2 0 1 2
SEDGWICK COUNTY PROPERTY ASSESSMENT STUDY

WILDROSE
APPRAISAL, INCORPORATED
Audit Division
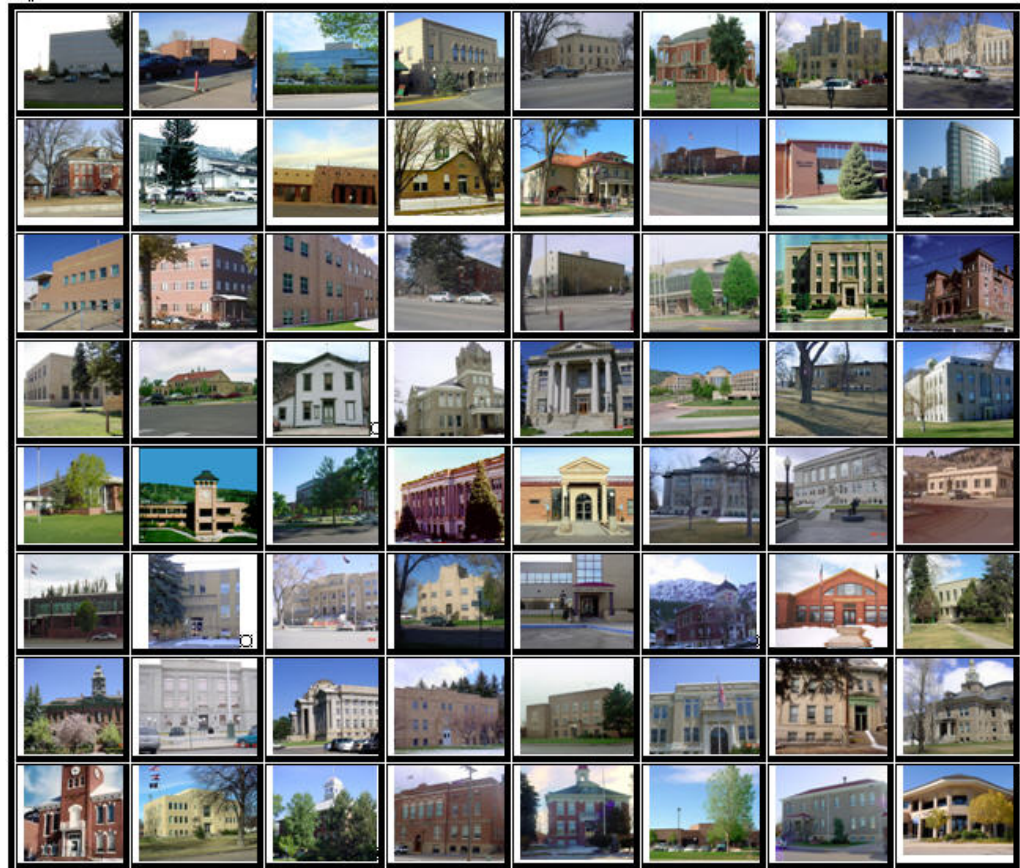
WILDROSE
APPRAISAL, INCORPORATED
Audit Division

September 15, 2012

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

RE: Final Report for the 2012 Colorado Property Assessment Study

Dear Mr. Mauer:

Wildrose Appraisal Inc.-Audit Division is pleased to submit the Final Reports for the 2012 Colorado Property Assessment Study.

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

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

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

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

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

TABLE OF CONTENTS

INTRODUCTION

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

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

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

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

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

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

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

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

Wildrose Audit has completed the Property Assessment Study for 2012 and is pleased to report its findings for Sedgwick County in the following report.

REGIONAL/HISTORICAL SKETCH OF SEDGWICK COUNTY

Regional Information

Sedgwick County is located in the Eastern Plains region of Colorado. The Eastern Plains of Colorado refer to the region on the east side of the Rocky Mountain. It is east of the population centers of the Front Range,

including Baca, Bent, Cheyenne, Crowley, Elbert, Kiowa, Kit Carson, Lincoln, Logan, Morgan, Otero, Phillips, Prowers, Sedgwick, Washington, and Yuma counties.

Historical Information

Sedgwick County has a population of approximately 2,379 people with 4.34 people per square mile, according to the U.S. Census Bureau's 2010 census data. This represents a -13.4 percent change from the 2000 Census.

Sedgwick County is the northeasternmost of the 64 Colorado counties. The county was named for Fort Sedgwick, a military post along the Platte Trail, which was named for General John Sedgwick.

The county seat, Julesburg, was originally a stage station on the old Overland Trail and was named for Jules Beni, who owned a local ranch and trading post. A short time after his post was established the government built Fort Sedgwick close to this little settlement and established a military reservation surrounding the Fort including Jules' property. This Fort was attacked and burned by the Indians and a second Julesburg was built.

At first known as Denver Junction, the present town location was determined when the Union Pacific Railroad came in 1867 and the town found itself several miles from the rails, so it was moved from its site near the river to the railroad. When the branch line of the Union Pacific was built to Denver in 1881 Julesburg made its fourth and last move, building around the railroad at the point of the junction. As part of the Transcontinental Railroad, this area is still rich in railroad history. Julesburg was also the site of a Pony Express station in those days.

To this point, Julesburg has been washed away by the South Platte River and rebuilt four times.

Julesburg typified the frontier town of the rip-roaring days of westward expansion. For months it was the western terminus of the Union Pacific Railroad Company when gamblers, dance hall girls, cowboys, railroad workers, and all of the camp followers of the construction gang swelled its population to four or five thousand roistering souls and Julesburg was then known as the "Wickedest City in the West."

It was the junction point on the Overland Trail, where the wagon trains and stagecoaches either left the main trail to go to Denver and the mining camps of the mountains or continued on to Cheyenne, WY and over the mountains to California or the Pacific Northwest.

Today, Julesburg is unique in enjoying two harvest seasons - in July it hums with the activity of wheat harvest and in October the irrigation farmers harvest their fall crops including corn and beets. Julesburg is located on one of the major flight paths of migratory birds. During the hunting season many sportsmen come to enjoy the hunting to be found along the river and in the grain and corn fields of the tablelands.
(www.Wikipedia.org ,www.sangres.com,
http: townofjulesburg.com)

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 Sedgwick County are:

Sedgwick County Ratio Grid					
Property Class	Number of Qualified Sales	Unweighted Median Ratio	Price Related Differential	Coefficient of Dispersion	Time Trend Analysis
Commercial/Industrial	14	0.955	0.999	14.9	Compliant
Condominium	N/A	N/A	N/A	N/A	N/A
Single Family	39	1.033	1.048	15.4	Compliant
Vacant Land	N/A	N/A	N/A	N/A	N/A

After applying the above described methodologies, it is concluded from the sales ratios that Sedgwick 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, Sedgwick County has accurately transferred sales data from the recorded deeds to the qualified or unqualified database.

Recommendations

None

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 Sedgwick County has complied with the statutory requirements to analyze the effects of time on value in their county. Sedgwick 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

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

All qualified residential and commercial class properties were examined using the unit value method, where the actual value per square foot was compared between sold and unsold properties. A class was considered qualified if it met the criteria for the ratio analysis. The median value per square foot for both groups was compared from an appraisal and statistical perspective. If no significant difference was indicated, then we concluded that no further testing was warranted and that the county was in compliance in terms of sold/unsold consistency.

If either residential or commercial differences were significant using the unit value method, or if data limitations made the comparison invalid, then the next step was to perform a ratio analysis comparing the 2010 and 2012 actual values for each qualified class of property. All qualified vacant land classes were tested using this method. The sale property ratios were arrayed using a range of 0.8 to 1.5, which theoretically excluded changes between years that were due to other unrelated changes in the property. These ratios were also stratified at the appropriate level of analysis. Once the percent change was determined for each appropriate class and sub-class, the next step was to select the unsold sample. This sample was at least 1% of the total population of unsold properties and excluded any sale properties. The unsold sample was filtered based on the attributes of the sold dataset to closely correlate both groups. The ratio analysis was then performed on the unsold properties and stratified. The median and mean ratio distribution was then compared between the sold and unsold group. A non-parametric test such as the Mann-Whitney test for differences between independent samples was undertaken to determine whether any observed differential was significant. If this test determined that the unsold properties were treated in a manner similar to the sold properties, it was concluded that no further testing was warranted and that the county was in compliance.

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

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

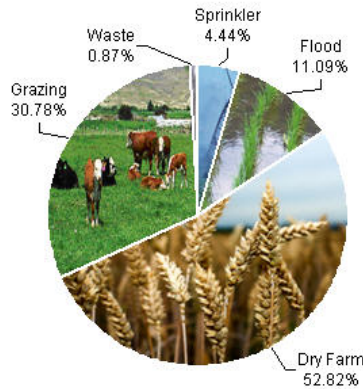| Sold/Unsold Results	
Property Class	**Results**
Commercial/Industrial	Compliant
Condominium	N/A
Single Family	Compliant
Vacant Land	N/A

Conclusions

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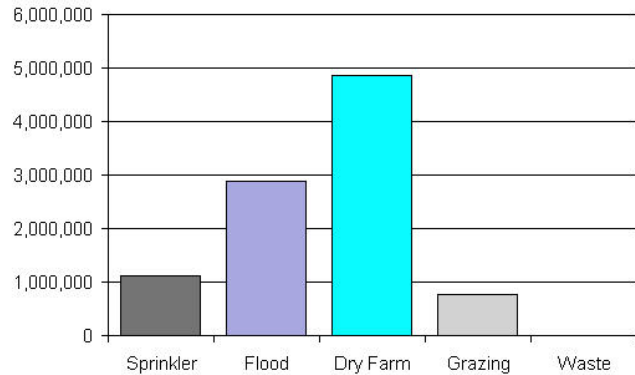
Recommendations

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:

Sedgwick County Agricultural Land Ratio Grid						
Abstract Code	Land Class	Number Of Acres	County Value Per Acre	County Assessed Total Value	WRA Total Value	Ratio
4107	Sprinkler	13,738	82.00	1,121,136	1,198,947	0.94
4117	Flood	34,282	84.00	2,887,606	3,120,203	0.93
4127	Dry Farm	163,304	30.00	4,871,373	4,721,244	1.03
4147	Grazing	95,161	8.00	759,514	759,514	1.00
4167	Waste	2,700	2.00	4,358	0	1.00
Total/Avg		309,185	31.00	9,643,986	9,804,266	0.98

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

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

Recommendations

None

Agricultural Land Under Improvements

Methodology

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

Conclusions

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

Recommendations

None

SALES VERIFICATION

According to Colorado Revised Statutes:

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

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

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

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

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

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

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

WRA reviewed the sales verification procedures in 2012 for Sedgwick County. This study was conducted by checking selected sales from the master sales list for the current valuation period. Specifically WRA selected 14 sales listed as unqualified.

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

Conclusions

Sedgwick 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

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

Producing Oil and Gas Procedures

Methodology

Assessors Reference Library (ARL) Volume 3, Chapter 6: Valuation of Natural Resources

STATUTORY REFERENCES

Section § 39-1-103, C.R.S., specifies that producing oil or gas leaseholds and lands are valued according to article 7 of title 39, C.R.S.
Actual value determined - when.
(2) The valuation for assessment of leaseholds and lands producing oil or gas shall be determined as provided in article 7 of this title.
§ 39-1-103, C.R.S.
Article 7 covers the listing, valuation, and assessment of producing oil and gas leaseholds and lands.

Valuation:
Valuation for assessment.
(1) Except as provided in subsection (2) of this section, on the basis of the information contained in such statement, the assessor shall value such oil and gas leaseholds and lands for

assessment, as real property, at an amount equal to eighty-seven and one-half percent of:
(a) The selling price of the oil or gas sold there from during the preceding calendar year, after excluding the selling price of all oil or gas delivered to the United States government or any agency thereof, the state of Colorado or any agency thereof, or any political subdivision of the state as royalty during the preceding calendar year;
(b) The selling price of oil or gas sold in the same field area for oil or gas transported from the premises which is not sold during the preceding calendar year, after excluding the selling price of all oil or gas delivered to the United States government or any agency thereof, the state of Colorado or any agency thereof, or any political subdivision of the state as royalty during the preceding calendar year.
§ 39-7-102, C.R.S.

Conclusions

The county applied approved appraisal procedures in the valuation of oil and gas.

Recommendations

None

Sedgwick County is exempt from the Vacant Land Subdivision Discount Study.

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.

Sedgwick County has been reviewed for their procedures and adherence to guidelines when assessing and valuing agricultural 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

Sedgwick 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

Sedgwick 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.

Sedgwick 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
- 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

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.

Sedgwick County submitted their personal property written audit plan and was current for the 2012 valuation period. The number and listing of businesses audited was also submitted and was in conformance with the written audit plan. The following audit triggers were used by the county to select accounts to be audited:

- New businesses filing for the first time
- Incomplete or inconsistent declarations
- 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

Conclusions

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

Recommendations

None

WILDROSE AUDITOR STAFF

Harry J. Fuller, *Audit Project Manager*

Suzanne Howard, *Audit Administrative Manager*

Steve Kane, *Audit Statistician*

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

J. Andrew Rodriguez, *Field Analyst*

APPENDICES

STATISTICAL COMPLIANCE REPORT
FOR SEDGWICK COUNTY
2012

I. OVERVIEW

Sedgwick County is located in northeastern Colorado. The county has a total of 2,921 real property parcels, according to data submitted by the county assessor's office in 2012. The following provides a breakdown of property classes for this county:
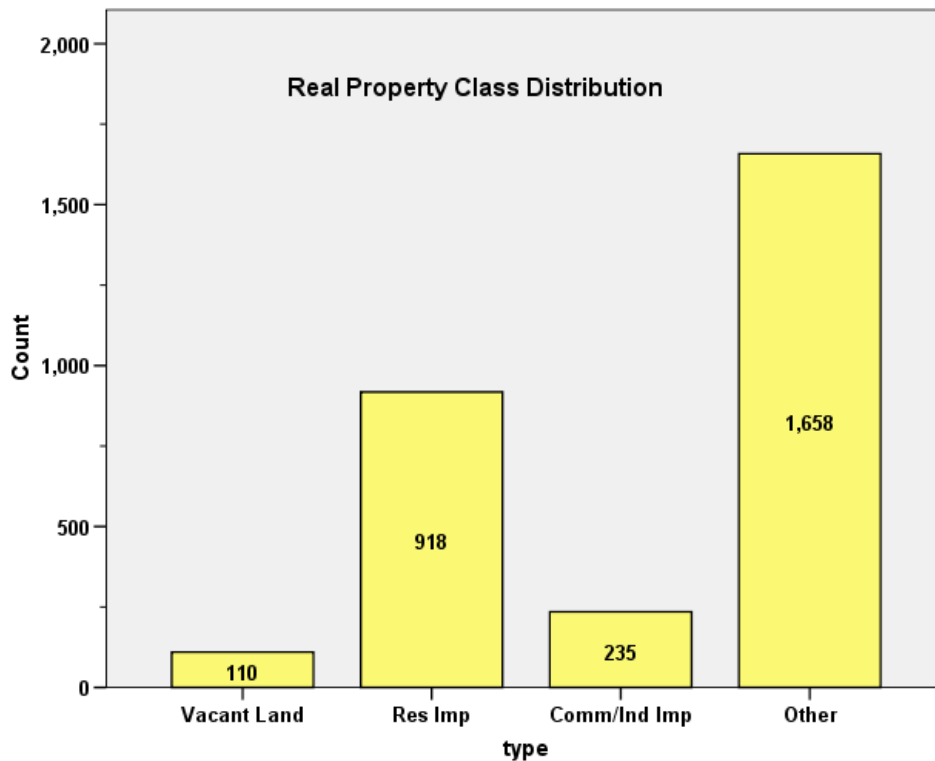
The vacant land class of properties was dominated by residential land. Residential lots (coded 100 and 1112) accounted for 57.2% of all vacant land parcels.

For residential improved properties, single family properties accounted for 89.9% of all residential properties.

Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial sales accounted for 0.8% of all such properties in this county.

II. DATA FILES

The following sales analyses were based on the requirements of the 2012 Colorado Property Assessment Study. Information was provided by the Sedgwick Assessor's Office in May 2012. The data included the 5 property record files specified by the Auditor. The residential and commercial sales were also provided in separate files.

III. RESIDENTIAL SALES RESULTS

As noted, the assessor provided a separate sales file of the qualified residential sales used by the assessor to determine values. There were **39 qualified residential sales**. The sales period was between January 2009 and June 2010.

The sales ratio analysis results were as follows:

Median	1.033
Price Related Differential	1.048
Coefficient of Dispersion	.154

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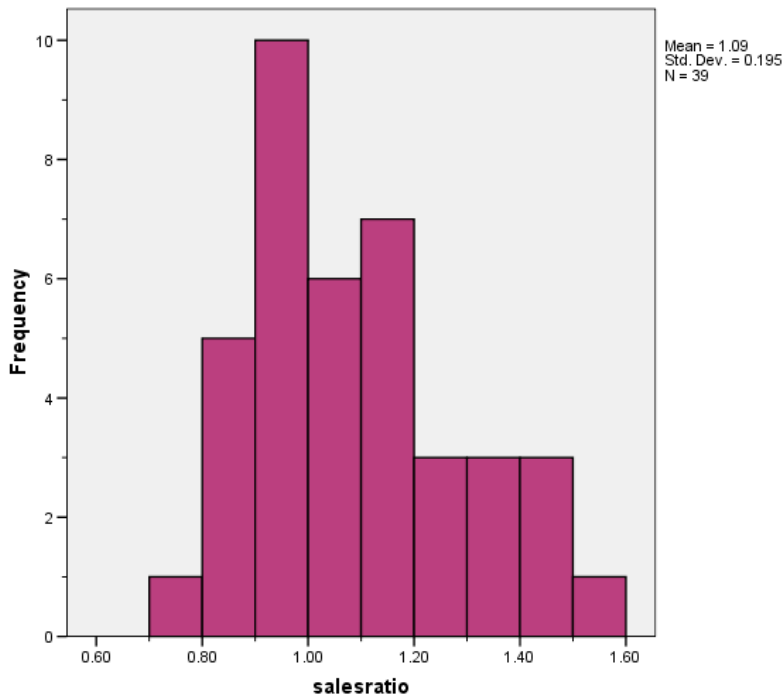
The above graphs indicate that the distribution of the sale ratios was within state mandated limits. No sales were trimmed.

Residential Market Trend Analysis

We next analyzed the residential dataset using the 18-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)	1.057	.055		19.095	.000
	SalePeriod	.005	.006	.130	.799	.430

a. Dependent Variable: salesratio

Residential Sale Price Market Trend
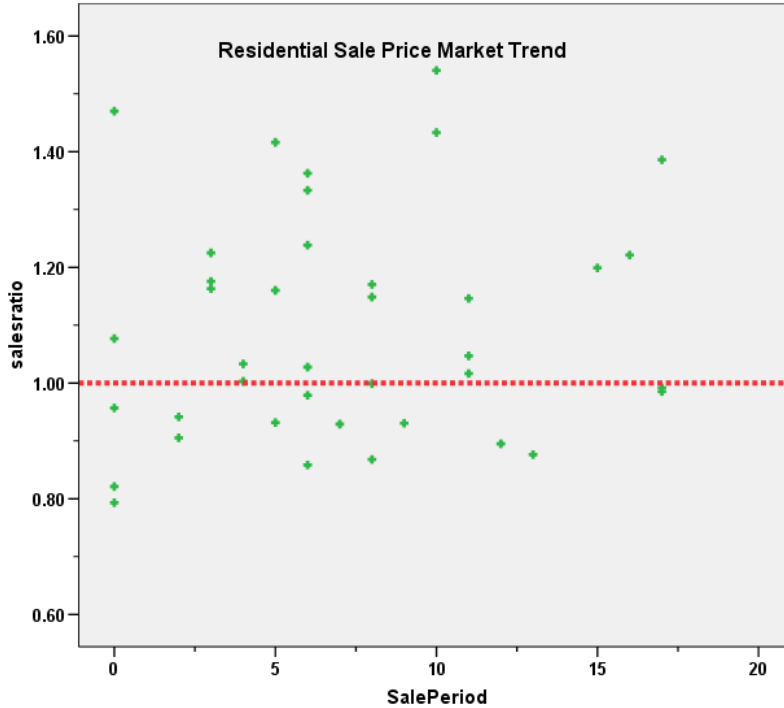
With no significant statistical trend evident in the sales ratio data, the above analysis indicated that the assessor has adequately addressed market trending in the valuation of residential properties.

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 2012 between each group, as follows:

Group	No.	Median	Mean
Unsold	796	$36	$51
Sold	29	$39	$38

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

IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

We were provided a commercial sale file, which was augmented by additional sales over the five year period prior to June 2010. Because there were fewer than 30 sales, 16 supplemental appraisals of unsold commercial/industrial properties were completed to bring the total number of analyzed properties to 30 for the final sales ratio analysis. We used all 30 sold and appraised properties for the ratio analysis, and the 14 sold properties for the market trending and sold/unsold analysis.

Median	0.955
Price Related Differential	0.999
Coefficient of Dispersion	.149

These results indicate that the sales ratio median ratio and COD for this class of property are in compliance. The following histogram and scatter plot describe the sales ratio distribution further:

Mean = 0.94
Std. Dev. = 0.177
N = 30

Commercial Sale Price by Sales Ratio
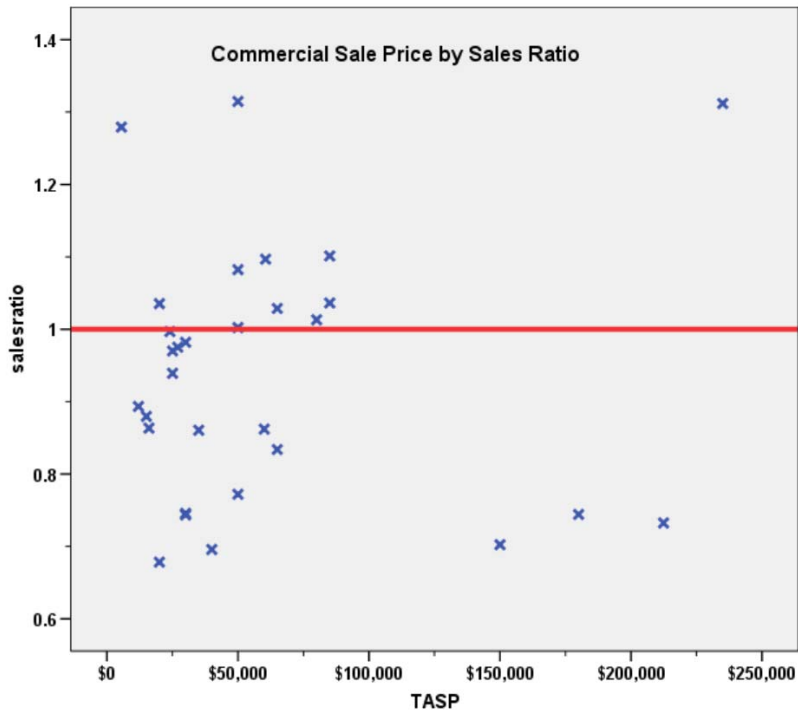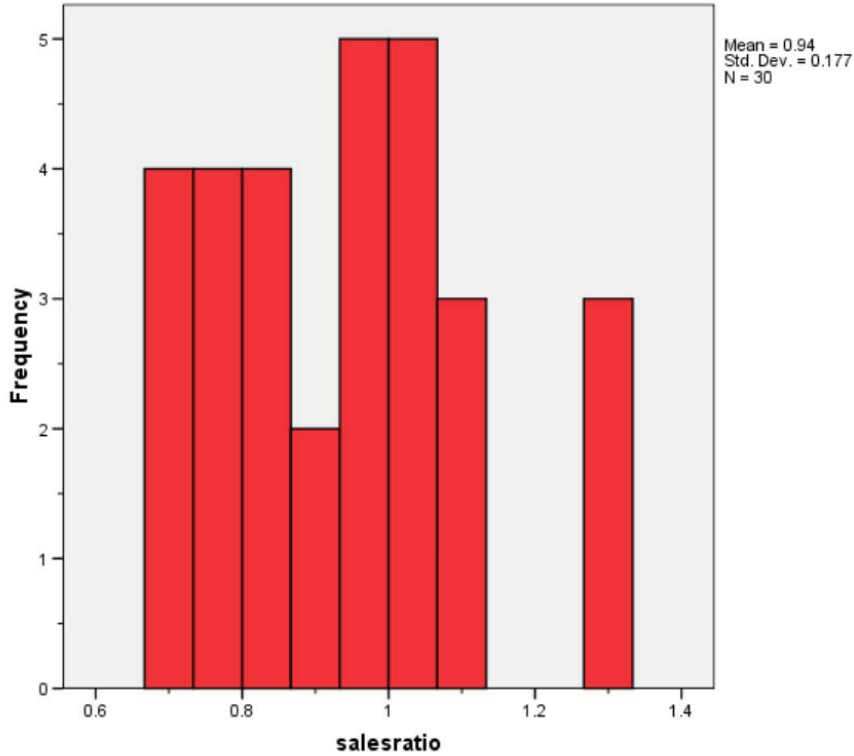
Commercial/Industrial Market Trend Analysis

The assessor did not apply any market trend adjustment to the commercial/industrial dataset. The 14 commercial/industrial sales were analyzed, examining the sale ratios across an 60-month sale period with the following results:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.985	.114		8.639	.000
	SalePeriod	-.001	.003	-.075	-.260	.799

a. Dependent Variable: salesratio
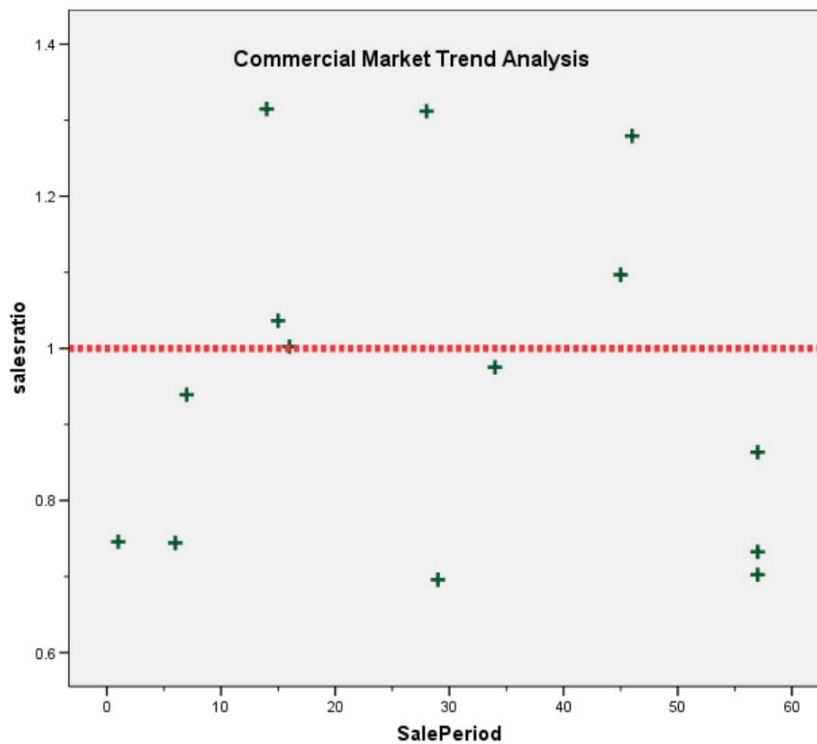
Sold/Unsold Analysis

We compared the median change in value between 2011 and 2012 between sold and unsold commercial properties, as follows:

Group	No.	Median Chg Val	Mean Chg Val
Unsold	220	1.000	1.000
Sold	14	1.000	1.010

The above results indicate that the assessor has valued sold and unsold commercial/industrial properties consistently.

V. VACANT LAND SALE RESULTS

Due to the number of vacant land properties in Sedgwick County, it was exempted from further analysis for this class of property.

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 Sedgwick 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	1212	Mean		$56.15	$3.534
		95% Confidence Interval for Mean	Lower Bound	$48.92	
			Upper Bound	$63.38	
		5% Trimmed Mean		$55.28	
		Median		$51.05	
		Variance		374.740	
		Std. Deviation		$19.358	
		Minimum		$18	
		Maximum		$114	
		Range		$96	
		Interquartile Range		$22	
		Skewness		.897	.427
		Kurtosis		1.760	.833
	4277	Mean		$50.91	$6.051
		95% Confidence Interval for Mean	Lower Bound	$38.28	
			Upper Bound	$63.53	
		5% Trimmed Mean		$50.96	
		Median		$59.63	
		Variance		768.840	
		Std. Deviation		$27.728	
		Minimum		$0	
		Maximum		$101	
		Range		$100	
		Interquartile Range		$45	
		Skewness		-.136	.501
		Kurtosis		-.864	.972

VI. CONCLUSIONS

Based on the above analysis, residential, commercial and agricultural residential properties were in compliance.

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			Mean Centered
1.094	1.030	1.157	1.033	.979	1.170	97.6%	1.043	.988	1.098	1.048	.154	17.9%

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

Commercial

Ratio Statistics for CurrTot / TASP

Mean	95% Confidence Interval for Mean		Median	95% Confidence Interval for Median			Weighted Mean	95% Confidence Interval for Weighted Mean		Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
	Lower Bound	Upper Bound		Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound			Mean Centered
.939	.873	1.005	.955	.861	1.013	95.7%	.940	.809	1.071	.999	.149	18.9%

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

Residential Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	LT $25K	11	28.2%
	$25K to $50K	11	28.2%
	$50K to $100K	15	38.5%
	$100K to $150K	1	2.6%
	$150K to $200K	1	2.6%
Overall		39	100.0%
Excluded		0	
Total		39	

Ratio Statistics for CurrTot / TASP

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
LT $25K	1.160	1.000	.164	20.0%
$25K to $50K	1.077	1.010	.117	16.2%
$50K to $100K	.942	1.011	.143	19.6%
$100K to $150K	.999	1.000	.000	.%
$150K to $200K	.992	1.000	.000	.%
Overall	1.033	1.048	.154	19.8%

Sub-Class

Case Processing Summary

		Count	Percent
Abstrimp	0	1	2.6%
	1212	29	74.4%
	1212	1	2.6%
	1215	1	2.6%
	1224	1	2.6%
	1228	1	2.6%
	1235	1	2.6%
	1826	1	2.6%
	2746	1	2.6%
	4279	1	2.6%
	4279	1	2.6%
Overall		39	100.0%
Excluded		0	
Total		39	

Ratio Statistics for CurrTot / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
0	.957	1.000	.000	.%
1212	1.033	1.063	.156	19.9%
1212	1.199	1.000	.000	.%
1215	1.386	1.000	.000	.%
1224	1.225	1.000	.000	.%
1228	.992	1.000	.000	.%
1235	1.470	1.000	.000	.%
1826	.979	1.000	.000	.%
2746	.942	1.000	.000	.%
4279	1.028	1.000	.000	.%
4279	1.149	1.000	.000	.%
Overall	1.033	1.048	.154	19.8%

Improvement Age

Case Processing Summary

		Count	Percent
AgeRec	0	1	2.6%
	Over 100	3	7.7%
	75 to 100	18	46.2%
	50 to 75	7	17.9%
	25 to 50	7	17.9%
	5 to 25	3	7.7%
Overall		39	100.0%
Excluded		0	
Total		39	

Ratio Statistics for CurrTot / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
0	.957	1.000	.000	.%
Over 100	.985	1.055	.206	40.0%
75 to 100	1.113	1.061	.152	17.9%
50 to 75	.979	1.013	.150	21.2%
25 to 50	1.033	1.035	.069	9.7%
5 to 25	1.225	1.062	.144	21.6%
Overall	1.033	1.048	.154	19.8%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	0	1	2.6%
	500 to 1,000 sf	12	30.8%
	1,000 to 1,500 sf	12	30.8%
	1,500 to 2,000 sf	2	5.1%
	2,000 to 3,000 sf	7	17.9%
	3,000 sf or Higher	5	12.8%
Overall		39	100.0%
Excluded		0	
Total		39	

Ratio Statistics for CurrTot / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
0	.957	1.000	.000	.%
500 to 1,000 sf	1.162	1.033	.139	17.9%
1,000 to 1,500 sf	1.030	1.029	.126	17.7%
1,500 to 2,000 sf	1.158	.984	.197	27.8%
2,000 to 3,000 sf	.999	1.039	.170	21.5%
3,000 sf or Higher	.992	1.018	.086	13.4%
Overall	1.033	1.048	.154	19.8%

Improvement Quality

Case Processing Summary

		Count	Percent
Quality		1	2.6%
	Average	27	69.2%
	Fair	6	15.4%
	Fair Plus	1	2.6%
	Good	1	2.6%
	Low	3	7.7%
Overall		39	100.0%
Excluded		0	
Total		39	

Ratio Statistics for CurrTot / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
	.957	1.000	.000	.%
Average	1.028	1.049	.135	17.9%
Fair	1.112	.996	.182	21.4%
Fair Plus	1.363	1.000	.000	.%
Good	1.146	1.000	.000	.%
Low	1.225	.963	.146	22.1%
Overall	1.033	1.048	.154	19.8%

Improvement Condition

Case Processing Summary

		Count	Percent
Condition		1	2.6%
	Average	34	87.2%
	Badly Worn	2	5.1%
	Good	2	5.1%
Overall		39	100.0%
Excluded		0	
Total		39	

Ratio Statistics for CurrTot / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
	.957	1.000	.000	.%
Average	1.062	1.054	.155	19.2%
Badly Worn	.955	.990	.025	3.5%
Good	.970	1.166	.182	25.7%
Overall	1.033	1.048	.154	19.8%

Commercial Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	LT $25K	9	30.0%
	$25K to $50K	10	33.3%
	$50K to $100K	7	23.3%
	$100K to $150K	1	3.3%
	$150K to $200K	1	3.3%
	$200K to $300K	2	6.7%
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
LT $25K	.939	1.023	.114	17.2%
$25K to $50K	.918	.980	.168	21.0%
$50K to $100K	1.029	.993	.073	10.9%
$100K to $150K	.702	1.000	.000	.%
$150K to $200K	.744	1.000	.000	.%
$200K to $300K	1.022	.986	.283	40.1%
Overall	.955	.999	.149	18.7%

Sub-Class

Case Processing Summary

		Count	Percent
Abstrimp	2212	18	60.0%
	2220	4	13.3%
	2227	1	3.3%
	2230	6	20.0%
	2235	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
2212	.976	.934	.154	19.5%
2220	.836	1.091	.145	17.0%
2227	.744	1.000	.000	.%
2230	.933	1.046	.131	18.6%
2235	1.036	1.000	.000	.%
Overall	.955	.999	.149	18.7%

Improvement Age

Case Processing Summary

		Count	Percent
AgeRec	Over 100	2	6.7%
	75 to 100	6	20.0%
	50 to 75	6	20.0%
	25 to 50	13	43.3%
	5 to 25	3	10.0%
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	.934	.984	.174	24.6%
75 to 100	.915	1.038	.200	25.4%
50 to 75	.989	.974	.075	15.0%
25 to 50	.863	.952	.135	19.7%
5 to 25	1.035	1.102	.115	20.4%
Overall	.955	.999	.149	18.7%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	LE 500 sf	8	26.7%
	500 to 1,000 sf	4	13.3%
	1,000 to 1,500 sf	2	6.7%
	1,500 to 2,000 sf	1	3.3%
	2,000 to 3,000 sf	5	16.7%
	3,000 sf or Higher	10	33.3%
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
LE 500 sf	.957	.995	.097	14.3%
500 to 1,000 sf	.887	1.004	.105	16.7%
1,000 to 1,500 sf	.933	.963	.074	10.5%
1,500 to 2,000 sf	.862	1.000	.000	.%
2,000 to 3,000 sf	.970	.985	.124	16.2%
3,000 sf or Higher	1.025	1.052	.203	24.5%
Overall	.955	.999	.149	18.7%

Improvement Quality

Case Processing Summary

		Count	Percent
Quality	Average	24	80.0%
	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	.979	.998	.142	18.4%
Fair	.894	.987	.034	6.2%
Fair Plus	.746	1.000	.000	.%
Good	.744	1.000	.000	.%
Low	1.279	1.000	.000	.%
Overall	.955	.999	.149	18.7%

Improvement Condition

Case Processing Summary

		Count	Percent
Condition	Average	28	93.3%
	Good	1	3.3%
	Worn Out	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	1.004	.146	18.6%
Good	.744	1.000	.000	.%
Worn Out	.894	1.000	.000	.%
Overall	.955	.999	.149	18.7%