2012
PUEBLO COUNTY
PROPERTY ASSESSMENT
STUDY

WILDROSE
APPRAISAL, INCORPORATED
Audit Division

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APPRAISAL, INCORPORATED
Audit Division

September 15, 2012

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

RE: Final Report for the 2012 Colorado Property Assessment Study

Dear Mr. Mauer:

Wildrose Appraisal Inc.-Audit Division is pleased to submit the Final Reports for the 2012 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 2012 and is pleased to report its findings for Pueblo County in the following report.

REGIONAL / HISTORICAL SKETCH OF PUEBLO COUNTY

Regional Information

Pueblo 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

Pueblo County has a population of approximately 159,063 people with 66.58 people per square mile, according to the U.S. Census Bureau's 2010 census data. This represents a 12.43 percent change from the 2000 Census.

Pueblo County, one of the seventeen original territorial counties, was established in 1861 with an area of 2,405 square miles. The county was named for its county seat, Pueblo, Spanish for 'town' or 'village.' Originally called Independence, it had been a settlement for many years, occupied at times by Spaniards, trappers, Indian traders, and Mexicans.

Pueblo is a Home Rule Municipality and is the county seat and the most populous city of Pueblo County. It is situated at the confluence of the Arkansas River and Fountain Creek. The area is considered to be semi-arid with approximately 14 inches of precipitation annually; however with its location in the "banana belt," Pueblo tends to get less snow than the other major cities in Colorado. Pueblo is one of the largest steel-producing cities in the United States. Because of this, Pueblo is referred to as the "Steel City." Many consider Pueblo to be the economic hub of south eastern Colorado. Due to this some people call Pueblo "Colorado's second city" even though Pueblo is the state's ninth most populous city. It is now home to a number of electronics and aviation companies. The Historic Arkansas River Project (HARP) is a beautiful river walk that graces the historic Union Avenue district. It shows the history of the Pueblo Flood.

Pueblo is also the home to Colorado's largest single event, the Colorado State Fair and the largest parade, the state fair parade. Pueblo also hosts an annual Chili Festival and the Wild West Fest.

(*www.Wikipedia.org, William Bright, Colorado Place Names, 3rd Edition, Johnson Books, 2004, p. 143)*

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 Pueblo County are:

Pueblo County Ratio Grid					
Property Class	Number of Qualified Sales	Unweighted Median Ratio	Price Related Differential	Coefficient of Dispersion	Time Trend Analysis
Commercial/Industrial	54	0.945	0.986	10	Compliant
Condominium	N/A	N/A	N/A	N/A	N/A
Single Family	2,217	0.988	1.019	11.8	Compliant
Vacant Land	236	1.029	1.052	14.3	Compliant

Ratio Statistics for Current Total / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
1	.993	1.043	.158
2	.987	1.015	.110
3	.981	1.037	.147
4	.995	1.030	.145
5	.998	1.029	.142
6	.982	1.012	.088
7	.982	1.003	.087
8	1.000	1.017	.116
9	.968	1.017	.138
10	.969	1.006	.057
11	.965	1.011	.072
12	.993	1.015	.133
13	.975	1.012	.101
Overall	.988	1.019	.118

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

Pueblo 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 2012 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

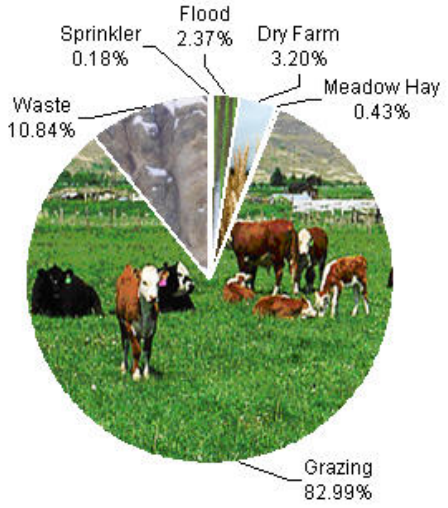
After applying the above described methodologies, it is concluded that Pueblo County is reasonably treating its sold and unsold properties in the same manner.

Recommendations

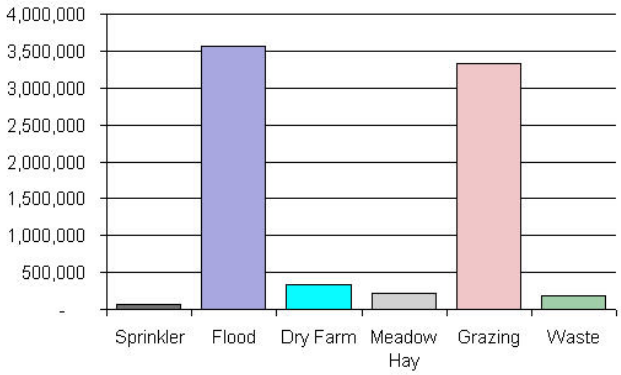
None

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:

Pueblo County Agricultural Land Ratio Grid						
Abstract Code	Land Class	Number Of Acres	County Value Per Acre	County Assessed Total Value	WRA Total Value	Ratio
4107	Sprinkler	1,889	35.00	65,981	66,361	0.99
4117	Flood	24,396	146.00	3,572,535	3,630,380	0.98
4127	Dry Farm	32,952	10.00	339,368	341,660	0.99
4137	Meadow Hay	4,386	49.00	214,126	214,126	1.00
4147	Grazing	855,586	4.00	3,330,641	3,330,641	1.00
4167	Waste	111,724	2.00	180,318	180,318	1.00
Total/Avg		**1,030,933**	**7.00**	**7,702,969**	**7,763,487**	**0.99**

Recommendations

None

Agricultural Outbuildings

Methodology

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

Conclusions

Pueblo 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

Pueblo 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 2012 for Pueblo County. This study was conducted by checking selected sales from the master sales list for the current valuation period. Specifically WRA selected 46 sales listed as unqualified.

All but four of the sales selected in the sample gave reasons that were clear and supportable. Four sales had no justification for disqualification.

Conclusions

Pueblo County appears to be doing an adequate job of verifying their sales. There are no recommendations.

Recommendations

None

ECONOMIC AREA REVIEW AND EVALUATION

Methodology

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

Recommendations

None

NATURAL RESOURCES

Earth and Stone Products

Methodology

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

Conclusions

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

Recommendations

None

VACANT LAND

Subdivision Discounting

Subdivisions were reviewed in 2012 in Pueblo County. The review showed that subdivisions were discounted pursuant to the Colorado Revised Statutes in Article 39-1-103 (14) and by applying the recommended methodology in ARL Vol 3, Chap 4. Subdivision Discounting in the intervening year was accomplished by reducing the absorption period by one year. In instances where the number of sales within an approved plat was less than the absorption rate per year calculated for the plat, the absorption period was left unchanged.

Conclusions

Pueblo 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.

Pueblo 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

Pueblo 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

Pueblo 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.

Pueblo 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.

Pueblo County submitted their personal property written audit plan and was current for the 2012 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
- Same business type or use
- Non-filing Accounts - Best Information Available
- Accounts close to the $5,500 actual value exemption status
- Accounts protested with substantial disagreement

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

Conclusions

Pueblo 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*

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

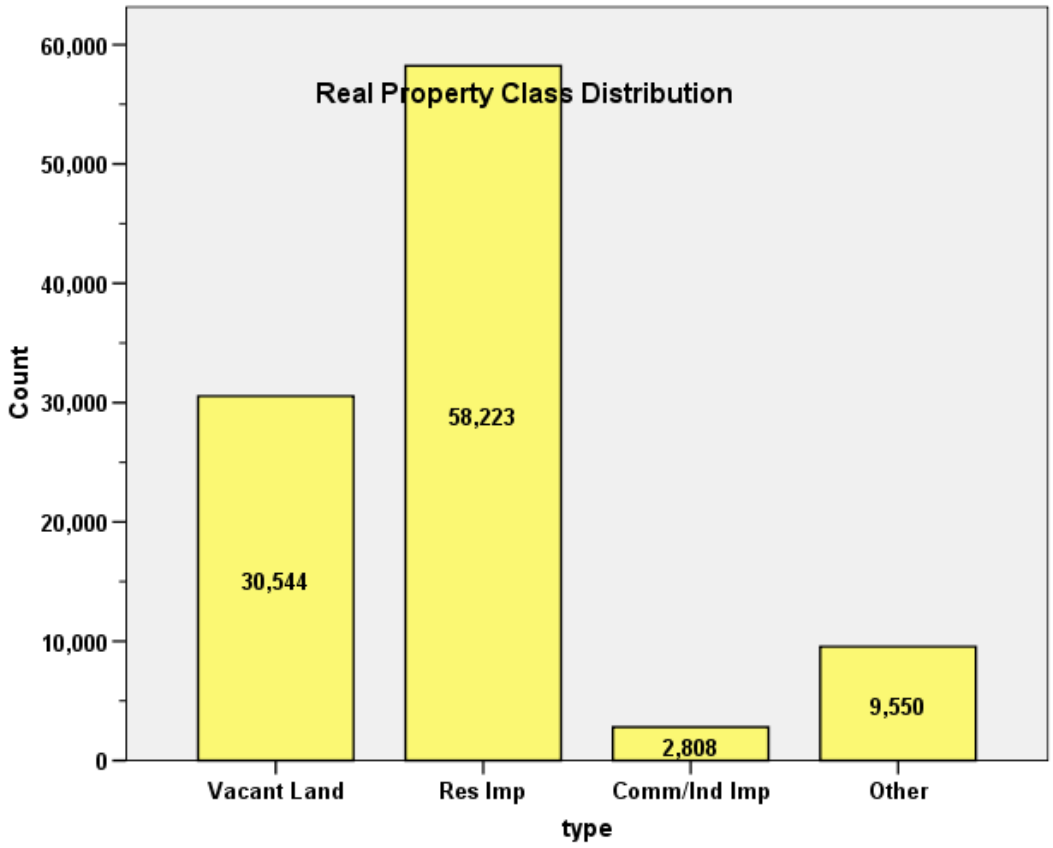
J. Andrew Rodriguez, *Field Analyst*

APPENDICES

STATISTICAL COMPLIANCE REPORT
FOR PUEBLO COUNTY
2012

I. OVERVIEW

Pueblo County is a southern county located along Colorado's Front Range urban corridor. The county has a total of 101,125 real property parcels, according to data submitted by the county assessor's office in 2012. 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 84.5% of all vacant land parcels.

For residential improved properties, single family properties accounted for 89.5% of all residential properties.

Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial properties accounted for 2.8% of all such properties in this county.

II. DATA FILES

The following sales analyses were based on the requirements of the 2012 Colorado Property Assessment Study. Information was provided by the Pueblo Assessor's Office in May 2012. The data included all 5 property record files as specified by the Auditor.

III. RESIDENTIAL SALES RESULTS

The following steps were taken to analyze the residential sales:

1. Qualified sales	2,559
2. Improved sales	2,299
3. Select residential sales only	2,246
4. Trim extreme ratios	2,217

The sales ratio analysis was analyzed as follows:

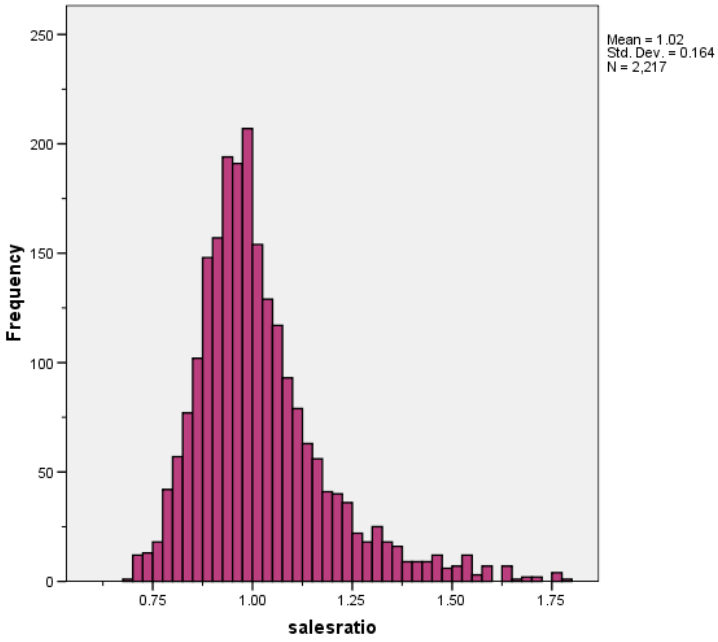
Case Processing Summary

		Count	Percent
Econarea	1	87	3.9%
	2	194	8.8%
	3	225	10.1%
	4	93	4.2%
	5	248	11.2%
	6	184	8.3%
	7	190	8.6%
	8	466	21.0%
	9	195	8.8%
	10	70	3.2%
	11	51	2.3%
	12	61	2.8%
	13	153	6.9%
Overall		2217	100.0%
Excluded		0	
Total		2217	

Ratio Statistics for Current Total / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
1	.993	1.043	.158
2	.987	1.015	.110
3	.981	1.037	.147
4	.995	1.030	.145
5	.998	1.029	.142
6	.982	1.012	.088
7	.982	1.003	.087
8	1.000	1.017	.116
9	.968	1.017	.138
10	.969	1.006	.057
11	.965	1.011	.072
12	.993	1.015	.133
13	.975	1.012	.101
Overall	.988	1.019	.118

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.

Residential Market Trend Analysis

We next analyzed the residential dataset for any residual market trending using the 18-month sale period and broken down by economic area, as follows:

Coefficients[a]

Econarea	Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			B	Std. Error	Beta		
1	1	(Constant)	1.118	.037		29.936	.000
		SalePeriod	-.009	.004	-.220	-2.082	.040
2	1	(Constant)	1.031	.020		51.247	.000
		SalePeriod	-.001	.002	-.042	-.577	.565
3	1	(Constant)	1.035	.026		40.010	.000
		SalePeriod	.000	.003	.008	.117	.907
4	1	(Constant)	1.032	.036		28.383	.000
		SalePeriod	-.002	.004	-.041	-.393	.696
5	1	(Constant)	1.029	.022		46.947	.000
		SalePeriod	-.001	.002	-.013	-.211	.833
6	1	(Constant)	1.023	.016		63.329	.000
		SalePeriod	-.003	.002	-.113	-1.537	.126
7	1	(Constant)	.999	.015		68.281	.000
		SalePeriod	.000	.002	.018	.240	.811
8	1	(Constant)	1.013	.013		77.156	.000
		SalePeriod	.002	.001	.080	1.722	.086
9	1	(Constant)	1.051	.024		43.903	.000
		SalePeriod	-.006	.003	-.164	-2.312	.022
10	1	(Constant)	.975	.017		56.888	.000
		SalePeriod	-.001	.002	-.039	-.322	.748
11	1	(Constant)	.989	.030		33.036	.000
		SalePeriod	.001	.003	.025	.178	.859
12	1	(Constant)	1.008	.045		22.372	.000
		SalePeriod	.001	.005	.035	.273	.786
13	1	(Constant)	.976	.017		56.456	.000
		SalePeriod	.004	.002	.156	1.935	.055

a. Dependent Variable: salesratio

There was no significant residual market trending present in the sale ratio data for any of the economic areas. While two economic areas had a marginal statistically significant residual trend, the magnitude of both trends 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 2012 between each group. The data was analyzed broken down by economic area, as follows:

Econarea	Group	N	Median	Mean
1	Unsold	4,390	$57	$59
	Sold	87	$63	$63
2	Unsold	3,793	$98	$103
	Sold	194	$98	$104
3	Unsold	4,773	$86	$90
	Sold	225	$87	$92
4	Unsold	3,295	$60	$62
	Sold	93	$67	$69
5	Unsold	5,464	$79	$82
	Sold	248	$81	$84
6	Unsold	3,939	$110	$107
	Sold	184	$112	$110
7	Unsold	5,168	$109	$109
	Sold	190	$110	$110
8	Unsold	7,571	$109	$106
	Sold	466	$109	$107
9	Unsold	7,536	$99	$100
	Sold	195	$104	$105
10	Unsold	985	$103	$105
	Sold	70	$100	$100
11	Unsold	1,022	$58	$65
	Sold	51	$89	$85
12	Unsold	2,279	$56	$60
	Sold	61	$57	$63
13	Unsold	1,847	$106	$106
	Sold	153	$107	$107
Total	Unsold	52,062	$91	$92
	Sold	2,217	$98	$98

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

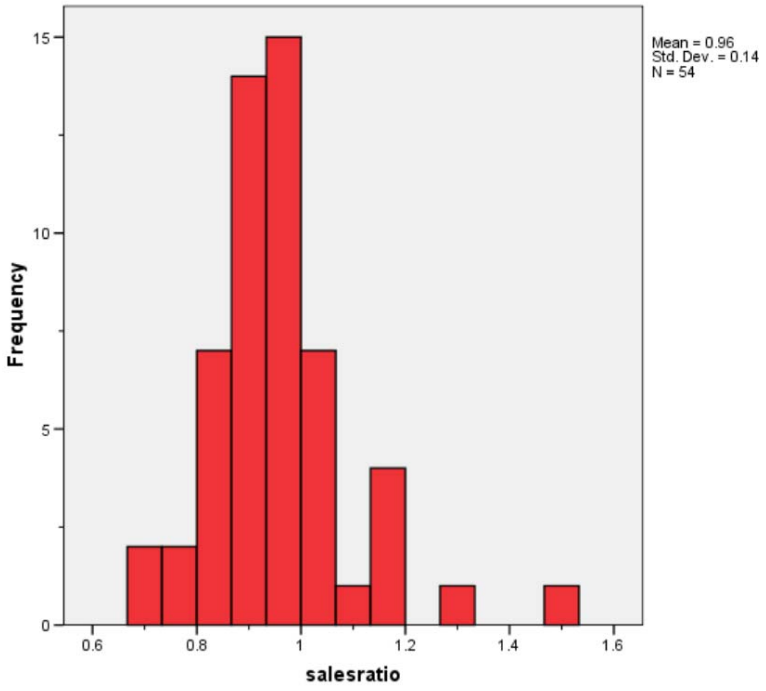
IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

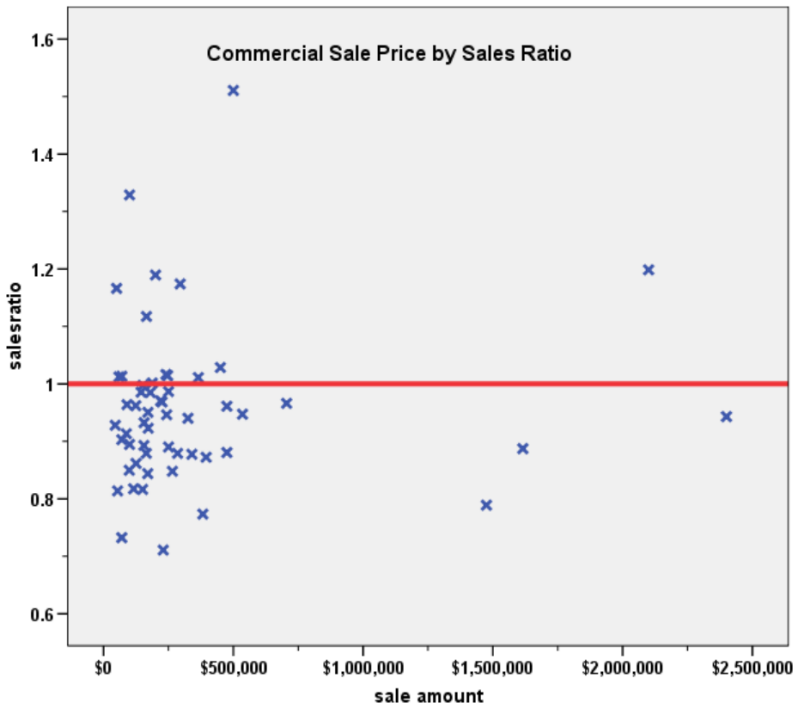
1. Qualified sales	2,559
2. Improved sales	2,299
3. Select commercial/industrial sales only	57
4. Trim 3 extreme sales ratios	54

The sales ratio analysis was analyzed as follows:

Median	**0.945**
Price Related Differential	**0.986**
Coefficient of Dispersion	**.100**

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





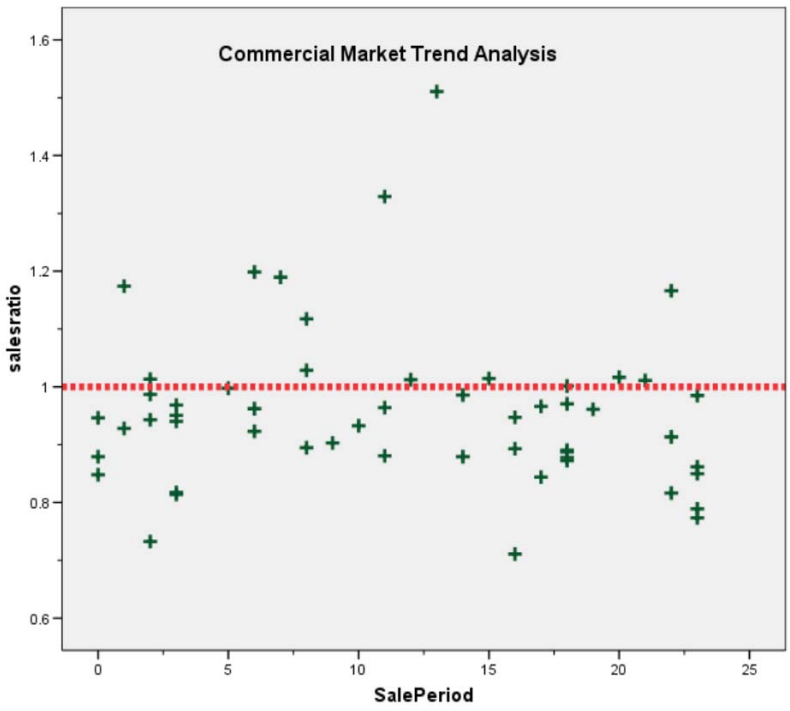
Commercial/Industrial Market Trend Analysis

The 30 commercial/industrial sales were analyzed, examining the sale ratios across the 18 month sale period with the following results:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.980	.035		28.098	.000
	SalePeriod	-.002	.003	-.108	-.786	.436

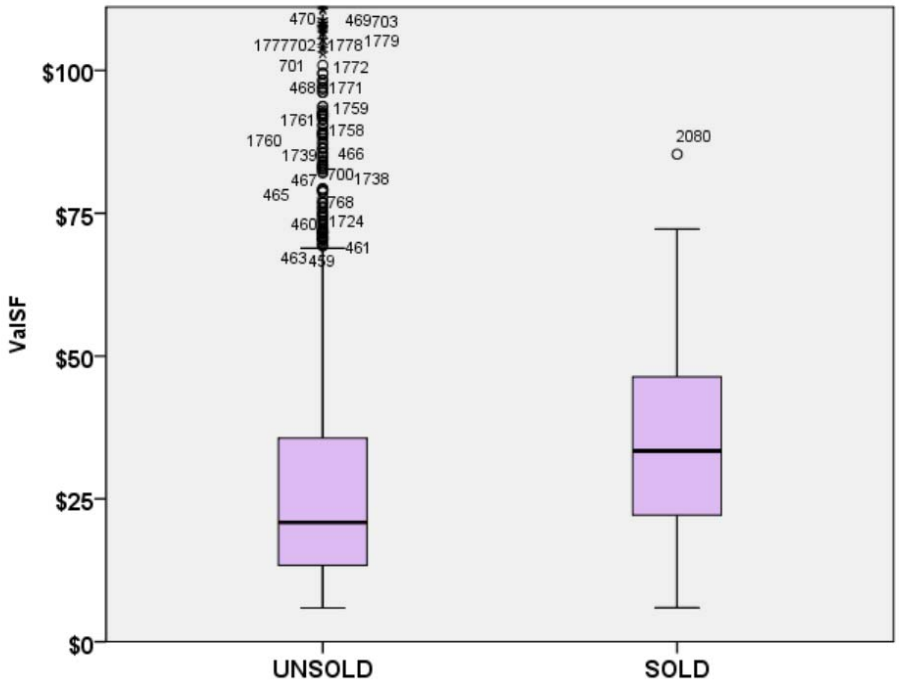
a. Dependent Variable: salesratio



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 commercial/industrial valuation.

Sold/Unsold Analysis

We compared the median actual value per square foot for commercial/industrial properties to determine if sold and unsold properties were valued consistently, as follows:



The above results indicated that although the median value per square foot was higher for the sold group, there was sufficient overlap from the unsold group to conclude that there were unsold properties valued similarly to the sold properties.

V. VACANT LAND SALE RESULTS

The following steps were taken to analyze the vacant land sales:

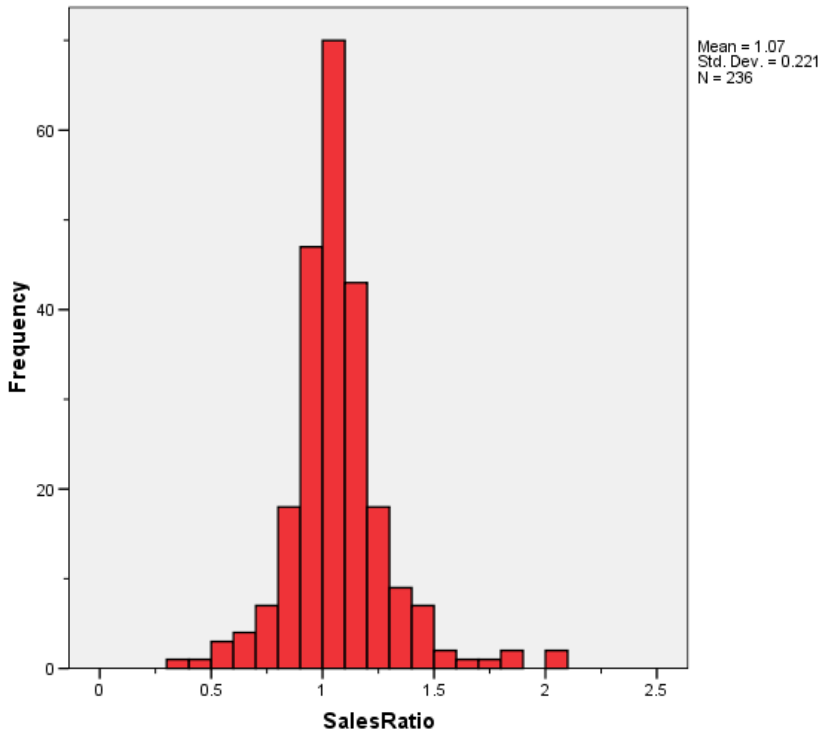
1. Qualified sales	2,559
2. Vacant land sales	236

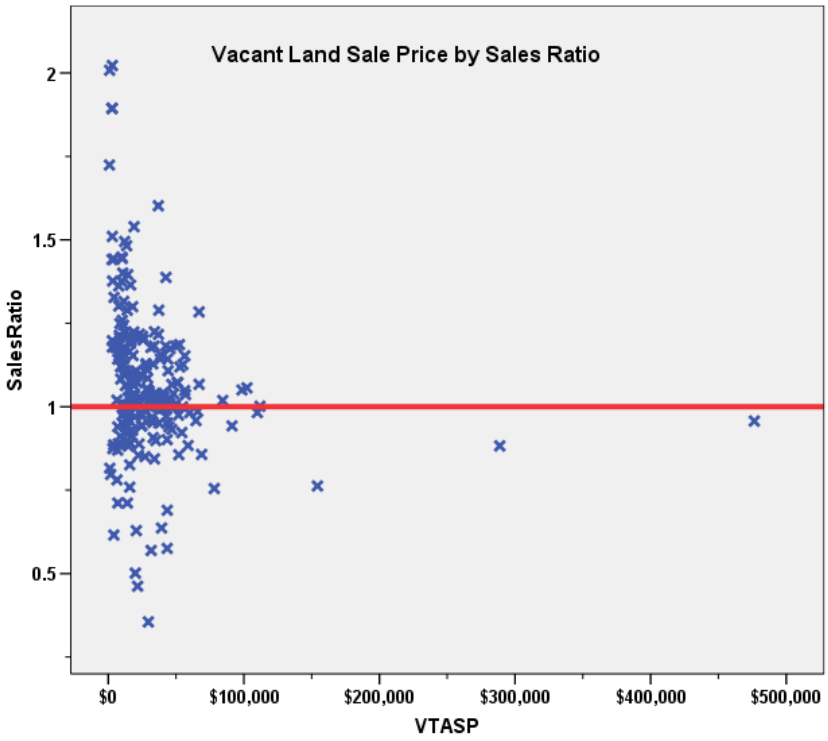
The sales ratio analysis was analyzed as follows:

Ratio Statistics for currlnd / Vtasp

Median	**1.029**
Price Related Differential	**1.052**
Coefficient of Dispersion	**.143**

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





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

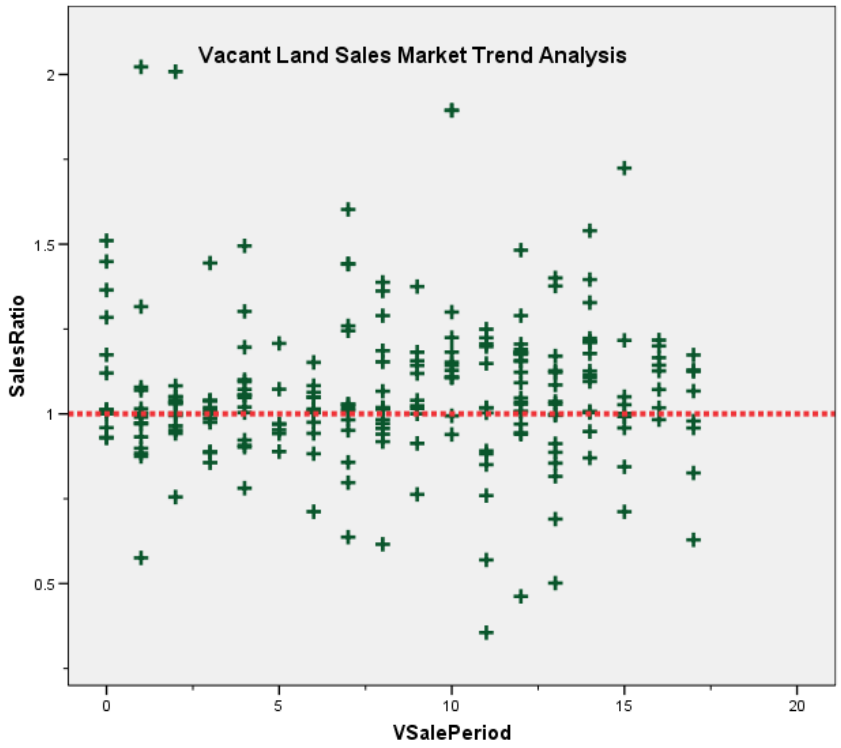
Vacant Land Market Trend Analysis

We next analyzed the vacant land dataset using the 18-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)	1.060	.028		37.918	.000
	VSalePeriod	.001	.003	.018	.274	.784

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 2010 and 2012 between each group for subdivisions with more than 4 sales, as follows:

DIFF

Subdivno	sold	N	Median	Mean
1048	.00	299	.7027	.7225
	1.00	8	.7027	.7458
	Total	307	.7027	.7231
1064	.00	377	.6579	.6670
	1.00	5	.6579	.6579
	Total	382	.6579	.6669
1075	.00	97	.6552	.6774
	1.00	6	.6552	.6552
	Total	103	.6552	.6761
1077	.00	41	.8028	.7425
	1.00	5	.8028	.7446
	Total	46	.8028	.7427
1143	.00	278	.6750	.6795
	1.00	7	.6750	.6738
	Total	285	.6750	.6794
1170	.00	202	1.0000	1.0000
	1.00	5	1.0000	1.0000
	Total	207	1.0000	1.0000
2603	.00	42	1.0000	1.0289
	1.00	5	1.0714	1.0714
	Total	47	1.0000	1.0334
2694	.00	237	1.0000	.9876
	1.00	10	.9026	.8980
	Total	247	1.0000	.9840
2915	.00	34	.8900	.8914
	1.00	7	.8900	.8875
	Total	41	.8900	.8907
2957	.00	142	1.0000	.9791
	1.00	7	.8937	.9315
	Total	149	1.0000	.9768
2976	.00	35	.8333	.8360
	1.00	8	.8525	.8461
	Total	43	.8333	.8379
3178	.00	66	.6217	.6357
	1.00	18	.6056	.6034
	Total	84	.6206	.6288
Total	.00	1850	.7027	.7959
	1.00	91	.8028	.7838
	Total	1941	.7027	.7953

Overall, we concluded that the county assessor valued sold and unsold vacant land 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 Pueblo County, as follows:

Descriptives

	ABSTRIMP			Statistic	Std. Error
ImpValSF	1212	Mean		$81.94	$.114
		95% Confidence Interval for Mean	Lower Bound	$81.72	
			Upper Bound	$82.17	
		5% Trimmed Mean		$81.71	
		Median		$81.06	
		Variance		674.746	
		Std. Deviation		$25.976	
		Minimum		$1	
		Maximum		$384	
		Range		$383	
		Interquartile Range		$38	
		Skewness		.237	.011
		Kurtosis		.700	.021
	4277	Mean		$78.59	$1.855
		95% Confidence Interval for Mean	Lower Bound	$74.94	
			Upper Bound	$82.24	
		5% Trimmed Mean		$76.77	
		Median		$72.12	
		Variance		1159.482	
		Std. Deviation		$34.051	
		Minimum		$7	
		Maximum		$235	
		Range		$228	
		Interquartile Range		$41	
		Skewness		1.065	.133
		Kurtosis		2.315	.265

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

VI. CONCLUSIONS

Based on this 2012 audit statistical analysis for Pueblo County, residential, commercial industrial, vacant land and agricultural residential properties were found to be in compliance with state guidelines. The commercial median ratio was barely in compliance after rounding.

STATISTICAL ABSTRACT
Residential

Ratio Statistics for Current Total / TASP

	95% Confidence Interval for Mean			95% Confidence Interval for Median				95% Confidence Interval for Weighted Mean				Coefficient of Variation
Mean	Lower Bound	Upper Bound	Median	Lower Bound	Upper Bound	Actual Coverage	Weighted Mean	Lower Bound	Upper Bound	Price Related Differential	Coefficient of Dispersion	Mean Centered
1.019	1.012	1.026	.988	.981	.993	95.4%	1.000	.994	1.006	1.019	.118	16.1%

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

Commercial Land

Ratio Statistics for Current Total / sale amount

	95% Confidence Interval for Mean			95% Confidence Interval for Median				95% Confidence Interval for Weighted Mean				Coefficient of Variation
Mean	Lower Bound	Upper Bound	Median	Lower Bound	Upper Bound	Actual Coverage	Weighted Mean	Lower Bound	Upper Bound	Price Related Differential	Coefficient of Dispersion	Mean Centered
.957	.919	.995	.945	.895	.968	96.0%	.971	.900	1.041	.986	.100	14.6%

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

Vacant Land

Ratio Statistics for Current Land / VTASP

	95% Confidence Interval for Mean			95% Confidence Interval for Median				95% Confidence Interval for Weighted Mean				Coefficient of Variation
Mean	Lower Bound	Upper Bound	Median	Lower Bound	Upper Bound	Actual Coverage	Weighted Mean	Lower Bound	Upper Bound	Price Related Differential	Coefficient of Dispersion	Mean Centered
1.067	1.038	1.095	1.029	1.015	1.050	95.7%	1.014	.988	1.040	1.052	.143	20.7%

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

Residential Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	LT $25K	12	.5%
	$25K to $50K	119	5.4%
	$50K to $100K	600	27.1%
	$100K to $150K	756	34.1%
	$150K to $200K	440	19.8%
	$200K to $300K	245	11.1%
	$300K to $500K	40	1.8%
	$500K to $750K	5	.2%
Overall		2217	100.0%
Excluded		0	
Total		2217	

Ratio Statistics for Current Total / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
LT $25K	1.324	.993	.126	16.9%
$25K to $50K	1.167	1.006	.174	21.1%
$50K to $100K	.999	1.003	.141	19.3%
$100K to $150K	.986	.999	.103	13.9%
$150K to $200K	.980	1.001	.086	11.9%
$200K to $300K	.954	1.000	.085	11.7%
$300K to $500K	.963	1.001	.110	13.6%
$500K to $750K	.939	1.003	.054	10.4%
Overall	.988	1.019	.118	16.9%

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	1212	2161	97.5%
	1215	1	.0%
	1230	55	2.5%
Overall		2217	100.0%
Excluded		0	
Total		2217	

Ratio Statistics for Current Total / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
1212	.988	1.019	.120	17.0%
1215	.815	1.000	.000	.%
1230	.965	1.011	.069	12.1%
Overall	.988	1.019	.118	16.9%

Improvement Age

Case Processing Summary

		Count	Percent
AgeRec	Over 100	149	6.7%
	75 to 100	163	7.4%
	50 to 75	490	22.1%
	25 to 50	429	19.4%
	5 to 25	949	42.8%
	5 or Newer	37	1.7%
Overall		2217	100.0%
Excluded		0	
Total		2217	

Ratio Statistics for Current Total / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
Over 100	.962	1.045	.149	21.1%
75 to 100	.975	1.047	.165	23.8%
50 to 75	.988	1.021	.129	18.5%
25 to 50	.988	1.015	.108	14.9%
5 to 25	.992	1.015	.106	15.0%
5 or Newer	.979	1.005	.080	10.7%
Overall	.988	1.019	.118	16.9%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	LE 500 sf	8	.4%
	500 to 1,000 sf	537	24.2%
	1,000 to 1,500 sf	958	43.2%
	1,500 to 2,000 sf	499	22.5%
	2,000 to 3,000 sf	196	8.8%
	3,000 sf or Higher	19	.9%
Overall		2217	100.0%
Excluded		0	
Total		2217	

Ratio Statistics for Current Total / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
LE 500 sf	1.008	1.074	.228	33.2%
500 to 1,000 sf	.973	1.032	.141	19.8%
1,000 to 1,500 sf	.990	1.016	.114	16.6%
1,500 to 2,000 sf	.988	1.019	.106	14.6%
2,000 to 3,000 sf	1.000	1.016	.111	15.2%
3,000 sf or Higher	.988	1.003	.081	12.1%
Overall	.988	1.019	.118	16.9%

Improvement Quality

Case Processing Summary

		Count	Percent
QUALITY	0	8	.4%
	1	201	9.1%
	2	1906	86.0%
	3	27	1.2%
	9	75	3.4%
Overall		2217	100.0%
Excluded		0	
Total		2217	

Ratio Statistics for Current Total / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
0	1.121	1.038	.140	19.1%
1	.974	1.049	.175	24.7%
2	.988	1.015	.110	15.5%
3	.984	1.011	.078	10.5%
9	.966	1.064	.197	26.1%
Overall	.988	1.019	.118	16.9%

Improvement Condition

Case Processing Summary

		Count	Percent
CONDITION	0	8	.4%
	1	201	9.1%
	2	1906	86.0%
	3	27	1.2%
	9	75	3.4%
Overall		2217	100.0%
Excluded		0	
Total		2217	

Ratio Statistics for Current Total / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
0	1.121	1.038	.140	19.1%
1	.974	1.049	.175	24.7%
2	.988	1.015	.110	15.5%
3	.984	1.011	.078	10.5%
9	.966	1.064	.197	26.1%
Overall	.988	1.019	.118	16.9%

Commercial Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	$25K to $50K	2	3.7%
	$50K to $100K	10	18.5%
	$100K to $150K	5	9.3%
	$150K to $200K	11	20.4%
	$200K to $300K	11	20.4%
	$300K to $500K	9	16.7%
	$500K to $750K	2	3.7%
	Over $1,000K	4	7.4%
Overall		54	100.0%
Excluded		0	
Total		54	

Ratio Statistics for Current Total / sale amount

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
$25K to $50K	1.047	.994	.114	16.1%
$50K to $100K	.908	.989	.114	18.2%
$100K to $150K	.862	.999	.073	10.0%
$150K to $200K	.951	.996	.078	11.1%
$200K to $300K	.968	.997	.083	12.3%
$300K to $500K	.940	.984	.131	23.1%
$500K to $750K	.957	.999	.010	1.4%
Over $1,000K	.915	.982	.127	19.7%
Overall	.945	.986	.100	14.9%

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	2212	10	18.5%
	2220	4	7.4%
	2225	7	13.0%
	2230	13	24.1%
	2235	2	3.7%
	2245	6	11.1%
	3212	6	11.1%
	3215	1	1.9%
	9999	5	9.3%
Overall		54	100.0%
Excluded		0	
Total		54	

Ratio Statistics for Current Total / sale amount

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
2212	.928	1.031	.093	12.3%
2220	.933	1.002	.061	7.8%
2225	.961	.996	.037	5.0%
2230	.893	1.011	.102	16.6%
2235	1.069	.919	.121	17.1%
2245	.910	1.021	.070	9.3%
3212	.946	1.002	.080	10.6%
3215	.711	1.000	.000	.%
9999	1.174	.958	.121	18.1%
Overall	.945	.986	.100	14.9%

Improvement Age

Case Processing Summary

		Count	Percent
AgeRec	0	5	9.3%
	Over 100	2	3.7%
	75 to 100	1	1.9%
	50 to 75	10	18.5%
	25 to 50	13	24.1%
	5 to 25	15	27.8%
	5 or Newer	8	14.8%
Overall		54	100.0%
Excluded		0	
Total		54	

Ratio Statistics for Current Total / sale amount

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
0	1.174	.958	.121	18.1%
Over 100	1.040	1.034	.122	17.2%
75 to 100	.818	1.000	.000	.%
50 to 75	.885	.999	.121	19.5%
25 to 50	.947	.994	.046	6.3%
5 to 25	.940	.968	.075	11.0%
5 or Newer	.891	1.003	.090	12.2%
Overall	.945	.986	.100	14.9%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	0	5	9.3%
	1,000 to 1,500 sf	3	5.6%
	1,500 to 2,000 sf	1	1.9%
	2,000 to 3,000 sf	8	14.8%
	3,000 sf or Higher	37	68.5%
Overall		54	100.0%
Excluded		0	
Total		54	

Ratio Statistics for Current Total / sale amount

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
0	1.174	.958	.121	18.1%
1,000 to 1,500 sf	.903	1.010	.043	8.6%
1,500 to 2,000 sf	.814	1.000	.000	.%
2,000 to 3,000 sf	.870	1.001	.061	8.3%
3,000 sf or Higher	.947	1.000	.085	12.4%
Overall	.945	.986	.100	14.9%

Improvement Quality

Case Processing Summary

		Count	Percent
QUALITY	1	13	26.5%
	2	34	69.4%
	3	2	4.1%
Overall		49	100.0%
Excluded		5	
Total		54	

Ratio Statistics for Current Total / sale amount

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
1	.903	.971	.052	7.4%
2	.954	.992	.094	13.0%
3	.937	1.025	.069	9.7%
Overall	.933	.987	.086	12.0%

Improvement Condition

Case Processing Summary

		Count	Percent
CONDITION	1	13	26.5%
	2	34	69.4%
	3	2	4.1%
Overall		49	100.0%
Excluded		5	
Total		54	

Ratio Statistics for Current Total / sale amount

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
1	.903	.971	.052	7.4%
2	.954	.992	.094	13.0%
3	.937	1.025	.069	9.7%
Overall	.933	.987	.086	12.0%

Vacant Land Median Ratio Stratification

Case Processing Summary

		Count	Percent
abstrInd	100	80	33.9%
	200	11	4.7%
	300	4	1.7%
	550	1	.4%
	1112	138	58.5%
	2130	2	.8%
Overall		236	100.0%
Excluded		0	
Total		236	

Ratio Statistics for Current Land / VTASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
100	1.017	1.063	.171	26.2%
200	1.148	1.266	.228	33.0%
300	.835	.956	.298	38.5%
550	.884	1.000	.000	.%
1112	1.038	1.015	.111	15.7%
2130	.823	.978	.073	10.3%
Overall	1.029	1.052	.143	21.8%