2011
ELBERT COUNTY
PROPERTY ASSESSMENT
STUDY

WILDROSE
APPRAISAL, INCORPORATED
Audit Division

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Audit Division

September 15, 2011

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

RE: Final Report for the 2011 Colorado Property Assessment Study

Dear Mr. Mauer:

Wildrose Appraisal Inc.-Audit Division is pleased to submit the Final Reports for the 2011 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
Wildrose Appraisal Inc. – Audit Division

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INTRODUCTION

Colorado

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

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

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

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

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

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

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

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

Wildrose Audit has completed the Property Assessment Study for 2011 and is pleased to report its findings for Elbert County in the following report.

REGIONAL / HISTORICAL SKETCH OF ELBERT COUNTY

Regional Information

Elbert County is located in the Eastern Plains region of Colorado. The Eastern Plains of Colorado refer to the region on the east side of the Rocky Mountain. It is east of the population centers of the Front Range, including Baca, Bent, Cheyenne, Crowley, Elbert, Kiowa, Kit Carson, Lincoln, Logan, Morgan, Otero, Phillips, Prowers, Sedgwick, Washington, and Yuma counties.

Historical Information

Elbert County has a population of approximately 23,086 people with 12.47 people per square mile, according to the U.S. Census Bureau's 2010 census data. This represents a 16.17 percent change from the 2000 Census.

Elbert County was created on February 2, 1874, from the eastern portions of Douglas County. On February 6, 1874, the county was enlarged to include part of northern Greenwood County upon Greenwood's dissolution, and originally extended south and east of its present boundaries to reach to the Kansas state line. The county was named for Samuel Hitt Elbert, the Governor of the Territory of Colorado when the county was formed. In 1889, Elbert County was reduced to its modern size when its eastern portions were taken to create Lincoln, Kit Carson, and Cheyenne counties. The county seat is Kiowa, named for the Kiowa Indian tribe of the southern Plains, who called themselves Kae-gua.

Elbert County is bordered on the west by Douglas, the north by Arapahoe and the south by El Paso County. During the 1990's Elbert was the second fastest growing county in Colorado (after Douglas) and it continues to grow at a rapid pace. It currently has over 20,000 residents, mostly living on two to 60-acre lots on the western side. Most residents commute to Denver or Colorado Springs for work. The eastern side of the county continues to be sparsely populated ranchland. *(Wikipedia.org & centennialmhc.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 2009 and June 2010. Counties with less than 30 sales typically extended the sale period back up to 5 years prior to June 30, 2010 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 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 Elbert County are:

Elbert County Ratio Grid					
Property Class	Number of Qualified Sales	Unweighted Median Ratio	Price Related Differential	Coefficient of Dispersion	Time Trend Analysis
Commercial/Industrial	20	0.963	0.994	5.8	Compliant
Condominium	N/A	N/A	N/A	N/A	N/A
Single Family	597	1.019	1.032	14.3	Compliant
Vacant Land	35	0.998	1.049	13.1	Compliant

After applying the above described methodologies, it is concluded from the sales ratios that Elbert County is in compliance with SBOE, DPT, and Colorado State Statute valuation guidelines.

Recommendations

None

Random Deed Analysis

An additional analysis was performed as part of the Ratio Analysis. Ten randomly selected deeds with documentary fees were obtained from the Clerk and Recorder. These deeds were for sales that occurred from January 1, 2009 through June 30, 2010. These sales were then checked for inclusion on the Assessor's qualified or unqualified database.

Conclusions

After comparing the list of randomly selected deeds with the Assessor's database, Elbert County has accurately transferred sales data from the recorded deeds to the qualified or unqualified database.

Recommendations

None

TIME TRENDING VERIFICATION

Methodology

While we recommend that counties use the inverted ratio regression analysis method to account for market (time) trending, some counties have used other IAAO-approved methods, such as the weighted monthly median approach. We are not auditing the methods used, but rather the results of the methods used. Given this range of methodologies used to account for market trending, we concluded that the best validation method was to examine the sale ratios for each class across the appropriate sale period. To be specific, if a county has considered and adjusted correctly for market trending, then the sale ratios should remain stable (i.e. flat) across the sale period. If a residual market trend is detected, then the county may or may not have addressed market trending adequately, and a further examination is warranted. This validation methodology 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 Elbert County has complied with the statutory requirements to analyze the effects of time on value in their county. Elbert County has also satisfactorily applied the results of their time trending analysis to arrive at the time adjusted sales price (TASP).

Recommendations

None

SOLD/UNSOLD ANALYSIS

Methodology

Elbert 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.

All qualified residential and commercial class properties were examined using the unit value method, where the actual value per square foot was compared between sold and unsold properties. A class was considered qualified if it met the criteria for the ratio analysis. The median value per square foot for both groups was compared from an appraisal and statistical perspective. If no significant difference was indicated, then we concluded that no further testing was warranted and that the county was in compliance in terms of sold/unsold consistency.

If either residential or commercial differences were significant using the unit value method, or if data limitations made the comparison invalid, then the next step was to perform a ratio analysis comparing the 2010 and 2011 actual values for each qualified class of property. All qualified vacant land classes were tested using this method. The sale property ratios were arrayed using a range of 0.8 to 1.5, which theoretically excluded changes between years that were due to other unrelated changes in the property. These ratios were also stratified at the appropriate level of analysis. Once the percent change was determined for each appropriate class and sub-class, the next step was to select the unsold sample. This sample was at least 1% of the total population of unsold properties and excluded any sale properties. The unsold sample was filtered based on the attributes of the sold dataset to closely correlate both groups. The ratio analysis was then performed on the unsold properties and stratified. The median and mean ratio distribution was then compared between the sold and unsold group. A non-parametric test such as the Mann-Whitney test for differences between independent samples was undertaken to determine whether any observed differential was significant. If this test determined that the unsold properties were treated in a manner similar to the sold properties, it was concluded that no further testing was warranted and that the county was in compliance.

If a class or sub-class of property was determined to be significantly different by this method, the final step was to perform a multi-variate mass appraisal model that developed ratio statistics from the sold properties that were then applied to the unsold sample. This test compared the measures of central tendency and confidence intervals for the sold properties with the unsold property sample. If this comparison was also determined to be significantly different, then the conclusion was that the county had treated the unsold properties in a different manner than sold properties.

These tests were supported by both tabular and chart presentations, along with saved sold and unsold sample files.

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

Conclusions

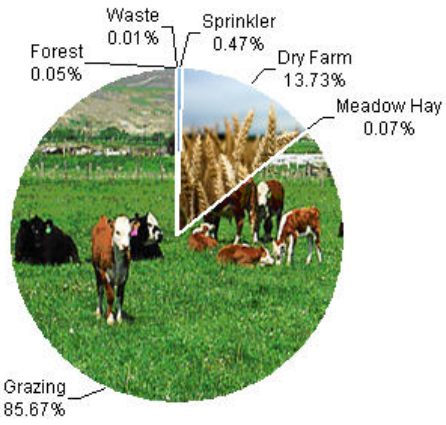
After applying the above described methodologies, it is concluded that Elbert County is reasonably treating its sold and unsold properties in the same manner.

Recommendations

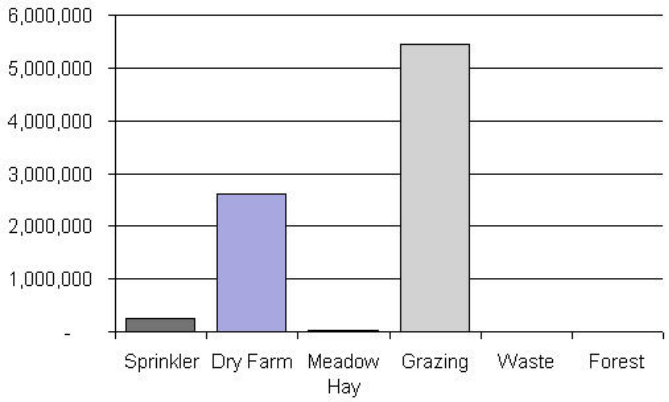
None

AGRICULTURAL LAND STUDY

Acres By Subclass



Value By Subclass



Agricultural Land

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

Conclusions

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

Elbert County Agricultural Land Ratio Grid						
Abstract Code	Land Class	Number Of Acres	County Value Per Acre	County Assessed Total Value	WRA Total Value	Ratio
4107	Sprinkler	4,595	52.00	239,751	239,990	1.00
4127	Dry Farm	133,353	20.00	2,614,563	2,506,077	1.04
4137	Meadow Hay	652	27.00	17,689	17,689	1.00
4147	Grazing	832,270	7.00	5,450,541	5,450,541	1.00
4177	Forest	456	6.00	2,855	2,855	1.00
4167	Waste	113	2.00	183	183	1.00
Total/Avg		**971,439**	**9.00**	**8,325,582**	**8,217,335**	**1.01**

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

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

Recommendations

None

SALES VERIFICATION

According to Colorado Revised Statutes:

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

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

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

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

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

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

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

WRA reviewed the sales verification procedures in 2011 for Elbert County. This study was conducted by checking selected sales from the master sales list for the current valuation period. Specifically WRA selected 30 sales listed as unqualified.

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

Conclusions

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

Recommendations

None

ECONOMIC AREA REVIEW AND EVALUATION

Methodology

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

Recommendations

None

NATURAL RESOURCES

Earth and Stone Products

Methodology

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

Conclusions

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

Recommendations

None

Producing Oil and Gas Procedures

Methodology

Assessors Reference Library (ARL) Volume 3, Chapter 6: Valuation of Natural Resources

STATUTORY REFERENCES

Section § 39-1-103, C.R.S., specifies that producing oil or gas leaseholds and lands are valued according to article 7 of title 39, C.R.S.

Actual value determined - when.

(2) The valuation for assessment of leaseholds and lands producing oil or gas shall be determined as provided in article 7 of this title.

§ 39-1-103, C.R.S.

Article 7 covers the listing, valuation, and assessment of producing oil and gas leaseholds and lands.

Valuation:

Valuation for assessment.

(1) Except as provided in subsection (2) of this section, on the basis of the information contained in such statement, the assessor shall value such oil and gas leaseholds and lands for assessment, as real property, at an amount equal to eighty-seven and one-half percent of:

(a) The selling price of the oil or gas sold there from during the preceding calendar year, after excluding the selling price of all oil or gas delivered to the United States government or any agency thereof, the state of Colorado or any agency thereof, or any political subdivision of the state as royalty during the preceding calendar year;

(b) The selling price of oil or gas sold in the same field area for oil or gas transported from the premises which is not sold during the preceding calendar year, after excluding the selling price of all oil or gas delivered to the United States government or any agency thereof, the state of Colorado or any agency thereof, or any political subdivision of the state as royalty during the preceding calendar year.

§ 39-7-102, C.R.S.

Conclusions

The county applied approved appraisal procedures in the valuation of oil and gas.

Recommendations

None

VACANT LAND

Subdivision Discounting

Subdivisions were reviewed in 2011 in Elbert 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

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

Recommendations

None

POSSESSORY INTEREST PROPERTIES

Possessory Interest

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

Elbert 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

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

Recommendations

None

PERSONAL PROPERTY AUDIT

Elbert 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.

Elbert 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

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.

Elbert County submitted their personal property written audit plan and was current for the 2011 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
- Accounts with omitted property
- Non-filing Accounts - Best Information Available
- Accounts close to the $5,500 actual value exemption status

Conclusions

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

Recommendations

None

WILDROSE AUDITOR STAFF

Harry J. Fuller, *Audit Project Manager*

Suzanne Howard, *Audit Administrative Manager*

Steve Kane, *Audit Statistician / Field Analyst*

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

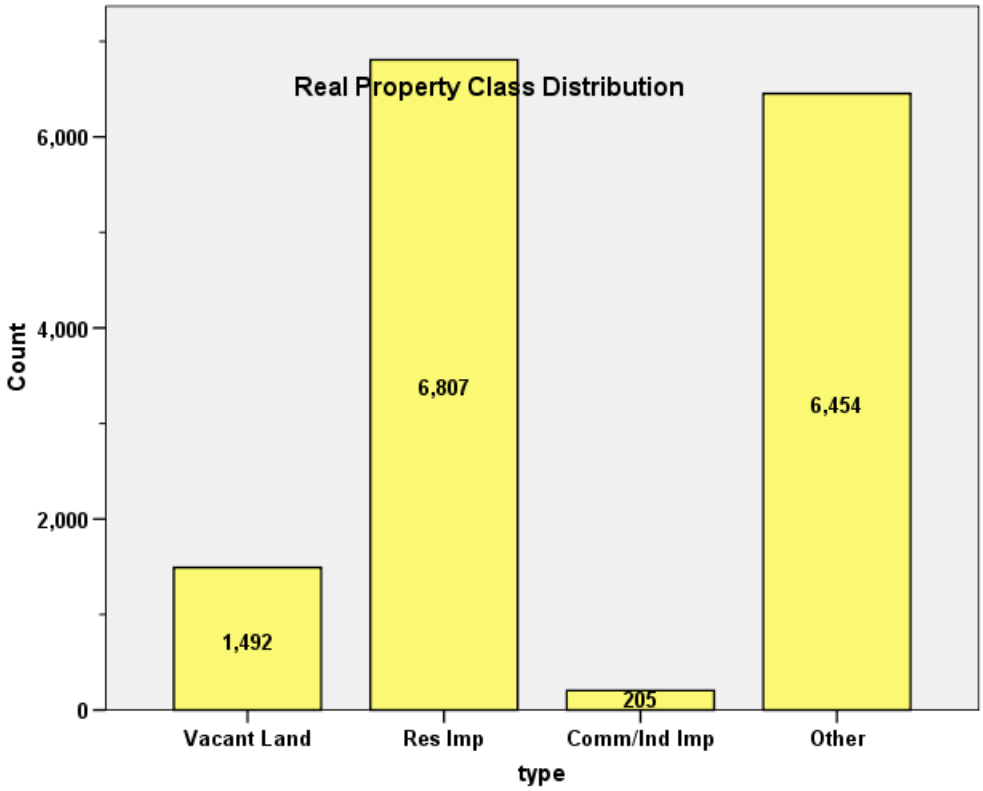
J. Andrew Rodriguez, *Field Analyst*

APPENDICES

STATISTICAL COMPLIANCE REPORT FOR ELBERT COUNTY 2011

I. OVERVIEW

Elbert County is located in eastern Colorado. The county has a total of 14,958 real property parcels, according to data submitted by the county assessor's office in 2011. The following provides a breakdown of property classes for this county:



The vacant land class of properties was dominated by residential and PUD land. Residential lots (coded 100, 400 and 1112) accounted for 79% of all vacant land parcels.

For residential improved properties, single family properties accounted for 98.6% of all residential properties.

Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial sales accounted for 1.4% of all such properties in this county.

II. DATA FILES

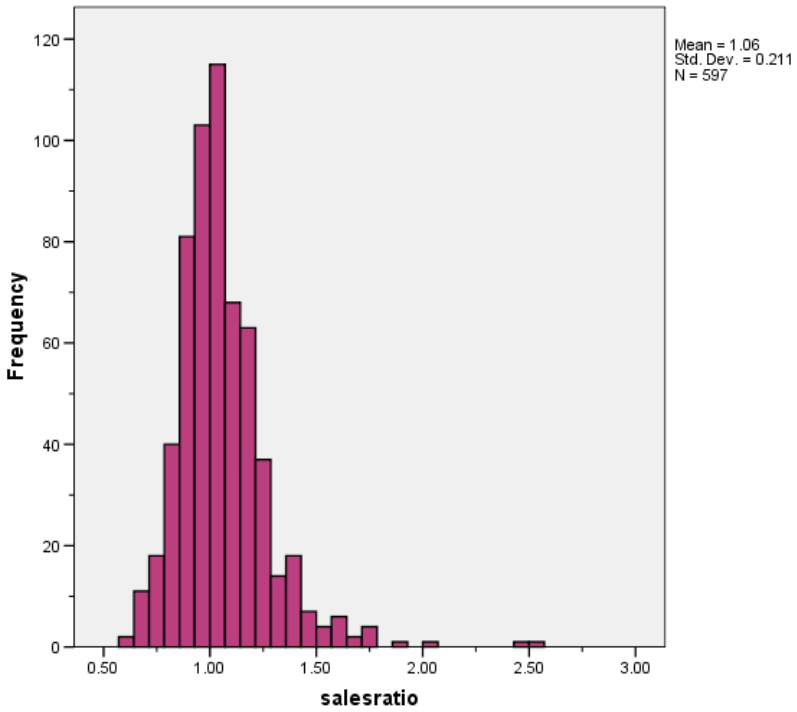
The following sales analyses were based on the requirements of the 2011 Colorado Property Assessment Study. Information was provided by the Elbert Assessor's Office in April 2011. The data included all 5 property record files as specified by the Auditor.

III. RESIDENTIAL SALES RESULTS

There were 597 qualified residential sales for Elbert County. The sales ratio analysis results were as follows:

Median	**1.019**
Price Related Differential	**1.032**
Coefficient of Dispersion	**.143**

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:



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

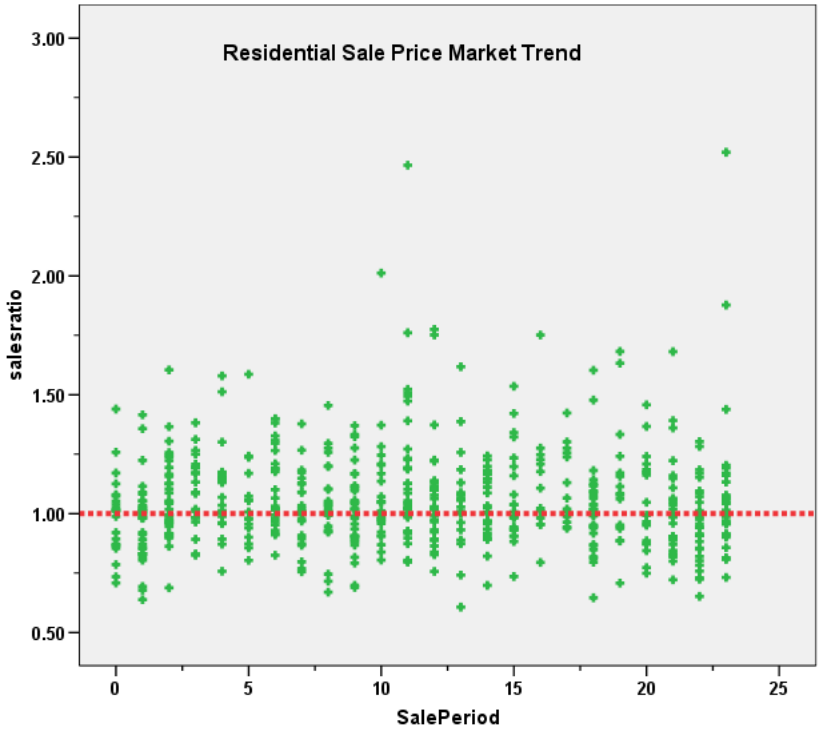
Residential Market Trend Analysis

We next analyzed the residential dataset using the 24-month sale period for any residual market trending, with the following results:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.052	.016		64.250	.000
	SalePeriod	.000	.001	.010	.248	.804

a. Dependent Variable: salesratio



The above analysis indicated that the assessor has adequately addressed market trending in the valuation of residential properties.

Sold/Unsold Analysis

In terms of the valuation consistency between sold and unsold residential properties, we compared the median actual value per square foot for 2011 between each group, as follows:

Group	No.	Median	Mean
Unsold	6,109	$91	$90
Sold	597	$92	$90

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

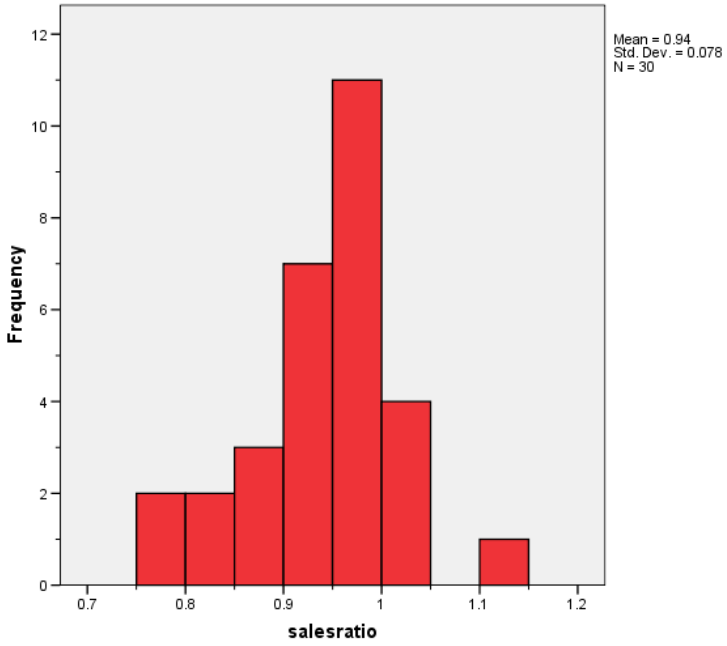
IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

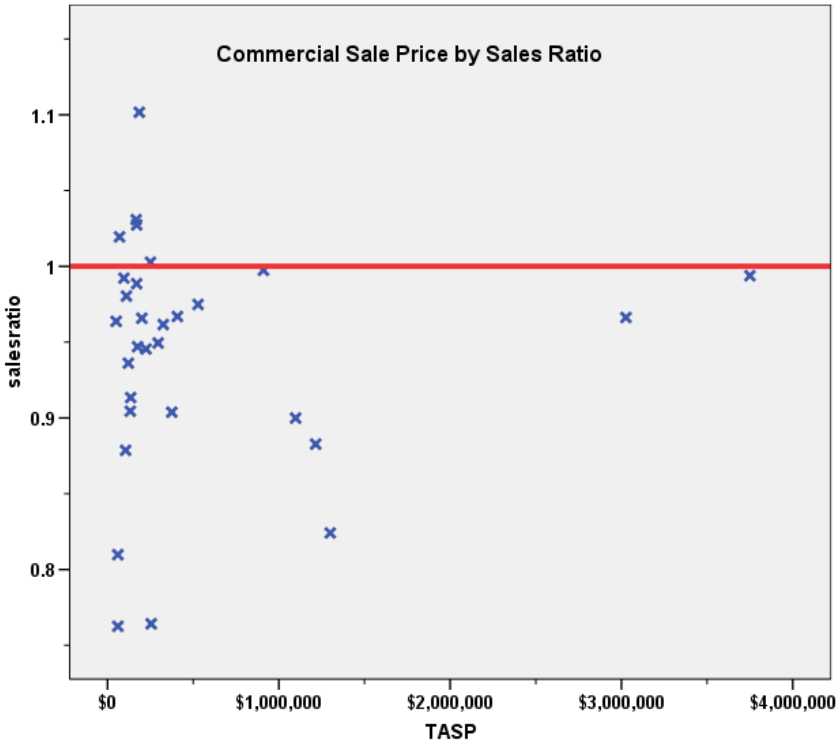
There were 20 qualified commercial sales between July 1, 2005 and June 30, 2010. Because there were fewer than 30 sales, 10 supplemental appraisal of unsold commercial properties were completed to bring the total number of analyzed properties to 30 for the final sales ratio analysis. We used all 30 sold and appraised properties for the ratio analysis, and the 20 sold properties for the market trending and sold/unsold analysis.

The sales ratio analysis results were as follows:

Median	**0.963**
Price Related Differential	**0.994**
Coefficient of Dispersion	**.058**

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





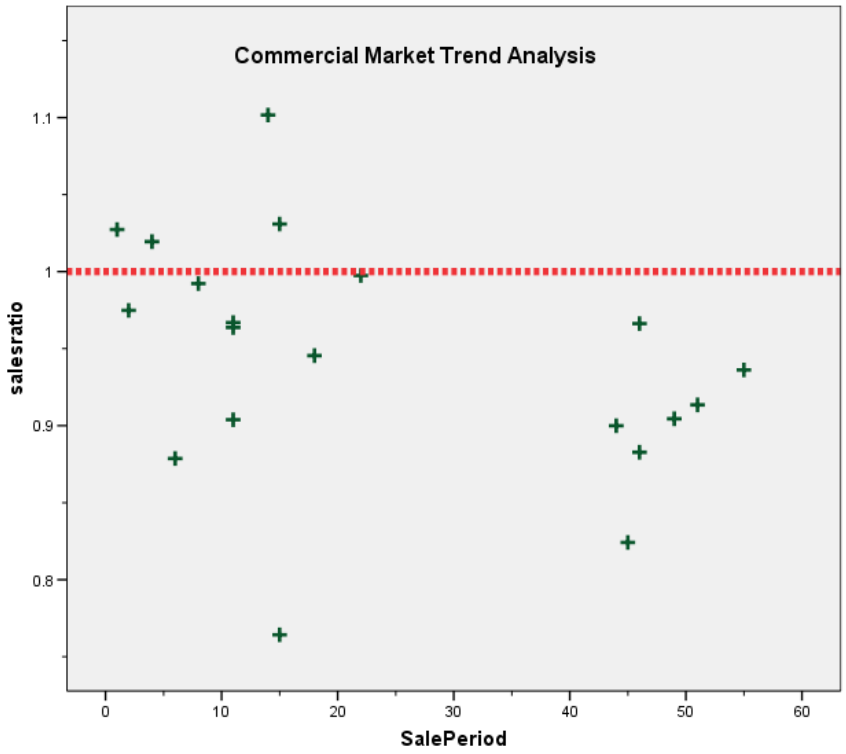
Commercial Market Trend Analysis

The 20 commercial/industrial sales were next analyzed, examining the sales ratios across the 60-month sale period with the following results:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.982	.026		37.083	.000
	SalePeriod	-.002	.001	-.389	-1.791	.090

a. Dependent Variable: salesratio



The market trend results indicated no statistically significant trend (at the p= 0.05 level), indicating that the assessor has adequately addressed the issue of market trending for commercial/industrial properties in Elbert County.

Sold/Unsold Analysis

We compared the median change in value between 2009 and 2011 for sold and unsold commercial properties to determine if the assessor was valuing each group consistently, as follows:

Class	Group	No. Props	Median Val/SF	Mean Val/SF
2212	Unsold	22	$77	$76
	Sold	7	$49	$67
2220	Unsold	19	$69	$82
	Sold	5	$145	$136

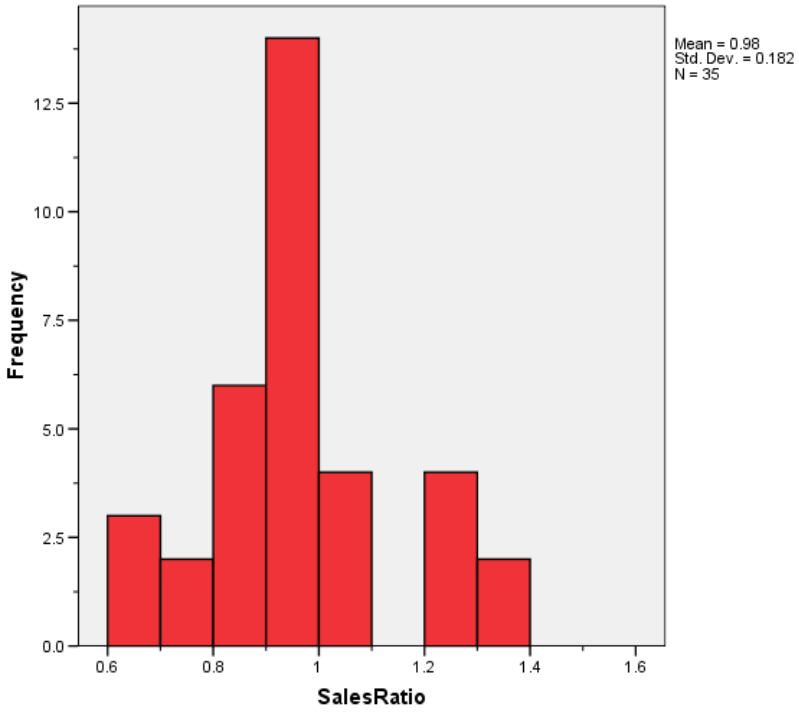
There are no clear patterns of valuing sold properties more than unsold properties by commercial class, although the number of sales was so low that no definitive conclusion could be made. We therefore concluded that the assessor has valued sold and unsold satisfactorily in terms of the Audit's analysis.

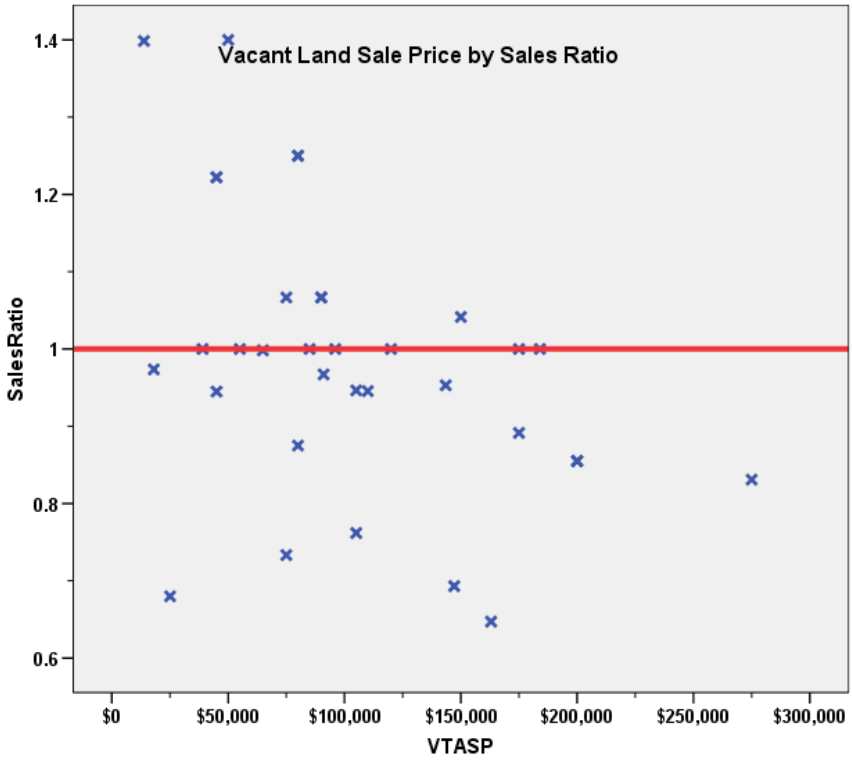
V. VACANT LAND SALE RESULTS

There were a total of 35 qualified vacant land sales analyzed for Elbert County. The sales ratio analysis results were as follows:

Median	**0.998**
Price Related Differential	**1.049**
Coefficient of Dispersion	**.131**

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





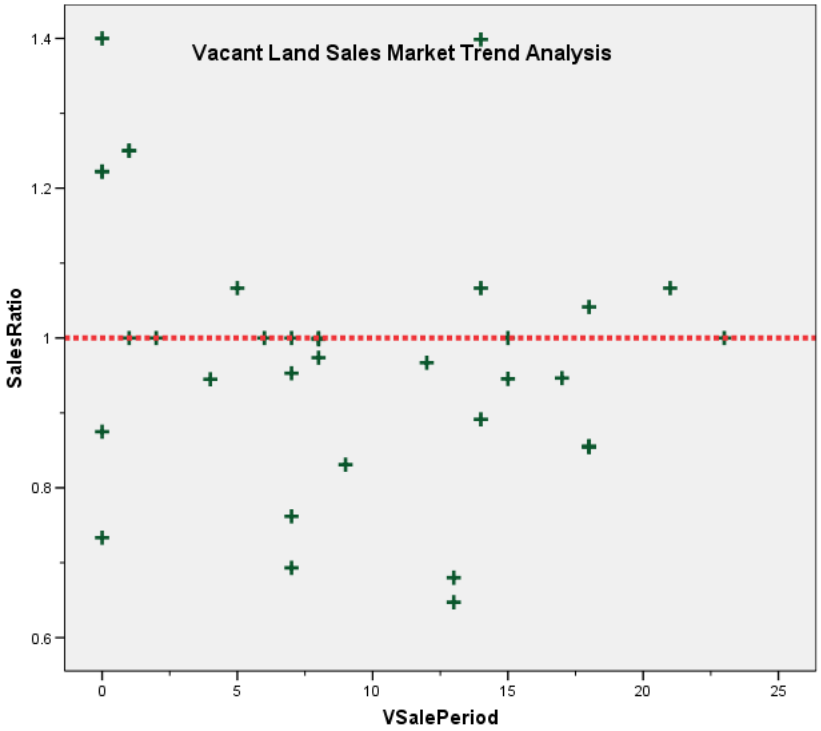
Vacant Land Market Trend Analysis

The 35 vacant land sales were next analyzed, examining the sales ratios across the 24 month sale period with the following results:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.046	.051		20.578	.000
	VSalePeriod	-.007	.004	-.261	-1.556	.129

a. Dependent Variable: SalesRatio



The market trend results indicated no significant residual market trend. We therefore concluded that the assessor has adequately addressed market trending in Elbert County's vacant land valuation.

Sold/Unsold Analysis

We compared the median change in actual value between 2010 and 2011 for vacant land properties for subdivision with 2 or more sales to determine if sold and unsold properties were valued consistently, as follows:

SUBDIVNO	Group	No. Props	Median Chg Val	Mean Chg Val
265	**Unsold**	21	1.0000	1.0172
	Sold	2	.7619	.7619
266	**Unsold**	94	1.0000	.9870
	Sold	3	1.0000	1.1667
344	**Unsold**	12	.8045	.8045
	Sold	2	.8045	.8045
393	**Unsold**	38	1.1834	1.1883
	Sold	2	1.1834	1.1834
405	**Unsold**	104	1.3894	1.4271
	Sold	2	1.3894	1.3894
462	**Unsold**	10	1.0251	1.0251
	Sold	3	1.0251	.9501
487	**Unsold**	77	.8742	.8696
	Sold	3	.8742	.8742
534	**Unsold**	4	.8930	.8930
	Sold	2	.8930	.8930
Total	**Unsold**	360	1.0000	1.1060
	Sold	19	.8930	1.0019

There were many subdivisions with one sale for this period, and nearly all indicated that sold and unsold properties were valued in a similar manner. The above results indicated that sold and unsold vacant land properties were valued consistently overall.

V. AGRICULTURAL IMPROVEMENTS ANALYSIS

The final statistical verification concerned the assigned actual values for agricultural residential improvements. We compared the actual value per square foot rate for this group and compared it to rates assigned to residential single family improvements in Elbert County. The following indicates that agricultural residential improvements were valued in a manner similar to the single family residential improvements in this county:

	abstrimp			Statistic	Std. Error
ImpValSF	1212	Mean		$58.37	$.281
		95% Confidence Interval for Mean	Lower Bound	$57.82	
			Upper Bound	$58.92	
		5% Trimmed Mean		$58.55	
		Median		$59.62	
		Variance		530.246	
		Std. Deviation		$23.027	
		Minimum		$0	
		Maximum		$471	
		Range		$471	
		Interquartile Range		$33	
		Skewness		.884	.030
		Kurtosis		16.344	.060
	4277	Mean		$54.97	$1.286
		95% Confidence Interval for Mean	Lower Bound	$52.44	
			Upper Bound	$57.50	
		5% Trimmed Mean		$55.32	
		Median		$57.50	
		Variance		550.800	
		Std. Deviation		$23.469	
		Minimum		$2	
		Maximum		$108	
		Range		$106	
		Interquartile Range		$38	
		Skewness		-.215	.134
		Kurtosis		-.752	.266

VI. CONCLUSIONS

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

STATISTICAL ABSTRACT
Residential

Ratio Statistics for CURRTOT / TASP

Mean	95% Confidence Interval for Mean		Median	95% Confidence Interval for Median			Weighted Mean	95% Confidence Interval for Weighted Mean		Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
	Lower Bound	Upper Bound		Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound			Mean Centered
1.055	1.038	1.072	1.019	1.011	1.036	95.1%	1.022	1.009	1.036	1.032	.143	20.0%

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.

Commercial/Industrial

Ratio Statistics for CURRTOT / TASP

Mean	95% Confidence Interval for Mean		Median	95% Confidence Interval for Median			Weighted Mean	95% Confidence Interval for Weighted Mean		Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
	Lower Bound	Upper Bound		Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound			Mean Centered
.942	.913	.971	.963	.913	.980	95.7%	.948	.912	.983	.994	.058	8.2%

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 CURRTOT / TASP

Mean	95% Confidence Interval for Mean		Median	95% Confidence Interval for Median			Weighted Mean	95% Confidence Interval for Weighted Mean		Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
	Lower Bound	Upper Bound		Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound			Mean Centered
1.242	.809	1.674	1.242	1.208	1.276	100.0%	1.238	.810	1.667	1.003	.027	3.9%

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

Residential Sale Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	LT $25K	6	1.0%
	$25K to $50K	7	1.2%
	$50K to $100K	16	2.7%
	$100K to $150K	53	8.9%
	$150K to $200K	74	12.4%
	$200K to $300K	189	31.7%
	$300K to $500K	219	36.7%
	$500K to $750K	30	5.0%
	$750K to $1,000K	3	.5%
Overall		597	100.0%
Excluded		0	
Total		597	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LT $25K	1.704	1.009	.161	23.6%
$25K to $50K	1.301	.991	.298	45.7%
$50K to $100K	1.020	.982	.228	27.4%
$100K to $150K	1.096	1.004	.171	22.8%
$150K to $200K	1.079	1.000	.151	19.8%
$200K to $300K	1.034	.999	.138	17.8%
$300K to $500K	1.002	1.002	.096	12.5%
$500K to $750K	.938	.998	.074	10.2%
$750K to $1,000K	.825	.999	.080	15.0%
Overall	1.019	1.032	.143	21.0%

Subclass

Case Processing Summary

		Count	Percent
abstrimp	1212	592	99.2%
	1230	5	.8%
Overall		597	100.0%
Excluded		0	
Total		597	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1212	1.019	1.031	.142	20.8%
1230	1.057	1.131	.279	40.6%
Overall	1.019	1.032	.143	21.0%

Age

Case Processing Summary

		Count	Percent
AgeRec	0	1	.2%
	Over 100	6	1.0%
	75 to 100	14	2.3%
	50 to 75	9	1.5%
	25 to 50	103	17.3%
	5 to 25	334	55.9%
	5 or Newer	130	21.8%
Overall		597	100.0%
Excluded		0	
Total		597	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
0	1.775	1.000	.000	.%
Over 100	.746	1.040	.127	19.6%
75 to 100	.869	1.079	.301	43.5%
50 to 75	1.257	1.155	.352	52.9%
25 to 50	1.000	1.053	.183	25.2%
5 to 25	1.022	1.025	.134	18.5%
5 or Newer	1.020	1.011	.090	11.7%
Overall	1.019	1.032	.143	21.0%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	500 to 1,000 sf	6	1.0%
	1,000 to 1,500 sf	32	5.4%
	1,500 to 2,000 sf	74	12.4%
	2,000 to 3,000 sf	151	25.3%
	3,000 sf or Higher	334	55.9%
Overall		597	100.0%
Excluded		0	
Total		597	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
500 to 1,000 sf	.941	1.213	.358	53.2%
1,000 to 1,500 sf	1.046	1.101	.261	37.6%
1,500 to 2,000 sf	1.026	1.054	.150	25.8%
2,000 to 3,000 sf	1.029	1.019	.147	19.6%
3,000 sf or Higher	1.016	1.023	.124	17.1%
Overall	1.019	1.032	.143	21.0%

Improvement Quality

Case Processing Summary

		Count	Percent
Quality	1	7	1.2%
	2	50	8.4%
	3	489	82.0%
	4	48	8.1%
	5	2	.3%
Overall		596	100.0%
Excluded		1	
Total		597	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1	1.196	1.252	.272	37.4%
2	.965	1.109	.258	41.1%
3	1.019	1.026	.132	18.2%
4	1.031	1.018	.109	14.9%
5	1.027	.995	.008	1.1%
Overall	1.019	1.031	.142	20.8%

Commercial Sale Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	$25K to $50K	1	3.3%
	$50K to $100K	4	13.3%
	$100K to $150K	5	16.7%
	$150K to $200K	6	20.0%
	$200K to $300K	4	13.3%
	$300K to $500K	3	10.0%
	$500K to $750K	1	3.3%
	$750K to $1,000K	1	3.3%
	Over $1,000K	5	16.7%
Overall		30	100.0%
Excluded		175	
Total		205	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation: Median Centered
$25K to $50K	.964	1.000	.000	.%
$50K to $100K	.901	.982	.122	14.3%
$100K to $150K	.913	1.000	.029	4.3%
$150K to $200K	1.008	1.000	.043	5.5%
$200K to $300K	.947	1.000	.064	11.7%
$300K to $500K	.962	1.000	.022	4.3%
$500K to $750K	.975	1.000	.000	.%
$750K to $1,000K	.997	1.000	.000	.%
Over $1,000K	.900	.970	.056	7.7%
Overall	.963	.994	.058	8.3%

Subclass

Case Processing Summary

		Count	Percent
abstrimp	2212	14	46.7%
	2220	5	16.7%
	2230	5	16.7%
	2235	4	13.3%
	2237	1	3.3%
	3220	1	3.3%
Overall		30	100.0%
Excluded		175	
Total		205	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation: Median Centered
2212	.966	.974	.058	8.9%
2220	.967	1.010	.042	5.5%
2230	.900	1.016	.070	10.3%
2235	.954	1.038	.029	4.7%
2237	.824	1.000	.000	.%
3220	.975	1.000	.000	.%
Overall	.963	.994	.058	8.3%

Vacant Land Sale Ratio Stratification

Subclass

Case Processing Summary

		Count	Percent
Abstrlnd	100	13	37.1%
	400	3	8.6%
	550	5	14.3%
	560	1	2.9%
	1112	12	34.3%
	2130	1	2.9%
Overall		35	100.0%
Excluded		0	
Total		35	

Ratio Statistics for CURRLND / VTASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
100	.974	1.037	.095	14.5%
400	.875	1.050	.090	15.9%
550	.947	1.038	.157	27.7%
560	1.041	1.000	.000	.%
1112	1.067	1.036	.149	19.1%
2130	.953	1.000	.000	.%
Overall	.998	1.049	.131	18.3%