

2004
Douglas County

PROPERTY ASSESSMENT STUDY

Prepared for The Colorado Legislative Council



ROCKY MOUNTAIN

VALUATION SPECIALISTS

Douglas County

Property Assessment Study

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Property Assessment Study

Douglas County

INTRODUCTION

Beginning in 1967 and continuing through the present, the Tax Commission and its successor, the Division of Property Taxation, have conducted a sales valuation analysis (sales ratio study) each year. In the analysis, the sales prices of properties are compared to their assessed valuations to determine how well assessed valuations reflect real property values.

In 1982, the voters of Colorado approved an amendment to the State Constitution which affected the manner in which property is assessed. This amendment was proposed in anticipation of implementation of the 1977 level of value during 1983.

The Amendment requires appropriate consideration of the three approaches to value: cost, market, and income. There are two exceptions to this requirement. Residential property is valued on market and cost only. Agricultural land is valued solely on the earning or productive capacity of such lands.

All property is assessed at 29% of actual value with two exceptions. Residential property, the first exception, is assessed at its yearly determined assessed value. Producing mines and oil and gas leaseholds are the second exception and are assessed at a portion of annual production.

Also, beginning in 1983, the State Board of Equalization was to review assessments for conformance to the Constitution. The State Board will order

revaluations for counties whose valuations do not reflect the 1977 level of value.

C.R.S. 39-1-104 (16) (a) (b) and (c) outlined how this was to be accomplished by stating that during each property tax year, the Director of Research of the Legislative Council shall contract with a private person for a valuation for assessment study. The study shall be conducted in all counties of the state to determine whether or not the assessor of each county has, in fact, used all manuals, formulas, and other directives required by law to arrive at the valuation for assessment of each and every class of real and personal property in the county. The person conducting the study shall sample each class of property in a statistically valid manner and the aggregate of such sampling shall equal at least one percent of all properties in each county of the state. The sampling shall show that the various areas, ages of buildings, economic conditions and uses of properties have been sampled. Such study shall be completed and a final report of the findings and conclusions thereof shall be submitted to the state board of equalization by September 15 of the year in which the study is conducted.

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, develops time adjustments and performs and plans periodic physical property inspections. The audit also examines the procedures for discovering, classifying and valuing subdivision build-out and subdivision discounting procedures. Valuation methodology for residential properties and commercial properties is examined. Procedures for producing mines, oil and gas leaseholds and lands producing, producing coalmines, producing earth and stone products, severed mineral interests, and non-producing patented mining claims are also reviewed.

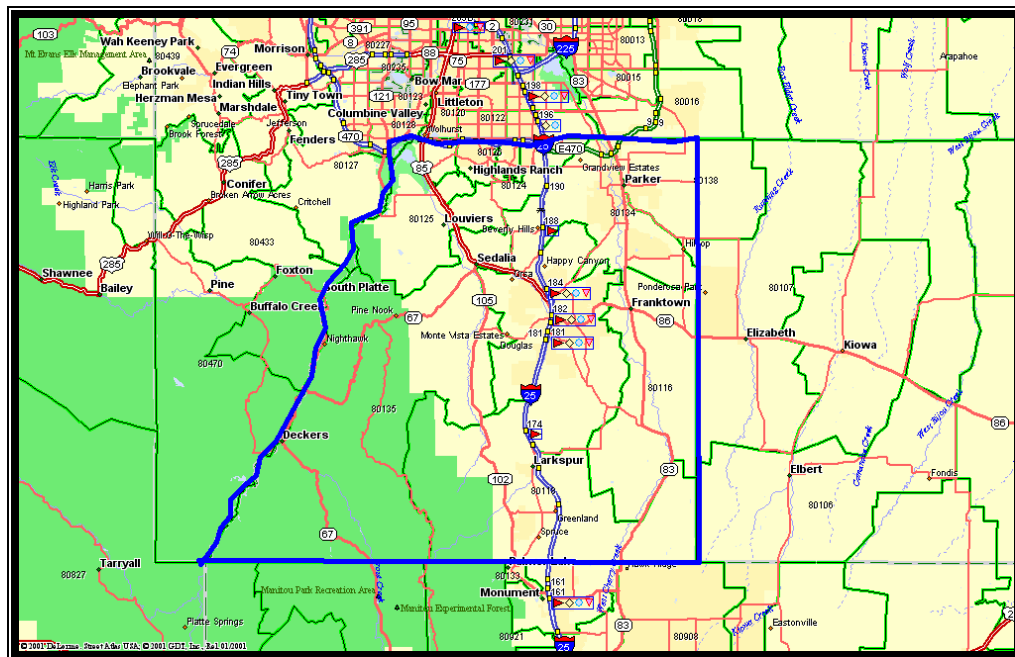
Statistical analysis is also performed on vacant land, residential properties, commercial/industrial properties, agricultural land, agricultural residences and outbuildings, other agricultural properties and personal property.

RMVS has completed the Property Assessment Study for 2004 and is pleased to report its findings for Douglas County in the following report.

HISTORICAL SKETCH OF DOUGLAS COUNTY

Douglas County was established in 1861 with 843 square miles and has an approximate population of 60,391. It was named for Stephen A Douglas.

The county seat is Castle Rock, so named for the nearby castellated rock formation which was given its name by Dr. Edwin James, botanist of Major Stephen Long's 1820 expedition. (William Bright, Colorado Place Names, Johnson Books, 1993, p.44 and 26)



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 2001 and June 2002. Counties with less than 30 sales were allowed to extend the sale period back 5 years prior to June 30, 2002 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 to fall below 30. Although we examined grouping smaller counties by economic region to augment commercial sale totals, we still examined each county individually for compliance. There were no sale quantity issues for counties requiring vacant land analysis or condominium analysis. Although the requirement was to 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. For counties with obvious outliers, the data was trimmed to include only sale ratios between 0.25 and 2.0. In every case, we examined the loss in data by this trimming method to insure that only true outliers were excluded. Any county with a significant portion of sales excluded by this trimming method were examined further. In no case was a county allowed to pass the audit if more than 10% 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 found for your county are:

RATIO GRID					
Property Class	Number of Qualified Sales	Unweighted Median Ratio	Price Related Differential	Coefficient of Dispersion	Time Trend Analysis
Commercial/ Industrial	41	0.989	0.997	10.1	Compliant
Condominium	N/A	N/A	N/A	N/A	N/A
Single Family	14,161	0.987	1.006	5.9	Compliant
Vacant Land	711	0.973	1.151	17.6	Compliant

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
1	.988	1.007	.053
2	.980	1.004	.055
3	.986	1.008	.061
4	1.002	1.006	.068
5	.994	1.012	.081
6	.998	1.010	.096
7	.737	1.000	.142
8	.990	1.009	.069
Overall	.987	1.006	.059

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

Recommendations

None

TIME TRENDING VERIFICATION

Methodology

To verify if time trending analysis was considered by each county for each appropriate class of property, we used an inverted ratio regression analysis where the sale price was divided by the 2002 assessed total value (2002 assessed land value for vacant land) for each sale. The resulting ratios were trimmed if there were any identified outliers. The reported time trending for each county was tested against the time trend model developed by the auditor. When appropriate, the time trending analysis was broken down by economic area or sub-class, as in the case of counties with significant condominium properties. Our goal was to validate, not replicate, the county's time trending methodology. For classes with significant trends, the actual monthly adjustment used by the county was compared to the coefficient we derived for the same data. Appraisal judgment was also considered. As long as the assessor could justify to the auditor the modification of a demonstrable trend based on an appraisal rationale, the county was found in compliance. Any discrepancy was noted and discussed with the county assessor. Also considered was the length of the sale period and the number of actual sales. Counties with very small sale amounts were analyzed, but this was carefully weighted against the statistical significance and relevance of the sale data quantity.

Conclusions

After verification and analysis, Douglas County is determined to comply with the statutory requirements to analyze the effects of time on value in Douglas County. Douglas 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

Douglas County was tested for the equal treatment of sold and unsold properties to verify that "sales chasing" had not occurred. The auditors employed a two-tiered process to determine how unsold properties were considered. The first tier test was a ratio analysis using the 2002 and 2004 actual values for each qualified class of property. A class was considered qualified if it met the criteria for the ratio analysis. 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. The goal was to construct the proper decision tree to select the unsold sample. 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 next tier test was 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, the conclusion was that the county had treated the unsold properties in a different manner than the sold. In other words, it was concluded that the county had chased sales.

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

Conclusions

UNSOLD/UNSOLD RESULTS	
Property Class	Result
Commercial/Industrial	Compliant
Condominium	N/A
Single Family	Compliant
Vacant Land	Compliant

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

Recommendations

None

AGRICULTURAL LAND STUDY

Agricultural Land

Methodology

In 2003 a field study was conducted in Douglas County. The land was classified using the Soil Survey developed by the Natural Resources Conservation Service. This provided the basis for the production classes for the various use types of agricultural lands. Yields established by the county were compared to the yields reported in CAS. The county was checked to see if carrying capacities for grazing land had been established using range site data and local surveys. Expenses were reviewed to assure that only those expenses that were proper and necessary were used. Also, each agricultural land class formula was reviewed to ensure that all applicable commodity prices, expenses and other directives provided by the Division of Property Taxation (DPT) were used. In addition, a minimum of one percent of the land was physically reviewed. In 2004 the values of the different agricultural classes were compared with the 2003 values to see if there had been any changes in excess of 5%. If there were changes in value in excess of 5% the counties were queried to see if the changes were in conformance with DPT guidelines for changes during an intervening year.

Conclusions

An analysis of the data collected for agricultural lands indicates an acceptable level has been achieved. Yields used by the county compare favorably with those published in CAS. Expenses used in the formulas were within a reasonable range and were all allowable expenses. Directives provided by the DPT were utilized. The percentage of change from 2003 to 2004 was within DPT guidelines.

Agricultural Residences

Douglas County is exempt from the Agricultural Residence Study.

Agricultural Outbuildings

Douglas County is exempt from the Agricultural Outbuilding Study.

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. RMVS has used the above-cited statutes as a guide in our study of the county's procedures and practices for verifying sales.

RMVS has conducted a study of the sales verification procedures in 2004 for Douglas County. This study was performed by checking selected sales listed as verified by the county for the 2003, 2004 valuation period. Specifically, RMVS selected 60 sales listed as verified but unqualified.

Of the 60 sales checked, 46 gave reasons that were clear and supportable.

The remaining 14 sales needed more explanations and support for the disqualification of the sale.

Conclusions

Douglas County appears to be doing an adequate job of verifying their sales. It is suggested that Douglas County add codes for "in lieu of foreclosure" and "remodeled after sale." It is also suggested that they review the codes for "unusual financing" and "distressed" sales. Sales coded "repairs needed" were generally properties in poor condition and more documentation needs to be provided to explain why they are bad enough to be excluded, as poor condition alone is not sufficient to eliminate them from the study.

Recommendations

None

ECONOMIC AREA REVIEW AND EVALUATION

Economic Area Narrative and Maps

Methodology

Douglas County has submitted a written narrative describing the economic areas that make up the county's market areas. Douglas 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 Douglas County has adequately identified homogeneous 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 the primary method applied to find value for production of earth and stone products. The number of tons was multiplied by an economic location factor that represented the landlord’s royalty. The landlord’s share was multiplied by a recommended Hoskold factor to determine the actual value. The Hoskold factor was determined by the life of the reserves, or the lease. The value was primarily 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

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

Recommendations

None

VACANT LAND

Subdivision Discounting

In 2003 subdivisions were reviewed and 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 present worth method. The market approach was applied where more than 80 percent of the subdivision sites were sold. Questionnaires were mailed to all developers to obtain information regarding expense data for each

subdivision. An absorption period was estimated for each subdivision that was discounted. A discount rate of .13 percent was developed, using the summation method. Subdivision land with structures was appraised at full market value. In 2004, the county is currently applying the recommended methodology in ARL Volume 3 Chapter 4 page 7 in their subdivision discounting pertaining to the intervening year by either reducing the absorption period by one year prior to calculating present worth value for the modified absorption period or, if the number of sales within the approved plat since the current appraisal date is less than the absorption rate per year calculated for the plat, leaving the absorption period unchanged.

Conclusions

Douglas County has implemented proper procedures to adequately estimate value and expenses for subdivisions. Douglas County is also correctly applying the subdivision discounting procedures to qualifying subdivisions for the intervening year.

Recommendations

None

POSSESSORY INTEREST PROPERTIES

Possessory interest property discovery and valuation is described in the Assessor's Reference Library (ARL) Volume 3 section 7 pages 71 through 104 in accordance with the requirements of 39-1-103 (17)(a) (II) C.R.S. Possessory Interest is defined by the Property Tax Administrator's Publication ARL Volume 3, Section 7.79; *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.* This county under audit, has been reviewed for their procedures and adherence to guidelines when assessing and valuing possessory interest properties. The county under audit has also been queried as to their confidence that the possessory interest properties have been discovered and placed on the tax rolls.

Conclusion

Douglas County has implemented a discovery process to place possessory interest properties on the roll. Douglas County also is correctly and consistently applying the correct procedures and valuation methods in the valuation of possessory interest properties.

Recommendations

None

PERSONAL PROPERTY AUDIT

Douglas 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 requirements are outlined as follows:

Use ARL Volume 5 including current discovery, classification, and documentation procedures, and including 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.

Douglas County's median ratio is 1.01. This is in compliance with the State Board of Equalization (SBOE) compliance requirements which range from .90 to 1.10 with no COD requirements.

Douglas 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 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.

Douglas County submitted their personal property written audit plan and was current for the 2004 valuation period. The number and listing of businesses audited was also submitted and was in conformance with the written audit plan. The following audit triggers were used by the county to select accounts to be audited:

- Accounts with obvious discrepancies
- New businesses filing for the first time
- Accounts with greater than 10% change
- Incomplete or inconsistent declarations
- Accounts with omitted property
- Same business type or use
- Non-filing Accounts - Best Information Available
- Accounts close to the \$2,500 actual value exemption status
- Accounts protested with substantial disagreement

RMVS 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.

Conclusions

Douglas 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

RMVS AUDITOR STAFF

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APPENDICES

STATISTICAL ANALYSIS FOR DOUGLAS COUNTY

2004

I. OVERVIEW

Douglas County is an urban county located in the Front Range region of Colorado. The county has a total of 105,143 parcels, according to the land file submitted by the county assessor's office. The following table provides a breakdown of property classes covered in this analysis:

Class	Parcel Count	PERCENT	Sub-Class	Sub-Class Count	Subclass Percent*
<u>Vacant Land</u>	16,876	16.1%		N/A	N/A
Residential	75,454	71.8%			
Commercial/Ind	1,553	1.5%			N/A
Other	11,260	10.7%			N/A
TOTAL	105,143				

*- Percent of Class Total

The vacant land class of properties was dominated by residential land. Vacant Residential Land (coded 0100) accounted for 15,376 of the 16,876 vacant land parcels, or 91.1%.

For residential improved properties, single family properties accounted for 72,951 of the 75,454 residential parcels, or 96.7% of all residential properties. No sub-class breakdowns were indicated. There were 8 economic areas indicated for residential properties; each will be analyzed separately.

Commercial and industrial properties accounted for only 1,553 parcels, or 1.5% of the total parcels in Douglas County.

II. SALES FILE

The following sale analyses were based on the requirements of the 2003 Property Assessment Study, based on information provided by the Douglas County Assessor's Office. The assessor provided a sale file with 29,668 total sales. These sales spanned the period July 2000 to July 2002; the two year period will be used to verify market trending for each class, while the 18-month period between January 2001 and June 2002 will be used to test ratio compliance for each class. Sale after June 30, 2002 were removed from the file as well.

Further data reductions will be described in each property class section.

III. RESIDENTIAL SALES RESULTS

<u>Steps</u>	<u>Results</u>
1. Selected sales coded as "Q"	21,606 Sales
2. Selected improved sales (Status = "I")	20,340 Sales
3. Selected sale with subclass codes 1112 to 1230	19,644 Sales
4. Sales between 1/2001 and 6/2002	14,204 Sales

The following frequency table indicates the number of residential improved sales by economic area for Douglas County:

Case Processing Summary

	Count	Percent
ECONAREA 0	1	.0%
1	4186	29.6%
2	5416	38.2%
3	1577	11.1%
4	2607	18.4%
5	91	.6%
6	49	.3%
7	14	.1%
8	220	1.6%
Overall	14161	100.0%
Excluded	43	
Total	14204	

Based on the number of sales by category, the sale ratio and market trend analyses will be performed by economic area.

The 14,161 sales were analyzed using the required measurements for the level of assessment, as well as for the quality of the assessment. The analysis was broken down by economic area, as follows:

Ratio Statistics for CURRTOT / TASP

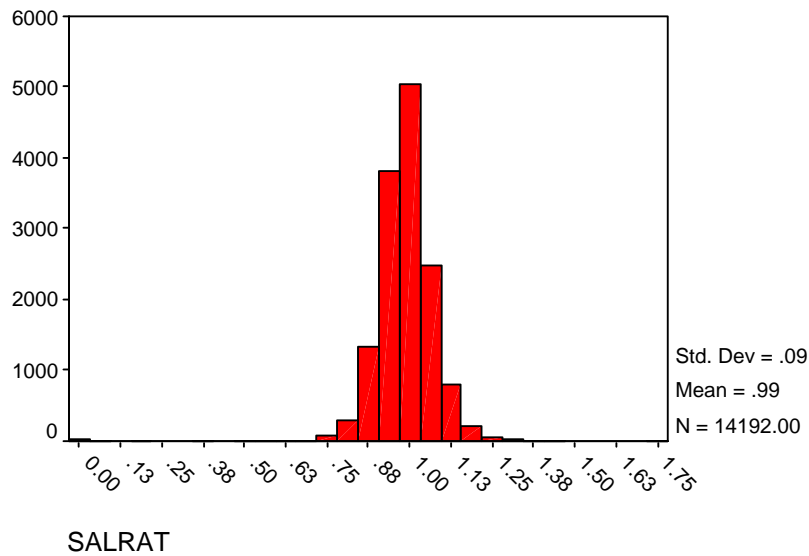
Group	Median	Price Related Differential	Coefficient of Dispersion
1	.988	1.007	.053
2	.980	1.004	.055
3	.986	1.008	.061
4	1.002	1.006	.068

5	.994	1.012	.081
6	.998	1.010	.096
7	.737	1.000	.142
8	.990	1.009	.069
Overall	.987	1.006	.059

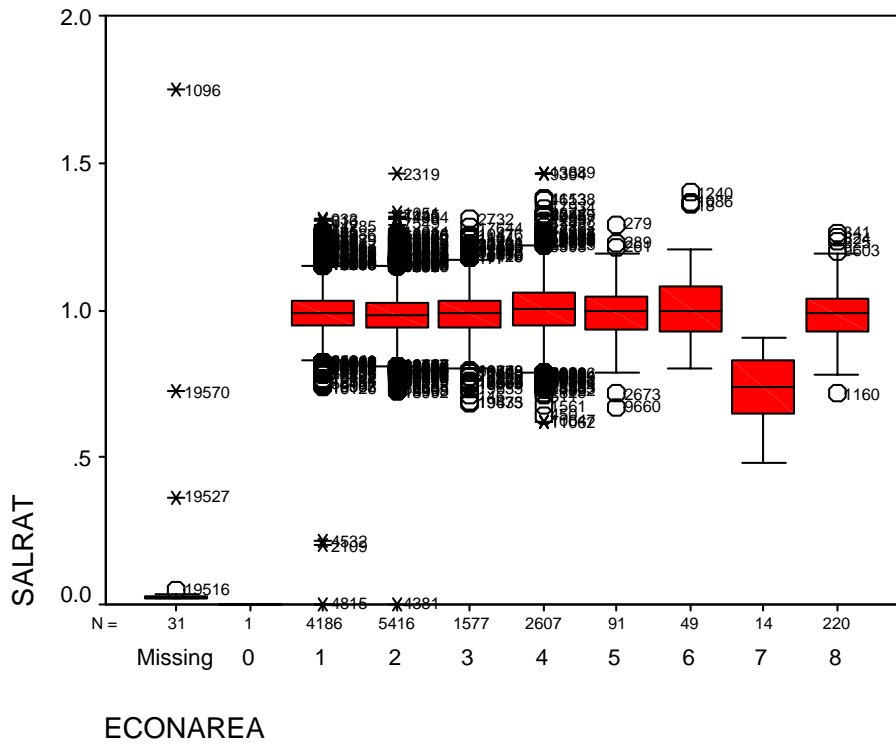
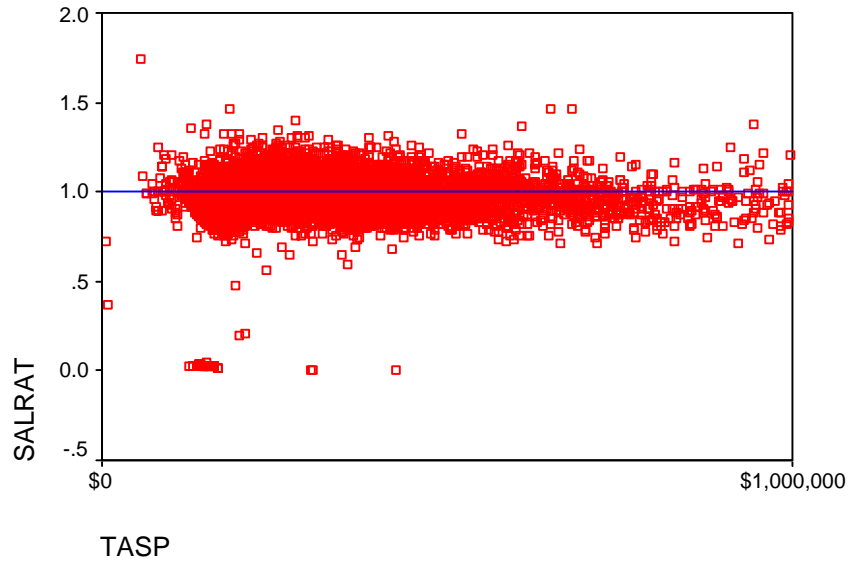
Please note that Economic Area 7 has only 14 sales. All of the other economic areas are in compliance with the standards set forth by the Colorado State Board of Equalization (SBOE) for the overall sales. The following graphical exhibits describe further the sales ratio distribution for all of these properties:

Sales Ratio Analysis

Residential Properties



Sale Ratio by Sale Price Residential Properties



The above graphs indicate that the distribution of the sale ratios was within state mandated limits, and that there is no significant price related differential issues.

Residential Market Trend Analysis

The Douglas County Assessor 2003 Questionnaire report indicated that market trending was tested and applied at the economic area level for residential properties, including single family residences and condominiums.

The following graph and statistical output indicates market trends were applied for some economic areas. The auditor's analysis examined the market trend by economic area, as follows:

MARKET TREND ADJUSTMENT						
ECOAREA	N	Minimum	Maximum	Median	Mean	Auditor Adjustment
1	3946	.0000	.0067	.001876	.001199	YES
2	5084	.0000	.0057	.003054	.002491	YES
3	1506	.0000	.0091	.005004	.004499	YES
4	2457	.0000	.0070	.003626	.003033	YES
5	87	.0000	.0063	.004553	.004550	YES
6	46	.0000	.0063	.004394	.004542	YES
7	14	.0000	.0000	.000000	.000000	NO
8	202	.0000	.0070	.004838	.004800	YES
Total	13342	.0000	.0091	.003069	.002683	

Coefficients^a

ECONAREA	Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			B	Std. Error	Beta		
1	1	(Constant)	1.193	.003		424.047	.000
		SALPER	-.006	.000	-.406	-31.852	.000
2	1	(Constant)	1.202	.002		509.936	.000
		SALPER	-.006	.000	-.385	-35.813	.000
3	1	(Constant)	1.222	.006		214.732	.000
		SALPER	-.008	.000	-.404	-19.159	.000
4	1	(Constant)	1.223	.004		287.104	.000
		SALPER	-.008	.000	-.407	-25.708	.000
5	1	(Constant)	1.185	.034		35.089	.000
		SALPER	-.004	.002	-.164	-1.751	.083
6	1	(Constant)	1.249	.040		31.406	.000
		SALPER	-.009	.003	-.380	-3.239	.002
7	1	(Constant)	1.435	.113		12.641	.000
		SALPER	-.012	.008	-.386	-1.622	.126
8	1	(Constant)	1.204	.017		70.041	.000
		SALPER	-.004	.001	-.214	-3.731	.000

a. Dependent Variable: ASRAT

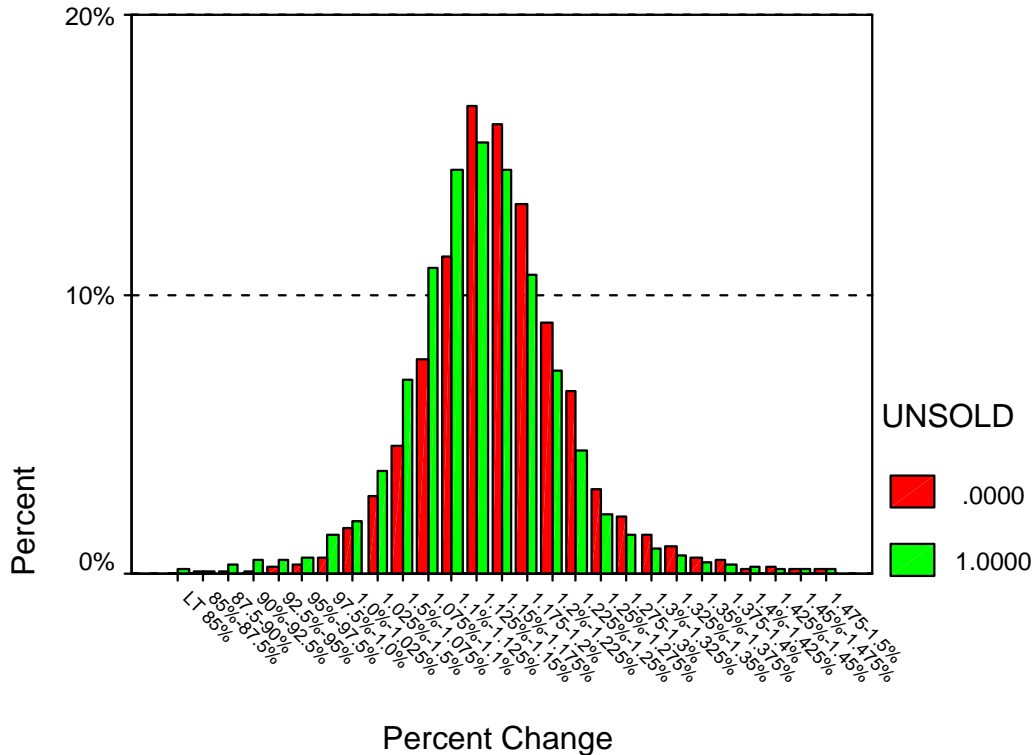
The above table indicates that the regression analysis performed by the auditor agrees with the market trend analysis indicated by the assessor.

Sold/Unsold Analysis

In terms of the consistent treatment of residential sold and unsold properties, we examined the change in value between 2002 and 2004 for residential property values between these two groups. The following table and graph compares the 2002 and 2004 actual values for residential properties in Douglas County, grouped by sold and unsold properties:

UNSOLD	N	Median	Mean
0	16509	1.1561	1.1602
1	47004	1.1388	1.1407
Total	63513	1.1439	1.1458

Residential Sold /Unsold Analysis



IV. COMERCIAL/INDUSTRIAL SALE RESULTS

Commercial Sales

The following schematic diagrams describe the data reduction process commercial/industrial sales:

Steps

Results

- | | |
|---|--------------|
| 1. Selected sales coded as “Q” | 21,606 Sales |
| 2. Selected improved sales (Status = “I”) | 20,340 Sales |
| 3. Selected sale with subclass codes 2112 to 3115 | 56 Sales |
| 4. Sales between 1/2001 and 6/2002 | 41 Sales |

The 41 commercial and industrial sales ranged from January 2001 to June 2002. The following ratio analysis indicates the results:

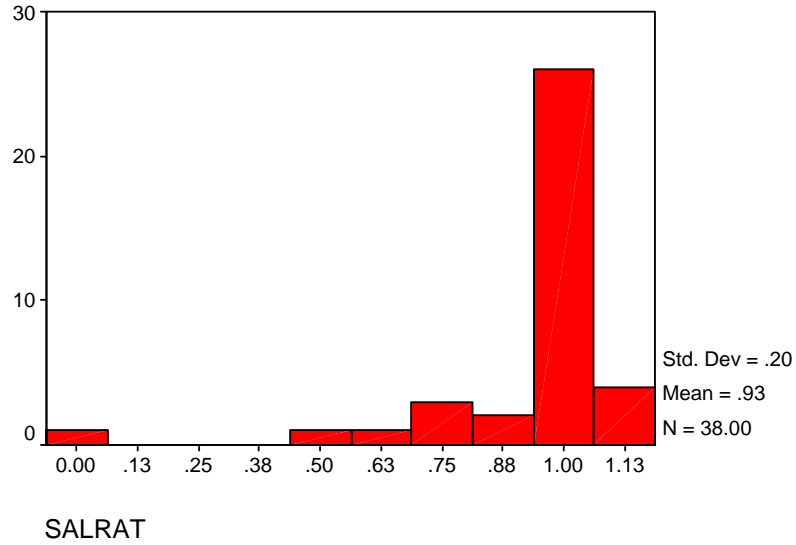
Ratio Statistics for CURRTOT / TASP

Median	.989
Price Related Differential	.997
Coefficient of Dispersion	.101

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

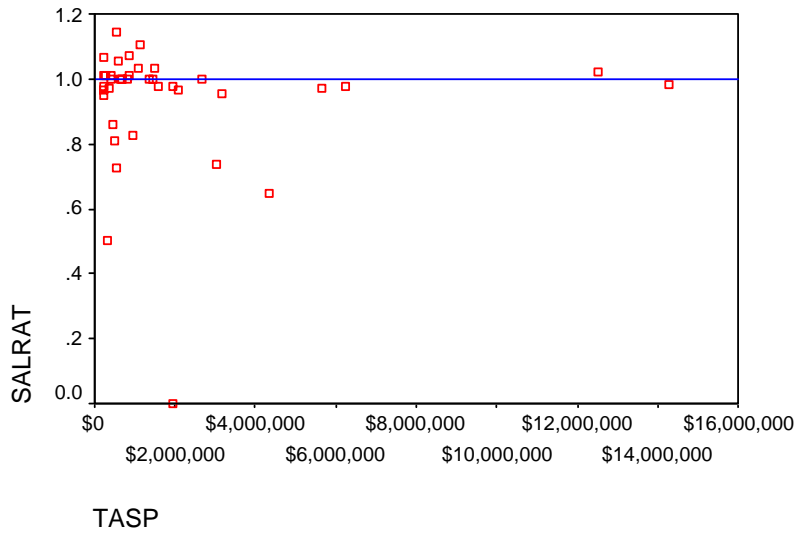
Sales Ratio Analysis

Commercial/Industrial Properties



Sale Ratio by Sale Price

Commercial/Industrial Properties



Commercial Market Trend Analysis

There were not enough commercial properties by subclass to apply any significant market trending, according to the assessor. As noted, there were only 41 commercial and industrial sales for Douglas County that were qualified for this analysis. A market trend analysis was not possible with this few of sales. The auditors concur with the assessor, who did not apply a trend.

The following regression analysis supports this conclusion:

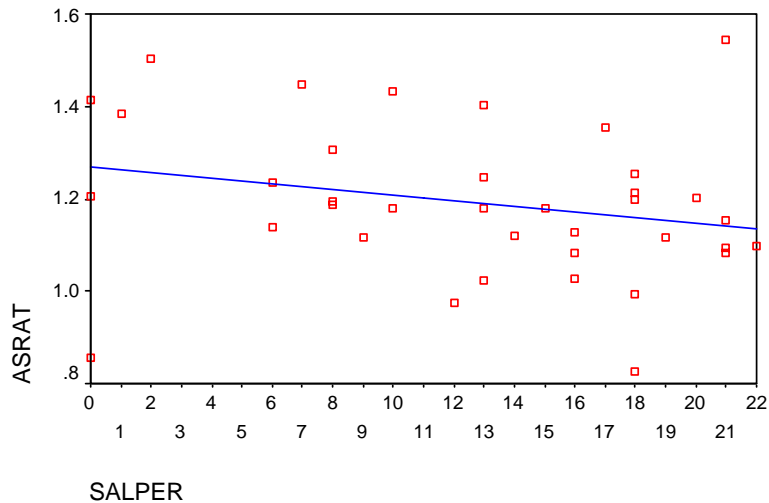
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.270	.058		22.008	.000
	SALPER	-.006	.004	-.249	-1.523	.137

a. Dependent Variable: ASRAT

Comm/Ind Market Trend Analysis

Inverted Ratio Method

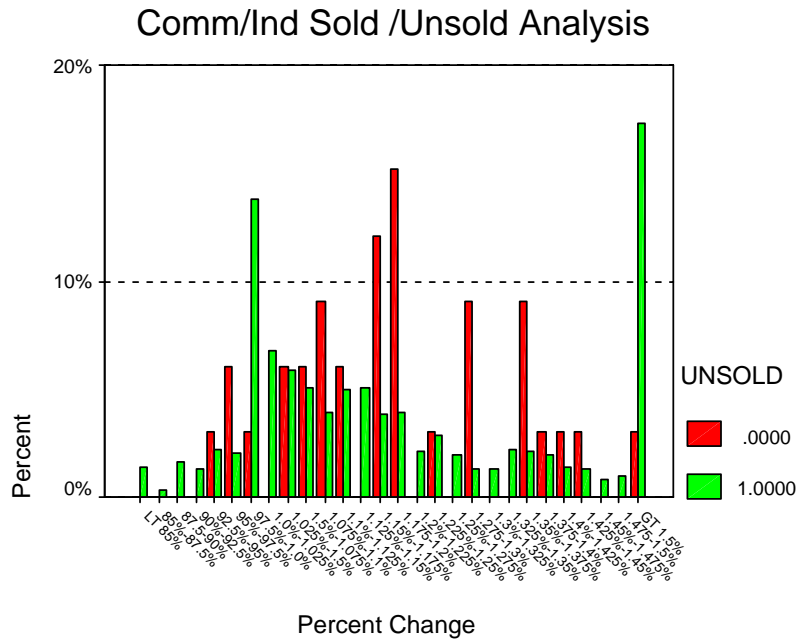


Although the linear trend line in the graph indicates an upward trend, the regression t-value is not significant. The auditors concur with Douglas County that no sale trend should be applied.

Sold/Unsold Analysis

In terms of the consistent treatment of commercial and industrial sold and unsold properties, we examined the change in value between 2002 and 2004 for residential property values between these two groups. The following table and graph compares the 2002 and 2004 actual values for commercial properties in Douglas County, grouped by sold and unsold properties:

GROUP	N	Median	Mean
Sold	33	1.1688	1.1839
Unsold	986	1.1254	1.2531
Total	1019	1.1257	1.2509



V. VACANT LAND SALE RESULTS

<u>Steps</u>	<u>Results</u>
1. Selected sales coded as “Q”	21,606 Sales
2. Selected improved sales (Status = “V”)	1,261 Sales
3. Selected sale with subclass codes LT 4000	1,143 Sales
4. Sales between 1/2001 and 6/2002	711 Sales

The 711 vacant land sales were analyzed using the require measurements for the level of assessment, as well as for the quality of the assessment. The following ratio analysis indicates the results:

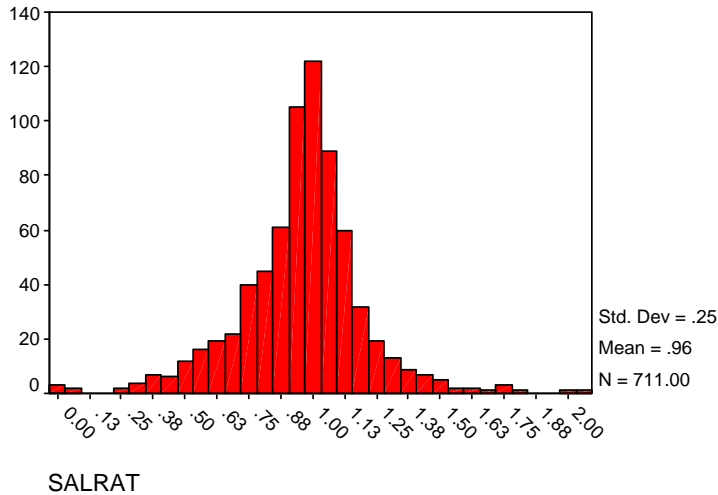
OVERALL Ratio Statistics for CURRTOT / TASP

Median	.973
Price Related Differential	1.151
Coefficient of Dispersion	.176

The following histogram and scatter plot describe the sales ratio distribution for these vacant land sales:

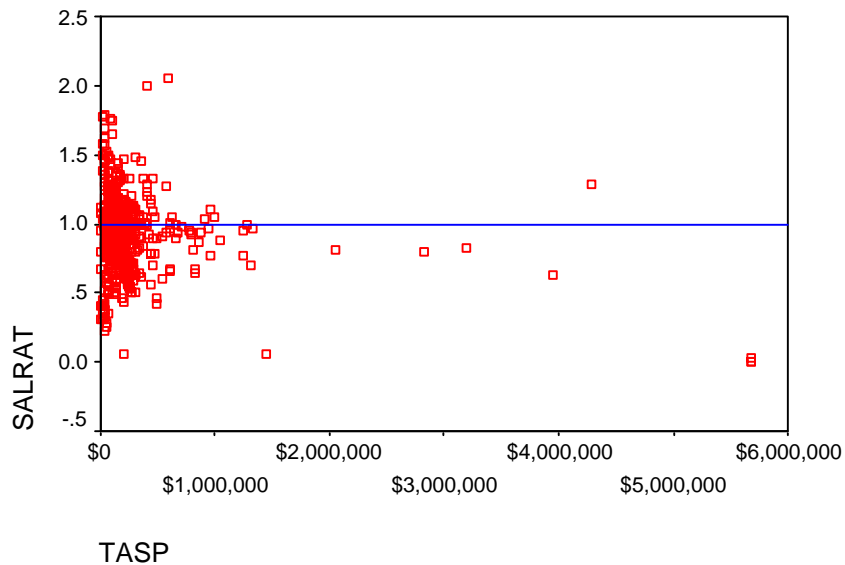
Sales Ratio Analysis

Vacant Land



Sale Ratio by Sale Price

Vacant Land



The above graphs indicate that the distribution of the sale ratios was within state mandated limits; the higher than expected PRD was caused by several high-end sales. When sales are restricted to less than \$1,000,000, the remaining 703 sales had a PRD of 1.018.

Vacant Land Market Trend Analysis

Vacant land sales were also adjusted based on economic area.

The auditor verified market trend factors by economic area, as follows:

MARKET TREND ADJUSTMENT						
ECOAREA	N	Minimum	Maximum	Mean	Median	Auditor Adjustment
1	84	.0000	.0026	.000569	.000000	.0065
2	43	.0000	.0026	.001110	.000935	NO
3	128	.0000	.0058	.000752	.000000	.008
4	101	.0000	.0026	.001109	.000935	.005
5	24	.0000	.0075	.002116	.000000	N/A
6	32	.0000	.0075	.002258	.000964	N/A
7	27	.0000	.0000	.000000	.000000	N/A
8	226	.0000	.0075	.002119	.000000	.005
Total	665	.0000	.0075	.001362	.000000	

Overall, the auditor's adjustments were in general agreement with the county assessor's analysis.

Sold/Unsold Analysis

In terms of the consistent treatment of vacant land sold and unsold properties, we examined the change in value between 2002 and 2004 for vacant land property values between these two groups. The following table compares the 2002 and 2004 actual values for vacant land properties in Douglas County, grouped by sold and unsold properties for select subdivisions:

Report

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SUBDIV	UNSOLD	N	Mean	Median
51	.0000	3	.9713	1.0000
	1.0000	2572	1.0505	1.0000
	Total	2575	1.0504	1.0000
26662	.0000	3	1.1080	1.0227
	1.0000	3	1.0000	1.0000
	Total	6	1.0540	1.0114
71295	.0000	5	1.4188	1.4969
	1.0000	1	1.4969	1.4969
	Total	6	1.4318	1.4969
126460	.0000	3	1.2027	1.2027
	1.0000	18	1.2027	1.2027
	Total	21	1.2027	1.2027
131808	.0000	4	1.3385	1.3385
	1.0000	20	1.3549	1.3385
	Total	24	1.3522	1.3385
134957	.0000	7	1.3636	1.3636
	1.0000	70	1.3391	1.3636
	Total	77	1.3414	1.3636
141307	.0000	14	1.2064	1.2667
	1.0000	44	1.1754	1.2667
	Total	58	1.1829	1.2667
146167	.0000	5	1.0833	1.0833
	1.0000	42	1.0860	1.0833
	Total	47	1.0858	1.0833
146292	.0000	9	1.3800	1.3800
	1.0000	15	1.3800	1.3800
	Total	24	1.3800	1.3800
301952	.0000	4	1.1538	1.1833
	1.0000	9	1.1855	1.1833
	Total	13	1.1757	1.1833
3529009	.0000	9	1.0885	1.0952
	1.0000	10	1.1190	1.0952
	Total	19	1.1046	1.0952
9829016	.0000	5	1.1855	1.1761
	1.0000	29	1.0554	1.0000
	Total	34	1.0745	1.0000
Total	.0000	71	1.2240	1.2667
	1.0000	2833	1.0658	1.0000
	Total	2904	1.0697	1.0000



VII. CONCLUSIONS

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