	Variation
Group	Median	Differential	Dispersion	Median Centered
LT \$25K	1.124	.993	.312	46.2%
\$25K to \$50K	.979	1.009	.245	47.1%
\$50K to \$100K	1.070	1.004	.142	18.2%
\$100K to \$150K	.988	1.000	.134	16.4%
\$150K to \$200K	.987	.998	.139	16.5%
\$200K to \$300K	.996	1.001	.127	18.7%
\$300K to \$500K	.994	1.006	.120	17.0%
\$500K to \$750K	.935	1.003	.129	18.6%
\$750K to \$1,000K	.895	.990	.159	23.6%
Over \$1,000K	.752	.968	.309	39.3%
Overall	.994	1.084	.168	26.9%

Subclass

Case Processing Summary

		Count	Percent
ABSTRLND	100.00	324	52.8%
	200.00	28	4.6%
	300.00	1	0.2%
	510.00	1	0.2%
	520.00	1	0.2%
	530.00	3	0.5%
	540.00	3	0.5%
	550.00	4	0.7%
	1112.00	217	35.3%
	1125.00	3	0.5%
	2112.00	9	1.5%
	2115.00	1	0.2%
	2120.00	1	0.2%
	2125.00	1	0.2%
	2130.00	11	1.8%
	2135.00	4	0.7%
	4147.00	1	0.2%
	9149.00	1	0.2%
Overall		614	100.0%
Excluded		0	
Total		614	



		Drice Related	Coofficient of	Coefficient of
Group	Modian	Differential	Disporsion	Modian Contored
100.00	1.003	1.044	.170	26.4%
200.00	.975	1.074	.212	32.8%
300.00	1.006	1.000	.000	
510.00	1.039	1.000	.000	
520.00	.796	1.000	.000	
530.00	.952	.989	.095	14.9%
540.00	.932	1.380	.198	39.6%
550.00	.800	1.351	.271	39.2%
1112.00	1.000	1.053	.150	25.7%
1125.00	1.167	1.010	.194	40.4%
2112.00	.900	.933	.139	22.0%
2115.00	.941	1.000	.000	
2120.00	1.065	1.000	.000	
2125.00	.591	1.000	.000	
2130.00	.955	1.099	.167	23.2%
2135.00	.812	.982	.266	32.9%
4147.00	.009	1.000	.000	
9149.00	.910	1.000	.000	
Overall	.994	1.084	.168	26.9%

Ratio Statistics for CURRLND / TASP

Economic Area

Case Processing Summary

		Count	Percent
ECONAREA	1.00	132	21.5%
	2.00	36	5.9%
	3.00	73	11.9%
	4.00	122	19.9%
	5.00	46	7.5%
	6.00	179	29.2%
	7.00	26	4.2%
Overall	-	614	100.0%
Excluded		0	
Total		614	

Croup	Modion	Price Related	Coefficient of
Group	Ineulan	Differential	Dispersion
1.00	.978	1.089	.158
2.00	.985	1.066	.115
3.00	1.058	1.075	.155
4.00	.988	1.056	.156
5.00	.995	1.008	.086
6.00	.977	1.052	.196
7.00	1.000	1.180	.305
Overall	.994	1.084	.168