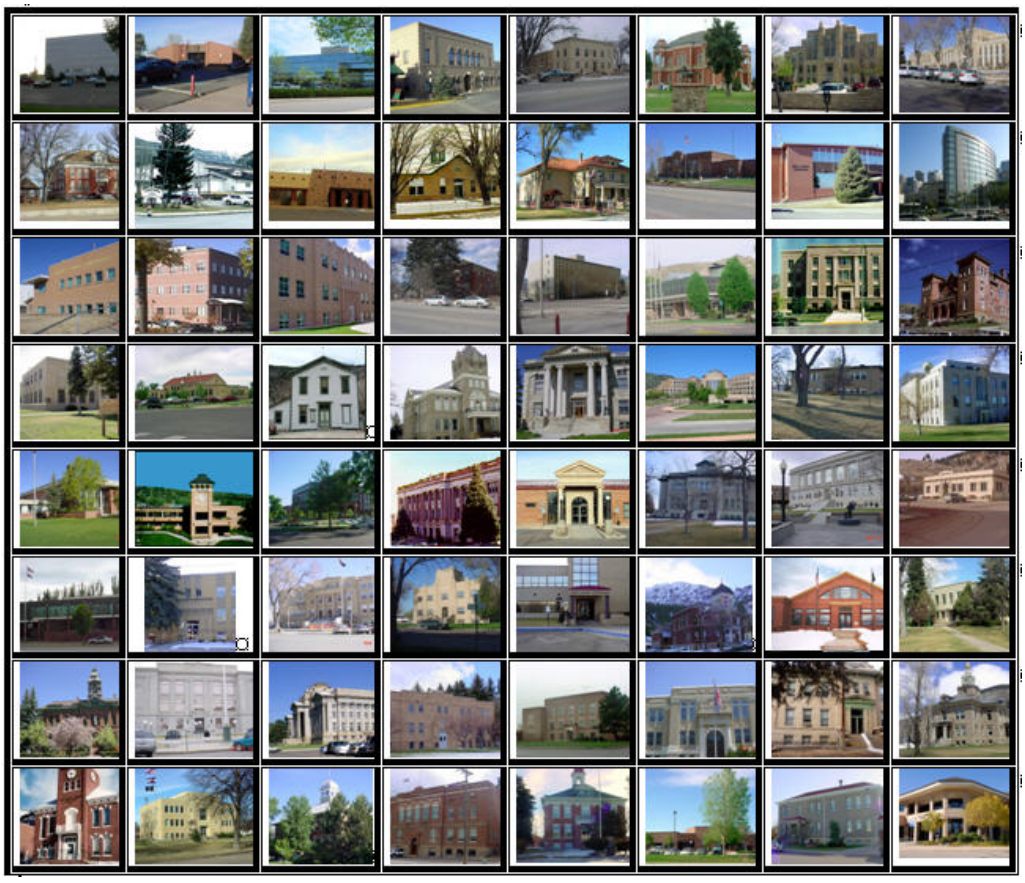
2013
PARK COUNTY
PROPERTY ASSESSMENT
STUDY



WILDROSE
APPRAISAL, INCORPORATED
Audit Division

WILDROSE
APPRAISAL, INCORPORATED
Audit Division

September 15, 2013

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

RE: Final Report for the 2013 Colorado Property Assessment Study

Dear Mr. Mauer:

Wildrose Appraisal Inc.-Audit Division is pleased to submit the Final Reports for the 2013 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

TABLE OF CONTENTS

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 2013 and is pleased to report its findings for Park County in the following report.

REGIONAL / HISTORICAL SKETCH OF PARK COUNTY

Regional Information

Park County is located in the Central Mountains region of Colorado. The Central Mountains Region is in the central portion of Colorado. It extends from the northern Gilpin county boundary approximately 210 miles southeasterly to the southern boundary of Colorado, including Chaffee, Clear Creek, Custer, Fremont, Gilpin, Huerfano, Lake, Las Animas, Park, and Teller counties.

Historical Information

Park County has a population of approximately 16,206 people with 7.36 people per square mile, according to the U.S. Census Bureau's 2010 census data. This represents a 11.59 percent change from the 2000 Census.

Park County was named after the large geographic region known as South Park, which was named by early fur traders and trappers in the area. The geographic center of the State of Colorado is located in Park County.

The Town of Fairplay is a statutory town that is the county seat and the most populous town of Park County. The town is the fifth-highest incorporated place in Colorado at an elevation of 9,953 feet. A historic gold mining settlement, the town was founded in 1859 during the early days of the Pike's Peak Gold Rush. Although it was founded during the initial placer mining boom, the mines in the area continued to produce gold and silver ore for many decades up through the middle of the 20th century.

The town consists of modern retail businesses along the highway, as well as a historic town on the bluff above the river along Front Street. The northern extension of Front Street along the river has been preserved and has become the site of relocated historic structures as an open air museum called South Park City, intended to recreate the early days of the Colorado Gold Rush. The Town of Fairplay, Colorado, is the basis for the Town of South Park, Colorado, in the television series South Park. It also hosts Burro Days, a festival held on the last weekend of July. This event celebrates the town's mining heritage. The main feature of the festival is a 29-mile burro race over rough terrain and elevation gain from downtown Fairplay to the 13,000-ft summit of Mosquito Pass. *(www.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 2011 and June 2012. Counties with less than 30 sales typically extended the sale period back up to 5 years prior to June 30, 2012 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 Park County are:

Park County Ratio Grid					
Property Class	Number of Qualified Sales	Unweighted Median Ratio	Price Related Differential	Coefficient of Dispersion	Time Trend Analysis
Commercial/Industrial	30	1.005	1.084	20.2	Compliant
Condominium	N/A	N/A	N/A	N/A	N/A
Single Family	1,267	1.029	1.019	12.9	Compliant
Vacant Land	835	1.021	1.030	14.4	Compliant

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

Recommendations

None

TIME TRENDING VERIFICATION

Methodology

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

Park 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 2012 and 2013 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

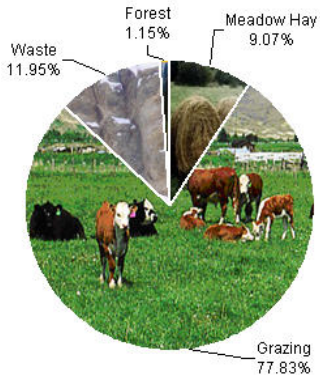
After applying the above described methodologies, it is concluded that Park County is reasonably treating its sold and unsold properties in the same manner.

Recommendations

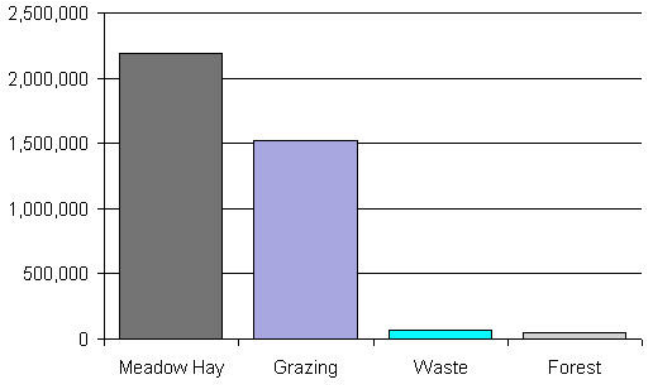
None

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. 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:

Park County Agricultural Land Ratio Grid						
Abstract Code	Land Class	Number Of Acres	County Value Per Acre	County Assessed Total Value	WRA Total Value	Ratio
4137	Meadow Hay	29,646	74.00	2,185,594	2,182,484	1.00
4147	Grazing	254,363	6.00	1,522,353	1,522,353	1.00
4177	Forest	3,743	12.00	46,140	46,132	1.00
4167	Waste	39,067	2.00	68,194	68,194	1.00
Total/Avg		**326,819**	**12.00**	**3,822,282**	**3,819,164**	**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

Park 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.

Park County utilized the following discovery method(s):

- Personal Knowledge of Owners and Tenants

Conclusions

Park 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 2013 for Park County. This study was conducted by checking selected sales from the master sales list for the current valuation period. Specifically WRA selected 65 sales listed as unqualified.

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

For residential, commercial, and vacant land sales with considerations over $500, the contractor has examined and reported the ratio of qualified sales to total sales by class and performed the following analyses of unqualified sales:

The contractor has examined the manner in which sales have been classified as qualified or unqualified, including a listing of each step in the sales verification process, any adjustment procedures, and the county official responsible for making the final decision on qualification.

When less than 50 percent of sales are qualified in any of the three property classes (residential, commercial, and vacant land), the contractor analyzed the reasons for disqualifying sales in any subclass that constitutes at least 20 percent of the class, either by number of properties or by value, from the prior year. The contractor has

reviewed with the assessor any analysis indicating that sales data are inadequate, fail to reflect typical properties, or have been disqualified for insufficient cause. In addition, the contractor has reviewed the disqualified sales by assigned code. If there appears to be any inconsistency in the coding, the contractor has conducted further analysis to determine if the sales included in that code have been assigned appropriately.

If 50 percent or more of the sales are qualified, the contractor has reviewed a statistically significant sample of unqualified sales, excluding sales that were disqualified for obvious reasons.

The following subclasses were analyzed for Park County:

- 0100 Residential Lots

Conclusions

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

Recommendations

None

ECONOMIC AREA REVIEW AND EVALUATION

Methodology

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

Recommendations

None

NATURAL RESOURCES

Earth and Stone Products

Methodology

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

Conclusions

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

Recommendations

None

Producing Mines

Methodology

Colorado Revised Statutes (CRS) Article 39, Section 6, and the Assessor's Reference Library (ARL), Volume 3 are the basis for valuing producing mine property. The gross value of the ore extracted during the preceding year is determined. All costs of treatment, reduction, transportation and sale are deducted to estimate gross proceeds. The costs of extraction are deducted from the gross proceeds to estimate net proceeds.

The current value for assessment is determined by determining if 25% of the gross proceeds or 100% of the net proceeds is greater, then applying that number as the valuation for assessment.

Conclusions

The County valued the producing mine production using acceptable appraisal procedures.

Recommendations

None

VACANT LAND

Subdivision Discounting

Subdivisions were reviewed in 2013 in Park 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

Park 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.

Park 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

Park 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

Park 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.

Park 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
- Internet

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.

Park County submitted their personal property written audit plan and was current for the 2013 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 $7,000 actual value exemption status
- Lowest or highest quartile of value per square foot
- Accounts protested with substantial disagreement

Conclusions

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

Recommendations

None

WILDROSE AUDITOR STAFF

Harry J. Fuller, *Audit Project Manager*

Suzanne Howard, *Audit Administrative Manager*

Steve Kane, *Audit Statistician*

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

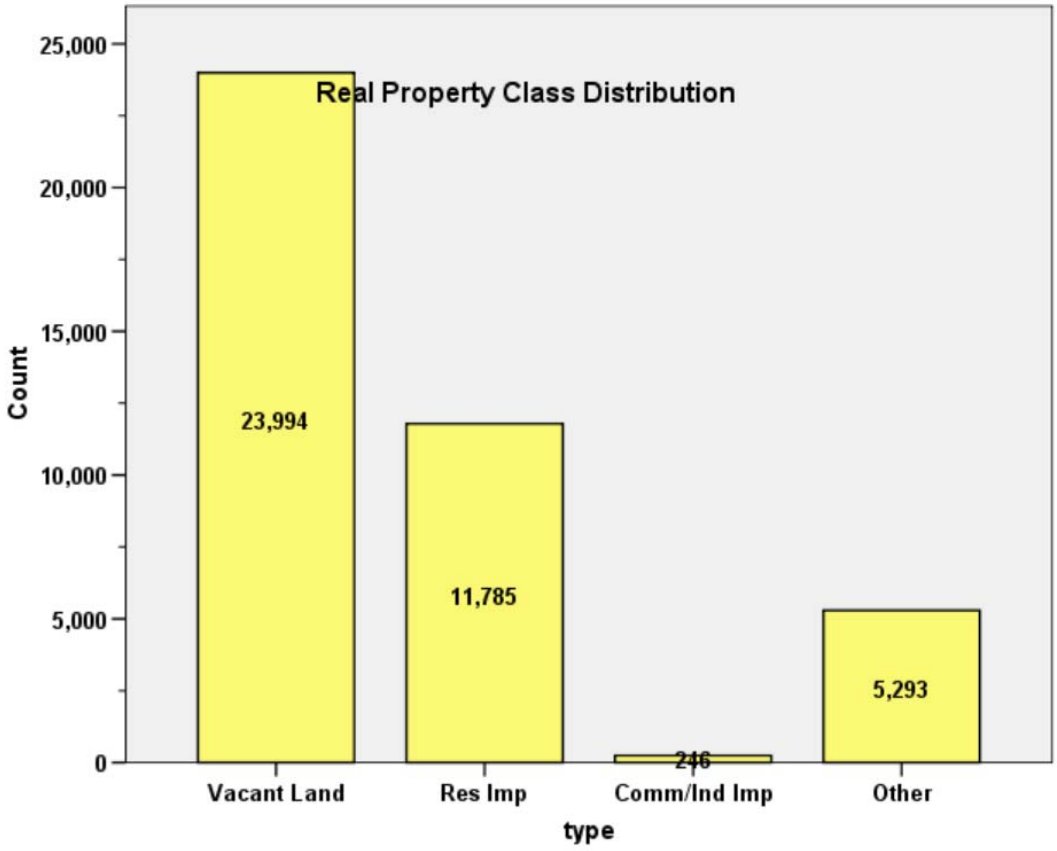
J. Andrew Rodriguez, *Field Analyst*

APPENDICES

STATISTICAL COMPLIANCE REPORT
FOR PARK COUNTY
2013

I. OVERVIEW

Park County is located in central Colorado. The county has a total of 41,318 real property parcels, according to data submitted by the county assessor's office in 2013. The following provides a breakdown of property classes for this county:



The vacant land class of properties was dominated by residential land. Residential lots (coded 100) accounted for 91.9% of all vacant land parcels.

For residential improved properties, single family properties accounted for 95.4% of all residential properties.

Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial sales accounted for less than 0.6% of all such properties in this county.

II. DATA FILES

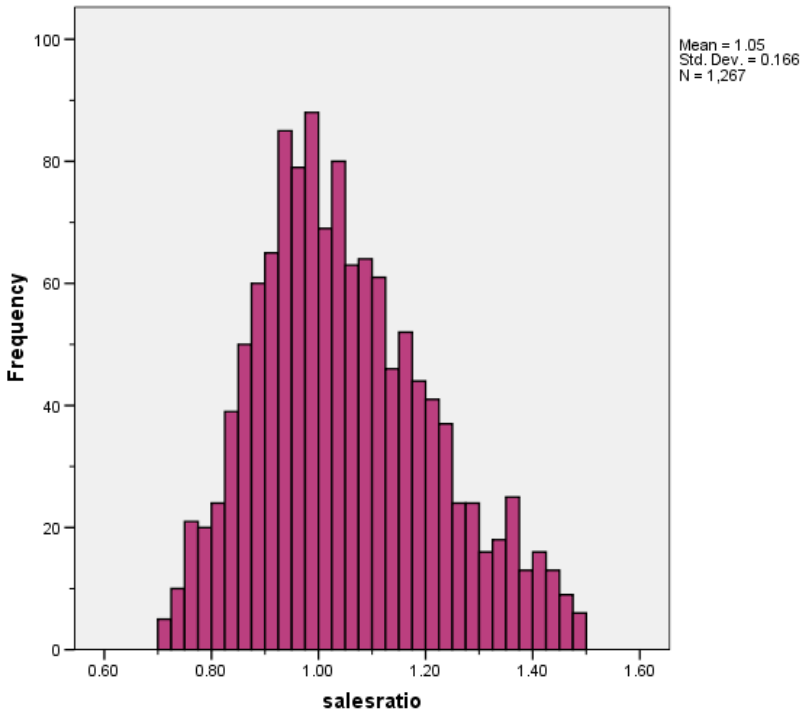
The following sales analyses were based on the requirements of the 2013 Colorado Property Assessment Study. Information was provided by the Park Assessor's Office in April 2013. The data included all 5 property record files as specified by the Auditor, plus a 6th file for commercial sales.

III. RESIDENTIAL SALES RESULTS

There were 1,267 qualified residential sales for the 48 month sale period ending June 30, 2012. The sales ratio analysis was analyzed as follows:

Median	**1.029**
Price Related Differential	**1.019**
Coefficient of Dispersion	**.129**

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



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

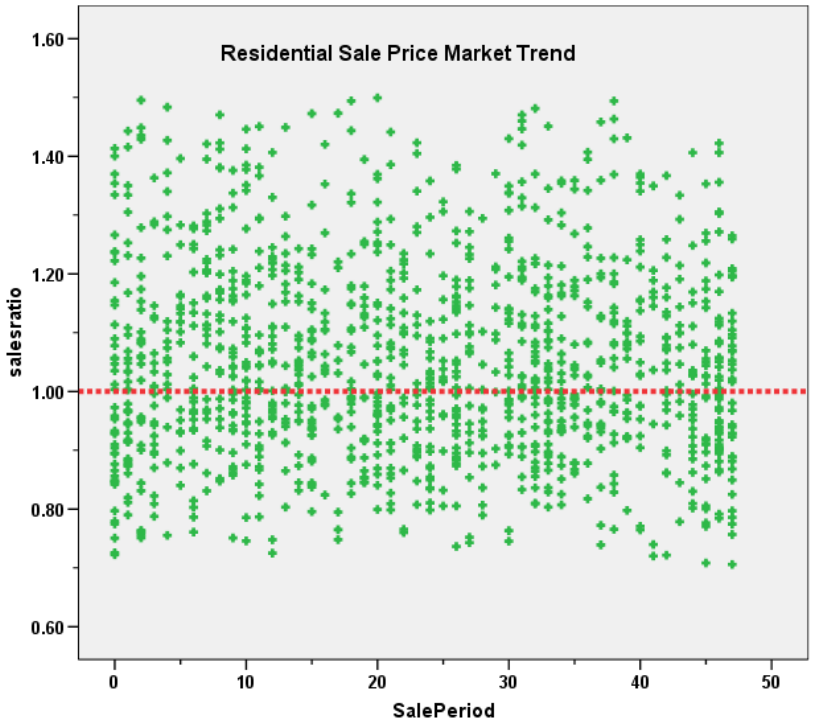
Residential Market Trend Analysis

We next analyzed the residential dataset using the 48-month sale period for any residual market trending, with the following results:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.063	.009		120.830	.000
	SalePeriod	-.001	.000	-.043	-1.547	.122

a. Dependent Variable: salesratio



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

Sold/Unsold Analysis

In terms of the valuation consistency between sold and unsold residential properties, we compared the median actual value per square foot for 2013 between each group, as follows:

Group	No.	Median	Mean
Unsold	10,519	$154	$165
Sold	1,267	$158	$163

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

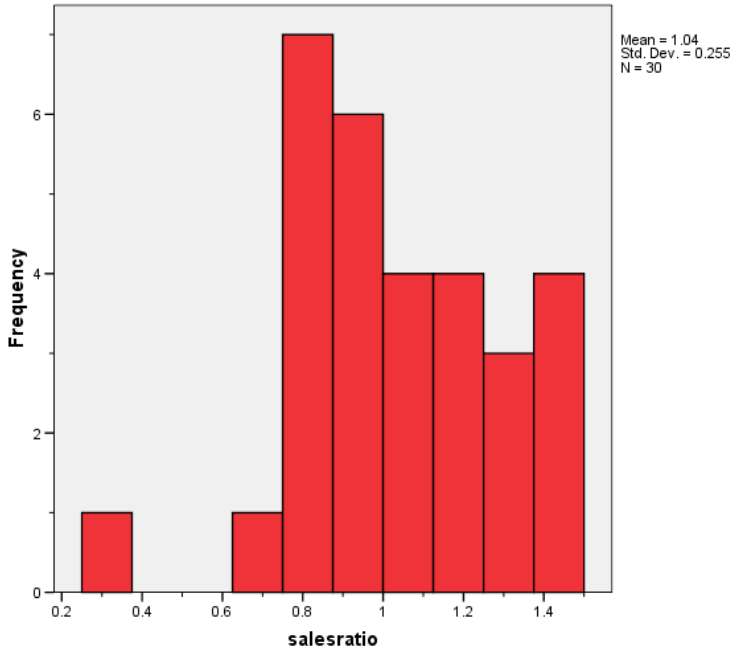
IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

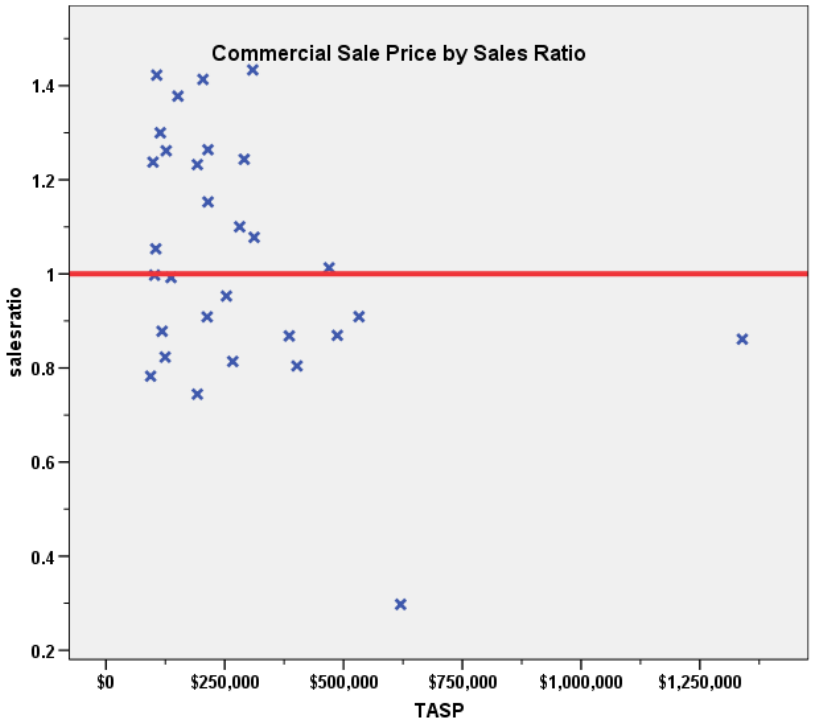
There were 30 qualified residential sales for the 60 month sale period ending June 30, 2012. The sales ratio analysis was analyzed as follows:

The sales ratio analysis was analyzed as follows:

Median	**1.005**
Price Related Differential	**1.084**
Coefficient of Dispersion	**.202**

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





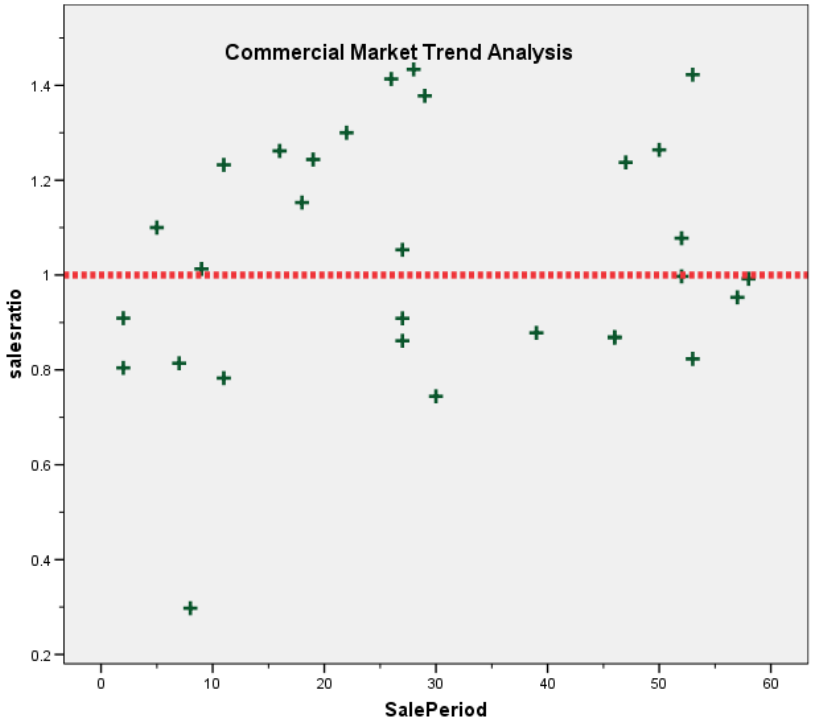
Commercial Market Trend Analysis

The assessor did not apply any market trend adjustment to the commercial dataset. The 30 commercial/industrial sales were analyzed, examining the sale ratios across a 60 month sale period with the following results:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.969	.089		10.902	.000
	SalePeriod	.002	.003	.166	.889	.382

a. Dependent Variable: salesratio



The market trend results indicated no statistically significant trend. We concur that no market trend adjustments were warranted for properties in this class for Park County.

Sold/Unsold Analysis

In terms of the valuation comparison between sold and unsold commercial/industrial properties, we compared the median actual value per square foot for 2013 between each group, as follows:

Subclass	Group	No.	Median	Mean
Total	**Unsold**	225	$101	$166
	Sold	30	$80	$116

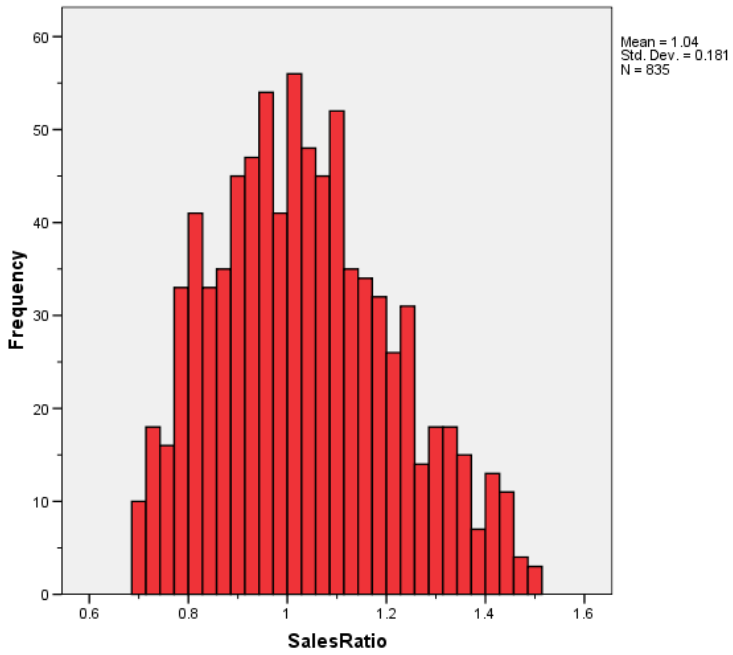
The above results indicate that sold commercial properties and unsold properties were valued in a manner that did not indicate any sale chasing.

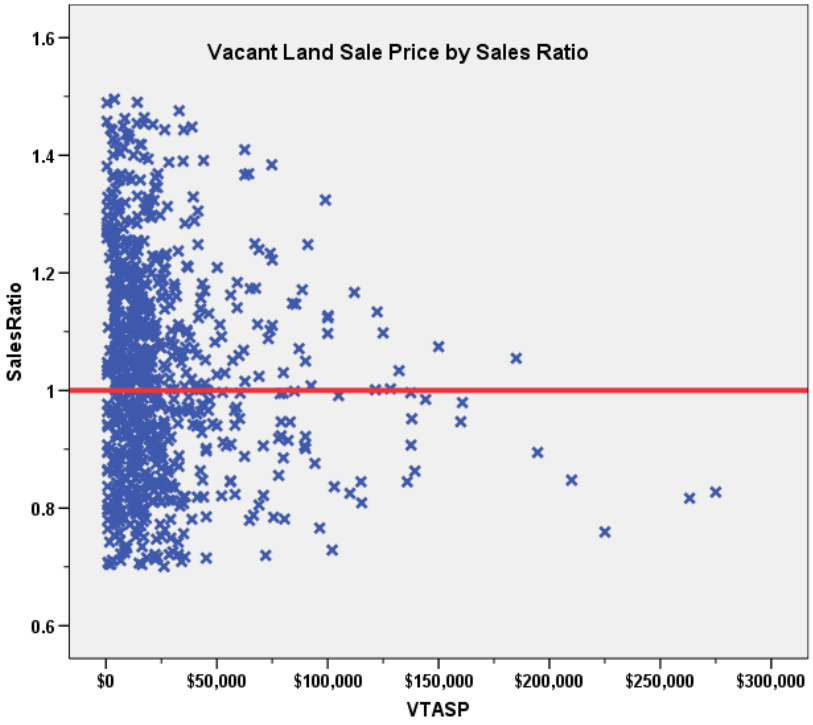
V. VACANT LAND SALE RESULTS

There were 835 qualified residential sales for the 48 month sale period ending June 30, 2012. The sales ratio analysis was analyzed as follows:

Median	**1.021**
Price Related Differential	**1.030**
Coefficient of Dispersion	**.144**

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





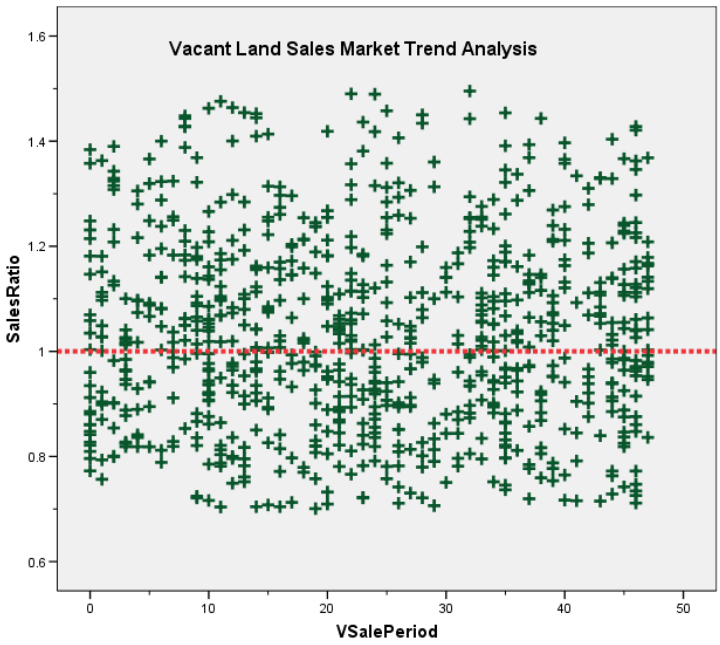
Vacant Land Market Trend Analysis

The assessor did apply market trend adjustment to the vacant land dataset. We analyzed the sales ratios for vacant land sales, based on the time adjusted sale price (TASP) and the actual land value to determine if there was any residual time trending in the vacant land valuations. The 835 vacant land sales were analyzed, examining the sales ratios across the 48 month sale period with the following results:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.039	.012		84.991	.000
	VSalePeriod	.000	.000	-.010	-.287	.774

a. Dependent Variable: SalesRatio



The market trend analysis indicated no statistically significant trend. Based on these results, we concluded that the assessor has adequately considered market trending in their vacant land valuations.

Sold/Unsold Analysis

We compared the median change in actual value between 2012 and 2013 for vacant land properties to determine if sold and unsold properties were valued consistently, as follows:

Group	No.	Median	Mean
Unsold	23,159	0.76	0.88
Sold	835	0.82	0.82

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

V. AGRICULTURAL IMPROVEMENTS ANALYSIS

The final statistical verification concerned the assigned actual values for agricultural residential improvements. We compared the actual value per square foot rate for this group and compared it to rates assigned to residential single family improvements in Park County.

The following indicates that agricultural residential improvements were valued in a manner similar to the single family residential improvements in this county:

Descriptives

	ABSTRIMP			Statistic	Std. Error
ImpValSF	SFR	Mean		$124.40	$.521
		95% Confidence Interval for Mean	Lower Bound	$123.38	
			Upper Bound	$125.42	
		5% Trimmed Mean		$121.59	
		Median		$119.49	
		Variance		3045.957	
		Std. Deviation		$55.190	
		Minimum		$3	
		Maximum		$2,077	
		Range		$2,073	
		Interquartile Range		$60	
		Skewness		5.593	.023
		Kurtosis		152.709	.046
	Ag Res	Mean		$126.08	$4.068
		95% Confidence Interval for Mean	Lower Bound	$118.07	
			Upper Bound	$134.10	
		5% Trimmed Mean		$120.46	
		Median		$116.63	
		Variance		3640.752	
		Std. Deviation		$60.339	
		Minimum		$14	
		Maximum		$405	
		Range		$391	
		Interquartile Range		$67	
		Skewness		1.791	.164
		Kurtosis		5.320	.327

VI. CONCLUSIONS

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

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
1.052	1.043	1.061	1.029	1.017	1.043	95.1%	1.032	1.022	1.041	1.019	.129	15.7%

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.

Commercial/Industrial

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
1.036	.941	1.131	1.005	.878	1.232	95.7%	.956	.832	1.080	1.084	.202	24.6%

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

Vacant Land

Ratio Statistics for 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
1.036	1.024	1.049	1.021	1.007	1.040	95.5%	1.007	.990	1.023	1.030	.144	17.4%

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	.1%
	$25K to $50K	8	.6%
	$50K to $100K	109	8.6%
	$100K to $150K	258	20.4%
	$150K to $200K	301	23.8%
	$200K to $300K	396	31.3%
	$300K to $500K	175	13.8%
	$500K to $750K	11	.9%
	$750K to $1,000K	8	.6%
Overall		1267	100.0%
Excluded		0	
Total		1267	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
LT $25K	1.277	1.000	.000	.%
$25K to $50K	.944	1.002	.138	17.3%
$50K to $100K	1.202	.999	.133	16.1%
$100K to $150K	1.084	1.001	.130	15.7%
$150K to $200K	1.038	1.001	.121	15.3%
$200K to $300K	1.003	1.001	.110	14.1%
$300K to $500K	.960	.999	.120	16.2%
$500K to $750K	.937	.996	.152	20.4%
$750K to $1,000K	.975	1.000	.073	10.4%
Overall	1.029	1.019	.129	16.2%

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	1212	1262	99.6%
	1215	1	.1%
	1230	3	.2%
	4278	1	.1%
Overall		1267	100.0%
Excluded		0	
Total		1267	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
1212	1.029	1.019	.129	16.2%
1215	1.169	1.000	.000	.%
1230	1.217	1.086	.114	22.6%
4278	1.192	1.000	.000	.%
Overall	1.029	1.019	.129	16.2%

Age

Case Processing Summary

		Count	Percent
AgeRec	Over 100	4	.3%
	75 to 100	13	1.0%
	50 to 75	33	2.6%
	25 to 50	370	29.2%
	5 to 25	739	58.3%
	5 or Newer	108	8.5%
Overall		1267	100.0%
Excluded		0	
Total		1267	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
Over 100	1.077	1.001	.130	21.0%
75 to 100	1.086	.980	.115	15.9%
50 to 75	1.088	1.045	.144	18.0%
25 to 50	1.040	1.017	.130	16.4%
5 to 25	1.023	1.018	.131	16.4%
5 or Newer	1.028	1.016	.106	13.2%
Overall	1.029	1.019	.129	16.2%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	LE 500 sf	10	.8%
	500 to 1,000 sf	296	23.4%
	1,000 to 1,500 sf	532	42.0%
	1,500 to 2,000 sf	273	21.5%
	2,000 to 3,000 sf	132	10.4%
	3,000 sf or Higher	24	1.9%
Overall		1267	100.0%
Excluded		0	
Total		1267	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
LE 500 sf	1.079	.976	.156	19.1%
500 to 1,000 sf	1.045	1.027	.131	16.3%
1,000 to 1,500 sf	1.022	1.018	.124	15.6%
1,500 to 2,000 sf	1.029	1.021	.126	15.9%
2,000 to 3,000 sf	1.012	1.013	.141	17.7%
3,000 sf or Higher	1.175	1.010	.130	15.6%
Overall	1.029	1.019	.129	16.2%

Improvement Quality

Case Processing Summary

		Count	Percent
QUALITY	Average	478	37.7%
	Average Plus	368	29.0%
	Excellent	3	.2%
	Fair	188	14.8%
	Fair Plus	90	7.1%
	Good	102	8.1%
	Good Plus	1	.1%
	Low	4	.3%
	Low Plus	19	1.5%
	Very Good	14	1.1%
Overall		1267	100.0%
Excluded		0	
Total		1267	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation: Median Centered
Average	1.025	1.015	.132	16.6%
Average Plus	1.025	1.019	.122	15.5%
Excellent	1.188	1.028	.112	17.0%
Fair	1.058	1.018	.139	17.2%
Fair Plus	1.014	1.022	.128	16.8%
Good	1.022	1.022	.109	13.7%
Good Plus	.912	1.000	.000	.%
Low	1.090	1.033	.203	23.9%
Low Plus	1.088	1.013	.128	16.6%
Very Good	1.061	1.018	.121	16.3%
Overall	1.029	1.019	.129	16.2%

Improvement Condition

Case Processing Summary

		Count	Percent
CONDITION	Average	729	57.5%
	Badly Worn	11	.9%
	Excellent	1	.1%
	Fair	185	14.6%
	Good	336	26.5%
	Very Good	4	.3%
	Worn Out	1	.1%
Overall		1267	100.0%
Excluded		0	
Total		1267	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation: Median Centered
Average	1.027	1.016	.132	16.5%
Badly Worn	1.080	.983	.142	18.9%
Excellent	1.412	1.000	.000	.%
Fair	1.056	1.017	.142	17.5%
Good	1.015	1.020	.113	14.7%
Very Good	1.014	.968	.080	9.9%
Worn Out	.903	1.000	.000	.%
Overall	1.029	1.019	.129	16.2%

Commercial Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	$50K to $100K	2	6.7%
	$100K to $150K	8	26.7%
	$150K to $200K	3	10.0%
	$200K to $300K	8	26.7%
	$300K to $500K	6	20.0%
	$500K to $750K	2	6.7%
	Over $1,000K	1	3.3%
Overall		30	100.0%
Excluded		0	
Total		30	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation: Median Centered
$50K to $100K	1.010	.994	.225	31.9%
$100K to $150K	1.025	1.005	.164	21.9%
$150K to $200K	1.232	1.018	.171	29.2%
$200K to $300K	1.127	1.007	.144	18.1%
$300K to $500K	.941	1.024	.174	25.8%
$500K to $750K	.603	1.040	.507	71.7%
Over $1,000K	.861	1.000	.000	.%
Overall	1.005	1.084	.202	25.5%

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	1212	1	3.3%
	1548	1	3.3%
	1712	3	10.0%
	1714	1	3.3%
	1716	1	3.3%
	1879	1	3.3%
	1880	1	3.3%
	2102	1	3.3%
	2212	10	33.3%
	2214	1	3.3%
	2216	1	3.3%
	2218	1	3.3%
	2220	1	3.3%
	2221	1	3.3%
	2222	2	6.7%
	2224	1	3.3%
	2225	1	3.3%
	2230	1	3.3%
Overall		30	100.0%
Excluded		0	
Total		30	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation: Median Centered
1212	.861	1.000	.000	.%
1548	1.413	1.000	.000	.%
1712	1.100	1.033	.129	20.2%
1714	1.434	1.000	.000	.%
1716	1.264	1.000	.000	.%
1879	.909	1.000	.000	.%
1880	1.153	1.000	.000	.%
2102	1.232	1.000	.000	.%
2212	.894	1.150	.239	34.4%
2214	1.078	1.000	.000	.%
2216	.814	1.000	.000	.%
2218	.869	1.000	.000	.%
2220	.992	1.000	.000	.%
2221	1.238	1.000	.000	.%
2222	1.024	1.036	.215	30.3%
2224	1.300	1.000	.000	.%
2225	.868	1.000	.000	.%
2230	.997	1.000	.000	.%
Overall	1.005	1.084	.202	25.5%

Age

Case Processing Summary

		Count	Percent
AgeRec	Over 100	2	6.7%
	75 to 100	2	6.7%
	50 to 75	9	30.0%
	25 to 50	8	26.7%
	5 to 25	9	30.0%
Overall		30	100.0%
Excluded		0	
Total		30	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
Over 100	1.065	.994	.011	1.6%
75 to 100	1.336	.964	.073	10.4%
50 to 75	1.153	1.033	.159	19.6%
25 to 50	.909	.995	.129	18.5%
5 to 25	.869	1.132	.256	38.1%
Overall	1.005	1.084	.202	25.5%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	500 to 1,000 sf	4	13.3%
	1,000 to 1,500 sf	5	16.7%
	1,500 to 2,000 sf	3	10.0%
	2,000 to 3,000 sf	5	16.7%
	3,000 sf or Higher	13	43.3%
Overall		30	100.0%
Excluded		0	
Total		30	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
500 to 1,000 sf	.819	.982	.140	29.3%
1,000 to 1,500 sf	1.053	.994	.099	13.3%
1,500 to 2,000 sf	1.264	1.498	.264	54.1%
2,000 to 3,000 sf	.953	1.115	.224	31.4%
3,000 sf or Higher	1.013	1.052	.175	23.0%
Overall	1.005	1.084	.202	25.5%

Improvement Quality

Case Processing Summary

		Count	Percent
QUALITY	Average	20	66.7%
	Average Plus	4	13.3%
	Fair	3	10.0%
	Fair Plus	1	3.3%
	Good	1	3.3%
	Low	1	3.3%
Overall		30	100.0%
Excluded		0	
Total		30	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation: Median Centered
Average	.973	1.045	.153	18.6%
Average Plus	.962	1.043	.221	29.2%
Fair	1.262	.963	.110	17.1%
Fair Plus	1.434	1.000	.000	.%
Good	.297	1.000	.000	.%
Low	1.422	1.000	.000	.%
Overall	1.005	1.084	.202	25.5%

Improvement Condition

Case Processing Summary

		Count	Percent
CONDITION	Average	10	33.3%
	Badly Worn	2	6.7%
	Fair	11	36.7%
	Good	7	23.3%
Overall		30	100.0%
Excluded		0	
Total		30	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation: Median Centered
Average	.983	1.038	.139	17.4%
Badly Worn	1.157	.992	.090	12.7%
Fair	.997	1.084	.224	28.2%
Good	.909	1.134	.292	39.6%
Overall	1.005	1.084	.202	25.5%

Vacant Land Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	LT $25K	593	71.0%
	$25K to $50K	140	16.8%
	$50K to $100K	74	8.9%
	$100K to $150K	20	2.4%
	$150K to $200K	4	.5%
	$200K to $300K	4	.5%
Overall		835	100.0%
Excluded		0	
Total		835	

Ratio Statistics for CURRLND / VTASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation: Median Centered
LT $25K	1.040	1.012	.145	17.7%
$25K to $50K	1.001	1.000	.139	17.7%
$50K to $100K	1.003	1.000	.133	16.4%
$100K to $150K	.988	.998	.103	12.9%
$150K to $200K	.963	1.001	.050	7.0%
$200K to $300K	.822	1.000	.030	4.8%
Overall	1.021	1.030	.144	17.7%

Subclass

Case Processing Summary

		Count	Percent
ABSTRLND	100	749	89.7%
	103	20	2.4%
	105	14	1.7%
	255	1	.1%
	315	1	.1%
	520	3	.4%
	530	4	.5%
	540	2	.2%
	550	22	2.6%
	560	3	.4%
	1112	14	1.7%
	5140	1	.1%
	9199	1	.1%
Overall		835	100.0%
Excluded		0	
Total		835	

Ratio Statistics for CURRLND / VTASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
100	1.021	1.020	.143	17.6%
103	1.097	1.024	.115	16.1%
105	1.109	1.015	.138	18.5%
255	1.410	1.000	.000	.%
315	.805	1.000	.000	.%
520	1.007	1.037	.064	12.1%
530	1.070	.987	.066	7.7%
540	1.011	1.006	.134	18.9%
550	.955	1.095	.157	19.8%
560	.848	1.020	.039	6.2%
1112	.915	1.018	.123	14.4%
5140	1.388	1.000	.000	.%
9199	.980	1.000	.000	.%
Overall	1.021	1.030	.144	17.7%