2015
LARIMER COUNTY
PROPERTY ASSESSMENT
STUDY

WILDROSE
APPRAISAL, INCORPORATED
Audit Division

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APPRAISAL, INCORPORATED
Audit Division

September 15, 2015

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

RE: Final Report for the 2015 Colorado Property Assessment Study

Dear Mr. Mauer:

Wildrose Appraisal Inc.-Audit Division is pleased to submit the Final Reports for the 2015 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.

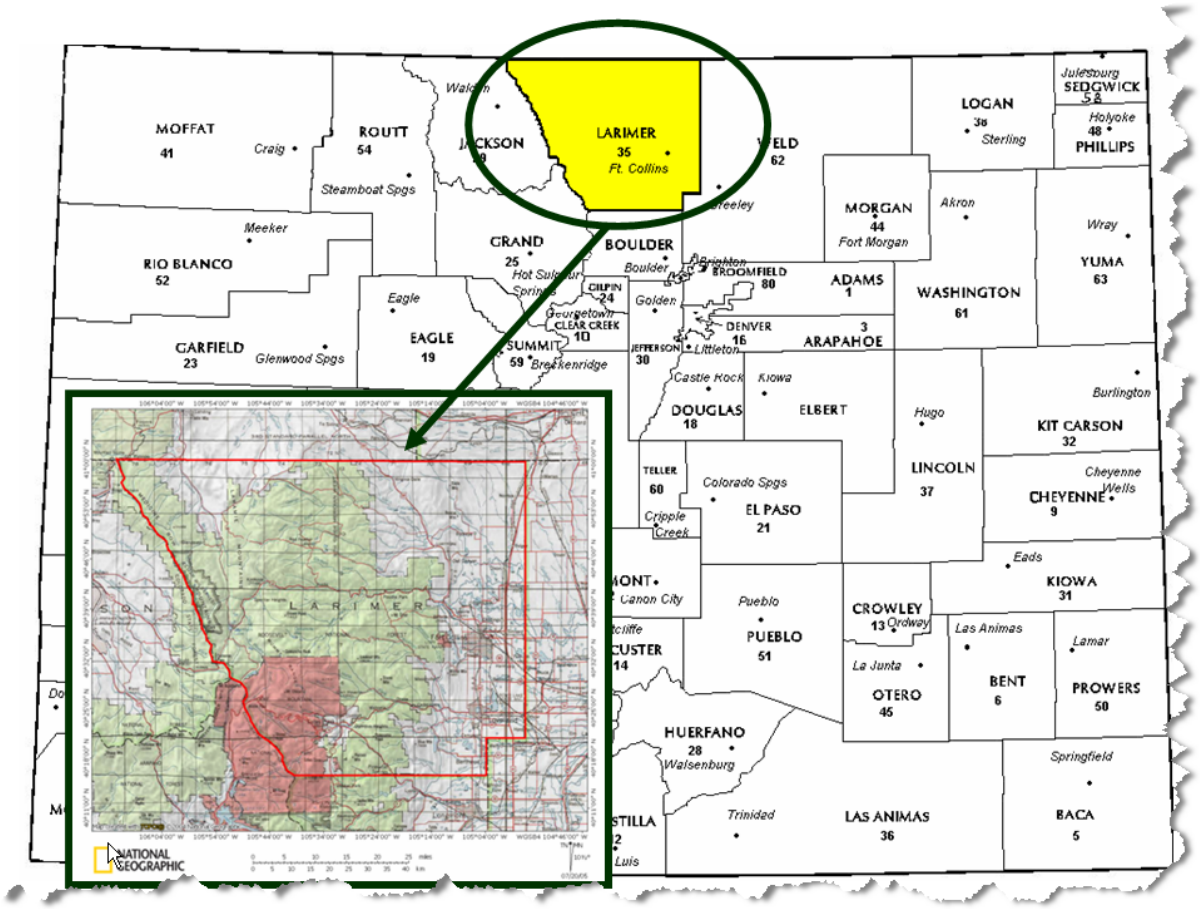
Statistical analysis is performed on vacant land, residential properties, commercial industrial properties, agricultural land, and personal property. The statistical study results are compared with State Board of Equalization compliance requirements and the manuals published by the State Property Tax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

Wildrose Audit has completed the Property Assessment Study for 2015 and is pleased to report its findings for Larimer County in the following report.

REGIONAL / HISTORICAL SKETCH OF LARIMER COUNTY

Regional Information

Larimer 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

Larimer County has a population of approximately 299,630 people with 115.2 people per square mile, according to the U.S. Census Bureau's 2010 census data. This represents a 19.14 percent change from the 2000 Census.

Larimer County was created in 1861 as one of the seventeen original counties in the Colorado Territory; however, its western boundary was disputed. Controversy existed as to whether Larimer County ended at the Medicine Bow Range or at the Continental Divide thirty miles further west. An 1886 Colorado Supreme Court decision set the boundary at the Continental Divide, although the land between the Medicine Bow Range and the divide was made part of Jackson County in 1909.

Unlike that of much of Colorado, which was founded on the mining of gold and silver, the settlement of Larimer County was based almost entirely on agriculture, an industry that few thought possible in the region during the initial days of the Colorado Gold Rush. The mining boom almost entirely passed the county by. It would take the introduction of irrigation to the region in the 1860s to bring the first widespread settlement to the area.

In 1862, the United States Army established an outpost near Laporte that was designated as Camp Collins. A devastating flood in June 1864 wiped out the outpost, forcing the Army to seek a better location. At the urging of Joseph Mason, who had settled along the Poudre in 1860, the Army relocated its post downstream adjacent to Mason's land along the Overland stage route. The site of the new post became the nucleus of the town of Fort Collins, incorporated in 1873 after the withdrawal of the Army. By that time, Mason and others had convinced the legislature of the Colorado Territorial Legislature to designate the new town as the county seat. In 1870, the legislature designated Fort Collins as the location of the state agricultural college (later Colorado State University).

Cities and towns located in Larimer County, Colorado include Berthoud, Estes Park, Fort Collins, Loveland, Timnath, Wellington, Windsor, Bellvue, Buckeye, Campion, Cherokee Park, Drake, Glendevey, Glen Haven, LaPorte, Livermore, Kinikinik, Manhattan, Masonville, Pinewood Springs, Pingree Park, Poudre Park, Feather Lakes, Rustic, Teds Place, Virginia Dale and Waverly. *(Wikipedia.org)*

RATIO ANALYSIS

Methodology

All significant classes of properties were analyzed. Sales were collected for each property class over the appropriate sale period, which was typically defined as the 18-month period between January 1, 2013 and June 30, 2014. Counties with less than 30 sales typically extended the sale period back up to 5 years prior to June 30, 2014 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 Larimer County are:

Larimer County Ratio Grid					
Property Class	Number of Qualified Sales	Unweighted Median Ratio	Price Related Differential	Coefficient of Dispersion	Time Trend Analysis
Commercial/Industrial	385	0.977	1.006	6	Compliant
Condominium	N/A	N/A	N/A	N/A	N/A
Single Family	25,792	0.999	1.011	7.2	Compliant
Vacant Land	1,455	0.988	1.068	18.1	Compliant

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
EA1	.999	1.009	.065
EA2	.999	1.011	.075
EA3	1.000	1.016	.092
EA4	.977	1.047	.159
Overall	.999	1.011	.072

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

Recommendations

None

TIME TRENDING VERIFICATION

Methodology

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

Conclusions

After verification and analysis, it has been determined that Larimer County has complied with the statutory requirements to analyze the effects of time on value in their county. Larimer 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

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

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

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

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

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

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

Conclusions

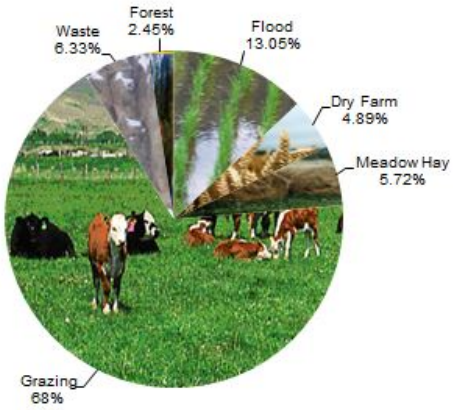
After applying the above described methodologies, it is concluded that Larimer County is reasonably treating its sold and unsold properties in the same manner.

Recommendations

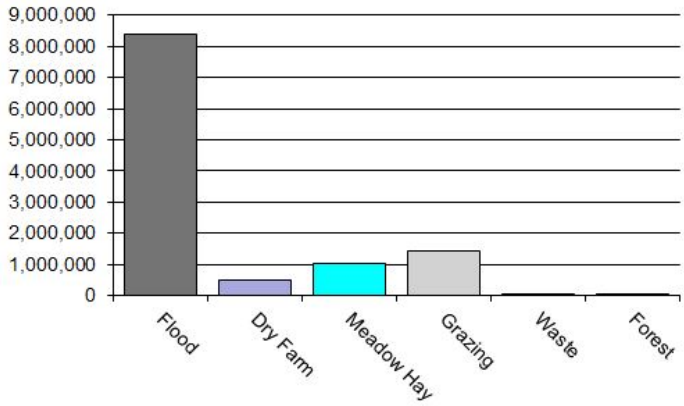
None

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:

Larimer County Agricultural Land Ratio Grid						
Abstract Code	Land Class	Number Of Acres	County Value Per Acre	County Assessed Total Value	WRA Total Value	Ratio
4117	Flood	51,598	154.61	7,977,514	8,405,681	0.95
4127	Dry Farm	19,360	24.87	481,504	479,099	1.01
4137	Meadow Hay	22,640	45.44	1,028,867	1,028,867	1.00
4147	Grazing	267,184	5.42	1,449,379	1,449,379	1.00
4177	Forest	9,693	6.14	59,476	59,290	1.00
4167	Waste	25,049	1.99	49,760	49,760	1.00
Total/Avg		**395,524**	**27.93**	**11,046,500**	**11,472,075**	**0.96**

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

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

Recommendations

None

Agricultural Land Under Improvements

Methodology

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

Conclusions

Larimer 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
- Aerial Photography/Pictometry

Larimer 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.:

- Questionnaires
- Field Inspections
- Phone Interviews
- In-Person Interviews with Owners/Tenants
- Aerial Photography/Pictometry

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

Recommendations

None

SALES VERIFICATION

According to Colorado Revised Statutes:

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

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

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

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

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

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

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

WRA reviewed the sales verification procedures in 2015 for Larimer County. This study was conducted by checking selected sales from the master sales list for the current valuation period. Specifically WRA selected 869 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.

The following subclasses were analyzed for Larimer County:

0100 Residential Lots

0200 Commercial Lots

2112 Merchandising

2130 Special Purpose

3115 Manufacturing/Processing

Conclusions

Larimer 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

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

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 2015 in Larimer 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

Larimer 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.

Larimer 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

Larimer 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

Larimer 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.

Larimer 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.

Larimer County submitted their personal property written audit plan and was current for the 2015 valuation period. The number and listing of businesses audited was also submitted and was in conformance with the written audit plan. The following audit triggers were used by the county to select accounts to be audited:

- Accounts with obvious discrepancies
- New businesses filing for the first time
- Incomplete or inconsistent declarations
- Accounts with omitted property
- Businesses with no deletions or additions for 2 or more years
- Non-filing Accounts - Best Information Available
- Accounts close to the $7,300 actual value exemption status
- Accounts protested with substantial disagreement

Larimer County's median ratio is 1.05. 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

Larimer 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

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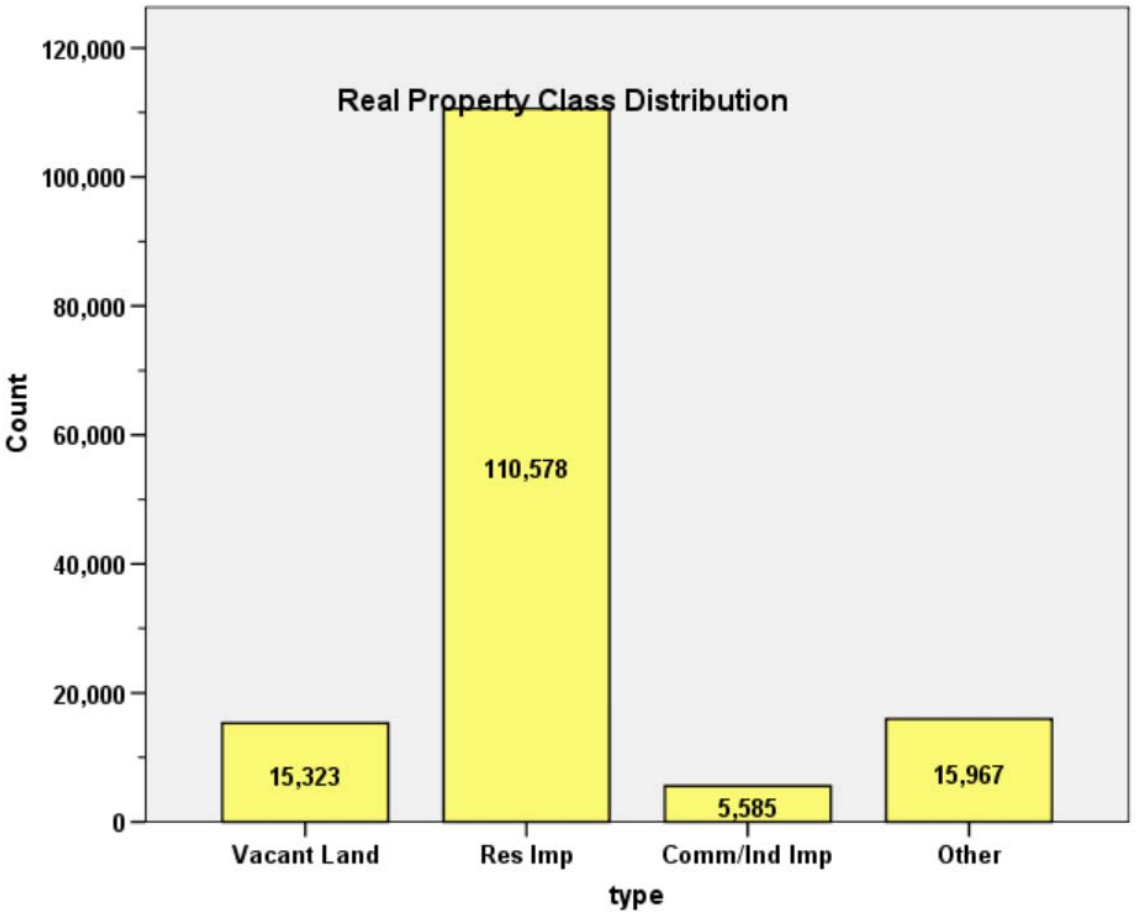
APPENDICES

STATISTICAL COMPLIANCE REPORT
FOR LARIMER COUNTY
2015

I. OVERVIEW

Larimer County is a northern county located along Colorado's Front Range urban corridor. The county has a total of 147,453 real property parcels, according to data submitted by the county assessor's office in 2015. The following provides a breakdown of property classes for this county:



The vacant land class of properties was dominated by residential land. Residential lots (coded 100) accounted for 71.8% of all vacant land parcels.

For residential improved properties, single family properties accounted for 87.1% of all residential properties.

Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial properties accounted for 3.8% of all such properties in this county.

II. DATA FILES

The following sales analyses were based on the requirements of the 2015 Colorado Property Assessment Study. Information was provided by the Larimer Assessor's Office in May 2015. The data included all 5 property record files as specified by the Auditor.

III. RESIDENTIAL SALES RESULTS

There were 25,792 qualified residential sales for the 60-month period prior to June 30, 2014. The sales ratio analysis was analyzed as follows:

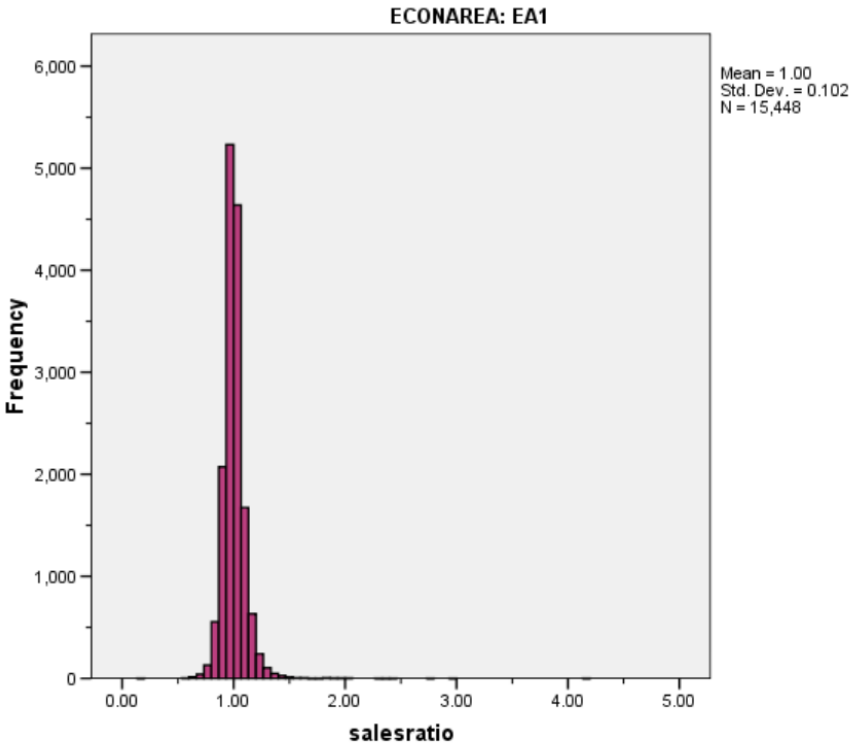
Case Processing Summary

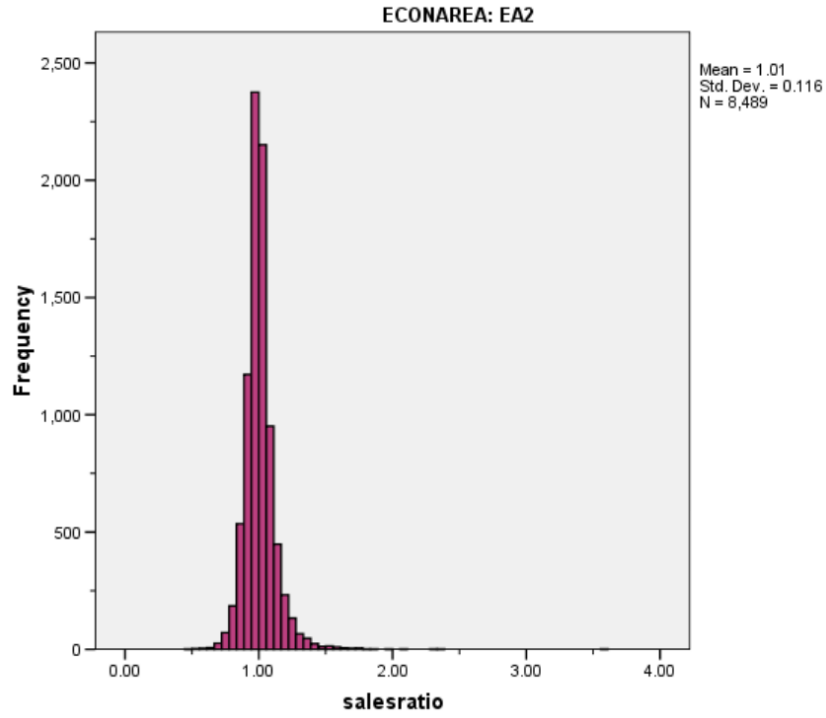
		Count	Percent
ECONAREA	EA1	15448	59.9%
	EA2	8489	32.9%
	EA3	1099	4.3%
	EA4	756	2.9%
Overall		25792	100.0%
Excluded		0	
Total		25792	

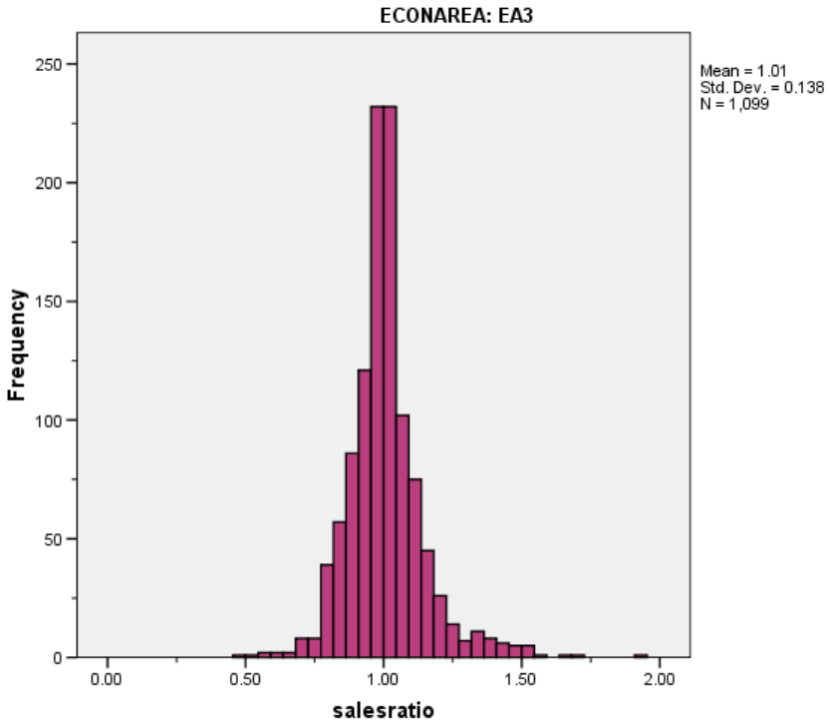
Ratio Statistics for CURRTOT / TASP

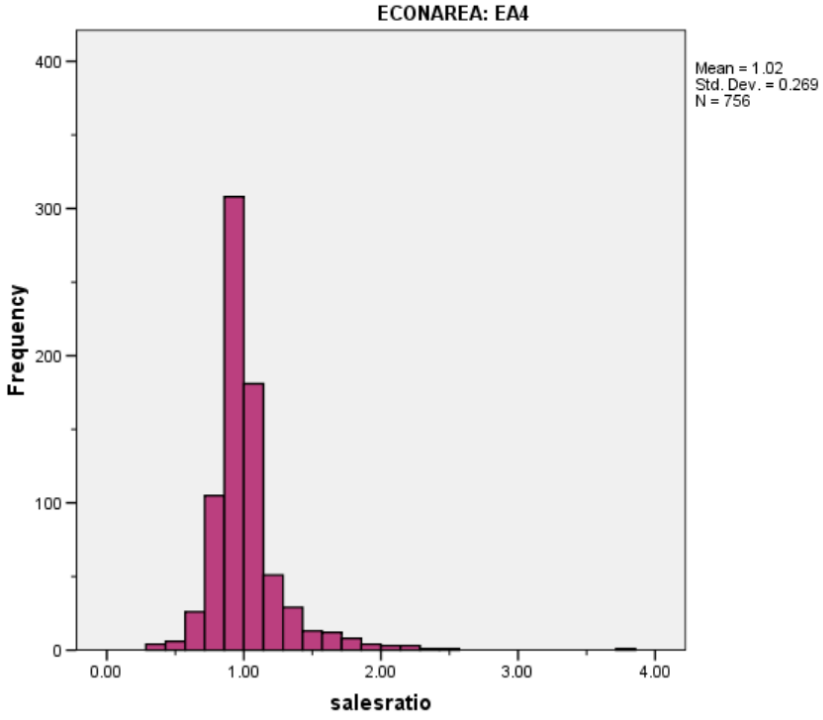
Group	Median	Price Related Differential	Coefficient of Dispersion
EA1	.999	1.009	.065
EA2	.999	1.011	.075
EA3	1.000	1.016	.092
EA4	.977	1.047	.159
Overall	.999	1.011	.072

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:


ECONAREA: EA1
Mean = 1.00
Std. Dev. = 0.102
N = 15,448
Frequency
6,000
5,000
4,000
3,000
2,000
1,000
0
0.00
1.00
2.00
3.00
4.00
5.00
salesratio


ECONAREA: EA2
Mean = 1.01
Std. Dev. = 0.116
N = 8,489
Frequency
2,500
2,000
1,500
1,000
500
0
0.00
1.00
2.00
3.00
4.00
salesratio





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 60-month sale period for any residual market trending and broken down by economic area, as follows:

Coefficients[a]

ECONAREA	Model		Unstandardized Coefficients		Standardized Coefficients		
			B	Std. Error	Beta	t	Sig.
EA1	1	(Constant)	1.001	.001		695.935	.000
		SalePeriod	.00008959	.000	.015	1.883	.060
EA2	1	(Constant)	1.002	.002		454.170	.000
		SalePeriod	.000	.000	.028	2.574	.010
EA3	1	(Constant)	1.007	.008		132.392	.000
		SalePeriod	2.985E-5	.000	.004	.122	.903
EA4	1	(Constant)	1.024	.018		56.979	.000
		SalePeriod	.000	.001	-.016	-.436	.663

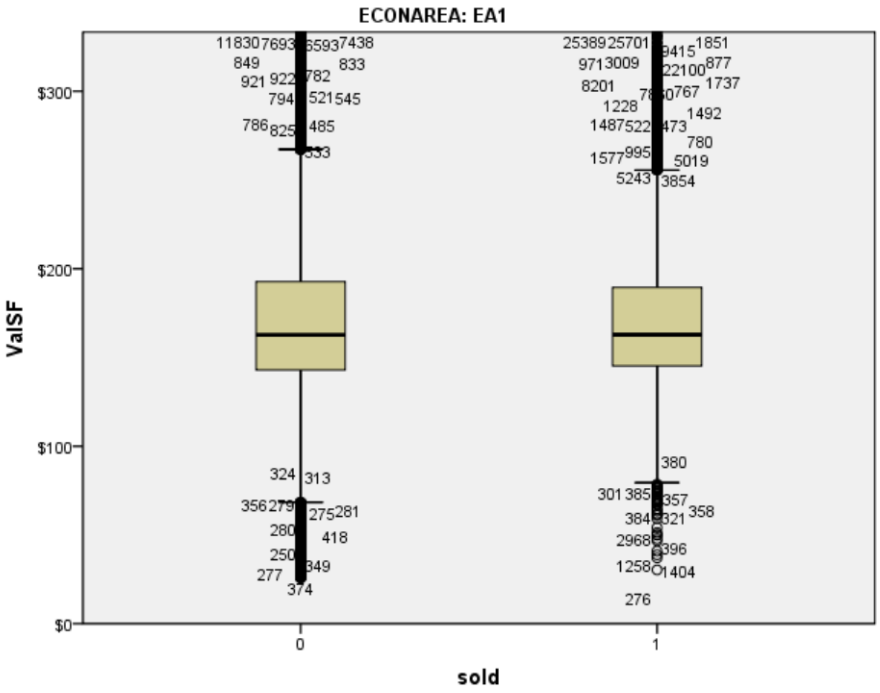
a. Dependent Variable: salesratio

There was no residual market trending present in the sale ratio data for any of the economic areas; in Economic Areas 1 and 2, where a marginally statistical significant trend were present, the magnitude of those trends (each at less than 0.1% per month) was not significant. We therefore concluded that the assessor has adequately addressed market trending in the valuation of residential properties.

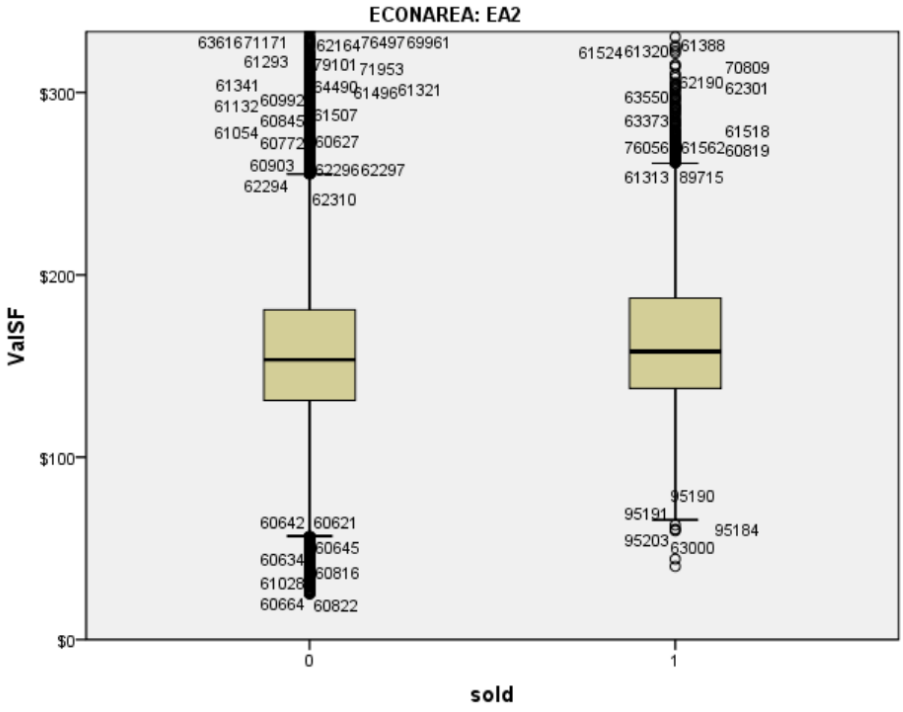
Sold/Unsold Analysis

In terms of the valuation consistency between sold and unsold residential properties, we compared the median actual value per square foot for 2015 between each group. The data was analyzed broken down by economic area, as follows:

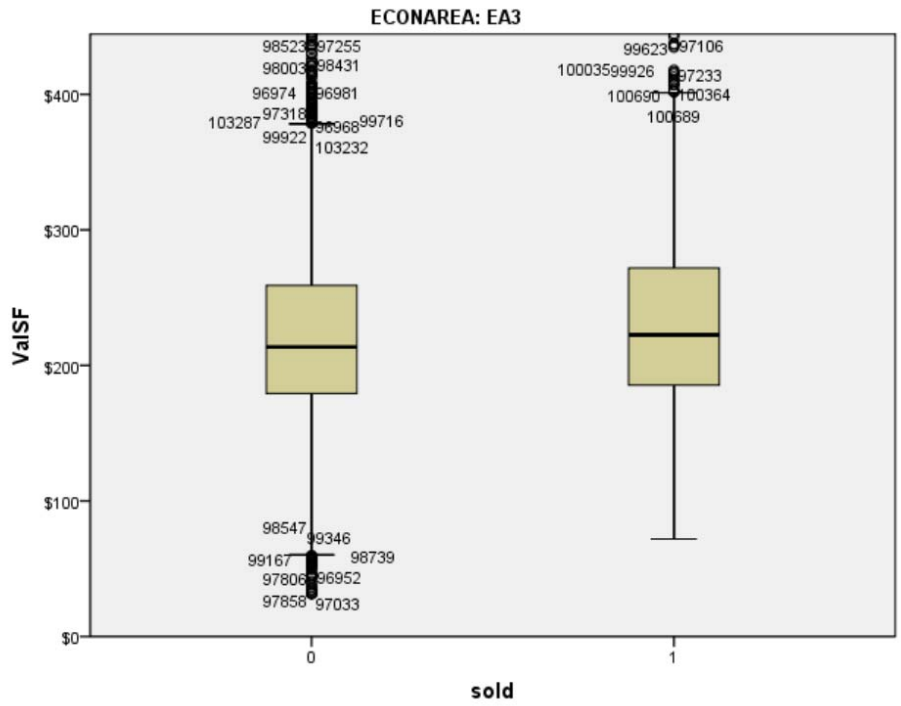
ECONAREA	Group	No. Sales	Median Val/SF	Mean Val/SF
EA1	**Unsold**	44,379	$162.80	$170.94
	Sold	15,445	$162.88	$172.95
EA2	**Unsold**	27,441	$153.40	$157.73
	Sold	8,486	$157.97	$165.63
EA3	**Unsold**	5,395	$213.55	$222.38
	Sold	1,099	$222.62	$235.27
EA4	**Unsold**	6,322	$147.70	$154.48
	Sold	755	$169.31	$175.81
Total	**Unsold**	83,784	$161.11	$168.45
	Sold	25,785	$163.23	$173.28



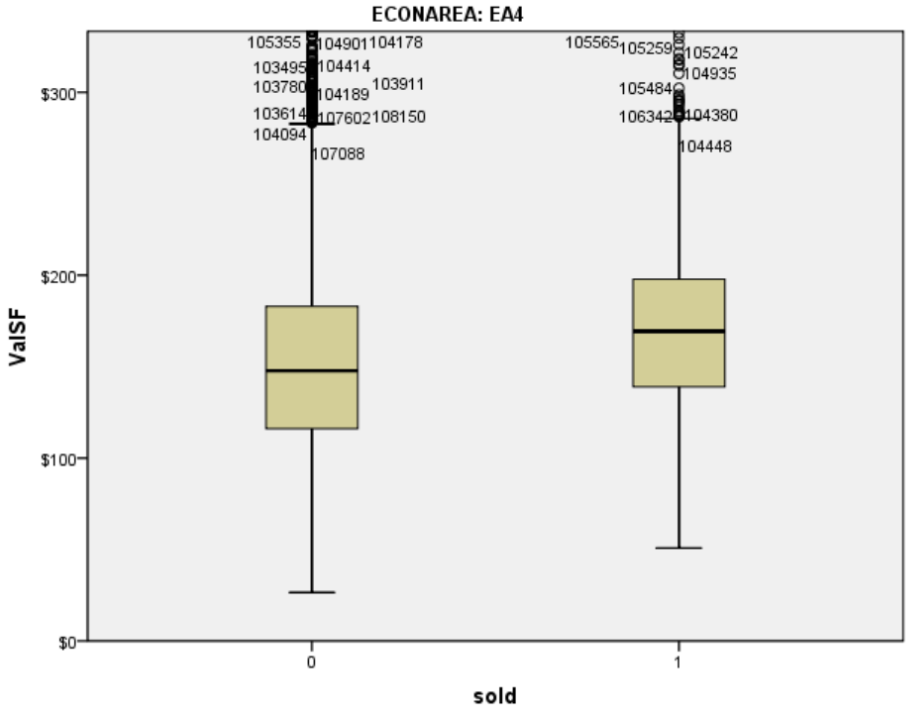
(0 = Unsold, 1 = Sold)



(0 = Unsold, 1 = Sold)



(0 = Unsold, 1 = Sold)



(0 = Unsold, 1 = Sold)

We next checked the median and mean change in value from 2014 to 2015 for sold and unsold residential properties by economic area, as follows:

ECONAREA	Group	N	Median Chg Val	Mean Chg Val
EA1	**Unsold**	43,710	1.1539	1.1598
	Sold	15,112	1.1557	1.1627
EA2	**Unsold**	26,964	1.1725	1.1737
	Sold	8,326	1.1703	1.1719
EA3	**Unsold**	5,344	1.1071	1.1169
	Sold	1,092	1.1188	1.1211
EA4	**Unsold**	5,848	1.1774	1.1843
	Sold	722	1.1857	1.1894
Total	**Unsold**	82,100	1.1590	1.1630
	Sold	25,252	1.1598	1.1647

The above table indicates a very close relationship between the mean and median change in value for sold and unsold groups, both as a whole and by economic area.

As a final check, we developed an econometric model that used the assessor's actual value as the predicted variable. A total of 83,109 residential properties were analyzed; we selected those properties in average condition and of average construction quality for this analysis. Residential property subclasses included the following:

ABSTRIMP

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1212	71709	86.3	86.3	86.3
	1215	1716	2.1	2.1	88.3
	1220	560	.7	.7	89.0
	1230	9124	11.0	11.0	100.0
	Total	83109	100.0	100.0	

We developed a stepwise regression model to test whether sold and unsold properties were valued differently by the assessor.

To do this, we included a binary variable for sold/unsold status. For the model, sold properties were coded "1" and unsold properties were coded "0." Other variables tested included living area, age, economic area, and residential property type. The stepwise regression analysis adds variables to the model based on their contributory strength, as measured by their t or p values (depending on the test). At each step, a variable is added, and variables already in the model are re-evaluated to determine if they should remain in the model. After it is determined that adding additional variables will not improve the model's predicative or explanatory power, the process stops. Variables not included at this point are determined to not be significant. In this analysis, our primary focus was the sold/unsold variable previously described.

After 9 iterations, the following results were generated by the model:

Model Summary[j]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.727[a]	.529	.529	72185.533
2	.740[b]	.547	.547	70774.543
3	.755[c]	.570	.570	68977.315
4	.760[d]	.577	.577	68379.140
5	.763[e]	.582	.582	68016.855
6	.763[f]	.582	.582	67978.680
7	.763[g]	.583	.583	67943.740
8	.764[h]	.583	.583	67918.316
9	.764[i]	.583	.583	67904.801

a. Predictors: (Constant), LIVEAREA

b. Predictors: (Constant), LIVEAREA, type3

c. Predictors: (Constant), LIVEAREA, type3, EA3

d. Predictors: (Constant), LIVEAREA, type3, EA3, EA2

e. Predictors: (Constant), LIVEAREA, type3, EA3, EA2, EA4

f. Predictors: (Constant), LIVEAREA, type3, EA3, EA2, EA4, type2

g. Predictors: (Constant), LIVEAREA, type3, EA3, EA2, EA4, type2, type1

h. Predictors: (Constant), LIVEAREA, type3, EA3, EA2, EA4, type2, type1, Age

i. Predictors: (Constant), LIVEAREA, type3, EA3, EA2, EA4, type2, type1, Age, sold

j. Dependent Variable: CURRTOT

Ratio Statistics for Unstandardized Predicted Value / CURRTOT

Median	Price Related Differential	Coefficient of Dispersion
1.023	1.076	.195

Although the COD was above 16%, for the purposes of this model (i.e. testing the significance of the sold/unsold variable), the results were sufficient. The median ratio was within the 0.95 to 1.05 compliance range, indicating little or no bias.

The model at Step 9 did include the Sold/Unsold variable as the final variable into the regression mode, but its magnitude at 1.3% of the average actual value of $253,581 was not significant.

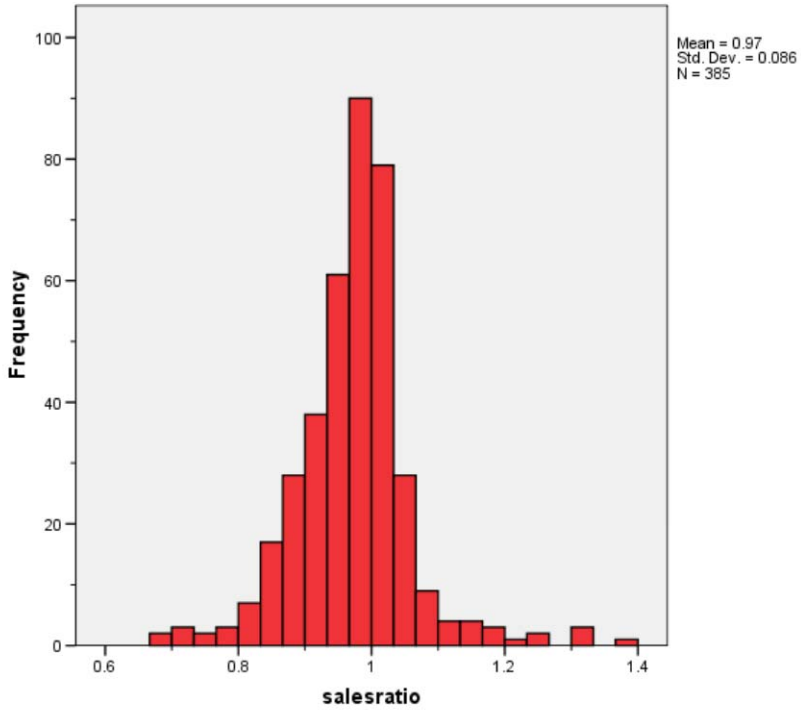
The above results indicate that sold and unsold residential properties were valued in a consistent manner. Some sales were trimmed due to extreme values.

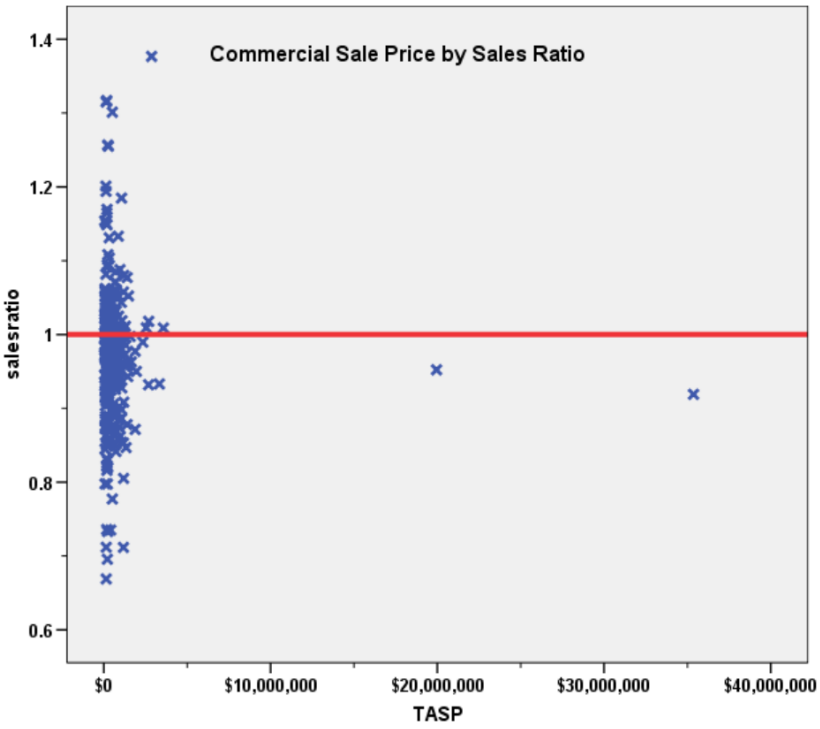
IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

There were 385 qualified commercial and industrial sales for the 60 month period prior to June 30, 2014. The sales ratio analysis was analyzed as follows:

Median	**0.977**
Price Related Differential	**1.006**
Coefficient of Dispersion	**.060**

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





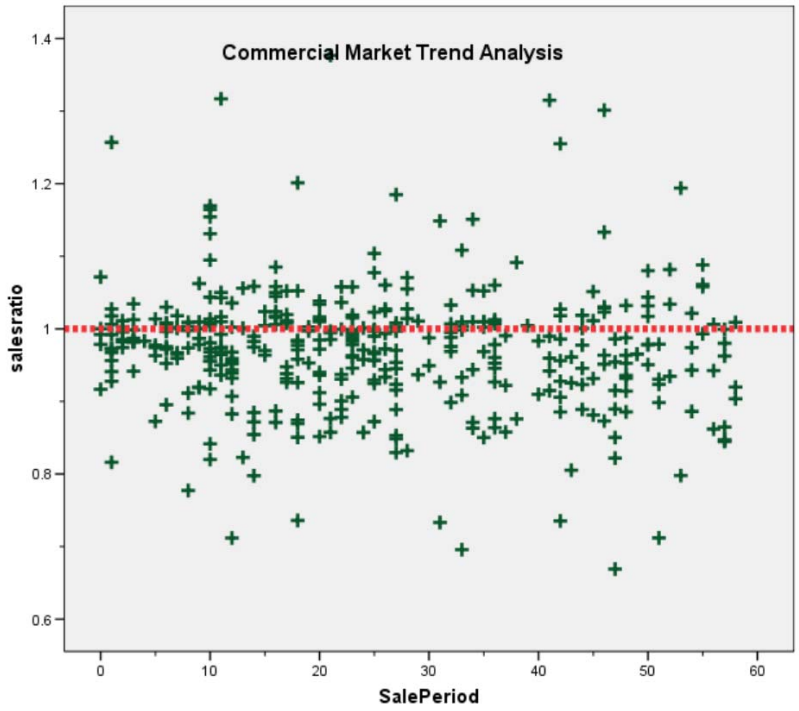
Commercial/Industrial Market Trend Analysis

The assessor did apply market trend adjustments to the vacant land dataset. The commercial/industrial sales were analyzed, examining the sale 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)	.984	.008		120.808	.000
	SalePeriod	.000	.000	-.084	-1.645	.101

a. Dependent Variable: salesratio

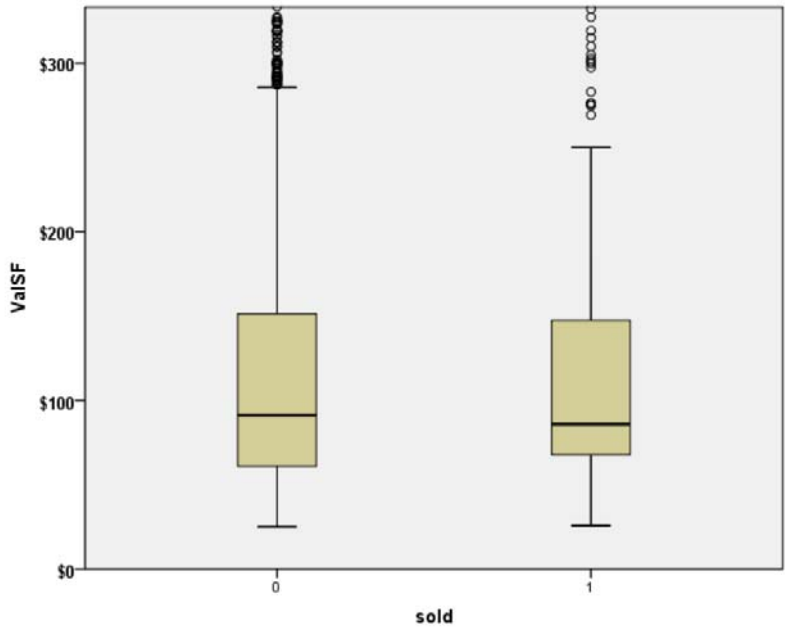


There was no residual market trending present in the commercial sale ratios. We concluded that the assessor has adequately considered market trending adjustments as part of the vacant land valuation.

Sold/Unsold Analysis

We compared the median value per square feet between sold and unsold properties to determine if both groups were valued consistently, as follows:

Group	No.	Median Val/SF	Mean Val/SF
Unsold	4,841	$91.35	$112.60
Sold	384	$85.93	$113.60



(0 = Unsold, 1 = Sold)

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	.469	Retain the null hypothesis.

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

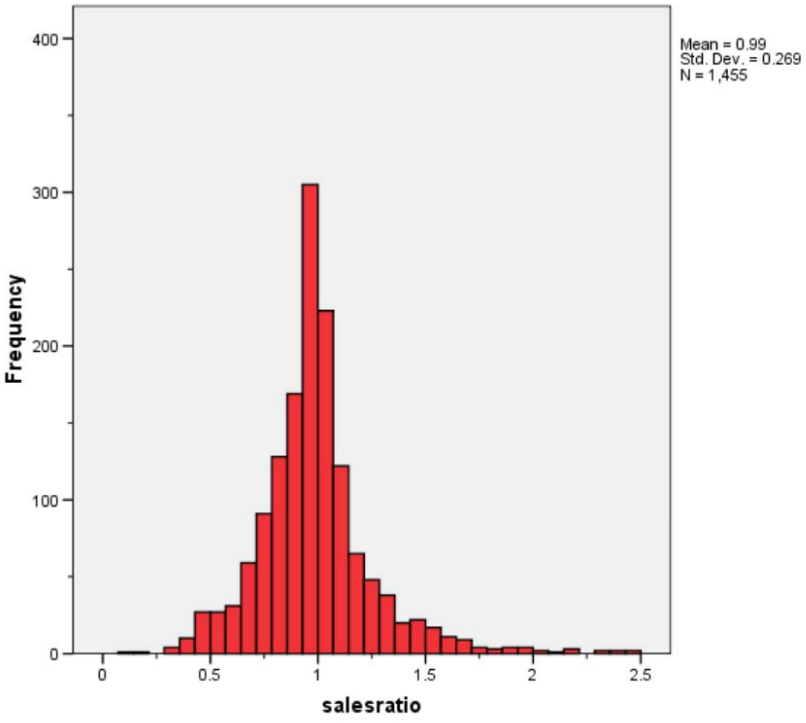
The above results indicated that sold and unsold vacant land properties were valued consistently.

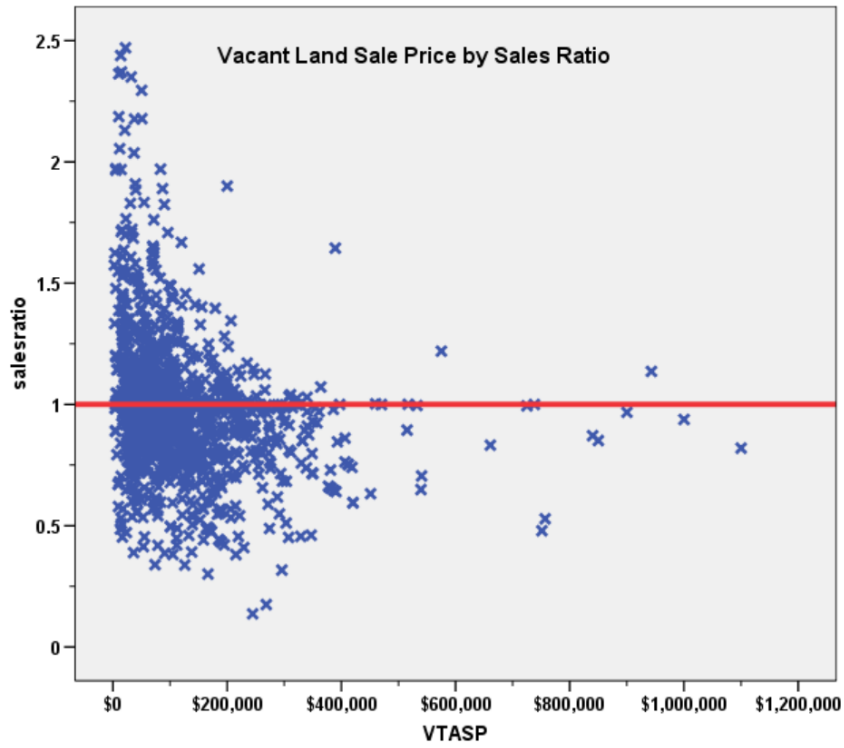
V. VACANT LAND SALE RESULTS

There were 1,455 qualified vacant land sales for the 60 month period prior to June 30, 2014. The sales ratio analysis was analyzed as follows:

Median	**.988**
Price-Related Differential	**1.068**
Coefficient of Dispersion	**.181**

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


Mean = 0.99
Std. Dev. = 0.269
N = 1,455
Frequency
400
300
200
100
0
0
0.5
1
1.5
2
2.5
salesratio


Vacant Land Sale Price by Sales Ratio
salesratio
2.5
2
1.5
1
0.5
0
$0
$200,000
$400,000
$600,000
$800,000
$1,000,000
$1,200,000
VTASP

The above histogram indicates that the distribution of the vacant land sale ratios was within state mandated limits, while the above scatter plot indicated that there was no price related differential issues. No sales were trimmed.

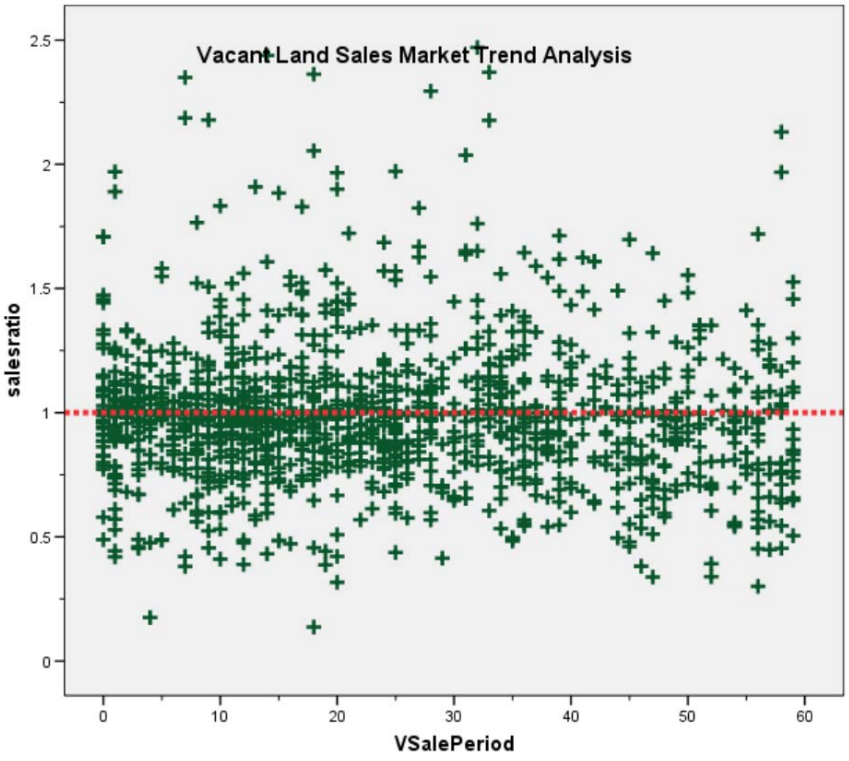
Vacant Land Market Trend Analysis

We next analyzed the vacant land dataset using the 60-month sale period and stratified by economic area, with the following results:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.005	.012		83.675	.000
	VSalePeriod	-.001	.000	-.046	-1.770	.077

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 value for 2014 and 2015 between each group, as follows:

Group	No. Sales	Median Chg Val	Mean Chg Val
Unsold	10,421	1.00	1.06
Sold	1,368	1.08	1.12

We next examined sold and unsold properties with at least 15 sales to determine if sold and unsold properties were valued differently, as follows:

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of DIFF is the same across categories of sold.	Independent-Samples Mann-Whitney U Test	.767	Retain the null hypothesis.

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

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

V. AGRICULTURAL IMPROVEMENTS ANALYSIS

The final verification concerned the assigned actual values for agricultural residential improvements. We compared the median improved value per square foot rate for this subclass and compared it to the median improved value per square foot for residential single family improvements in Larimer County.

The following indicates that both groups were valued in essentially the same manner:

Descriptives

	ABSTRIMP			Statistic	Std. Error
ImpValSF	SFR	Mean		$923.23	$39.239
		95% Confidence Interval for Mean	Lower Bound	$846.32	
			Upper Bound	$1,000.13	
		5% Trimmed Mean		$135.19	
		Median		$131.56	
		Variance		1.482E8	
		Std. Deviation		$12,174.807	
		Minimum		$1	
		Maximum		$1,350,000	
		Range		$1,349,999	
		Interquartile Range		$45	
		Skewness		31.390	.008
		Kurtosis		2026.167	.016
	Ag Res	Mean		$2,440.04	$993.784
		95% Confidence Interval for Mean	Lower Bound	$488.02	
			Upper Bound	$4,392.07	
		5% Trimmed Mean		$126.82	
		Median		$125.36	
		Variance		5.511E8	
		Std. Deviation		$23,475.182	
		Minimum		$1	
		Maximum		$414,000	
		Range		$413,999	
		Interquartile Range		$53	
		Skewness		13.829	.103
		Kurtosis		214.146	.206

VI. CONCLUSIONS

Based on this 2015 audit statistical analysis for Larimer County, residential, commercial industrial, vacant land and agricultural residential properties were found to be in compliance with state guidelines.

STATISTICAL ABSTRACT

Residential

Ratio Statistics for CURRTOT / TASP

ECONAREA	Mean	95% Confidence Interval for Mean		Median	95% Confidence Interval for Median			Weighted Mean	95% Confidence Interval for Weighted Mean		Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
		Lower Bound	Upper Bound		Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound			Mean Centered
EA1	1.004	1.002	1.005	.999	.998	1.000	95.1%	.994	.991	.997	1.009	.065	10.2%
EA2	1.007	1.005	1.010	.999	.998	1.000	95.2%	.996	.993	.999	1.011	.075	11.6%
EA3	1.008	1.000	1.016	1.000	.997	1.000	95.4%	.992	.981	1.004	1.016	.092	13.7%
EA4	1.017	.998	1.036	.977	.977	.988	95.5%	.972	.952	.991	1.047	.159	26.4%

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

Commercial Land

Ratio Statistics for CURRTOT / TASP

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
.973	.964	.981	.977	.971	.984	95.9%	.967	.948	.986	1.006	.060	8.9%

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.

Vacant Land

Ratio Statistics for CURRLND / VTASP

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
.988	.974	1.002	.988	.976	.993	95.4%	.925	.910	.940	1.068	.181	27.2%

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

Residential Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	LT $25K	2	.0%
	$25K to $50K	11	.0%
	$50K to $100K	301	1.2%
	$100K to $150K	1542	6.0%
	$150K to $200K	4156	16.1%
	$200K to $300K	11021	42.7%
	$300K to $500K	6915	26.8%
	$500K to $750K	1492	5.8%
	$750K to $1,000K	232	.9%
	Over $1,000K	120	.5%
Overall		25792	100.0%
Excluded		0	
Total		25792	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
LT $25K	.872	1.090	.248	35.1%
$25K to $50K	1.337	.995	.391	62.8%
$50K to $100K	1.066	1.012	.189	32.7%
$100K to $150K	1.006	1.001	.103	18.7%
$150K to $200K	1.004	1.000	.078	12.0%
$200K to $300K	.999	1.001	.062	9.3%
$300K to $500K	.994	1.001	.067	9.4%
$500K to $750K	.978	1.000	.081	11.6%
$750K to $1,000K	.976	1.001	.092	12.8%
Over $1,000K	.948	.988	.105	14.1%
Overall	.999	1.011	.072	11.7%

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	0	1	.0%
	1212	22100	85.7%
	1214	1	.0%
	1215	297	1.2%
	1216	1	.0%
	1217	1	.0%
	1220	121	.5%
	1225	1	.0%
	1225	14	.1%
	1230	3231	12.5%
	1240	5	.0%
	1382	1	.0%
	1545	2	.0%
	1712	2	.0%
	1714	2	.0%
	1716	3	.0%
	1721	2	.0%
	1889	1	.0%
	2090	1	.0%
	2124	1	.0%
	2220	2	.0%
	9250	2	.0%
Overall		25792	100.0%
Excluded		0	
Total		25792	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
0	.181	1.000	.000	.%
1212	.999	1.010	.074	12.0%
1214	.977	1.000	.000	.%
1215	1.000	1.006	.045	8.1%
1216	.999	1.000	.000	.%
1217	.960	1.000	.000	.%
1220	.972	1.012	.064	9.9%
1225	.852	1.000	.000	.%
1225	.961	.980	.044	5.2%
1230	.999	1.008	.060	9.1%
1240	.978	1.087	.140	31.6%
1382	.859	1.000	.000	.%
1545	.957	1.016	.100	14.2%
1712	.997	.998	.031	4.4%
1714	.942	1.057	.075	10.6%
1716	.962	1.034	.151	31.1%
1721	.963	1.019	.068	9.6%
1889	1.132	1.000	.000	.%
2090	.900	1.000	.000	.%
2124	.901	1.000	.000	.%
2220	1.617	1.073	.462	65.3%
9250	.842	.969	.117	16.6%
Overall	.999	1.011	.072	11.7%

Age

Case Processing Summary

		Count	Percent
AgeRec	0	1	.0%
	Over 100	478	1.9%
	75 to 100	437	1.7%
	50 to 75	1481	5.7%
	25 to 50	7584	29.4%
	5 to 25	11520	44.7%
	5 or Newer	4291	16.6%
Overall		25792	100.0%
Excluded		0	
Total		25792	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
0	.181	1.000	.000	.%
Over 100	1.000	1.027	.122	25.1%
75 to 100	.996	1.021	.107	16.3%
50 to 75	.999	1.014	.095	15.1%
25 to 50	1.000	1.015	.080	13.1%
5 to 25	.999	1.010	.067	10.3%
5 or Newer	.996	1.005	.052	7.6%
Overall	.999	1.011	.072	11.7%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	0	1	.0%
	LE 500 sf	53	.2%
	500 to 1,000 sf	2762	10.7%
	1,000 to 1,500 sf	8586	33.3%
	1,500 to 2,000 sf	7960	30.9%
	2,000 to 3,000 sf	5445	21.1%
	3,000 sf or Higher	985	3.8%
Overall		25792	100.0%
Excluded		0	
Total		25792	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
0	.181	1.000	.000	.%
LE 500 sf	.945	.978	.142	21.7%
500 to 1,000 sf	.988	1.016	.088	14.6%
1,000 to 1,500 sf	.997	1.010	.070	11.1%
1,500 to 2,000 sf	1.000	1.010	.066	10.0%
2,000 to 3,000 sf	1.001	1.013	.072	11.4%
3,000 sf or Higher	1.000	1.035	.090	18.9%
Overall	.999	1.011	.072	11.7%

Improvement Quality

Case Processing Summary

		Count	Percent
QUALITY		2	.0%
	Average	20267	78.6%
	Average Plus	3470	13.5%
	Excellent	6	.0%
	Fair	911	3.5%
	Good	881	3.4%
	Good Plus	171	.7%
	Low	16	.1%
	Very Good	68	.3%
Overall		25792	100.0%
Excluded		0	
Total		25792	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
	.888	.645	.796	112.6%
Average	.999	1.008	.069	11.1%
Average Plus	1.000	1.012	.074	11.3%
Excellent	.990	.989	.032	5.0%
Fair	.998	1.023	.110	19.1%
Good	.999	1.019	.086	13.8%
Good Plus	.999	1.019	.096	14.4%
Low	1.013	1.106	.214	33.6%
Very Good	1.003	1.045	.114	18.2%
Overall	.999	1.011	.072	11.7%

Improvement Condition

Case Processing Summary

		Count	Percent
CONDITION		2	.0%
	Average	25749	99.8%
	Badly Worn	5	.0%
	Good	31	.1%
	Very Good	2	.0%
	Worn Out	3	.0%
Overall		25792	100.0%
Excluded		0	
Total		25792	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
	.888	.645	.796	112.6%
Average	.999	1.011	.072	11.6%
Badly Worn	1.005	1.032	.124	16.9%
Good	.967	1.098	.106	27.6%
Very Good	.877	1.056	.120	17.0%
Worn Out	.875	1.275	.433	85.4%
Overall	.999	1.011	.072	11.7%

Commercial Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	$25K to $50K	3	.8%
	$50K to $100K	32	8.3%
	$100K to $150K	47	12.2%
	$150K to $200K	61	15.8%
	$200K to $300K	59	15.3%
	$300K to $500K	54	14.0%
	$500K to $750K	52	13.5%
	$750K to $1,000K	33	8.6%
	Over $1,000K	44	11.4%
Overall		385	100.0%
Excluded		0	
Total		385	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
$25K to $50K	1.002	.998	.069	11.4%
$50K to $100K	.984	1.000	.056	7.2%
$100K to $150K	.972	1.000	.075	11.1%
$150K to $200K	.974	1.000	.061	9.2%
$200K to $300K	.971	.998	.068	10.0%
$300K to $500K	.987	1.002	.044	6.5%
$500K to $750K	.977	1.001	.058	8.2%
$750K to $1,000K	.990	1.000	.039	5.6%
Over $1,000K	.968	1.013	.070	10.6%
Overall	.977	1.006	.060	8.8%

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	1712	2	.5%
	1714	2	.5%
	1716	1	.3%
	1721	2	.5%
	1738	1	.3%
	1879	1	.3%
	1891	1	.3%
	2212	39	10.1%
	2215	1	.3%
	2216	1	.3%
	2220	1	.3%
	2220	35	9.1%
	2225	3	.8%
	2228	5	1.3%
	2230	52	13.5%
	2232	1	.3%
	2233	3	.8%
	2235	44	11.4%
	2240	2	.5%
	2245	174	45.2%
	3215	6	1.6%
	3230	4	1.0%
	5765	1	.3%
	5775	1	.3%
	9279	2	.5%
Overall		385	100.0%
Excluded		0	
Total		385	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
1712	1.029	1.003	.021	3.0%
1714	1.049	1.004	.035	4.9%
1716	.849	1.000	.000	.%
1721	.929	.983	.047	6.6%
1738	.886	1.000	.000	.%
1879	.990	1.000	.000	.%
1891	.956	1.000	.000	.%
2212	.971	1.020	.068	10.4%
2215	.952	1.000	.000	.%
2216	.777	1.000	.000	.%
2220	.960	1.000	.000	.%
2220	.994	1.013	.043	7.3%
2225	1.006	1.004	.019	3.7%
2228	.889	1.027	.044	5.9%
2230	.983	1.030	.048	7.3%
2232	.943	1.000	.000	.%
2233	.979	1.016	.023	3.5%
2235	.990	.994	.043	6.1%
2240	.965	1.023	.096	13.6%
2245	.973	1.000	.068	9.5%
3215	.975	1.022	.029	3.5%
3230	.979	1.011	.030	3.6%
5765	1.011	1.000	.000	.%
5775	1.377	1.000	.000	.%
9279	.847	1.000	.030	4.2%
Overall	.977	1.006	.060	8.8%

Age

Case Processing Summary

		Count	Percent
AgeRec	Over 100	28	7.3%
	75 to 100	15	3.9%
	50 to 75	24	6.2%
	25 to 50	111	28.8%
	5 to 25	203	52.7%
	5 or Newer	4	1.0%
Overall		385	100.0%
Excluded		0	
Total		385	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
Over 100	.999	1.015	.055	8.5%
75 to 100	.977	.987	.045	5.5%
50 to 75	.960	.984	.080	11.4%
25 to 50	.983	.985	.048	8.0%
5 to 25	.972	1.016	.066	9.2%
5 or Newer	.954	1.026	.034	7.4%
Overall	.977	1.006	.060	8.8%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	LE 500 sf	4	1.0%
	500 to 1,000 sf	40	10.4%
	1,000 to 1,500 sf	72	18.7%
	1,500 to 2,000 sf	40	10.4%
	2,000 to 3,000 sf	47	12.2%
	3,000 sf or Higher	182	47.3%
Overall		385	100.0%
Excluded		0	
Total		385	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
LE 500 sf	.971	1.005	.043	5.8%
500 to 1,000 sf	.981	.999	.071	10.4%
1,000 to 1,500 sf	.971	1.008	.070	9.8%
1,500 to 2,000 sf	.967	1.007	.064	9.8%
2,000 to 3,000 sf	.965	1.009	.054	8.3%
3,000 sf or Higher	.987	1.014	.054	8.0%
Overall	.977	1.006	.060	8.8%

Improvement Quality

Case Processing Summary

		Count	Percent
QUALITY	Average	306	79.5%
	Average Plus	24	6.2%
	Fair	15	3.9%
	Good	39	10.1%
	Very Good	1	.3%
Overall		385	100.0%
Excluded		0	
Total		385	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
Average	.979	1.004	.059	8.5%
Average Plus	.969	.966	.066	10.9%
Fair	.964	.999	.072	11.6%
Good	.974	1.034	.063	9.4%
Very Good	1.006	1.000	.000	.%
Overall	.977	1.006	.060	8.8%

Improvement Condition

Case Processing Summary

		Count	Percent
CONDITION	Average	351	91.2%
	Badly Worn	2	.5%
	Good	20	5.2%
	Very Good	12	3.1%
Overall		385	100.0%
Excluded		0	
Total		385	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
Average	.978	1.009	.059	8.6%
Badly Worn	.976	.983	.022	3.1%
Good	.979	.988	.077	11.6%
Very Good	.957	.978	.062	10.1%
Overall	.977	1.006	.060	8.8%

Vacant Land Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	LT $25K	130	8.9%
	$25K to $50K	217	14.9%
	$50K to $100K	456	31.3%
	$100K to $150K	285	19.6%
	$150K to $200K	163	11.2%
	$200K to $300K	132	9.1%
	$300K to $500K	55	3.8%
	$500K to $750K	9	.6%
	$750K to $1,000K	7	.5%
	Over $1,000K	1	.1%
Overall		1455	100.0%
Excluded		0	
Total		1455	

Ratio Statistics for CURRLND / VTASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
LT $25K	1.143	1.013	.258	35.9%
$25K to $50K	.993	.998	.187	29.0%
$50K to $100K	.999	1.004	.154	23.4%
$100K to $150K	.968	1.005	.160	21.8%
$150K to $200K	.918	.998	.190	25.5%
$200K to $300K	.914	1.006	.147	21.4%
$300K to $500K	.849	1.002	.183	23.7%
$500K to $750K	.994	.995	.127	19.1%
$750K to $1,000K	.871	.978	.194	27.9%
Over $1,000K	.820	1.000	.000	.%
Overall	.988	1.068	.181	27.2%

Subclass

Case Processing Summary

		Count	Percent
ABSTRLND	100	428	29.4%
	200	29	2.0%
	400	91	6.3%
	510	5	.3%
	520	12	.8%
	530	8	.5%
	540	12	.8%
	550	51	3.5%
	831	1	.1%
	1112	789	54.2%
	1135	1	.1%
	1624	1	.1%
	2112	5	.3%
	2120	2	.1%
	2124	1	.1%
	2130	11	.8%
	2135	4	.3%
	2140	1	.1%
	3115	2	.1%
	9149	1	.1%
Overall		1455	100.0%
Excluded		0	
Total		1455	

Ratio Statistics for CURRLND / VTASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
100	.995	1.086	.202	31.8%
200	.975	1.014	.066	9.1%
400	.995	1.088	.176	24.6%
510	.995	.990	.023	4.4%
520	1.002	1.053	.141	29.1%
530	1.019	1.277	.334	43.0%
540	.992	1.067	.203	34.0%
550	.991	1.060	.112	18.8%
831	2.470	1.000	.000	.%
1112	.972	1.065	.179	25.1%
1135	.962	1.000	.000	.%
1624	1.644	1.000	.000	.%
2112	.898	.986	.102	18.5%
2120	1.004	1.153	.183	25.9%
2124	.894	1.000	.000	.%
2130	1.000	1.075	.144	30.6%
2135	1.001	.998	.017	2.7%
2140	1.035	1.000	.000	.%
3115	1.052	.998	.080	11.3%
9149	1.000	1.000	.000	.%
Overall	.988	1.068	.181	27.2%