# 2005 Douglas County

### PROPERTY ASSESSMENT STUDY

**Prepared for The Colorado Legislative Council** 



# **Douglas County**

# **Property Assessment Study**

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### 2005

### **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 that 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 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 they are assessed at a portion of annual production.

Also, beginning in 1983, the State Board of Equalization (SBOE) was to review 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.

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 adequately discovering, classifying and valuing agricultural residences and outbuildings, discovering 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 coal mines, producing earth and stone products, severed mineral interests and non-producing patented mining claims are also reviewed.

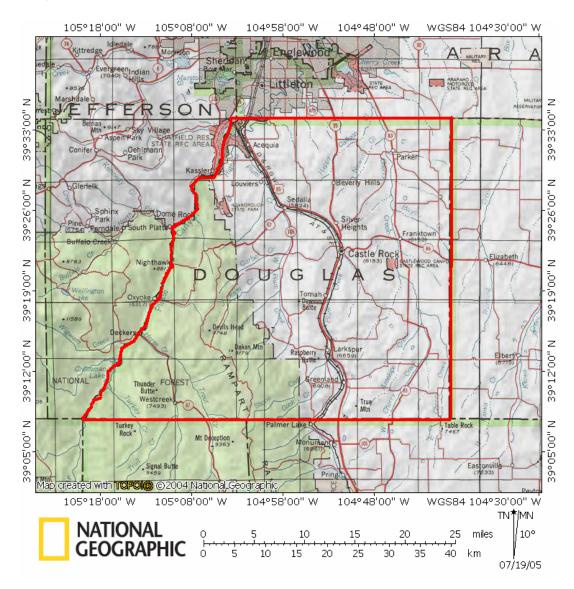
Statistical analysis is also performed on vacant land, residential properties, commercial/industrial properties, agricultural land, agricultural residences and outbuildings, other agricultural properties and personal property.

RMVS has completed the Property Assessment Study for 2005 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, according to the 2000 census, an approximate population of 175,766 people. 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, 3rd Edition, Johnson Books, 2004, p.54 and 32)



#### **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 2003 and June 2004. Counties with less than 30 sales typically extended the sale period back up to 5 years prior to June 30, 2004 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 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. In every case, we examined the loss in data from trimming to insure that only true outliers were excluded. Any county with a significant portion of sales excluded by this trimming method were 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					
Unweighted Median Coefficient of					
<b>Property Class</b>	Ratio	Dispersion			
Commercial/	Between .95-1.05	Less than 20.99			
Industrial					
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 Douglas County are:

RATIO GRID						
	Number of	Unweighted		Coefficient	Time	
	Qualified	Median	Price Related	of	Trend	
Property Class	Sales	Ratio	Differential	Dispersion	Analysis	
Commercial/						
Industrial	59	.987	.999	16.7	Compliant	
Condominium	N/A	N/A	N/A	N/A	N/A	
Single Family	14,187	1.001	1.006	6.7	Compliant	
Vacant Land	386	.978	1.051	18.9	Compliant	

**Ratio Statistics for CURRTOT / TASP** 

Group	Median	Price Related Differential	Coefficient of Dispersion
1	1.000	1.006	.056
2	1.002	1.006	.062
3	.999	1.017	.086
4	1.000	1.008	.065
5	1.039	1.006	.110
6	.993	1.003	.101
7	1.068	1.322	.525
8	1.028	1.006	.095
Overall	1.001	1.006	.067

Please note that Economic Area 7 has only 17 sales and is not statistically significant. All of the economic areas with sufficient sales are in compliance with the standards set forth by the Colorado State Board of Equalization (SBOE), as well as the overall ratio statistics.

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

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 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 Douglas County has complied with the statutory requirements to analyze the effects of time on value in their 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 insure 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 2004 and 2005 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 The median and mean ratio distribution was then compared stratified. 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.

#### 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

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 has been determined; Also, documentation was the capitalization rate was properly applied. 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:

Agricultural Land Ratio Grid						
				County		
		Number	County	Assessed	RMVS	
Abstract		of	Value	Total	Total	
Code	Land Class	Acres	Per Acre	Value	Value	Ratio
4107	Sprinkler Irrigated	1,679	43	72,631	72,091	1.01
4117	Flood Irrigated	1,204	37	44,738	44,689	1.00
4127	Dry Farm	17,256	19	320,248	324,295	0.99
4137	Meadow Hay	1,512	76	114,316	114,316	1.00
4147	Dry Grazing	192,672	8	1,585,351	1,585,351	1.00
4177	Forest	5,593	8	45,141	45,141	1.00
4167	Waste	1,217	2	2,004	2,004	1.00
Total/Avg		221,134	10	2,184,428	2,187,887	1.00

#### Recommendations

None

#### **Agricultural Residences**

#### Methodology

The county analyzes single-family residential sales and uses the sales comparison approach to value residences situated on agricultural lands. These residences are valued in the same manner as other single-family residences. Factors are applied based on economic areas. The county receives building permits that assist in the discovery of new construction. However they do not have a provision for physical inspections in any given time frame.

#### **Conclusions**

A comparison of the single-family residential sales to a sample of unsold agricultural residences indicated that agricultural residences were appraised in the same manner as the sold single-family residential properties and that the overall level and uniformity of appraisals of agricultural residences have met State Board of Equalization standards. Based on this, one can conclude that agricultural residences were valued using appropriate appraisal procedures.

#### Recommendations

None

#### **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 2005 for Douglas County. This study was performed by checking selected sales listed as verified by the county for the 2005 valuation period. Specifically, RMVS selected 45 sales listed as verified but unqualified.

Of the 45 sales checked, 40 gave reasons that were clear and supportable. The remaining 5 sales had insufficient documentation.

#### **Conclusions**

Douglas County appears to be doing an adequate job of verifying their sales. There are no recommendations or suggestions.

#### 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 2005 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. Subdivision land with structures was appraised at full market value. In 2005, Douglas County is applying the recommended methodology in ARL Volume 3 Chapter 4 page 7 in their subdivision discounting.

#### 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.

#### 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.

For the counties having over 50,000 population, 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. 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.

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 2005 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
- 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 \$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.

Douglas County's median ratio is 1.03. This is in compliance with the State Board of Equalization (SBOE) compliance requirements which range from .90 to 1.10 with no COD requirements.

#### **Conclusions**

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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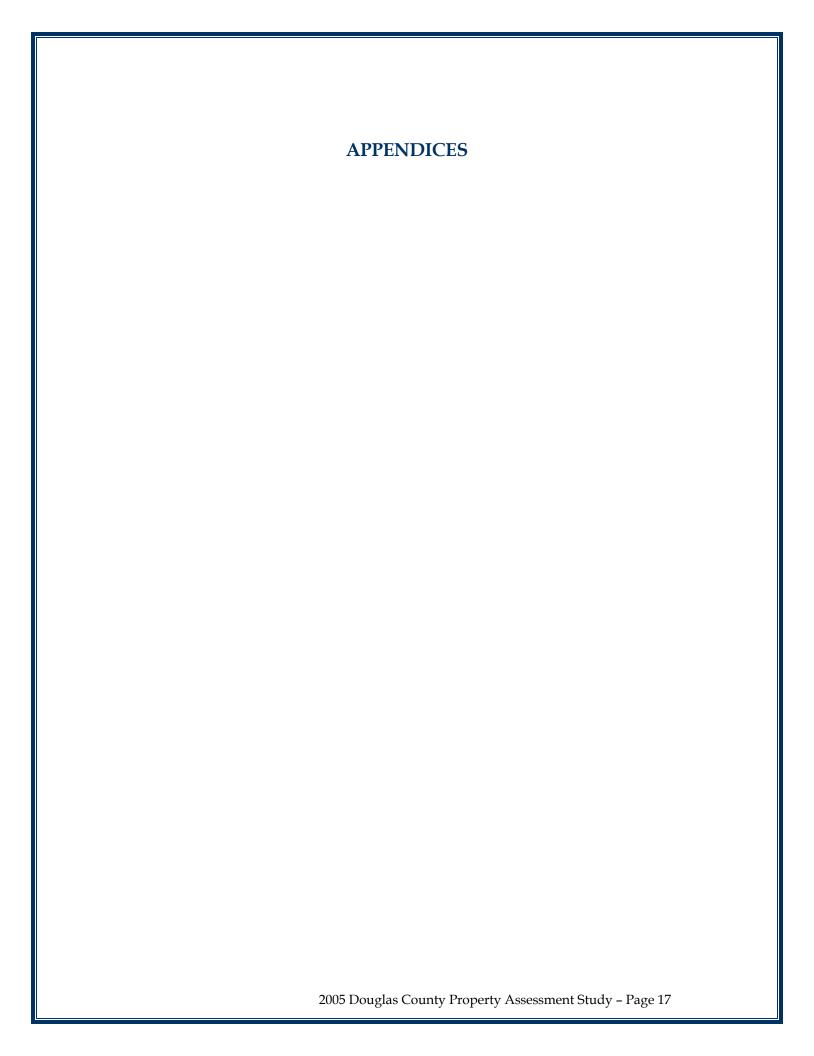
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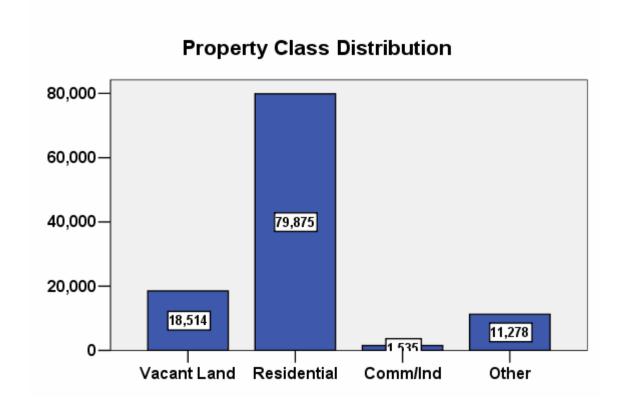


#### STATISTICAL ANALYSIS FOR DOUGLAS COUNTY

#### 2005

#### I. OVERVIEW

Douglas County is an urban county located in the Front Range region of Colorado. The county has a total of 111,202 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:



The vacant land class of properties was dominated by residential land. Vacant Residential Land (coded 0100) accounted for 87% of all vacant land parcels.

For residential improved properties, single family properties accounted for 95% all residential improved parcels. 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 1,535 parcels.

#### II. SALES FILE

The following sale analyses were based on the requirements of the 2005 Property Assessment Study, based on information provided by the Douglas County Assessor's Office. The assessor provided a sale file with 25,553 total sales. These sales spanned the period July 2002 to July 2004; the two-year period will be used to verify market trending for each class, while the 18-month period between January 2003 and June 2004 will be used to test ratio compliance for each class.

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

#### III. RESIDENTIAL SALES RESULTS

<u>Steps</u>	Results
1. Selected sales coded as "Q"	19,542 Sales
2. Selected improved sales (Status = "I")	18,576 Sales
3. Selected sale with subclass codes 1112 to 1230	18,446 Sales
4. Sales between 1/2003 and 6/2004	14,187 Sales

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

#### **Case Processing Summary**

	Count	Percent
econarea	37	.3%
1	3855	27.2%
2	5946	41.9%
3	1294	9.1%
4	2632	18.6%
5	87	.6%
6	75	.5%
7	16	.1%
8	245	1.7%
Overall	14187	100.0%
Excluded	0	
Total	14187	

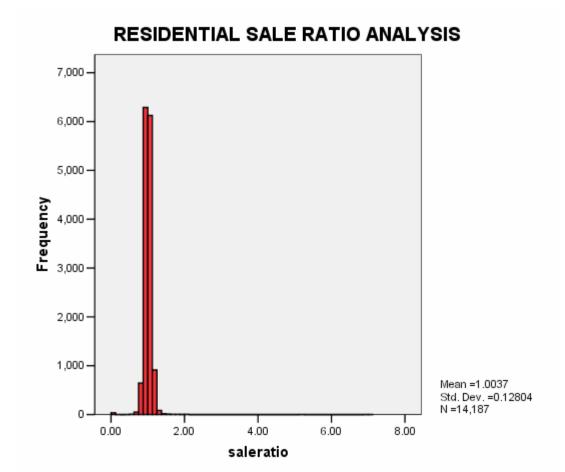
The 14,187 sales were analyzed using the required measurements for the level of assessment, as well as for the quality of the assessment. The analysis was broken down by economic area, as follows:

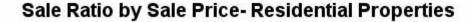
**Ratio Statistics for CURRTOT / TASP** 

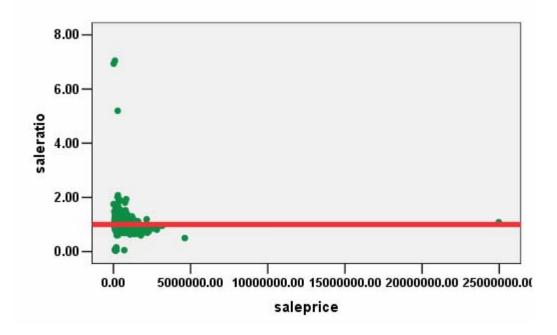
Group	Median	Price Related Differential	Coefficient of Dispersion
1	1.000	1.006	.056
2	1.002	1.006	.062
3	.999	1.017	.086
4	1.000	1.008	.065
5	1.039	1.006	.110
6	.993	1.003	.101
7	1.068	1.322	.525
8	1.028	1.006	.095
Overall	1.001	1.006	.067

NOTE: Economic Area 7 has only 17 sales.

Please note that Economic Area 7 has only 17 sales and is not statistically significant. All of the economic areas with sufficient sales are in compliance with the standards set forth by the Colorado State Board of Equalization (SBOE), as well as the overall ratio statistics. The following graphical exhibits 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, and that there were no significant price related differential issues.

#### **Residential Market Trend Analysis**

The Douglas County Assessor 2004 Questionnaire report indicated that market trending was tested and applied at the economic area level for residential properties, including single family residences and condominiums.

To determine if market trending was adequately accounted for in the residential valuation for Douglas County, we regressed the sale ratios across the 24-month sale period for Douglas County, as follows:

#### Coefficientsa

			Unstand Coeffi	lardized cients	Standardized Coefficients		
econarea	Model		В	Std. Error	Beta	t	Sig.
	1	(Constant)	.071	.061		1.157	.255
		saleperiod	.003	.006	.071	.434	.667
1	1	(Constant)	1.009	.003		348.233	.000
		saleperiod	001	.000	047	-3.317	.001
2	1	(Constant)	1.006	.002		580.412	.000
		saleperiod	.000	.000	012	-1.089	.276
3	1	(Constant)	1.002	.007		150.310	.000
		saleperiod	9.55E-005	.000	.005	.195	.846
4	1	(Constant)	1.004	.003		368.293	.000
		saleperiod	-2.4E-005	.000	002	111	.911
5	1	(Constant)	1.095	.025		43.284	.000
		saleperiod	006	.002	289	-3.227	.002
6	1	(Constant)	1.018	.027		37.136	.000
		saleperiod	.002	.002	.075	.727	.469
7	1	(Constant)	1.840	.440		4.187	.001
		saleperiod	048	.036	288	-1.312	.205
8	1	(Constant)	1.019	.015		66.802	.000
		saleperiod	.001	.001	.036	.623	.534

a. Dependent Variable: saleratio

The above table indicates that overall there were no economic areas with significant market trend factors. The two economic areas with statistically significant market trends had trend amounts that were less than 1% per month.

#### **Sold/Unsold Analysis**

In terms of the consistent treatment of residential sold and unsold properties, we examined the change in value between 2004 and 2005 for residential property values between these two groups. The following table and graph compares the 2004 and 2005 actual values for residential properties in Douglas County, grouped by sold and unsold properties:

UNSOLD	N	Median	Mean
Unsold	12,123	1.0634	1.0679
Sold	58,864	1.0603	1.0610
Total	70,987	1.0608	1.0622

#### IV. COMERCIAL/INDUSTRIAL SALE RESULTS

#### **Commercial Sales**

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

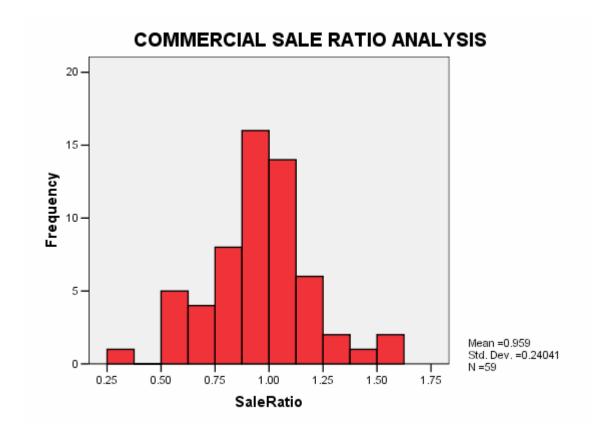
<u>Steps</u>	<u>Results</u>
1. Selected sales coded as "Q"	19,542 Sales
2. Selected improved sales (Status = "I")	18,576 Sales
3. Selected sale with subclass codes 2112 to 3115	76 Sales
4. Sales between 1/2003 and 6/2004	62 Sales
5. Trim three extreme sales	59 Sales

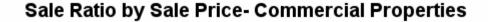
The following ratio analysis indicates the results:

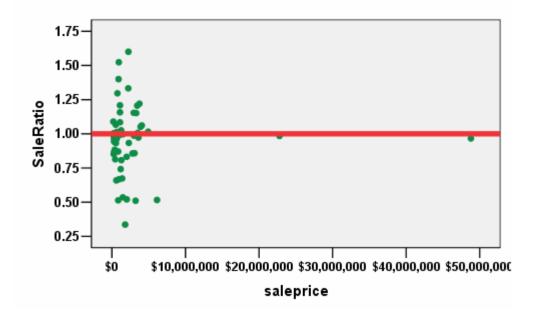
#### **Ratio Statistics for CURRTOT / TASP**

Median	.987
Price Related Differential	.999
Coefficient of Dispersion	.167

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:







#### **Commercial Market Trend Analysis**

According to the Douglas County Assessor, there were not enough commercial properties by subclass to apply any significant market trending. As noted, there were only 72 commercial and industrial sales for Douglas County that were qualified for this analysis. We again regressed the commercial/industrial sale ratios across the 24-month sale period, with the following results:

Coefficientsa

		Unstandardized Coefficients		Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	.966	.048		20.322	.000
	saleperiod	.000	.004	007	055	.956

a. Dependent Variable: SaleRatio

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 compared the median actual value per square foot for Each group. We broke the analysis down by subclass to further stratify the comparison, with the following results:

Report

Base	va	ıue

abstrimp	Sold	N	Median	Mean	Minimum	Maximum
2212	Unsold	296	128.5974	138.7847	53.88	299.19
	Sold	16	192.0938	180.4295	85.00	240.00
	Total	312	135.0907	140.9203	53.88	299.19
2215	Unsold	22	77.7095	83.3326	58.38	116.20
	Total	22	77.7095	83.3326	58.38	116.20
2220	Unsold	192	131.5500	131.3956	50.93	294.49
	Sold	19	139.6370	147.1188	61.71	258.35
	Total	211	132.6531	132.8114	50.93	294.49
2225	Unsold	19	131.5321	148.5131	60.27	244.67
	Total	19	131.5321	148.5131	60.27	244.67
2230	Unsold	283	153.9008	161.7683	54.05	297.27
	Sold	10	177.5000	180.1935	100.00	240.00
	Total	293	154.2874	162.3971	54.05	297.27
2235	Unsold	193	85.2547	89.8258	51.75	259.01
	Sold	12	90.0000	90.3896	53.14	117.00
	Total	205	85.2547	89.8588	51.75	259.01
2240	Unsold	2	92.2514	92.2514	65.83	118.67
	Total	2	92.2514	92.2514	65.83	118.67
3212	Unsold	58	90.0000	95.3172	50.73	264.18
	Sold	3	115.7065	100.3466	65.00	120.33
	Total	61	90.0000	95.5646	50.73	264.18
3215	Unsold	28	60.1664	78.7711	51.52	167.07
	Sold	1	90.7392	90.7392	90.74	90.74
	Total	29	60.1667	79.1838	51.52	167.07
Total	Unsold	1093	112.0657	129.9164	50.73	299.19
	Sold	61	139.6370	146.8937	53.14	258.35
	Total	1154	115.0000	130.8138	50.73	299.19

The above indicates that overall, Douglas County has valued sold and unsold commercial/industrial properties in a consistent manner.

#### V. VACANT LAND SALE RESULTS

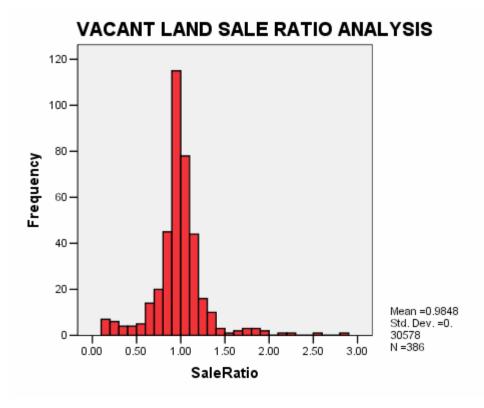
<u>Steps</u>	Results
1. Selected sales coded as "Q"	19,542 Sales
2. Selected improved sales (Status = "V") and Previous Improved Value = 0	514 Sales
3. Selected sale with subclass codes LT 4000	452 Sales
4. Sales between 1/2003 and 6/2004	386 Sales

The 386 vacant land sales were analyzed using the required measurements for the level of assessment, as well as for the quality of the assessment. The following ratio analysis indicates the results:

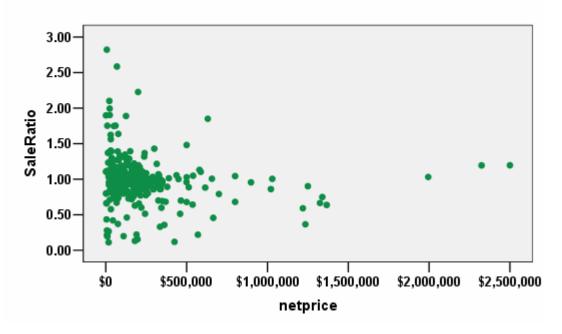
**OVERALL** Ratio Statistics for CURRTOT / TASP

Median	.978
Price Related Differential	1.051
Coefficient of Dispersion	.189

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



### Sale Ratio by Sale Price- Vacant Land Properties



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

#### **Vacant Land Market Trend Analysis**

Vacant land sales were also adjusted over the 24-month sale period. We verified that Douglas County adequately accounted for market trending by analyzing the sale ratios across the sale period. The following analysis that no significant market trend factor was present:

#### Coefficients<sup>a</sup>

		Unstandardized Coefficients		Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	.983	.028		35.208	.000
	saleperiod	.001	.003	.010	.213	.831

a. Dependent Variable: SaleRatio

#### **Sold/Unsold Analysis**

In terms of the consistent treatment of vacant land sold and unsold properties, we examined the percent change in value between 2004 and 2005 for vacant land property values between these two groups. The following table compares the 2004 and 2005 actual values for vacant land properties in Douglas County, grouped by sold and unsold properties:

Group	N	Median	Mean
Unsold	12799	1.1763	1.1478
Sold	359	1.1207	1.1498
Total	13158	1.1760	1.1479

#### VII. CONCLUSIONS

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