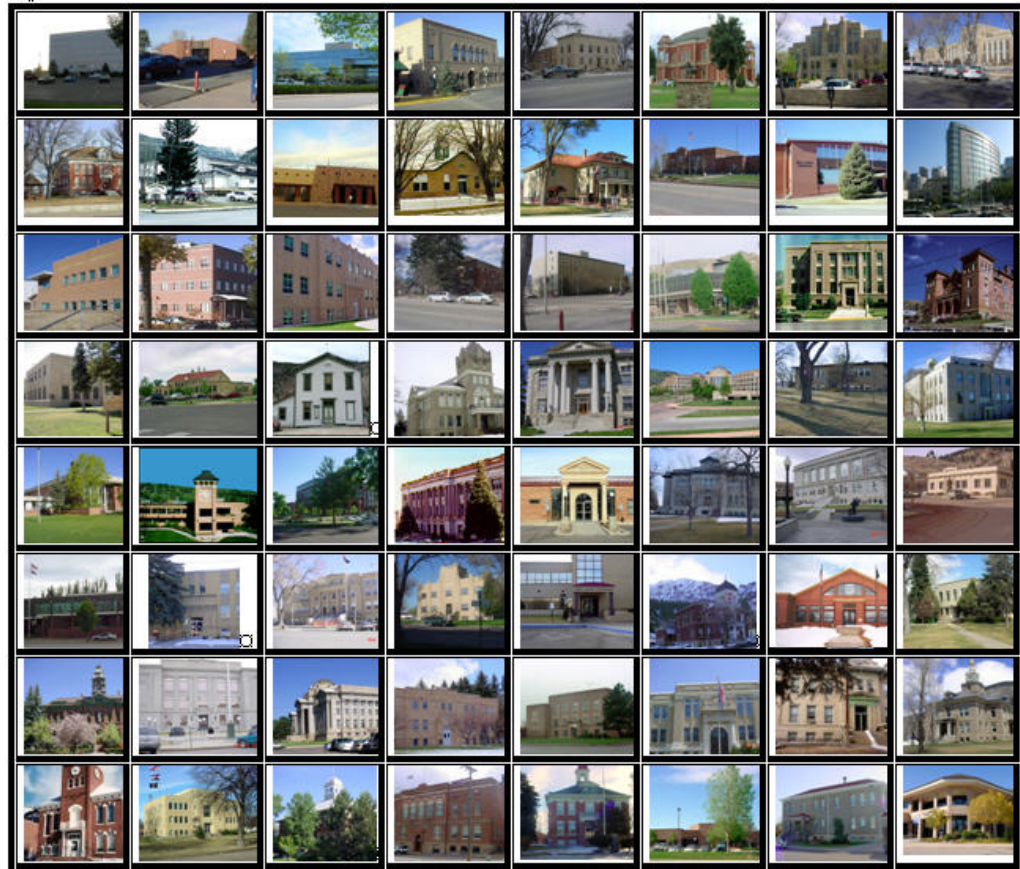




2011  
EL PASO COUNTY  
PROPERTY ASSESSMENT  
STUDY

---



**WILDROSE**  
APPRAISAL INCORPORATED  
Audit Division



September 15, 2011

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

**RE: Final Report for the 2011 Colorado Property Assessment Study**

Dear Mr. Mauer:

Wildrose Appraisal Inc.-Audit Division is pleased to submit the Final Reports for the 2011 Colorado Property Assessment Study.

These reports are the result of two analyses: A procedural audit and a statistical audit.

The procedural audit examines all classes of property. It specifically looks at how the assessor develops economic areas, confirms and qualifies sales, develops time adjustments and performs periodic physical property inspections. The audit reviews the procedures for determining subdivision absorption and subdivision discounting. Valuation methodology is examined for residential properties and commercial properties. Procedures are reviewed for producing mines, oil and gas leaseholds and lands producing, producing coal mines, producing earth and stone products, severed mineral interests, and non-producing patented mining claims.

Statistical audits are performed on vacant land, residential properties, commercial/industrial properties and agricultural land. A statistical analysis is performed for personal property compliance on the eleven largest counties: Adams, Arapahoe, Boulder, Denver, Douglas, El Paso, Jefferson, Larimer, Mesa, Pueblo and Weld. The remaining counties receive a personal property procedural study.

Wildrose Appraisal Inc. – Audit Division appreciates the opportunity to be of service to the State of Colorado. Please contact us with any questions or concerns.

A handwritten signature in black ink that reads "Harry J. Fuller". The signature is written in a cursive style.

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

## TABLE OF CONTENTS

Introduction .....	3
Regional/Historical Sketch of El Paso County .....	4
Ratio Analysis.....	6
<i>Random Deed Analysis</i> .....	8
Time Trending Verification .....	9
Sold/Unsold Analysis .....	10
Agricultural Land Study .....	12
<i>Agricultural Land</i> .....	12
<i>Agricultural Outbuildings</i> .....	13
Sales Verification.....	14
Economic Area Review and Evaluation .....	15
Natural Resources .....	16
<i>Earth and Stone Products</i> .....	16
Vacant Land.....	17
Possessory Interest Properties .....	18
Personal Property Audit .....	19
Wildrose Auditor Staff.....	21
Appendices.....	22

# INTRODUCTION

---



## Colorado

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

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

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

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

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

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

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

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

Wildrose Audit has completed the Property Assessment Study for 2011 and is pleased to report its findings for 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	192	0.971	1.047	10.8	Compliant
Condominium	N/A	N/A	N/A	N/A	N/A
Single Family	12,136	0.966	1.006	8.2	Compliant
Vacant Land	504	1.002	1.066	8.7	Compliant

**Ratio Statistics for CURRTOT / TASP**

Group	Median	Price Related Differential	Coefficient of Dispersion
1	.954	1.006	.042
2	.983	1.017	.120
3	.975	1.033	.147
4	.952	1.003	.040
5	.970	1.023	.130
6	.963	1.035	.147
7	.972	1.025	.128
8	.978	1.000	.085
9	.985	1.000	.098
10	.984	1.011	.117
11	.973	1.014	.107
12	.957	1.001	.033
13	.972	1.011	.093
14	.978	1.005	.083
15	.975	1.015	.103
16	.991	1.007	.108
18	.991	1.027	.126
19	.977	1.023	.065
20	.955	1.007	.100
Overall	.966	1.006	.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 2011 actual values for each qualified class of property. All qualified vacant land classes were tested using this method. The sale property ratios were arrayed using a range of 0.8 to 1.5, which theoretically excluded changes between years that were due to other unrelated changes in the property. These ratios were also stratified at the appropriate level of analysis. Once the percent change was determined for each appropriate class and sub-class, the next step was to select the unsold sample. This sample

was at least 1% of the total population of unsold properties and excluded any sale properties. The unsold sample was filtered based on the attributes of the sold dataset to closely correlate both groups. The ratio analysis was then performed on the unsold properties and stratified. The median and mean ratio distribution was then compared between the sold and unsold group. A non-parametric test such as the Mann-Whitney test for differences between independent samples was undertaken to determine whether any observed differential was significant. If this test determined that the unsold properties were treated in a manner similar to the sold properties, it was concluded that no further testing was warranted and that the county was in compliance.

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

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

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

### **Conclusions**

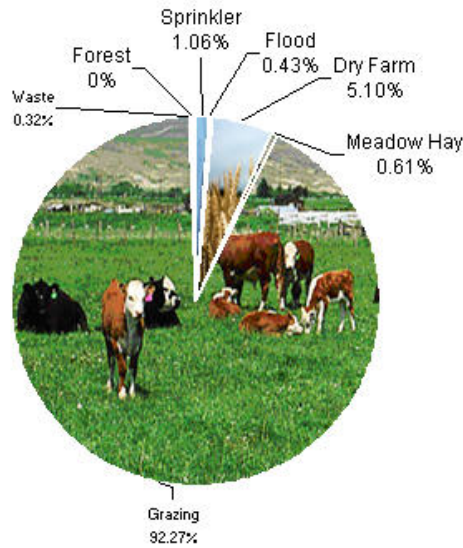
After applying the above described methodologies, it is concluded that El Paso County is reasonably treating its sold and unsold properties in the same manner.

### **Recommendations**

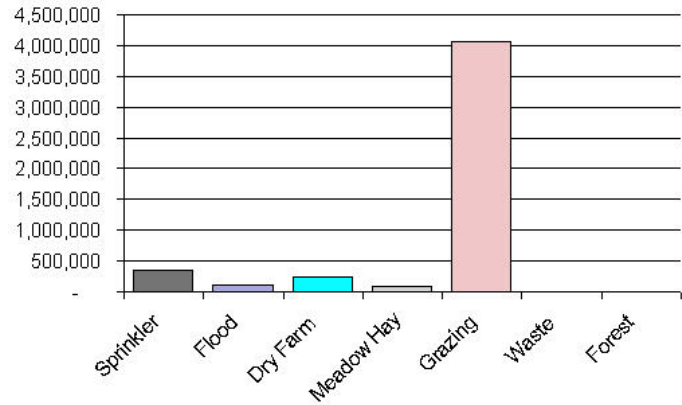
None

# 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:

<b>El Paso County Agricultural Land Ratio Grid</b>						
<b>Abstract Code</b>	<b>Land Class</b>	<b>Number Of Acres</b>	<b>County Value Per Acre</b>	<b>County Assessed Total Value</b>	<b>WRA Total Value</b>	<b>Ratio</b>
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
<b>Total/Avg</b>		<b>572,918</b>	<b>8.00</b>	<b>4,850,510</b>	<b>4,839,587</b>	<b>1.00</b>

### 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



## SALES VERIFICATION

According to Colorado Revised Statutes:

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

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

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

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

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

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

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

WRA reviewed the sales verification procedures in 2011 for El Paso County. This study was conducted by checking selected sales from the master sales list for the current valuation period. Specifically WRA selected 45 sales listed as unqualified.

All but three of the sales selected in the sample gave reasons that were clear and supportable. One sale had insufficient documentatio and two sales had an incorrect disqualification of a tax free exchange.

### **Conclusions**

El Paso County appears to be doing a good 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 2011 in El Paso County. The review showed that subdivisions were discounted pursuant to the Colorado Revised Statutes in Article 39-1-103 (14). Discounting procedures were applied to all subdivisions where less than 80 percent of all sites were sold using the present worth method. The market approach was applied where 80 percent or more of the subdivision sites were sold. An absorption period was estimated for each subdivision that was discounted. An appropriate discount rate was

developed using the summation method. Subdivision land with structures was appraised at full market value.

### **Conclusions**

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
- Colorado 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 2011 valuation period. The number and listing of businesses audited was also submitted and was in conformance with the written audit plan. The following audit triggers were used by the county to select accounts to be audited:

- Businesses in a selected area
- Accounts with obvious discrepancies
- 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*

**Suzanne Howard**, *Audit Administrative Manager*

**Steve Kane**, *Audit Statistician / Field Analyst*

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

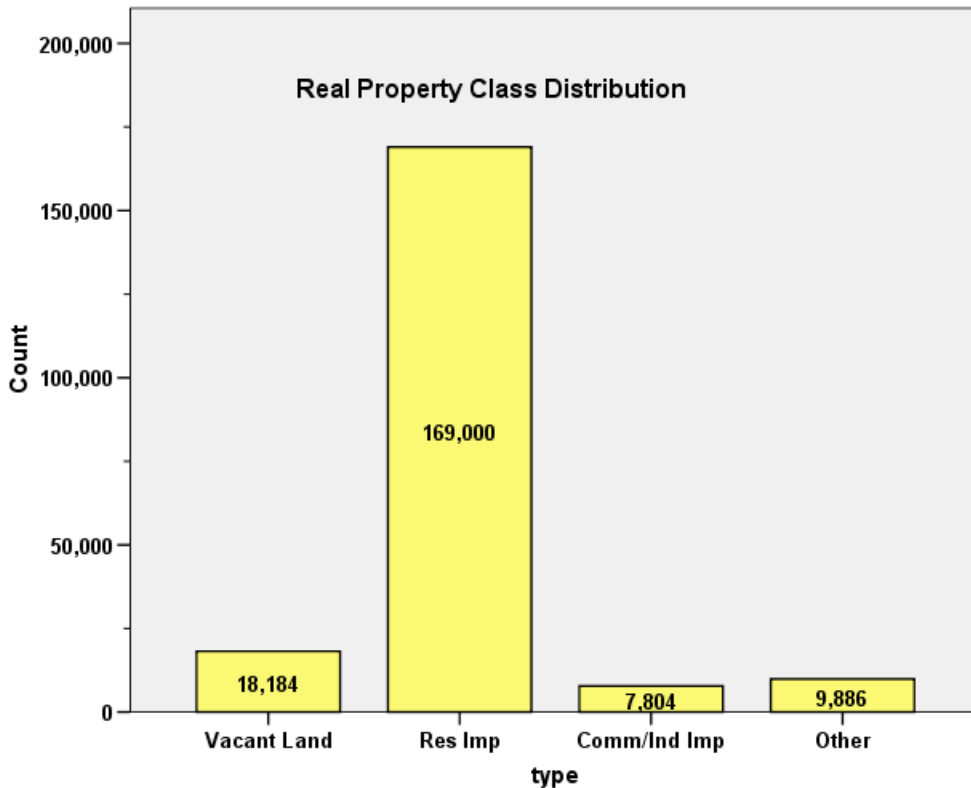
**J. Andrew Rodriguez**, *Field Analyst*

# APPENDICES

## STATISTICAL COMPLIANCE REPORT FOR EL PASO COUNTY 2011

### I. OVERVIEW

El Paso County is an urban county located along Colorado's Front Range. The county has a total of 204,874 real property parcels, according to data submitted by the county assessor's office in 2011. The following provides a breakdown of property classes for this county:



The vacant land class of properties was dominated by residential land. Residential lots (coded 100 and 1112) accounted for 76% of all vacant land parcels.

For residential improved properties, single family properties accounted for 97% of all residential properties.

Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial properties accounted for 3.7% of all such properties in this county.

## II. DATA FILES

The following sales analyses were based on the requirements of the 2011 Colorado Property Assessment Study. Information was provided by the El Paso Assessor’s Office in April 2011. 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:

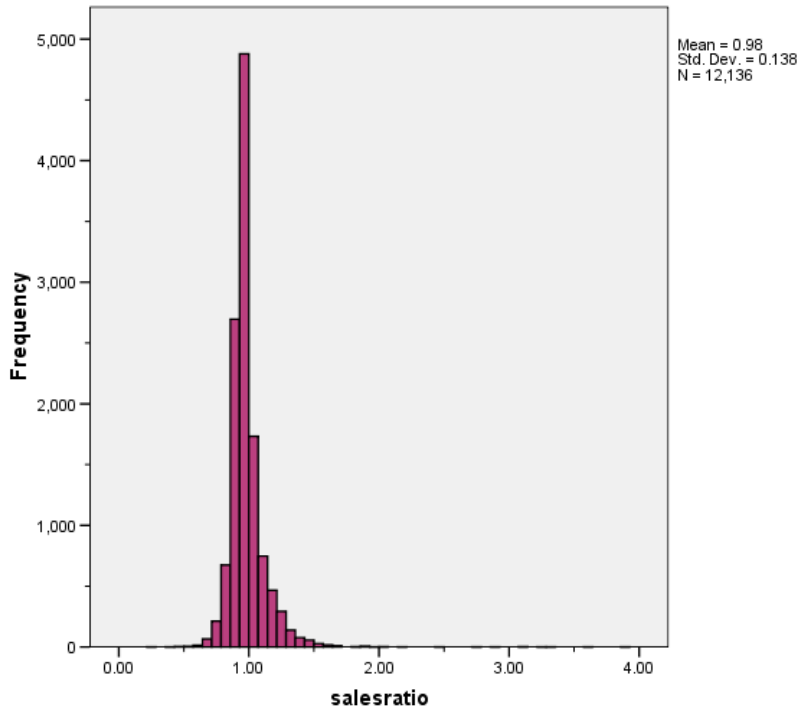
1. Improved sales	22,187
2. Select residential sales only	12,979
3. Sales between January 1, 2007 and June 30, 2008	12,136

The sales ratio analysis was analyzed as follows:

	Count	Percent
econ 1	1911	16.6%
2	353	3.1%
3	229	2.0%
4	963	8.4%
5	500	4.3%
6	277	2.4%
7	504	4.4%
8	313	2.7%
9	231	2.0%
10	188	1.6%
11	570	5.0%
12	1728	15.0%
13	803	7.0%
14	999	8.7%
15	730	6.3%
16	142	1.2%
18	870	7.6%
19	71	.6%
20	116	1.0%
Overall	11498	100.0%
Excluded	638	
Total	12136	

**Ratio Statistics for CURRTOT / TASP**

Group	Median	Price Related Differential	Coefficient of Dispersion
1	.954	1.006	.042
2	.983	1.017	.120
3	.975	1.033	.147
4	.952	1.003	.040
5	.970	1.023	.130
6	.963	1.035	.147
7	.972	1.025	.128
8	.978	1.000	.085
9	.985	1.000	.098
10	.984	1.011	.117
11	.973	1.014	.107
12	.957	1.001	.033
13	.972	1.011	.093
14	.978	1.005	.083
15	.975	1.015	.103
16	.991	1.007	.108
18	.991	1.027	.126
19	.977	1.023	.065
20	.955	1.007	.100
Overall	.966	1.006	.082







**NOTE: SALES RATIO AND TASP TRIMMED FOR EXTREME VALUE**

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

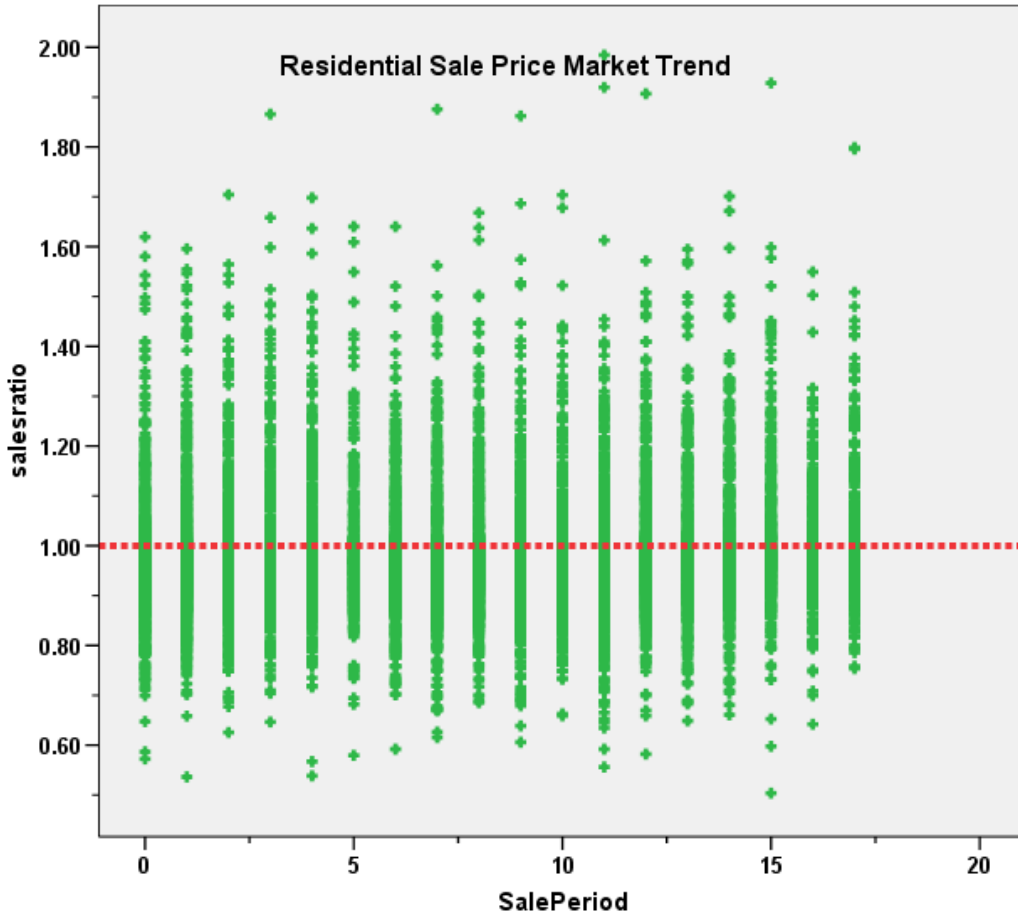
### **Residential Market Trend Analysis**

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<sup>a</sup>**

econ	Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			B	Std. Error	Beta		
1	1	(Constant)	.941	.003		367.503	.000
		SalePeriod	.001	.000	.105	4.589	.000
2	1	(Constant)	1.015	.016		64.486	.000
		SalePeriod	-.001	.002	-.026	-.496	.620
3	1	(Constant)	1.003	.022		45.398	.000
		SalePeriod	-.001	.003	-.023	-.342	.732
4	1	(Constant)	.942	.003		299.516	.000
		SalePeriod	.001	.000	.114	3.547	.000
5	1	(Constant)	.965	.013		71.654	.000
		SalePeriod	.004	.001	.108	2.420	.016
6	1	(Constant)	.998	.019		52.146	.000
		SalePeriod	-.003	.002	-.079	-1.302	.194
7	1	(Constant)	.979	.014		68.460	.000
		SalePeriod	.004	.002	.098	2.216	.027
8	1	(Constant)	.981	.014		71.160	.000
		SalePeriod	.002	.001	.088	1.557	.120
9	1	(Constant)	.985	.015		67.439	.000
		SalePeriod	.002	.002	.084	1.282	.201
10	1	(Constant)	.982	.020		48.013	.000
		SalePeriod	.003	.002	.102	1.398	.164
11	1	(Constant)	.954	.011		88.941	.000
		SalePeriod	.005	.001	.180	4.368	.000
12	1	(Constant)	.950	.002		508.683	.000
		SalePeriod	.000	.000	.046	1.903	.057
13	1	(Constant)	.970	.008		115.368	.000
		SalePeriod	.003	.001	.112	3.186	.001
14	1	(Constant)	.977	.007		149.868	.000
		SalePeriod	.002	.001	.117	3.719	.000
15	1	(Constant)	.971	.009		110.641	.000
		SalePeriod	.003	.001	.111	3.002	.003
16	1	(Constant)	1.024	.025		40.437	.000
		SalePeriod	-.001	.003	-.034	-.407	.684
18	1	(Constant)	1.032	.011		96.612	.000
		SalePeriod	.000	.001	-.006	-.175	.861
19	1	(Constant)	1.013	.034		29.999	.000
		SalePeriod	-.001	.003	-.021	-.171	.864
20	1	(Constant)	.963	.022		43.975	.000
		SalePeriod	.001	.002	.065	.692	.490

a. Dependent Variable: salesratio



There was no residual market trending present in the sale ratio data for most of the economic areas; those with statistically 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 2011 between each group. The data was analyzed as follows:

Group	No.	Median	Mean
Unsold	152,731	\$128	\$133
Sold	12,129	\$128	\$134

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

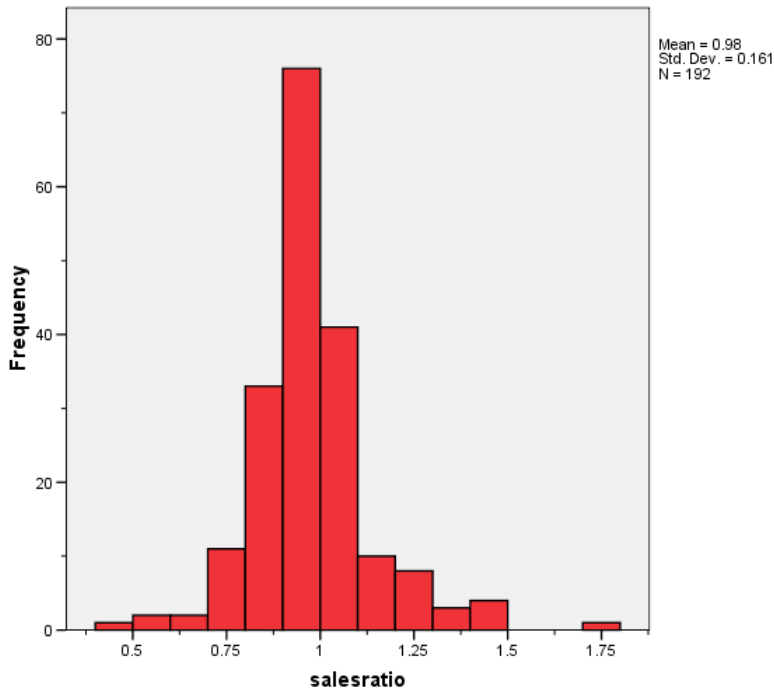
#### IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

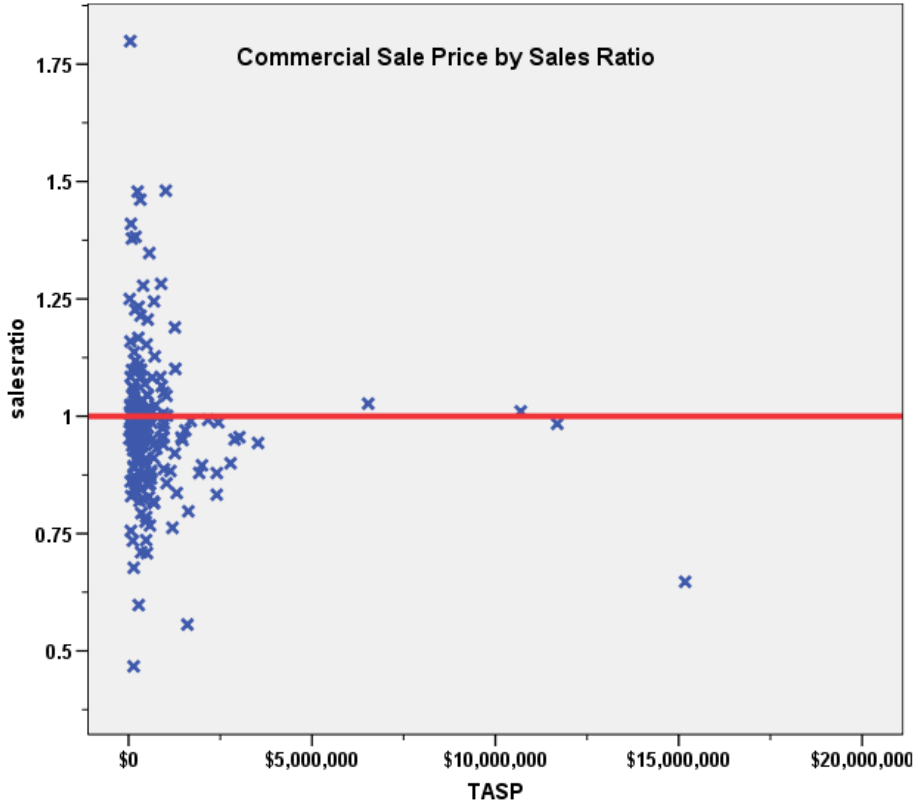
1. Improved sales	22,187
2. Select commercial sales only	192
3. Sales between January 1, 2009 and June 30, 2010	192

The sales ratio analysis was analyzed as follows:

Median	<b>0.971</b>
Price Related Differential	<b>1.047</b>
Coefficient of Dispersion	<b>.108</b>

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:





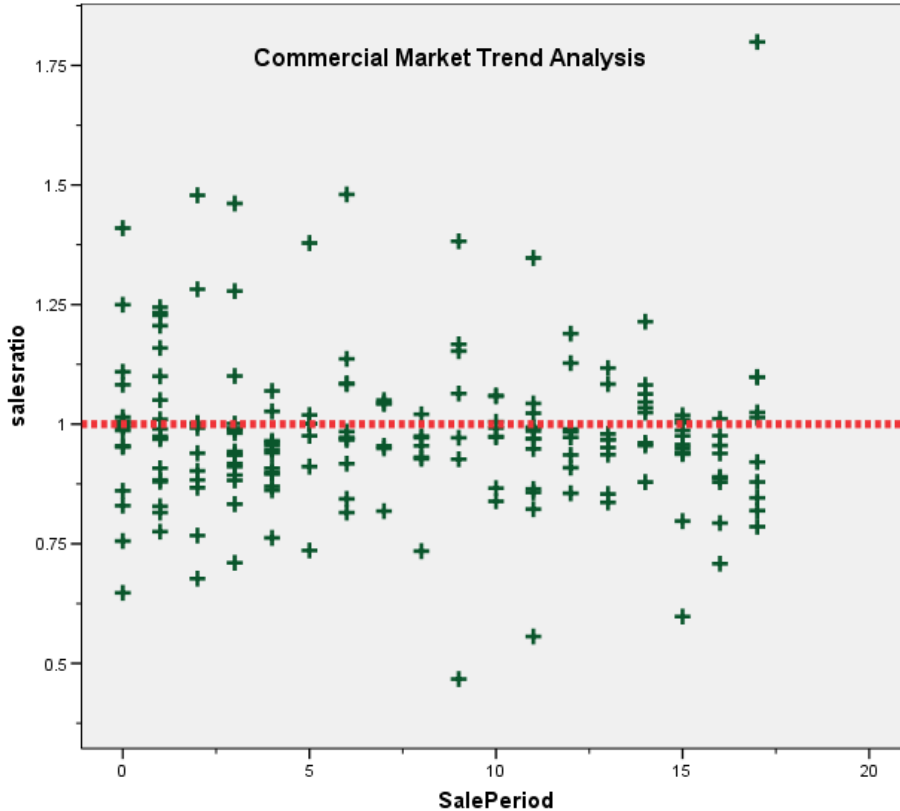
### Commercial/Industrial Market Trend Analysis

The assessor did apply market trend adjustments to the commercial/industrial dataset. The 192 commercial/industrial sales were analyzed, examining the sale ratios across the 18 month sale period with the following results:

Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.992	.020		50.053	.000
	SalePeriod	-.002	.002	-.058	-.797	.426

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	7,339	\$71	\$97
Sold	183	\$88	\$111

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 2011 for sold and unsold commercial/industrial properties, as follows:

Group	N	Median Val Chg	Mean Val Chg
Unsold	7,314	0.970	0.962
Sold	183	1.000	1.141

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



## V. VACANT LAND SALE RESULTS

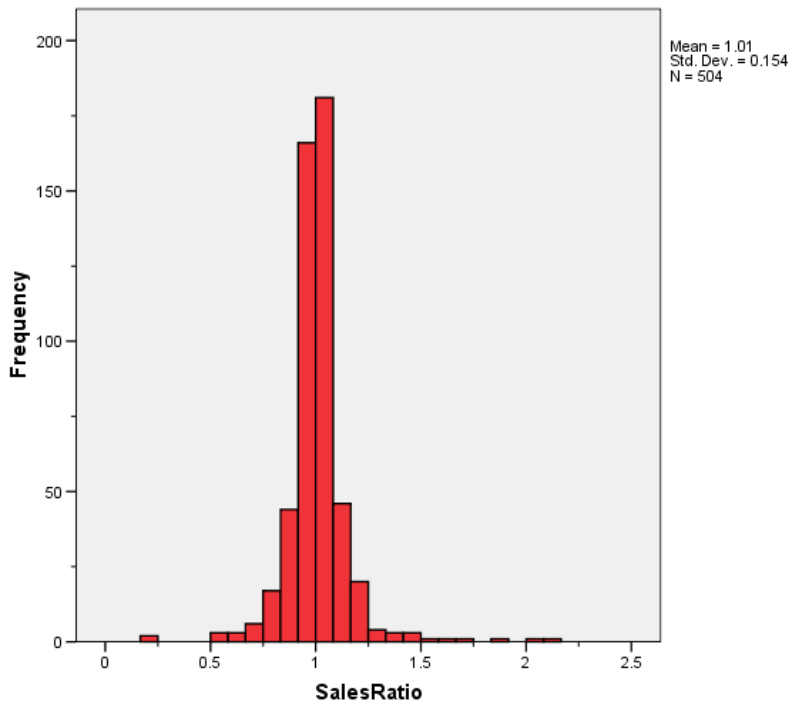
The following steps were taken to analyze the vacant land sales:

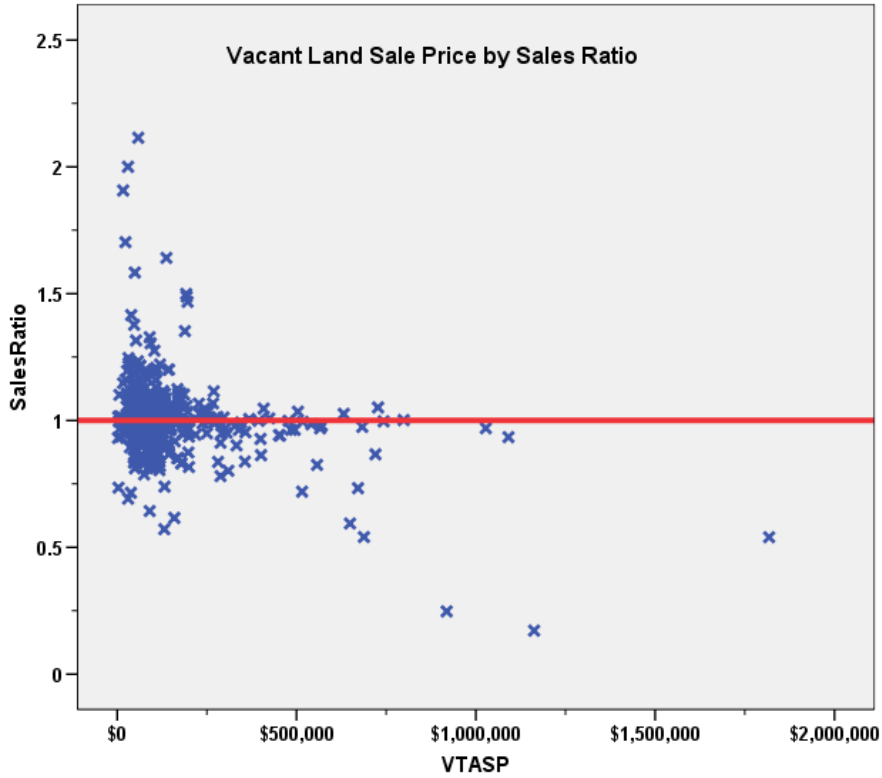
- |  |     |
|--|-----|
| 1. Vacant land sales                               | 578 |
| 2. Select non-agricultural sales only              | 504 |
| 3. Sales between January 1, 2009 and June 30, 2010 | 504 |

The sales ratio analysis was analyzed as follows:

Ratio Statistics for currInd / Vtasp	
<b>Median</b>	<b>1.002</b>
<b>Price Related Differential</b>	<b>1.066</b>
<b>Coefficient of Dispersion</b>	<b>.087</b>

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.

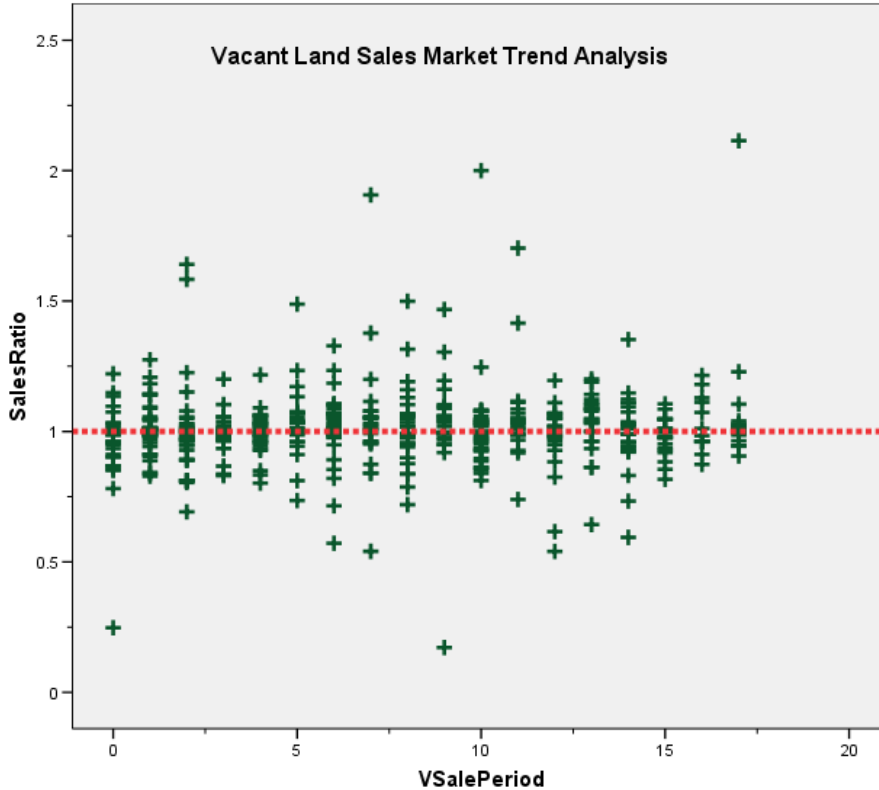
### Vacant Land Market Trend Analysis

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

Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.994	.012		81.168	.000
VSalePeriod	.002	.001	.070	1.578	.115

a. Dependent Variable: SalesRatio



The above analysis indicated 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 2011 for each group. The following results present the comparison results for sold and unsold properties:

Group	No.	Median Val Chg	Mean Val Chg
Unsold	16,540	0.929	0.927
Sold	494	0.849	0.907

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 2011.

### VI. Conclusions

Based on this 2011 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

Mean	95% Confidence Interval for Mean		Median	95% Confidence Interval for Median			Weighted Mean	95% Confidence Interval for Weighted Mean		Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
	Lower Bound	Upper Bound		Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound			
.984	.981	.986	.967	.965	.968	95.1%	.975	.971	.980	1.009	.084	14.0%

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

### Commercial Land

Ratio Statistics for CURRTOT / TASP

Mean	95% Confidence Interval for Mean		Median	95% Confidence Interval for Median			Weighted Mean	95% Confidence Interval for Weighted Mean		Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
	Lower Bound	Upper Bound		Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound			
.984	.981	.986	.967	.965	.968	95.1%	.975	.971	.980	1.009	.084	14.0%

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

### Vacant Land

Ratio Statistics for CURRLND / VTASP

Mean	95% Confidence Interval for Mean		Median	95% Confidence Interval for Median			Weighted Mean	95% Confidence Interval for Weighted Mean		Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
	Lower Bound	Upper Bound		Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound			
1.010	.997	1.024	1.002	.998	1.011	95.5%	.948	.905	.990	1.066	.087	15.2%

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



**Residential Median Ratio Stratification**

**Sale Price**

**Case Processing Summary**

		Count	Percent
SPRec	LT \$25K	2	.0%
	\$25K to \$50K	21	.2%
	\$50K to \$100K	484	4.0%
	\$100K to \$150K	2276	18.8%
	\$150K to \$200K	3372	27.8%
	\$200K to \$300K	3527	29.1%
	\$300K to \$500K	1902	15.7%
	\$500K to \$750K	394	3.2%
	\$750K to \$1,000K	85	.7%
	Over \$1,000K	73	.6%
Overall		12136	100.0%
Excluded		0	
Total		12136	

**Ratio Statistics for CURRTOT / TASP**

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LT \$25K	.990	.999	.038	5.4%
\$25K to \$50K	1.011	1.004	.256	56.1%
\$50K to \$100K	.996	1.006	.134	27.9%
\$100K to \$150K	.976	1.001	.096	18.0%
\$150K to \$200K	.964	1.001	.067	10.4%
\$200K to \$300K	.960	.999	.075	11.2%
\$300K to \$500K	.967	1.000	.091	12.4%
\$500K to \$750K	.969	1.001	.110	15.5%
\$750K to \$1,000K	.957	1.001	.116	16.3%
Over \$1,000K	.943	1.013	.122	18.6%
Overall	.967	1.009	.084	14.4%

## Subclass

Case Processing Summary

	Count	Percent
ABSTRIMP 0	1	.0%
600	1	.0%
1212	11746	96.8%
1214	5	.0%
1215	66	.5%
1216	3	.0%
1217	1	.0%
1218	1	.0%
1220	50	.4%
1225	18	.1%
1466	1	.0%
1553	1	.0%
1716	3	.0%
1718	1	.0%
1728	1	.0%
1881	1	.0%
2132	1	.0%
2212	26	.2%
2215	3	.0%
2218	1	.0%
2220	31	.3%
2224	1	.0%
2225	1	.0%
2227	1	.0%
2228	2	.0%
2230	45	.4%
2233	1	.0%
2235	32	.3%
2245	28	.2%
2250	1	.0%
2725	2	.0%
2745	1	.0%
2746	7	.1%
2963	1	.0%
3215	1	.0%
3230	6	.0%
3257	2	.0%
3403	1	.0%
3511	1	.0%
3768	1	.0%
4277	9	.1%
4278	3	.0%
4278	6	.0%
4279	3	.0%
4279	3	.0%
4279	1	.0%
4279	1	.0%
4279	1	.0%
4279	1	.0%
4279	1	.0%
5750	1	.0%
9220	1	.0%
9249	2	.0%
9259	5	.0%
9279	2	.0%
Overall	12136	100.0%
Excluded	0	
Total	12136	

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
0	.867	1.000	.000	.%
600	.975	1.000	.000	.%
1212	.966	1.006	.082	13.6%
1214	.975	1.000	.000	.0%
1215	.999	1.051	.188	32.0%
1216	1.134	1.185	.865	173.9%
1217	.816	1.000	.000	.%
1218	.782	1.000	.000	.%
1220	1.017	1.050	.134	17.0%
1225	1.033	1.162	.290	56.1%
1466	1.571	1.000	.000	.%
1553	.976	1.000	.000	.%
1716	.993	.997	.040	7.9%
1718	.955	1.000	.000	.%
1728	1.056	1.000	.000	.%
1881	1.479	1.000	.000	.%
2132	1.044	1.000	.000	.%
2212	.961	1.068	.082	12.9%
2215	.970	1.116	.147	30.1%
2218	1.282	1.000	.000	.%
2220	.976	.993	.070	9.8%
2224	.991	1.000	.000	.%
2225	.647	1.000	.000	.%
2227	.921	1.000	.000	.%
2228	.924	.940	.065	9.1%
2230	.955	1.011	.122	17.9%
2233	1.002	1.000	.000	.%
2235	.969	1.051	.140	22.2%
2245	.989	1.001	.077	12.1%
2250	.756	1.000	.000	.%
2725	.944	.998	.007	1.0%
2745	.977	1.000	.000	.%
2746	1.084	1.192	.276	53.3%
2963	1.027	1.000	.000	.%
3215	1.001	1.000	.000	.%
3230	.940	1.004	.151	20.0%
3257	1.135	1.005	.017	2.4%
3403	.976	1.000	.000	.%
3511	.973	1.000	.000	.%
3768	.982	1.000	.000	.%
4277	.975	.998	.010	3.0%
4278	.973	1.001	.002	.3%
4278	.972	1.002	.004	.5%
4279	.976	1.000	.025	3.9%
4279	.975	1.002	.003	.4%
4279	.954	1.000	.000	.%
4279	.962	1.000	.000	.%
4279	1.000	1.000	.000	.%
4279	1.077	1.000	.000	.%
5750	1.348	1.000	.000	.%
9220	.907	1.000	.000	.%
9249	.885	.656	.698	98.7%
9259	.810	.993	.215	29.2%
9279	.838	.945	.133	18.8%
Overall	.967	1.009	.084	14.4%



## Age

### Case Processing Summary

	Count	Percent
AgeRec 0	1	.0%
Over 100	298	2.5%
75 to 100	171	1.4%
50 to 75	1045	8.6%
25 to 50	3469	28.6%
5 to 25	5226	43.1%
5 or Newer	1926	15.9%
Overall	12136	100.0%
Excluded	0	
Total	12136	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
0	.867	1.000	.000	.%
Over 100	.967	1.041	.151	21.9%
75 to 100	.959	1.051	.168	29.2%
50 to 75	.968	1.014	.117	21.1%
25 to 50	.965	1.006	.084	13.6%
5 to 25	.968	1.006	.073	11.3%
5 or Newer	.967	1.009	.079	15.2%
Overall	.967	1.009	.084	14.4%

## Improved Area

### Case Processing Summary

	Count	Percent
ImpSFRec 0	1	.0%
LE 500 sf	17	.1%
500 to 1,000 sf	1753	14.4%
1,000 to 1,500 sf	3802	31.3%
1,500 to 2,000 sf	3154	26.0%
2,000 to 3,000 sf	2601	21.4%
3,000 sf or Higher	808	6.7%
Overall	12136	100.0%
Excluded	0	
Total	12136	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
0	.867	1.000	.000	.%
LE 500 sf	1.020	1.018	.079	12.2%
500 to 1,000 sf	.959	1.013	.086	15.1%
1,000 to 1,500 sf	.964	1.010	.079	14.0%
1,500 to 2,000 sf	.967	1.007	.078	12.4%
2,000 to 3,000 sf	.971	1.007	.085	13.6%
3,000 sf or Higher	.975	1.032	.127	21.9%
Overall	.967	1.009	.084	14.4%

## Quality

### Case Processing Summary

	Count	Percent
QUALITY 0	1	.0%
1	325	2.7%
2	9316	76.8%
3	2242	18.5%
4	235	1.9%
5	16	.1%
Overall	12135	100.0%
Excluded	1	
Total	12136	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
0	.867	1.000	.000	.%
LE 500 sf	1.020	1.018	.079	12.2%
500 to 1,000 sf	.959	1.013	.086	15.1%
1,000 to 1,500 sf	.964	1.010	.079	14.0%
1,500 to 2,000 sf	.967	1.007	.078	12.4%
2,000 to 3,000 sf	.971	1.007	.085	13.6%
3,000 sf or Higher	.975	1.032	.127	21.9%
Overall	.967	1.009	.084	14.4%

## Commercial Median Ratio Stratification

## Sale Price

### Case Processing Summary

	Count	Percent
SPRec LT \$25K	2	.0%
\$25K to \$50K	21	.2%
\$50K to \$100K	484	4.0%
\$100K to \$150K	2276	18.8%
\$150K to \$200K	3372	27.8%
\$200K to \$300K	3527	29.1%
\$300K to \$500K	1902	15.7%
\$500K to \$750K	394	3.2%
\$750K to \$1,000K	85	.7%
Over \$1,000K	73	.6%
Overall	12136	100.0%
Excluded	192738	
Total	204874	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
LT \$25K	.990	.999	.038	5.4%
\$25K to \$50K	1.011	1.004	.256	56.1%
\$50K to \$100K	.996	1.006	.134	27.9%
\$100K to \$150K	.976	1.001	.096	18.0%
\$150K to \$200K	.964	1.001	.067	10.4%
\$200K to \$300K	.960	.999	.075	11.2%
\$300K to \$500K	.967	1.000	.091	12.4%
\$500K to \$750K	.969	1.001	.110	15.5%
\$750K to \$1,000K	.957	1.001	.116	16.3%
Over \$1,000K	.943	1.013	.122	18.6%
Overall	.967	1.009	.084	14.4%

## Vacant Land Median Ratio Stratification

### Subclass

#### Case Processing Summary

		Count	Percent
ABSTRLND	0	1	.2%
	100	132	26.2%
	200	13	2.6%
	300	5	1.0%
	510	3	.6%
	520	5	1.0%
	530	2	.4%
	540	4	.8%
	550	14	2.8%
	560	1	.2%
	1112	303	60.1%
	1135	1	.2%
	2112	4	.8%
	2130	16	3.2%
Overall		504	100.0%
Excluded		0	
Total		504	

#### 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	1.026	.100	18.0%
200	.999	1.024	.027	4.0%
300	.998	.992	.030	3.9%
510	.997	.997	.019	3.1%
520	.995	1.011	.034	4.5%
530	.819	.869	.215	30.4%
540	1.016	1.063	.058	10.5%
550	1.010	1.056	.219	38.7%
560	1.049	1.000	.000	.%
1112	1.004	1.010	.071	10.3%
1135	1.234	1.000	.000	.%
2112	.991	1.001	.017	2.7%
2130	.903	1.116	.223	33.8%
Overall	1.002	1.066	.087	15.4%