2012
EL PASO 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 El Paso County in the following report.

REGIONAL / HISTORICAL SKETCH OF EL PASO COUNTY

Regional Information

El Paso 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

El Paso County has a population of approximately 622,263 people with 292.55 people per square mile, according to the U.S. Census Bureau's 2010 census data. This represents a 20.38 percent change from the 2000 Census.

In July 1858, gold was discovered along the South Platte River in Arapahoe County, Kansas Territory. This discovery precipitated the Pike's Peak Gold Rush. Many residents of the mining region felt disconnected from the remote territorial governments of Kansas and Nebraska, so they voted to form their own Territory of Jefferson on Oct 24, 1859. The following month, the Jefferson Territorial Legislature organized 12 counties for the new territory including El Paso County. El Paso County was named for the Spanish language name for Ute Pass north of Pikes Peak. Colorado City served as the county seat of El Paso County.

The Jefferson Territory never received federal sanction, but on Feb. 2, 1861, U.S. President James Buchanan signed an act organizing the Territory of Colorado. El Paso County was one of the original 17 counties created by the Colorado legislature on November 1, 1861. Part of its western territory was broken off to create Teller County in 1899. Originally based in Old Colorado City (now part of Colorado Springs, not today's Colorado City between Pueblo and Walsenburg), El Paso County's county seat was moved to Colorado Springs in 1873. Colorado Springs was founded in August 1871 by General William Palmer, with the intention of creating a high quality resort community, and was soon nicknamed "Little London" because of the many English tourists who came. Nearby Pikes Peak and the Garden of the Gods made the city's location a natural choice. *(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 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 El Paso County are:

El Paso County Ratio Grid					
Property Class	Number of Qualified Sales	Unweighted Median Ratio	Price Related Differential	Coefficient of Dispersion	Time Trend Analysis
Commercial/Industrial	191	0.969	1.055	10.9	Compliant
Condominium	N/A	N/A	N/A	N/A	N/A
Single Family	11,898	0.968	1.008	8.2	Compliant
Vacant Land	499	1.004	1.065	8.8	Compliant

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
1	.956	1.006	.044
2	.982	1.019	.112
3	.975	1.033	.147
4	.954	1.004	.043
5	.972	1.022	.127
6	.968	1.034	.147
7	.975	1.026	.127
8	.976	1.011	.084
9	.982	1.004	.096
10	.992	1.013	.115
11	.974	1.014	.105
12	.959	1.001	.039
13	.974	1.009	.090
14	.979	1.005	.079
15	.980	1.016	.099
16	.992	1.007	.102
17	.997	1.029	.120
18	.980	1.019	.108
19	.980	1.028	.076
20	.956	1.006	.089
Overall	.968	1.008	.082

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

El Paso 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

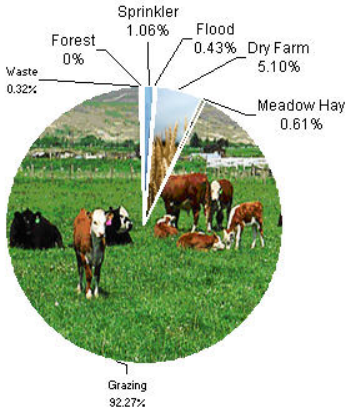
After applying the above described methodologies, it is concluded that El Paso County is reasonably treating its sold and unsold properties in the same manner.

Recommendations

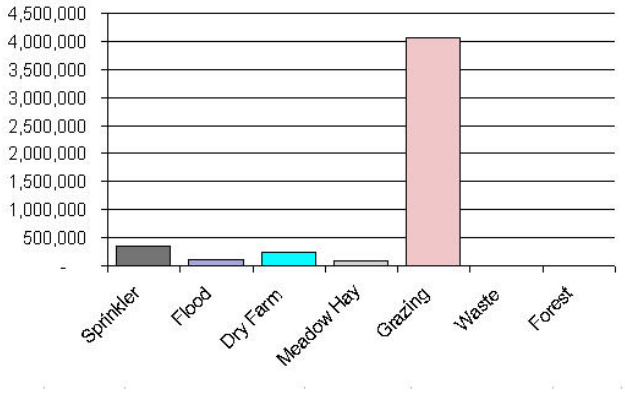
None

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:

El Paso 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	6,062	57.00	346,027	343,168	1.01
4117	Flood	2,466	45.00	110,238	110,665	1.00
4127	Dry Farm	29,237	8.00	230,328	221,838	1.04
4137	Meadow Hay	3,481	26.00	89,049	89,049	1.00
4147	Grazing	528,613	8.00	4,068,817	4,068,817	1.00
4177	Forest	1,224	9.00	3,089	3,089	1.00
4167	Waste	1,835	2.00	2,962	2,962	1.00
Total/Avg		**572,918**	**8.00**	**4,850,510**	**4,839,587**	**1.00**

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

El Paso 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

El Paso 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 El Paso County. This study was conducted by checking selected sales from the master sales list for the current valuation period. Specifically WRA selected 48 sales listed as unqualified.

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

Conclusions

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

Recommendations

None

ECONOMIC AREA REVIEW AND EVALUATION

Methodology

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

El Paso 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.

El Paso 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

El Paso 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

El Paso 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.

El Paso County is compliant with the guidelines set forth in ARL Volume 5 regarding discovery procedures, using the following methods to discover personal property accounts in the county:

- Public Record Documents
- MLS Listing and/or Sold Books
- Chamber of Commerce/Economic Development Contacts
- Local Telephone Directories, Newspapers or Other Local Publications
- Personal Observation, Physical Canvassing or Word of Mouth
- Questionnaires, Letters and/or Phone Calls to Buyer, Seller and/or Realtor
- CO Secretary of State

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.

El Paso 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:

- Businesses in a selected area
- Accounts with obvious discrepancies
- New businesses filing for the first time
- Accounts with greater than 10% change
- Incomplete or inconsistent declarations
- Accounts with omitted property

- Same business type or use
- Businesses with no deletions or additions for 2 or more years
- Non-filing Accounts - Best Information Available
- Accounts close to the $5,500 actual value exemption status
- Lowest or highest quartile of value per square foot
- Accounts protested with substantial disagreement

El Paso 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

El Paso 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*

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Steve Kane, *Audit Statistician*

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

J. Andrew Rodriguez, *Field Analyst*

APPENDICES

STATISTICAL COMPLIANCE REPORT
FOR EL PASO COUNTY
2012

I. OVERVIEW

El Paso County is an urban county located along Colorado's Front Range. The county has a total of 207,513 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 and 1112) accounted for 74.1% of all vacant land parcels.

For residential improved properties, single family properties accounted for 97.4% 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 2012 Colorado Property Assessment Study. Information was provided by the El Paso Assessor's Office in April 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. Improved sales	16,145
2. Select residential sales only	15,838
3. Sales between January 1, 2009 and June 30, 2010	11,898

The sales ratio analysis was analyzed as follows:

Case Processing Summary

		Count	Percent
EconArea	1	1912	16.1%
	2	355	3.0%
	3	229	1.9%
	4	969	8.1%
	5	504	4.2%
	6	279	2.3%
	7	514	4.3%
	8	329	2.8%
	9	233	2.0%
	10	193	1.6%
	11	570	4.8%
	12	1750	14.7%
	13	803	6.7%
	14	999	8.4%
	15	729	6.1%
	16	142	1.2%
	17	868	7.3%
	18	345	2.9%
	19	59	.5%
	20	116	1.0%
Overall		11898	100.0%
Excluded		0	
Total		11898	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
1	.956	1.006	.044
2	.982	1.019	.112
3	.975	1.033	.147
4	.954	1.004	.043
5	.972	1.022	.127
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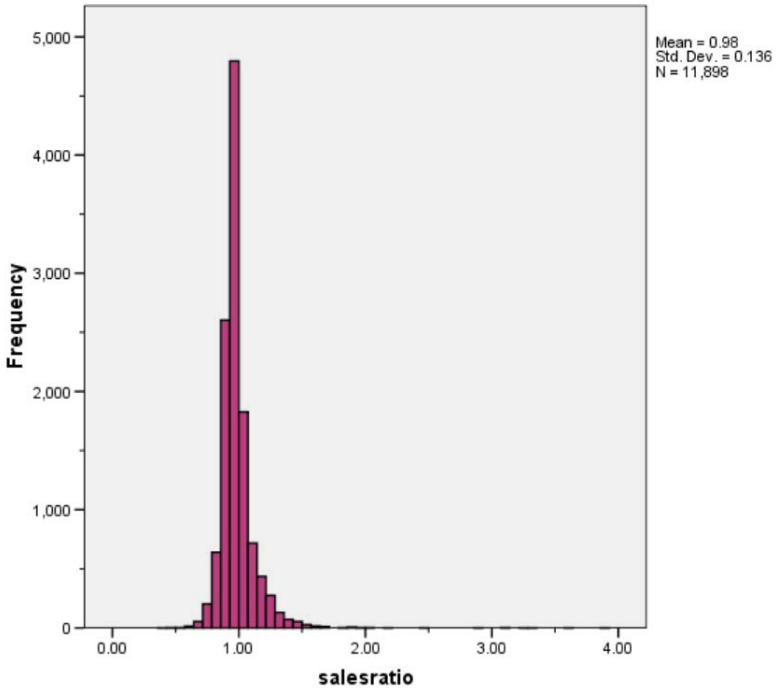
11	.974	1.014	.105
12	.959	1.001	.039
13	.974	1.009	.090
14	.979	1.005	.079
15	.980	1.016	.099
16	.992	1.007	.102
17	.997	1.029	.120
18	.980	1.019	.108
19	.980	1.028	.076
20	.956	1.006	.089
Overall	.968	1.008	.082

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 and broken down by economic area. The following graphs describe further the sales ratio distribution for these properties:



NOTE: SALES RATIO AND TASP TRIMMED FOR EXTREME VALUE

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

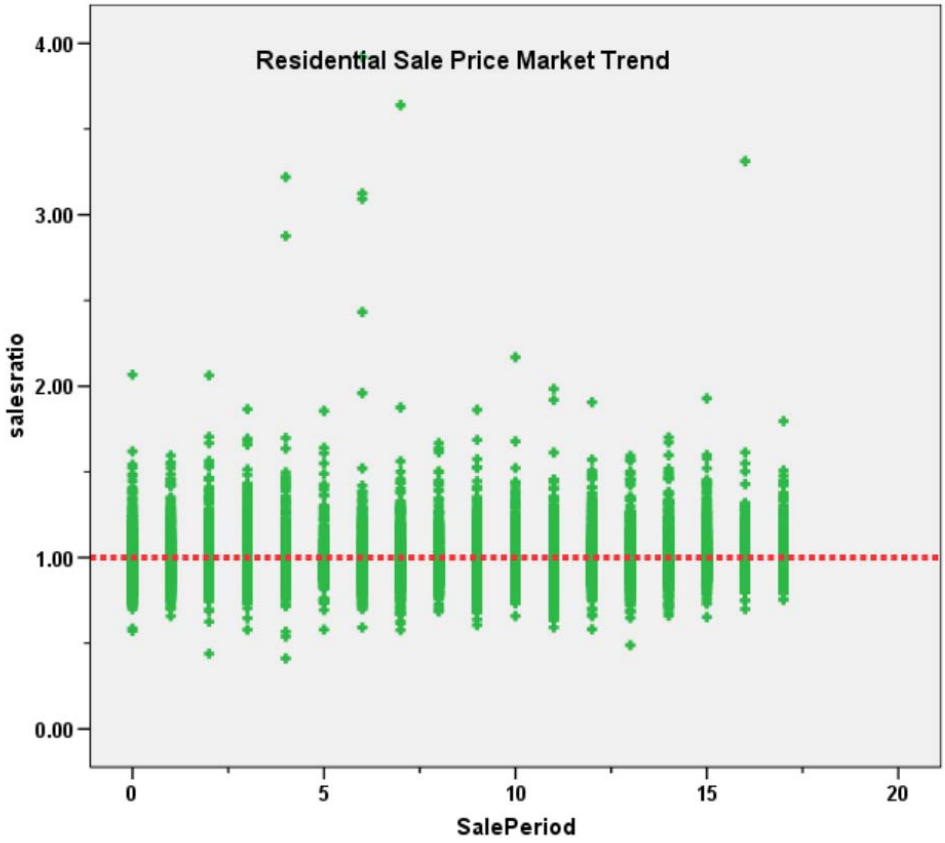
Residential Market Trend Analysis

We next analyzed the residential dataset using the 18-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.
1	1	(Constant)	.949	.003		284.177	.000
		SalePeriod	.001	.000	.048	2.085	.037
2	1	(Constant)	1.002	.015		67.011	.000
		SalePeriod	2.551E-5	.002	.001	.016	.987
3	1	(Constant)	1.016	.028		36.690	.000
		SalePeriod	-.001	.003	-.026	-.390	.697
4	1	(Constant)	.950	.004		230.982	.000
		SalePeriod	.001	.000	.049	1.518	.129
5	1	(Constant)	.978	.016		62.833	.000
		SalePeriod	.002	.002	.062	1.394	.164
6	1	(Constant)	.991	.027		36.170	.000
		SalePeriod	.001	.003	.025	.414	.679
7	1	(Constant)	.988	.014		70.493	.000
		SalePeriod	.003	.002	.074	1.670	.095
8	1	(Constant)	.961	.013		73.832	.000
		SalePeriod	.004	.001	.159	2.910	.004
9	1	(Constant)	.975	.014		67.285	.000
		SalePeriod	.002	.002	.100	1.527	.128
10	1	(Constant)	.980	.020		48.031	.000
		SalePeriod	.004	.002	.117	1.624	.106
11	1	(Constant)	.952	.011		89.881	.000
		SalePeriod	.005	.001	.187	4.536	.000
12	1	(Constant)	.957	.005		204.109	.000
		SalePeriod	.000	.000	.015	.635	.525
13	1	(Constant)	.970	.008		118.685	.000
		SalePeriod	.003	.001	.121	3.450	.001
14	1	(Constant)	.973	.006		152.816	.000
		SalePeriod	.003	.001	.133	4.241	.000
15	1	(Constant)	.977	.012		82.546	.000
		SalePeriod	.003	.001	.075	2.022	.044
16	1	(Constant)	1.024	.024		42.344	.000
		SalePeriod	-.001	.003	-.039	-.459	.647
17	1	(Constant)	1.026	.010		98.286	.000
		SalePeriod	.000	.001	.010	.303	.762
18	1	(Constant)	.964	.015		66.133	.000
		SalePeriod	.005	.002	.161	3.012	.003
19	1	(Constant)	1.017	.038		26.704	.000
		SalePeriod	.000	.004	-.006	-.043	.966
20	1	(Constant)	.938	.019		49.286	.000
		SalePeriod	.003	.002	.161	1.745	.084

a. Dependent Variable: salesratio



There was no residual market trending present in the sale ratio data for most of the economic areas; those with statistical trends were generally not significantly in terms of magnitude. 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 as follows:

Group	No.	Median	Mean
Unsold	158,448	$127	$133
Sold	11,892	$128	$134

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

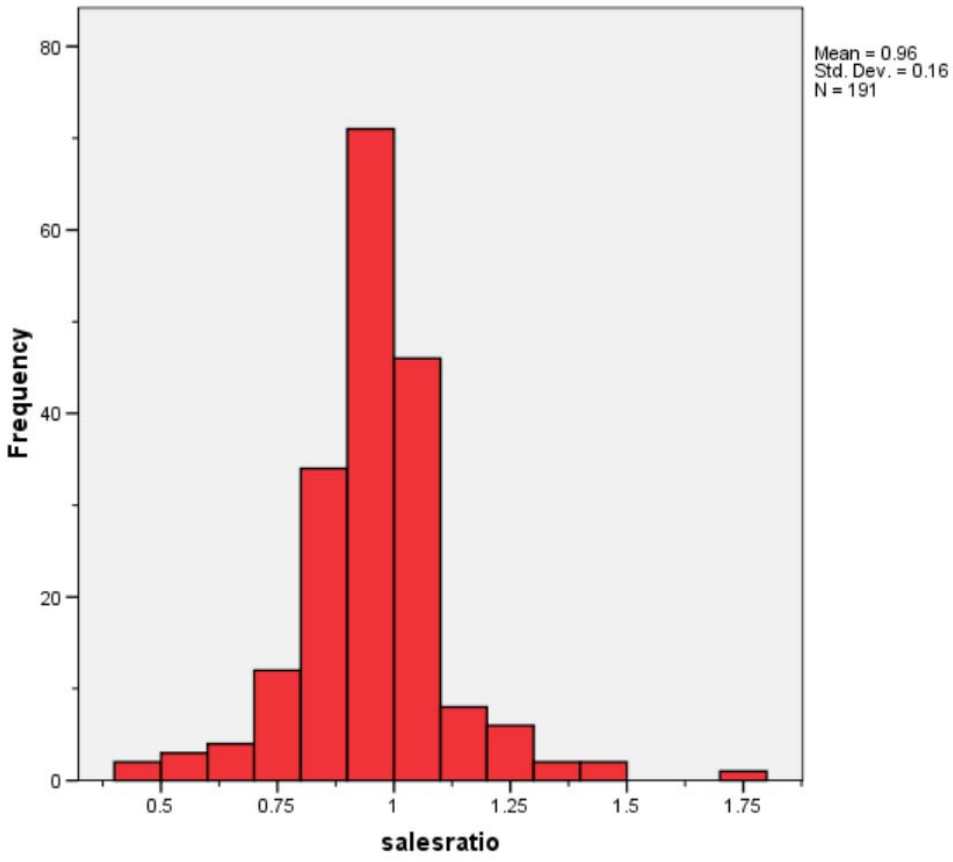
IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

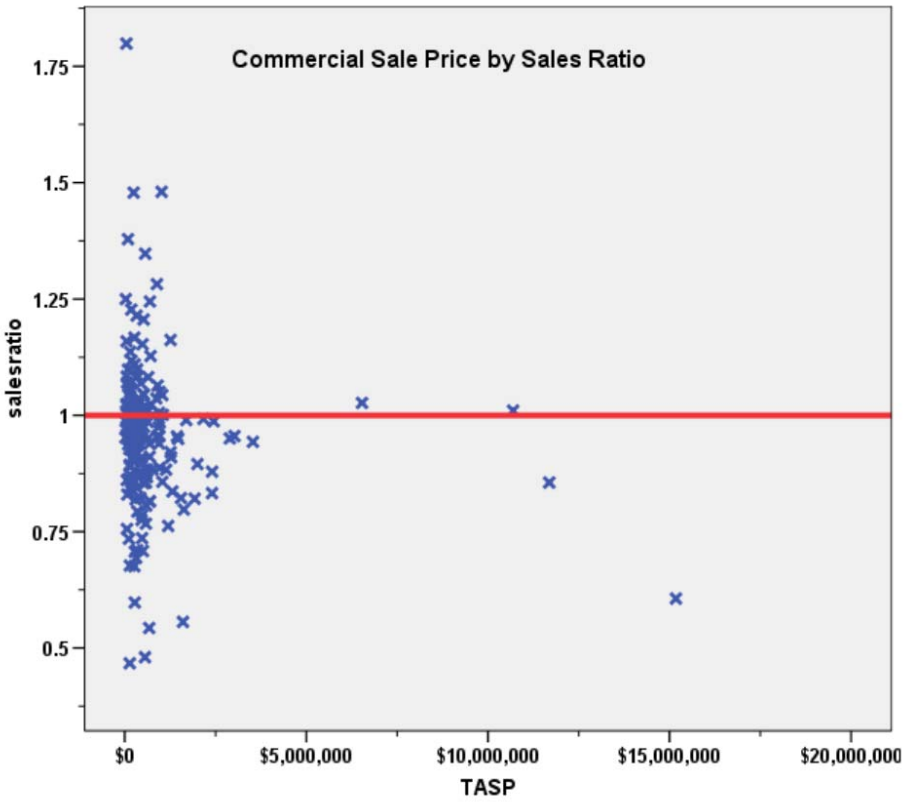
1. Improved sales	16,145
2. Select commercial sales only	259
3. Sales between January 1, 2009 and June 30, 2010	191

The sales ratio analysis was analyzed as follows:

Median	**0.969**
Price Related Differential	**1.055**
Coefficient of Dispersion	**.109**

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





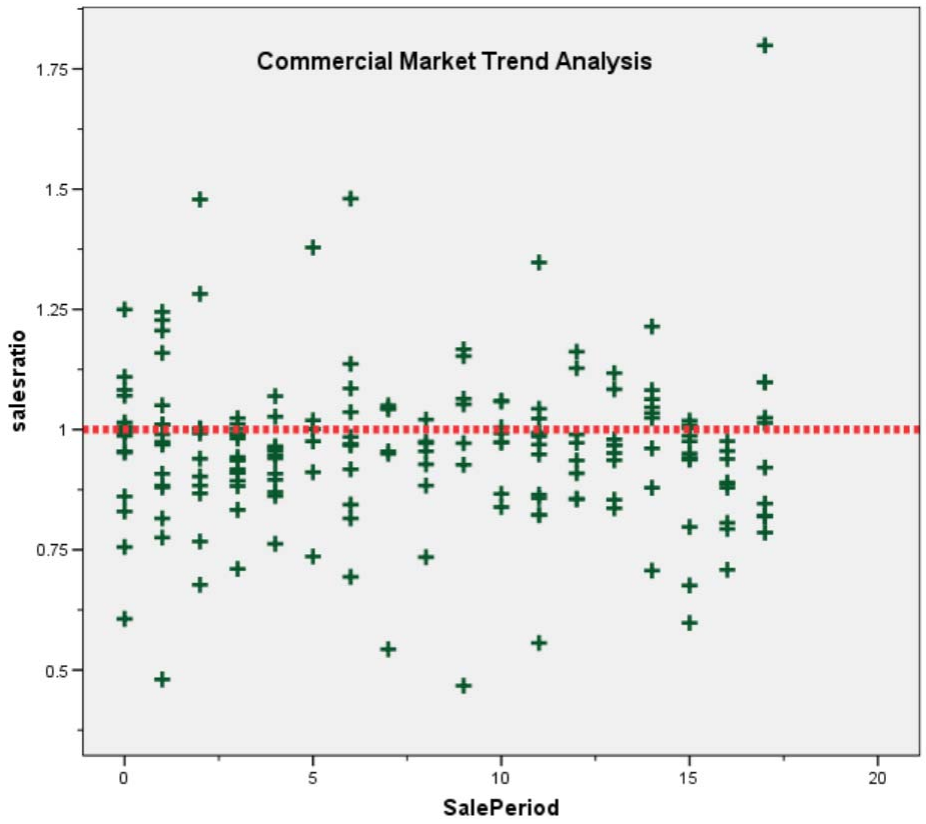
Commercial/Industrial Market Trend Analysis

The assessor did apply market trend adjustments to the commercial/industrial dataset. The 191 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)	.966	.020		48.839	.000
	SalePeriod	-.001	.002	-.033	-.451	.653

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 between sold and unsold commercial properties to determine if sold and unsold properties were valued consistently, as follows:

Group	N	Median Val/SF	Mean Val/SF
Unsold	7,633	$68	$96
Sold	191	$86	$106

Given that there was some difference between the sold and unsold groups based on this measurement, we also examined the median and mean change in value between 2010 and 2012 for sold and unsold commercial/industrial properties, as follows:

Group	N	Median Val Chg	Mean Val Chg
Unsold	7,529	0.950	0.980
Sold	191	1.000	1.130

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

V. VACANT LAND SALE RESULTS

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

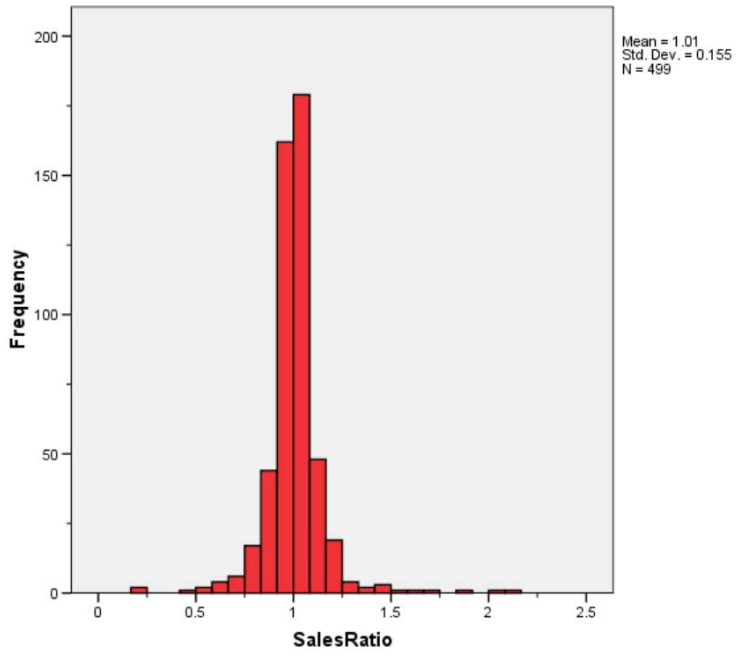
1. Vacant land sales	776
2. Select non-agricultural sales only	668
3. Sales between January 1, 2009 and June 30, 2010	499

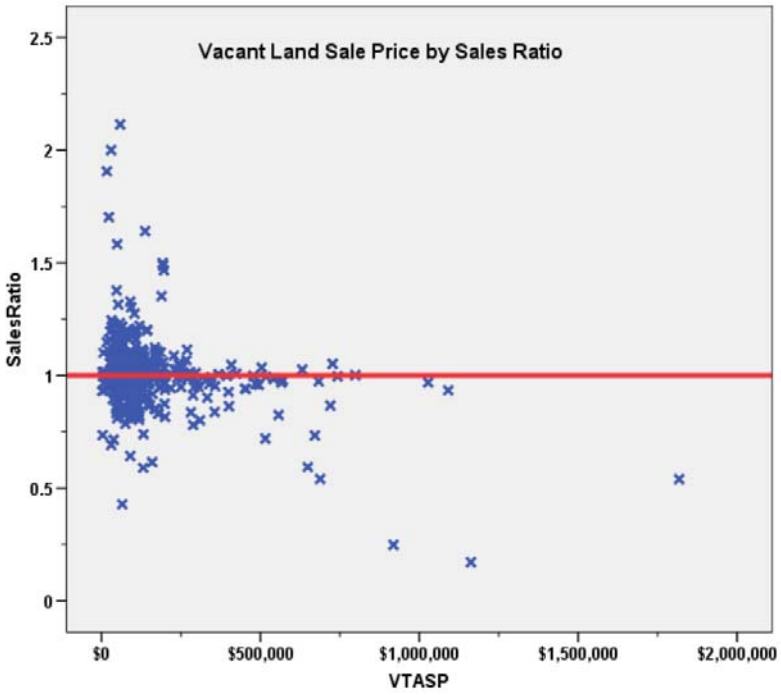
The sales ratio analysis was analyzed as follows:

Ratio Statistics for currInd / Vtasp

Median	**1.004**
Price Related Differential	**1.065**
Coefficient of Dispersion	**.088**

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 was no price related differential issues. No sales were trimmed.

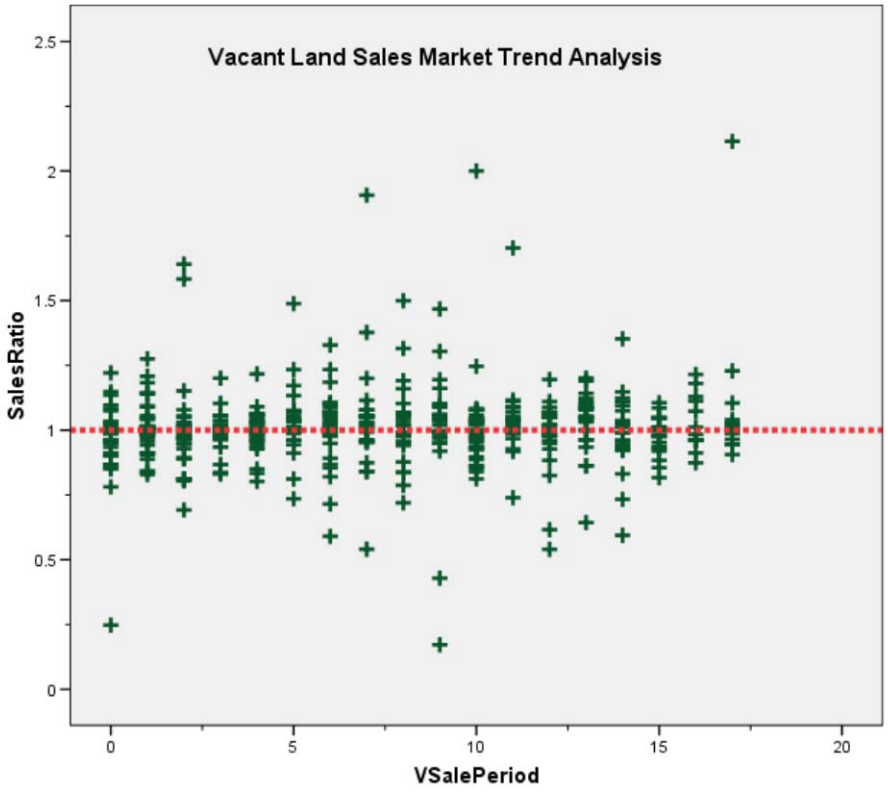
Vacant Land Market Trend Analysis

We next analyzed the vacant land dataset using the 18-month sale period, with the following results:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.993	.012		79.582	.000
	VSalePeriod	.002	.001	.065	1.457	.146

a. Dependent Variable: SalesRatio



The above analysis shows 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 and mean change in value between 2010 and 2012 for each group. The following results present the comparison results for sold and unsold properties:

Group	No.	Median Val Chg	Mean Val Chg
Unsold	15,185	0.9208	0.9231
Sold	497	0.8493	0.9401

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

V. AGRICULTURAL IMPROVEMENTS ANALYSIS

Based on the parameters of the state audit analysis, this county was exempt from this analysis for 2012.

VI. CONCLUSIONS

Based on this 2012 audit statistical analysis, residential, commercial and vacant land properties were found to be in compliance with state guidelines.

STATISTICAL ABSTRACT
Residential

Ratio Statistics for CURRTOT / TASP

	95% 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
.984	.982	.987	.968	.967	.969	95.1%	.976	.974	.979	1.008	.082	13.8%

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

Commercial Land

Ratio Statistics for CURRTOT / 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
.958	.936	.981	.969	.950	.980	95.8%	.909	.841	.977	1.055	.109	16.7%

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.

Vacant Land

Ratio Statistics for CURRLND / 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
1.008	.995	1.022	1.004	.998	1.012	95.1%	.947	.904	.989	1.065	.088	15.4%

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.

Residential Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	LT $25K	1	.0%
	$25K to $50K	10	.1%
	$50K to $100K	469	3.9%
	$100K to $150K	2250	18.9%
	$150K to $200K	3354	28.2%
	$200K to $300K	3491	29.3%
	$300K to $500K	1846	15.5%
	$500K to $750K	365	3.1%
	$750K to $1,000K	71	.6%
	Over $1,000K	41	.3%
Overall		11898	100.0%
Excluded		0	
Total		11898	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation: Median Centered
LT $25K	1.027	1.000	.000	.%
$25K to $50K	.993	1.001	.405	81.1%
$50K to $100K	.998	1.007	.142	28.3%
$100K to $150K	.977	1.001	.096	17.9%
$150K to $200K	.965	1.000	.066	10.2%
$200K to $300K	.962	1.000	.074	11.0%
$300K to $500K	.968	1.000	.087	11.9%
$500K to $750K	.969	1.001	.100	14.0%
$750K to $1,000K	.955	1.001	.110	15.6%
Over $1,000K	.921	.969	.106	15.3%
Overall	.968	1.008	.082	14.1%

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	600	1	.0%
	1212	11737	98.6%
	1214	5	.0%
	1215	67	.6%
	1216	3	.0%
	1217	1	.0%
	1218	1	.0%
	1220	48	.4%
	1225	17	.1%
	1415	1	.0%
	1553	1	.0%
	1728	1	.0%
	2746	7	.1%
	3257	2	.0%
	3403	1	.0%
	3768	1	.0%
	5231	1	.0%
	5245	1	.0%
	5248	1	.0%
	9250	1	.0%
Overall		11898	100.0%
Excluded		0	
Total		11898	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
600	.975	1.000	.000	.%
1212	.968	1.007	.081	13.4%
1214	.975	1.000	.000	.0%
1215	.995	1.044	.164	25.5%
1216	1.134	1.185	.865	173.9%
1217	.816	1.000	.000	.%
1218	.782	1.000	.000	.%
1220	1.012	1.036	.132	16.7%
1225	.989	1.152	.292	60.9%
1415	1.571	1.000	.000	.%
1553	.976	1.000	.000	.%
1728	1.056	1.000	.000	.%
2746	1.084	1.192	.276	53.3%
3257	1.135	1.005	.017	2.4%
3403	.976	1.000	.000	.%
3768	.982	1.000	.000	.%
5231	1.158	1.000	.000	.%
5245	.952	1.000	.000	.%
5248	1.145	1.000	.000	.%
9250	1.061	1.000	.000	.%
Overall	.968	1.008	.082	14.1%

Age

Case Processing Summary

		Count	Percent
AgeRec	Over 100	292	2.5%
	75 to 100	163	1.4%
	50 to 75	1070	9.0%
	25 to 50	3640	30.6%
	5 to 25	5235	44.0%
	5 or Newer	1498	12.6%
Overall		11898	100.0%
Excluded		0	
Total		11898	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
Over 100	.970	1.037	.151	22.1%
75 to 100	.957	1.051	.162	28.8%
50 to 75	.966	1.019	.120	21.5%
25 to 50	.966	1.007	.081	12.9%
5 to 25	.971	1.004	.074	11.5%
5 or Newer	.966	1.008	.066	14.3%
Overall	.968	1.008	.082	14.1%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	LE 500 sf	14	.1%
	500 to 1,000 sf	1739	14.6%
	1,000 to 1,500 sf	3774	31.7%
	1,500 to 2,000 sf	3116	26.2%
	2,000 to 3,000 sf	2550	21.4%
	3,000 sf or Higher	705	5.9%
Overall		11898	100.0%
Excluded		0	
Total		11898	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
LE 500 sf	.998	1.009	.064	8.8%
500 to 1,000 sf	.960	1.013	.086	15.1%
1,000 to 1,500 sf	.965	1.010	.078	14.0%
1,500 to 2,000 sf	.969	1.007	.077	12.0%
2,000 to 3,000 sf	.972	1.007	.082	13.1%
3,000 sf or Higher	.979	1.024	.123	21.9%
Overall	.968	1.008	.082	14.1%

Improvement Quality

Case Processing Summary

		Count	Percent
QUALITY	0	1	.0%
	1	264	2.2%
	2	9168	77.1%
	3	2216	18.6%
	4	233	2.0%
	5	16	.1%
Overall		11898	100.0%
Excluded		0	
Total		11898	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation: Median Centered
0	.975	1.000	.000	.%
1	.975	1.038	.145	31.1%
2	.965	1.010	.077	13.4%
3	.982	1.011	.095	13.4%
4	.998	1.020	.100	14.0%
5	1.004	1.021	.109	16.1%
Overall	.968	1.008	.082	14.1%

Commercial Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	LT $25K	1	.5%
	$25K to $50K	10	5.2%
	$50K to $100K	11	5.8%
	$100K to $150K	16	8.4%
	$150K to $200K	13	6.8%
	$200K to $300K	26	13.6%
	$300K to $500K	46	24.1%
	$500K to $750K	26	13.6%
	$750K to $1,000K	13	6.8%
	Over $1,000K	29	15.2%
Overall		191	100.0%
Excluded		0	
Total		191	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
LT $25K	.952	1.000	.000	.%
$25K to $50K	1.015	1.005	.132	27.4%
$50K to $100K	1.024	.987	.119	16.5%
$100K to $150K	.938	.998	.130	18.4%
$150K to $200K	.976	1.000	.072	10.6%
$200K to $300K	.958	1.004	.105	17.0%
$300K to $500K	.971	1.004	.084	12.0%
$500K to $750K	.945	1.001	.148	20.1%
$750K to $1,000K	.984	1.000	.066	10.4%
Over $1,000K	.921	1.050	.117	17.8%
Overall	.969	1.055	.109	16.5%

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	1716	3	1.6%
	1718	1	.5%
	1881	1	.5%
	2132	1	.5%
	2212	28	14.7%
	2215	3	1.6%
	2218	1	.5%
	2220	29	15.2%
	2224	1	.5%
	2225	1	.5%
	2227	1	.5%
	2228	2	1.0%
	2230	41	21.5%
	2233	1	.5%
	2235	32	16.8%
	2245	28	14.7%
	2250	1	.5%
	2725	2	1.0%
	2963	1	.5%
	3215	1	.5%
	3230	6	3.1%
	5750	1	.5%
	9249	1	.5%
	9259	1	.5%
	9279	3	1.6%
Overall		191	100.0%
Excluded		0	
Total		191	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation: Median Centered
1716	.993	.997	.040	7.9%
1718	.955	1.000	.000	.%
1881	1.479	1.000	.000	.%
2132	1.044	1.000	.000	.%
2212	.960	1.055	.112	17.3%
2215	.955	1.053	.080	12.2%
2218	1.282	1.000	.000	.%
2220	.975	.992	.080	10.7%
2224	.991	1.000	.000	.%
2225	.606	1.000	.000	.%
2227	.921	1.000	.000	.%
2228	.860	1.005	.005	.7%
2230	.955	.996	.125	18.4%
2233	1.002	1.000	.000	.%
2235	.971	1.053	.127	20.8%
2245	.981	1.015	.064	9.1%
2250	.756	1.000	.000	.%
2725	.944	.998	.007	1.0%
2963	1.027	1.000	.000	.%
3215	1.001	1.000	.000	.%
3230	.940	1.004	.151	20.0%
5750	1.348	1.000	.000	.%
9249	.894	1.000	.000	.%
9259	.598	1.000	.000	.%
9279	.949	1.011	.031	4.8%
Overall	.969	1.055	.109	16.5%

Age

Case Processing Summary

		Count	Percent
AgeRec	Over 100	11	5.8%
	75 to 100	8	4.2%
	50 to 75	20	10.5%
	25 to 50	75	39.3%
	5 to 25	67	35.1%
	5 or Newer	10	5.2%
Overall		191	100.0%
Excluded		0	
Total		191	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
Over 100	.942	1.041	.110	14.2%
75 to 100	1.027	.952	.164	27.2%
50 to 75	.992	.975	.095	14.4%
25 to 50	.949	1.011	.112	17.7%
5 to 25	.975	1.097	.098	14.7%
5 or Newer	.922	1.067	.094	15.2%
Overall	.969	1.055	.109	16.5%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	LE 500 sf	3	1.6%
	500 to 1,000 sf	10	5.2%
	1,000 to 1,500 sf	24	12.6%
	1,500 to 2,000 sf	20	10.5%
	2,000 to 3,000 sf	26	13.6%
	3,000 sf or Higher	108	56.5%
Overall		191	100.0%
Excluded		0	
Total		191	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
LE 500 sf	1.058	1.118	.119	24.4%
500 to 1,000 sf	1.018	1.124	.144	27.5%
1,000 to 1,500 sf	.969	1.021	.084	15.9%
1,500 to 2,000 sf	.908	.992	.113	15.4%
2,000 to 3,000 sf	.989	1.021	.065	12.7%
3,000 sf or Higher	.955	1.060	.116	16.2%
Overall	.969	1.055	.109	16.5%

Improvement Quality

Case Processing Summary

		Count	Percent
QUALITY	1	52	27.2%
	2	135	70.7%
	3	4	2.1%
Overall		191	100.0%
Excluded		0	
Total		191	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
1	.958	1.000	.112	16.8%
2	.969	1.014	.101	14.8%
3	1.013	1.755	.310	50.5%
Overall	.969	1.055	.109	16.5%

Vacant Land Median Ratio Stratification

Subclass

Case Processing Summary

		Count	Percent
ABSTRLND	0	1	.2%
	100	95	19.0%
	200	6	1.2%
	300	4	.8%
	510	3	.6%
	520	4	.8%
	530	2	.4%
	540	4	.8%
	550	15	3.0%
	560	1	.2%
	1112	335	67.1%
	1135	1	.2%
	2112	4	.8%
	2130	18	3.6%
	2135	5	1.0%
	9179	1	.2%
Overall		499	100.0%
Excluded		0	
Total		499	

Ratio Statistics for CURRLND / VTASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
0	.735	1.000	.000	.%
100	1.009	1.013	.103	19.3%
200	1.012	1.015	.025	3.9%
300	.983	.988	.029	4.3%
510	.997	.997	.019	3.1%
520	.985	1.006	.028	3.9%
530	.819	.869	.215	30.4%
540	1.016	1.063	.058	10.5%
550	1.012	1.050	.196	36.8%
560	1.049	1.000	.000	.%
1112	1.008	1.016	.075	11.0%
1135	1.234	1.000	.000	.%
2112	.991	1.001	.017	2.7%
2130	.946	1.118	.194	32.6%
2135	.992	1.026	.030	4.0%
9179	.970	1.000	.000	.%
Overall	1.004	1.065	.088	15.5%