UTAH STATE TAX COMMISSION

Property Tax Division

1997 ASSESSMENT/SALES RATIO STUDY

1997

FOR THE PERIOD

JANUARY 1, 1996 TO DECEMBER 31, 1996

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PREFACE

The Property Tax Division of the Utah State Tax Commission has prepared the following Assessment/Sales Ratio Study in accordance with the relevant state statutes, administrative rules, and using the applicable guidelines recommended for such studies by the International Association of Assessing Officers (IAAO).

One of the purposes of this study is to check the proportional equity of the tax revenue contributions of counties to the Uniform School Fund. The mean and the median are used to estimate the county-wide level of assessment for each of four classes of property: primary residential, secondary residential, commercial, and vacant land properties. The dollar-weighted mean (DWM) is also calculated to aid in the analysis of assessment levels. The four classes listed above are stratified into smaller samples to identify specific valuation characteristics when there is sufficient sales data available. Any resulting corrective action orders are designed to address specific valuation problems and minimize adverse alterations of appropriate county values.

Additionally, this study measures the assessment performance and effectiveness of the local assessment jurisdiction. Measures of central tendency and uniformity for each county are compared to the standard established by Tax Commission Rule R884-24P-27 to determine assessment performance compliance. Where samples are small for a given class of property, other analysis is used to determine uniformity compliance. This is accomplished through the evaluation of county valuation procedures and practices including locally produced valuation guidelines, market data collection accuracy, or elements of training, resources, and funding. Utah Code[1] also requires the assessor to complete property reviews on a five-year cycle and to update values annually through reappraisal or other value adjustments.

The median and mean ratios are used to evaluate intracounty assessment equality and compliance to the cyclical appraisal requirements noted above. The median is the middle value of all the ratios and is, therefore, not greatly affected by extreme high or low ratios. The mean is the arithmetic average of the ratios. These can be valuable tools to evaluate local assessment methods, procedures, and performance. The median and the mean are calculated for each relevant class or sub-class of property within the county.

The 1997 Assessment/Sales Ratio Study is based on arms-length sales occurring from January 1, 1996 through December 31, 1996. The bases of the sales samples are qualified warranty deeds, supported by data received in response to questionnaires completed by the buyer of the

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[1] Utah Code Ann. (1953) 59-2-303.1

property. Appraisals of residential properties may be performed to supplement the sales data where sample size is small. Residential properties are chosen because of the significance in terms of dollar value and number of parcels of that class of property. However, for the 1997 study cycle, no residential appraisals were conducted as sample size was adequate in all counties to measure performance.

Measures of variability are important to the evaluation of the assessment function because they indicate how consistently property is being assessed within a specific county. The measures of variability used in this study are the coefficient of dispersion (COD) and the coefficient of variation (COV). The COD and the COV are important indicators of the quality of a mass appraisal system. They measure the relative variability of the ratios in the study and can be used to determine assessment consistency within classes of property. This comparison can be both within a county and between counties themselves.[2]

The dollar-weighted mean (DWM) may be used as the basis for adjusting a county's assessment level to the legal level. However, the median and/or the mean may also be used to measure the level of assessment. Coefficients of dispersion and variation, (COD) & (COV) are the bases for ordering reappraisal to correct problems with assessment uniformity. The Tax Commission assessment performance standards were developed from those recommended by the International Association of Assessing Officers. These standards are part of Tax Commission Rule R884-24P-27 included in this report as Appendix VI.

While the procedures described in this report and the standards set forth in Rule R884-24P-27 require the measurement of valuation performance in relation to dispersion, please note the following exception for the 1997 ratio study cycle. Potential corrective action for sub-standard coefficients of dispersion or variation was suspended for the 1997 ratio study. This action was taken to allow each county to review and update its five-year cyclical appraisal plan, and to organize its resources to insure a successful appraisal project for the next taxing year. That appraisal project, and those each year thereafter, will be the basis for uniformity measurement and review.

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[2] International Association of Assessing Officers, <u>Property Appraisal and Assessment Administration</u> (Chicago: The International Association of Assessing Officers, 1990), p. 23.

NARRATIVE REPORT

INTRODUCTION

In an effort to improve the uniformity of local property tax valuations, Utah law requires that assessment/sales ratio studies be prepared annually. Statute further requires that the "commission shall . . . order each county to adjust or factor its assessment rates using the most current studies."[3] Accordingly, the Property Tax Division of the Utah State Tax Commission has published this report summarizing all the data relating to the 1997 Assessment/Sales Ratio Study using the guidelines cited in the Preface.

GOALS

The State of Utah has the following primary goals for its 1997 Assessment/Sales Ratio Study:

1. To check the proportional equity of property tax revenue that each county contributes to the Uniform School Fund.

2. To evaluate assessment performance in terms of both assessment level and uniformity within individual property classes and between classes in each county.

3. To participate with local assessment officers in the analysis of ratio data and the development of effective valuation policies, procedures, and work plans.

In relation to a county's proportional contribution to the uniform school fund, the Assessment/Sales Ratio Study is used to determine if factoring and/or reappraisal is necessary. If wide dispersion is present, a reappraisal may be required. Relatively tight dispersion accompanied by an assessment/sales ratio level estimator which is substantially above or below required levels, indicates that values could be uniformly adjusted or factored in the proper direction.

As an example of conditions indicating the need for assessment level adjustment, consider an assessment jurisdiction with a property class or sub-class assessment level of 88 and a uniformity measure, the coefficient of dispersion (COD), of 10. The COD of 10 indicates a

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[3] <u>Utah Code, Ann.</u> (1953), .59-2-704(2), .59-2-303.1(a).

high degree of uniformity which means the level could be adjusted with minimal negative outcome on the resulting uniformity after any adjustment.

The adjustment factor is computed by dividing the "target" or desired assessment level by the "current" assessment level. In the example, the target level is 100 and the current level is 88. The computation of the factor is 100 divide by 88, which equals 1.14. The final step in this example is to multiply the property values in the class or sub-class by the adjustment factor of 1.14.

Statistical assessment level estimates and their related dispersion measures are fully explained in the methodology and glossary sections of this report.

The second goal is evaluating the assessment performance of each county. The completed study provides information useful in measuring the degree of accuracy and consistency of valuation activity in the local jurisdiction and assists in the identification of valuation problems. Solutions to assessment problems are suggested based on additional analysis in regard to assessment level, uniformity, procedural and technical problems, and administrative policies.

The third goal involves the participation and cooperation of both the local assessment officer and the Property Tax Division. Throughout the ratio study process, input is invited from county assessors in the form of real property sales transaction and sales verification information. Upon completion of the study, the analysis and interpretation of the findings becomes a joint exercise between the Division staff and local assessors. The expected outcome is to jointly identify solutions to valuation problems.

METHODOLOGY

The study begins with the identification and classification of sales data. All recorded warranty deeds are the basis for identifying potential sales to be included in the study. Each sale is screened and verified before it is considered as an arms-length transaction. The following criteria are used to qualify recorded deeds which identify sales transactions for potential inclusion in each county's sample:

1.   Qualified instruments of conveyance of real property are used.

2.   The instrument recordation date is between January 1, 1996 and December 31, 1996.

Up to two questionnaires are mailed to the person(s) listed as buyer(s) for each deed. A random sample of deeds is selected in counties where a large number of real property sales suggests a strong real estate market.[4] Returned questionnaires are categorized into four property classifications: primary residential, commercial, vacant land, and secondary residential property. Additionally, these categories may be stratified further to identify local assessment problem areas.

Two types of information are necessary to construct an assessment/sales ratio for a specific parcel of property. The first is the county's appraised market value, sometimes called the "assessed" value, which is obtained from the county assessor's office. The second is the sales price which is obtained from the property buyer through the questionnaire.

Throughout this report, the terms "assessed value" and "appraised market value" mean the same thing. State statutes, Tax Commission rules, IAAO and other appraisal texts use the term "assessed" when discussing valuation levels or performance, and when defining formulas or other mathematical procedures related to ratio studies. This report uses the term "appraised market value" when identifying the value obtained from the local county assessor's office; and the term "assessed value" when addressing valuation level and performance issues, or when describing formulas and mathematical procedures, or in examples, so as to be consistent with IAAO publications, state statutes, and other publications.

Returned questionnaires are screened and only arms-length sales enter preliminary analysis. The following criteria are used to qualify sales for initial inclusion in the study.

1. The sales date was between January 1, 1996 and December 31, 1996.

2. The sale was not a compulsory transaction because of foreclosure, divorce, etc.

3. The sale was not between relatives, affiliated companies, or their officers.

4. The property was not sold to or purchased from any church, fraternal, educational, or governmental organization.

5. Real estate in more than one county was not involved.

6. A partial interest only was not purchased or sold.

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[4] Random selections of sales transactions are taken in Davis, Iron, Salt Lake, Utah, Summit, Washington, and Weber Counties.

7.   Possession by buyer was not delayed for more than one year.

8.   The sale was not strictly a transfer of convenience, i.e. the creation of a family trust or the correction of a title.

9.   The sale was not transitional property or between unknowledgeable buyers and/or sellers.

Computation of the assessment/sales ratio for each sampled property is another fundamental step. The county's appraised market value is divided by the identified sale price for the real property in each sales transaction. The resulting number is the assessment/sales ratio and is used to compute the various statistics for county assessment performance analysis. Care must be taken to achieve an accurate match between the property which sold, and the property which was appraised by the county assessor to insure that an appropriate comparison can be made between the two.

When county appraised market value information is identified for all qualified sales transactions, each transaction is verified to ensure the following:

1.   The property was not assessed under the Farmland Assessment Act (FAA).

2.   A single property class was identified.

3.   The property was not a segregation lacking a serial number or assessment as of January 1, 1997.

4.   The buyer was not listed as being a major financial institution.

ADJUSTMENTS

To insure an accurate comparison between the county appraised market value and the selling price of the property, any needed adjustments are applied to the selling price before ratios are calculated. Adjustments may become necessary when the county appraised market value, which is for land and improvements only and for a given point in time, is not directly comparable to the selling price. The price may represent a different circumstance, i.e. personal property was involved in the sale, or the time difference between the county appraisal process and the selling date may reflect a significant change in value.

Through the data verification process, adjustments were applied for personal property and time as needed. Personal property value adjustments were obtained from the respondents of questionnaires or from the county personal property tax roll. Time adjustments were developed for each county through procedures outlined by the I.A.A.O.[5]

CENTRAL TENDENCY AND DISPERSION

Several statistical measures of central tendency are calculated and presented including the dollar-weighted mean (DWM), the median, the mean, and the 95% confidence intervals. The coefficient of dispersion (COD) about the median and the coefficient of variation (COV) about the mean are used as the primary measures of dispersion.

The dollar-weighted mean (DWM) is calculated for each property class. The DWM is calculated by dividing the sum of the county's appraised market values of the properties that sold by the sum of the adjusted sale prices. The DWM doesn't give equal weight to each ratio, rather it gives equal weight to each sale dollar and thus is more affected by ratios with high sales prices. According to the IAAO, it is the preferred measure when ratio studies are used to adjust values, as in the development of equalization factors for the distribution of school funds.[6]

The median is simply the middle ratio of the sorted or arrayed assessment/sales ratios. If there is an even number of ratios, the median is the average of the middle two ratios. If there is an odd number of ratios, it is the middle ratio. The median divides the data into two equal parts; and is less affected by the extreme ratios on either side of the distribution than other measures of central tendency. For these reasons, "the median is the generally preferred measure of central tendency for monitoring appraisal performance, determining reappraisal priorities, or evaluating the need for a reappraisal."[7]

The arithmetic average of the ratios, a statistic called the mean, is calculated by summing the ratios for a particular class of property and dividing by the number of ratios in that sample. The mean is presented as another measure of assessment level for use by the local assessment officer in the analysis of local valuation performance. Additionally, the mean itself is used as part of the calculation of another statistic: the price-related differential (PRD).

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[5] IAAO, Standard, p. 15

[6] IAAO, Standard, p. 17

[7] Ibid.

The example in FIGURE 1 is presented as an illustration of five individual assessment/sales ratios. Included are the parcel number, the assessed or appraised market value, and the sale price for each parcel. The individual ratios, which are computed by dividing each assessed value by its related sale price, are also included. This basic data are the foundation of the Assessment/Sales Ratio Study. The measures of central tendency including the dollar-weighted mean, the median, and the mean are calculated from these ratios. Also calculated are the measures of uniformity including the coefficient of dispersion and the coefficient of variation.

FIGURE 1

PARCEL	ASSESSED VALUE	SALE PRICE	RATIO
1	$88,000	$101,000	87
2	67,000	63,000	106
3	59,000	58,000	102
4	72,000	72,500	99
5	52,000	54,000	96

To find the median, the individual ratios are arranged in order of magnitude from lowest to highest, then the middle ratio in the series is selected. This array is presented in FIGURE 2. The number of sales in this sample is odd, therefore the ratio of 99 is identified as the median or middle ratio.

FIGURE 2

PARCEL	ASSESSED VALUE	SALE PRICE	RATIO
1	$88,000	$101,000	87
5	52,000	54,000	96
4	72,000	72,500	* 99
3	59,000	58,000	102
2	67,000	63,000	106
Totals:	$338,000	$348,500	

* The Median is the middle number in the array.

The dollar-weighted mean is the sum of the county appraised values divided by the sum of the sale prices. From FIGURE 2, divide the total of the county appraised values, $338,000 by the total of the sale prices, $348,500 and multiply by 100. The dollar-weighted mean is 97. ($338,000) $348,500) X 100 = 97.

The mean ratio is simply the arithmetic average of the ratios. It is calculated by adding all of the ratios, and dividing by the number of ratios. From the example in FIGURE 2, the mean ratio is 98. This is calculated by adding the 5 ratios: 87 + 96 + 99 + 102 + 106 = 490; and dividing by 5: 490) 5 = 98.

Researchers also calculate 95 percent confidence intervals about the median and about the mean. A 95 percent confidence interval indicates that if 100 samples are drawn and confidence intervals calculated for each sample, 95 of the intervals would contain the true population measure of central tendency.

The purpose of the study is to identify the assessment level and uniformity for all the parcels in the jurisdiction. In statistical terms, that group is called the population. The sales information, called the sample, is used to generate statistics and draw conclusions about the whole jurisdiction or the population. The confidence intervals described above provide a measurement of assurance or confidence of these calculations.

These confidence intervals are also used to analyze assessment level performance. The 95 percent confidence interval indicates a range that may contain the true population measure of central tendency with a 95 percent degree of confidence. As an example, consider a measure of central tendency of 88 with a lower and upper confidence limit of 73 and 103 respectively. This may suggest that the true population assessment level meets the standard of plus or minus 10% of the legal level of assessment, i.e. between 90 and 110. When a calculated point estimate such as the mean or the median does not meet standard, this interval analysis is used to determine if the property represented by the sample may indeed be at the legal level of assessment. Specifically, if the confidence interval contains the legal level of assessment, 100, it is considered to meet the standard. For a complete description of this process, refer to Rule R884-24P-27 in Appendix VI.

Coefficients of dispersion and variation (COD) & (COV) denote the relative uniformity of assessments within a property class. The COD is the average absolute deviation divided by the measure of central tendency, in this case the median. The average absolute deviation is defined as the sum of the absolute differences between the individual observations and the measure of central tendency, divided by the number of observations. The coefficient of variation is the standard deviation expressed as a percentage of the mean. Using the example introduced above, FIGURE 3 illustrates these calculations for the coefficient of dispersion about the median.

To evaluate the COD or the COV, use the following rule: The lower the coefficient, the more uniform the assessments. Generally, the greatest dispersion is expected in vacant land; followed by commercial, secondary residential, and primary residential. In urban counties, a coefficient of dispersion of 15 or less for residential and commercial property is considered acceptable; for other classifications it should be 20 or less. In rural counties, the standard is 20 or less for residential and commercial properties; and for other classifications it is 25 or less. The limits for the COV are 1.25 times the COD. "Urban counties means counties classified as

first or second class counties pursuant to Section 17-16-13."[8] Refer to rule R884-24P-27 in Appendix VI for greater detail on the standards for assessment level and uniformity.

FIGURE 3

RATIO		MEDIAN	ABS. Deviation From MEDIAN
87	-	99	12
96	-	99	3
99	-	99	0
102	-	99	3
106	-	99	7
			25

Total Deviation ÷ Number of Ratios = Average Deviation
25 ÷ 5 = 5.0

And:

Average Deviation ÷ Median X 100 = COD
(5.0 ÷ 99) x 100 = 5.05

Another useful statistic is the Price Related Differential (PRD). This describes to what degree assessments are regressive or progressive. An assessment is said to be regressive if higher priced properties are under assessed as compared with lower priced properties. Conversely, progressivity is when higher priced properties are over assessed as compared with lower priced properties. The PRD is calculated by dividing the mean ratio by the dollar-weighted mean ratio.

Using the example above, the mean ratio is 98 and from a previous calculation, the dollar-weighted mean ratio is 97. The calculation of the PRD is the mean ratio divided by the dollar-weighted mean ratio. If the answer is greater than 1, the assessment is regressive. In the example, 98) 97 = 1.01; a slightly regressive situation. Generally, a PRD between .98 and 1.03 is considered acceptable.

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[8] Rule R884-24P-27, Tax Commission Rules, December 23, 1997

USE OF APPRAISALS

Insufficient sales data can be a problem in rural counties where relatively few real estate transactions occur. In an attempt to correct this problem and to increase the sample size of residential property class, a random selection of parcels from that class may be appraised. This procedure is particularly useful when the number of sales does not meet the required sample size as per Rule R884-24P-27. These independent appraised values are then used as the estimates of sale price and substituted for the sale price in the ratio formula.

When both sales and appraisals are used, the Mann-Whitney[9] test is used to determine if both groups of properties, the actual sold properties and the independently appraised properties, are assessed at the same level. This analysis is conducted to reduce any subjectivity that might be introduced through the appraisal process.

For the 1997 ratio study, appraisals were not conducted because the sample of the residential property class in all counties was of sufficient size to conduct statistical analysis.

USE OF COUNTY STUDY

Several counties in the state conduct their own assessment/sales ratio studies. When possible, the Property Tax Division makes use of these counties' assessment/sales ratio studies. This reduces the duplication of effort and enhances the effectiveness of the State's study through county involvement. The Property Tax Division reviews each county's ratio study procedure to assure the accuracy and objectivity of the county findings. Once the county data are accepted, it is incorporated into the State's ratio study.

SAMPLE SIZE

Even with appraisals, there may be inadequate sales data to make statistically reliable calculations for some classes of property. Rule R884-24P-27 requires that a sample for any class or sub-class of property consist of 10 or more ratios to achieve statistical accuracy. Where appropriate, the study period may be extended to include additional sales data, or appraisals supplemented as described above. An exception to this rule is that a sample may be used if it represents at least 10% of the population of a given class or sub-class of property.

The individual county data presented in this study represents those classes of property from among primary residential, commercial, vacant land, and secondary residential with a sample

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[9] IAAO, Standard, p.22

size of 10 or more. Some classes of property, particularly commercial and secondary residential, may have been represented by sales data, but less than the required number of 10. While a small sample may give some insight to county assessment practices, it is difficult to be sure that any indicated assessment level or coefficient of dispersion is representative of the property class population at large.

In those instances where the sample size does not meet the standard and uniformity is being measured, other performance evaluation is considered. This evaluation may include analysis of a county's data collection procedures, valuation guideline development procedures, and available valuation resources. Rule R884-24P-27 in Appendix VI offers greater detail regarding non-statistical performance evaluation.

PERFORMANCE CRITERIA

The study measures performance both in terms of assessment level and assessment uniformity. Utah law requires that all property is assessed at 100 percent of its "fair market value," and that assessments meet specified uniformity standards. For the purpose of this study, the counties' market values are used in computing the ratios. This ensures that the counties' values and the sale prices are compared on the same basis, both being in terms of "market value".

The Tax Commission has adopted standards of performance developed from those recommended by the International Association of Assessing Officers. Under Tax Commission guidelines, generally a county is deemed to have met the 100 percent assessment level if its measure of central tendency for an individual property class falls within plus or minus ten percent of the legal level. At a 100 percent level of assessment requirement such as Utah's, the range is 90 to 110 percent.

A second test is applied if the measure of central tendency does not fall between 90 to 100 percent. Under this test, the standard is considered to have been achieved if the confidence interval surrounding the measure of central tendency contains the legal level of assessment of 100 percent. Consider the example cited above where the measure of central tendency is 88, and the lower and upper confidence limits are 73 and 103 respectively. Since that confidence interval of 73 to 103 includes the legal level of 100, it is considered to meet standard.

These standards also specify uniformity performance criteria. For urban counties, the coefficient of dispersion (COD) for residential and commercial property must be 15 or less; and 20 or less for other classes of property. For rural counties the COD must be 20 or less for residential and commercial property; and 25 or less for other classes of property. The limits for the COV are 1.25 times the COD. Refer to Rule R884-24P-27 in Appendix VI for the complete standard. If the assessment level or uniformity measurement is outside of these

standards, the Tax Commission will order an adjustment or factor, require reappraisal, or take other corrective action intended to bring assessment performance into compliance.

SELECTIVE REAPPRAISAL AUDITS

Assessment/sales ratio study data are used to estimate the appraisal performance for an entire jurisdiction or county population of properties. For this reason, it is important to ensure that the sold properties used in any study and the unsold parcels in the county are appraised uniformly.

To confirm equal treatment, value changes of both sold and unsold properties are compared from one year to the next year. For example, the total value of a sample of sold properties is compared with the previous year's value of that same sample and the percent of change noted. The total value of a sample of non-sold properties is compared with its previous year's value and this percent of change also noted. Evidence of "sales chasing" or selective reappraisal may exist if the percents of change are significantly different between the two groups. If that is the case, a reappraisal may be ordered or other appropriate action may be taken.

APPEALS OF FACTOR ORDERS

Tax Commission Rule R861-1A-11, which governs procedures for appealing assessment level factor orders, appears in Appendix V. The process allows the Property Tax Division to enter into stipulations with county assessment jurisdictions regarding adjustments to the Commission's corrective action orders when there is a reasonable basis for modifying such orders.

All stipulations must be reviewed and approved by the Tax Commission. In the event a stipulation is reached between the county and the Property Tax Division, the formal hearing may be waived.

STATISTICAL SUMMARIES

The following pages include a summary of any corrective action orders, appeals, and resulting stipulations. Fourteen counties were issued corrective action orders in 1997. Stipulations were developed in most counties where an appeal was filed. During this process, additional sales data stratification and in-depth analysis were conducted. The data were segregated by age and size of improvement, and/or geographic or value area location. This provided a detailed review and the identification of specific reasons for non-compliance to assessment standards. This kind of analysis made possible the formulation of a detailed work plan to address the corrective action orders. It should be noted that many local assessment offices were already in the process of correcting assessment level and uniformity problems before correction orders were issued.

Also included are the statistical summary tables and individual county statistical reports. Included in TABLE 1 are summaries by property class for the dollar-weighted mean. TABLE 2 displays the summaries for the median. TABLE 3 shows the relative assessment uniformity as represented by the coefficient of dispersion about the median. TABLE 4 displays the mean by county and property class. TABLE 5 presents the coefficients of variation by county and property class. In these five tables and the individual county statistical summaries following, statistics are presented only where the corresponding property class had a sample size of 10 or more sales.

Assessment level corrective action orders are based on the mean, the median, or their 95 percent confidence limits. The mean is considered to be the best measure of central tendency if the distribution of the sample is normal or "parametric". The median is used if the distribution is not normal or "non-parametric". Assessment uniformity corrective action orders are based on the coefficient of dispersion about the median or the coefficient of variation about the mean for non-parametric or parametric samples respectively. These measures are presented as well as other statistics useful to the measurement and analysis of local jurisdictional assessment performance.

These orders and stipulations meet the requirements of ̦59-2-704, ̦59-2-303.1, and Rule R861-1A-11 of the Utah Code and USTC Rules. While corrective action orders are required, they should not be interpreted as poor assessment practices at the local level. Most assessment problems would be corrected through the cyclical appraisal activities identified in local work plans. It should be noted that many local assessment jurisdictions had already identified local assessment problems, developed corrective action work plans, and had begun implementation of those plans prior to the issuance of orders from the USTC.

Box Elder County:

Order: Factor vacant land in regions 1 and 2 by 1.16; Brigham City, Tremonton, and Garland.
Stipulation: Reappraise primary residential property and vacant land in Region 1 and factor vacant land in Region 2.

Davis County:

Order: Factor commercial property county-wide by 1.06. Factor primary residential property 1950 and older by 1.14 or apply regional factors with Division approval.

Duchesne County:

Order: Factor commercial property county-wide by 1.09. Factor recreational vacant land subdivisions by 1.06. Factor secondary residential property county-wide by 1.15.

Garfield County:

Order: Factor secondary residential property county-wide by 1.18.
Stipulation: Reappraise secondary residential property in the Panguitch Lake and Mammoth Creek areas.

Grand County:

Order: Factor vacant land in region 4 by 1.10, the Moab area.

Kane County:

Order: Factor secondary residential property county-wide by 1.04. Factor vacant land in regions 1 and 2 by 1.19; Kanab City and Kanab Creek Ranchos. Factor vacant land over 5 acres county-wide by 1.08.
Stipulation: Reappraise secondary residential property in area 3: Meadow View and the Movie Ranch subdivisions. Reappraise vacant land in the Cedar Heights Subdivision in Kanab City and the Kanab Creek Ranchos subdivision. Factor vacant land outside the reappraisal areas noted above and greater than five acres in size by 1.04.

Millard County:

Order: Factor primary residential property county-wide 1980 and newer by 1.14. Factor vacant land in region 3 by 1.20, the East side of the county.

Stipulation: Update the cost and depreciation tables to reflect 1998 values and apply to primary residential property 1980 and newer in Region 3; may factor in lieu of reappraisal and may apply action to property of all ages. Reappraise vacant land in Region 3.

Sanpete County:

Order: Factor primary residential property county-wide by 1.09.

Stipulation: Factor or reappraise primary residential property in the outlying areas of Region 2, the vacant land in the seasonal subdivisions and in Region 5. Factor the primary residential property in the cities of Ft. Green, Moroni, Wales, Fairview, Mt. Pleasant, Spring City and the outlying areas of Region 3. All factors will be reviewed and approved by the Property Tax Division.

Summit County:

Order: Factor primary residential property 1979 and older county-wide by 1.14.

Stipulation: Reappraise or factor the primary residential property in the Park Meadows subdivision, plats 1, 2, and 5, the Thaynes Canyon subdivision, and Kamas Town.

Tooele County:

Order: Factor primary residential property 1985 and older county-wide by 1.23.

Stipulation: Develop and apply a new land valuation guideline for Tooele City comprising books 2, 8, 9, and 10. Additionally, the county will apply factors or reappraise improvements to bring property to market value.

Utah County:

Order: Factor commercial property in regions 1 and 3 by 1.18, the North and South areas of the county.

Wasatch County:

Order: Factor secondary residential property by 1.02.

Stipulation: Reappraise the improved secondary residential parcels in the Timber Lakes subdivision.

Washington County:

Order: Factor primary and secondary residential property county-wide with an effective age of 6 or more by 1.14. Factor commercial property county-wide by 1.22.

Stipulation: Update the cost and depreciation tables and apply to buildings of primary and secondary residential property county-wide. Reappraise or factor commercial property in regions 4, 5, 6, and 7.

Weber County:

Order: Factor primary residential property county-wide 1945 and older by 1.11. Factor primary residential property 1946 and newer in regions 1 and 8 by 1.09; the canyon area and the Southwest county area. Factor vacant land in regions 3 and 4 by 1.08; the Southeast area of the lower valley and Roy.

Stipulation: At the time of publication, this order is under appeal.

TABLE 1

DOLLAR-WEIGHTED MEAN BY CATEGORY - 1997 ASSESSMENT/SALES RATIO STUDY

COUNTY	RESIDENTIAL		COMMERCIAL		VACANT LAND		SECONDARY	
	DWM	SAMPLE	DWM	SAMPLE	DWM	SAMPLE	DWM	SAMPLE
Beaver	97.3	28	59.0	10	88.1	50		
Box Elder	99.4	393			87.3	45		
Cache	97.6	650			87.0	337		
Carbon	94.1	158			63.0	42		
Daggett	96.1	19						
Davis	96.8	463	86.4	12	99.6	82		
Duchesne	89.2	84	69.4	11	74.2	212	60.1	12
Emery	86.0	25			74.7	16		
Garfield	93.6	19			93.7	76	57.8	11
Grand	89.6	60			85.6	68		
Iron	97.9	335	97.7	25	83.8	262	92.1	42
Juab	92.4	63			85.7	34		
Kane	89.6	56			82.3	236	79.5	39
Millard	85.8	76			55.4	72		
Morgan	98.5	35			88.7	29		
Piute	93.7	14						
Rich	96.5	14			93.0	90	83.8	18
Salt Lake	102.0	8429	100.8	99	96.6	197	96.6	15
San Juan	97.5	18			82.6	42		
Sanpete	89.1	76	114.5	12	82.5	130		
Sevier	95.1	77			87.6	57		
Summit	94.3	188			95.0	143	88.3	87
Tooele	90.2	178			94.9	43		
Uintah	96.1	216	94.8	14	91.3	56		
Utah	94.0	283	71.9	50	89.0	76		
Wasatch	95.9	69			98.0	109	79.4	13
Washington	91.4	558	66.8	12	86.5	303		
Wayne	96.2	33			114.2	29		
Weber	95.6	1615			86.0	173		

TABLE 2

MEDIAN BY CATEGORY - 1997 ASSESSMENT/SALES RATIO STUDY

	RESIDENTIAL		COMMERCIAL		VACANT LAND		SECONDARY	
COUNTY	MEDIAN	SAMPLE	MEDIAN	SAMPLE	MEDIAN	SAMPLE	MEDIAN	SAMPLE
Beaver	94.1	28	68.0	10	97.8	50		
Box Elder	99.6	393			87.9	45		
Cache	97.5	650			96.2	337		
Carbon	94.7	158			81.6	42		
Daggett	98.8	19						
Davis	96.0	463	72.8	12	103.7	82		
Duchesne	87.4	84	67.8	11	84.8	212	56.9	12
Emery	87.5	25			70.3	16		
Garfield	90.2	19			91.4	76	64.3	11
Grand	91.7	60			96.3	68		
Iron	99.0	335	100.0	25	94.5	262	93.8	42
Juab	91.4	63			94.9	34		
Kane	93.1	56			91.1	236	79.5	39
Millard	85.6	76			76.4	72		
Morgan	99.4	35			97.8	29		
Piute	96.4	14						
Rich	108.3	14			95.2	90	89.3	18
Salt Lake	99.0	8429	95.4	99	96.5	197	103.3	15
San Juan	96.3	18			96.7	42		
Sanpete	86.3	76	86.1	12	85.4	130		
Sevier	90.8	77			90.9	57		
Summit	92.2	188			97.4	143	91.7	87
Tooele	86.7	178			97.6	43		
Uintah	97.7	216	92.8	14	93.2	56		
Utah	95.3	283	72.0	50	99.3	76		
Wasatch	98.0	69			99.6	109	78.0	13
Washington	94.4	558	65.8	12	90.9	303		
Wayne	101.0	33			115.7	29		
Weber	93.8	1615			93.3	173		

TABLE 3

COEFFICIENT OF DISPERSION BY CATEGORY - 1997 ASSESSMENT/SALES RATIO STUDY

COUNTY	RESIDENTIAL		COMMERCIAL		VACANT LAND		SECONDARY	
	COD	SAMPLE	COD	SAMPLE	COD	SAMPLE	COD	SAMPLE
Beaver	36.1	28	48.8	10	57.8	50		
Box Elder	11.3	393			13.9	45		
Cache	8.6	650			23.1	337		
Carbon	24.2	158			51.4	42		
Daggett	19.1	19						
Davis	10.1	463	19.6	12	20.4	82		
Duchesne	24.6	84	23.6	11	49.3	212	36.2	12
Emery	24.0	25			80.2	16		
Garfield	17.4	19			26.3	76	36.2	11
Grand	14.6	60			23.6	68		
Iron	12.5	335	17.9	25	23.1	262	15.2	42
Juab	20.6	63			47.8	34		
Kane	17.7	56			30.7	236	25.9	39
Millard	27.8	76			51.3	72		
Morgan	8.4	35			23.5	29		
Piute	18.0	14						
Rich	12.2	14			20.3	90	18.3	18
Salt Lake	4.9	8429	9.1	99	13.5	197	14.8	15
San Juan	5.9	18			23.3	42		
Sanpete	19.7	76	38.8	12	32.0	130		
Sevier	14.1	77			24.5	57		
Summit	11.3	188			20.5	143	13.3	87
Tooele	13.8	178			20.0	43		
Uintah	8.9	216	18.0	14	22.6	56		
Utah	12.2	283	38.6	50	17.0	76		
Wasatch	11.9	69			18.7	109	25.6	13
Washington	11.2	558	28.2	12	23.0	303		
Wayne	11.7	33			38.4	29		
Weber	12.3	1615			20.9	173		

TABLE 4

MEAN - 1997 ASSESSMENT/SALES RATIO STUDY

COUNTY	RESIDENTIAL		COMMERCIAL		VACANT LAND		SECONDARY	
	MEAN	SAMPLE	MEAN	SAMPLE	MEAN	SAMPLE	MEAN	SAMPLE
Beaver	115.2	28	84.6	10	129.8	50		
Box Elder	99.9	393			86.2	45		
Cache	97.4	650			95.7	337		
Carbon	98.4	158			93.7	42		
Daggett	101.5	19						
Davis	95.6	463	82.0	12	104.9	82		
Duchesne	93.7	84	74.8	11	92.8	212	68.7	12
Emery	91.3	25			92.6	16		
Garfield	96.3	19			96.4	76	64.7	11
Grand	90.3	60			92.6	68		
Iron	99.6	335	103.8	25	95.6	262	91.9	42
Juab	92.0	63			101.7	34		
Kane	92.5	56			95.3	236	86.1	39
Millard	95.1	76			83.0	72		
Morgan	98.2	35			90.3	29		
Piute	97.9	14						
Rich	99.9	14			97.5	90	87.4	18
Salt Lake	99.1	8429	94.6	99	96.9	197	97.0	15
San Juan	99.8	18			100.2	42		
Sanpete	86.6	76	96.9	12	91.0	130		
Sevier	92.4	77			90.0	57		
Summit	91.8	188			98.5	143	90.9	87
Tooele	86.3	178			96.9	43		
Uintah	97.5	216	93.6	14	94.6	56		
Utah	94.7	283	85.2	50	93.8	76		
Wasatch	96.4	69			99.5	109	81.6	13
Washington	92.2	558	69.6	12	92.5	303		
Wayne	97.1	33			123.4	29		
Weber	95.4	1615			90.9	173		

TABLE 5

COEFFICIENT OF VARIATION BY CATEGORY - 1997 ASSESSMENT/SALES RATIO STUDY

COUNTY	RESIDENTIAL		COMMERCIAL		VACANT LAND		SECONDARY	
	COV	SAMPLE	COV	SAMPLE	COV	SAMPLE	COV	SAMPLE
Beaver	83.2	28	64.5	10	93.9	50		
Box Elder	15.3	393			16.8	45		
Cache	11.9	650			36.4	337		
Carbon	44.1	158			65.0	42		
Daggett	26.1	19						
Davis	13.3	463	23.8	12	30.1	82		
Duchesne	35.5	84	33.9	11	69.7	212	41.6	12
Emery	32.9	25			91.8	16		
Garfield	20.6	19			31.5	76	46.4	11
Grand	20.3	60			37.1	68		
Iron	19.6	335	25.3	25	35.7	262	20.5	42
Juab	29.1	63			73.4	34		
Kane	27.9	56			43.9	236	34.0	39
Millard	35.6	76			69.8	72		
Morgan	11.7	35			31.1	29		
Piute	23.6	14						
Rich	21.0	14			28.4	90	22.3	18
Salt Lake	7.3	8429	13.9	99	17.9	197	20.7	15
San Juan	14.6	18			43.3	42		
Sanpete	26.8	76	41.1	12	38.7	130		
Sevier	18.3	77			32.2	57		
Summit	17.0	188			32.0	143	18.5	87
Tooele	17.3	178			30.0	43		
Uintah	14.7	216	21.9	14	35.9	56		
Utah	16.7	283	51.2	50	24.9	76		
Wasatch	17.5	69			24.8	109	34.0	13
Washington	16.7	558	31.8	12	36.3	303		
Wayne	13.9	33			50.4	29		
Weber	16.6	1615			28.4	173		

1997 Utah Assessment/Sales Ratio Study
Beaver County
Summary Report

General Data	RES	COM	VAC
Number of Sales	28	10	50
Population of Property Class	1,643	218	2,240
Price Related Differential	1.18	1.43	1.47

Dollar Weighted Mean

	RES	COM	VAC
Upper Limit of Confidence Interval	111.6	72.3	106.3
Dollar Weighted Mean	97.3	59.0	88.1
Lower Limit of Confidence Interval	82.9	45.7	69.9

Median

	RES	COM	VAC
Upper Limit of Confidence Interval	108.3	222.9	106.7
Median	94.1	68.0	97.8
Lower Limit of Confidence Interval	85.9	33.6	83.8
Coefficient of Dispersion	36.1	48.8	57.8

Mean

	RES	COM	VAC
Upper Limit of Confidence Interval	152.3	123.0	164.7
Mean	115.2	84.6	129.8
Lower Limit of Confidence Interval	78.1	46.2	95.0
Coefficient of Variation	83.2	64.5	93.9

RES:	Primary Residential Property	This Sample Is:	Non-Parametric
COM:	Commercial Property	This Sample Is:	Parametric
VAC:	Vacant Land Property	This Sample Is:	Non-Parametric

1997 Utah Assessment/Sales Ratio Study
Box Elder County
Summary Report

General Data	RES	VAC
Number of Sales	393	45
Population of Property Class	10,452	15,521
Price Related Differential	1.00	0.99

Dollar Weighted Mean

	RES	VAC
Upper Limit of Confidence Interval	101.4	91.4
Dollar Weighted Mean	99.4	87.3
Lower Limit of Confidence Interval	97.5	83.2

Median

	RES	VAC
Upper Limit of Confidence Interval	100.6	95.9
Median	99.6	87.9
Lower Limit of Confidence Interval	98.0	78.9
Coefficient of Dispersion	11.3	13.9

Mean

	RES	VAC
Upper Limit of Confidence Interval	101.4	90.6
Mean	99.9	86.2
Lower Limit of Confidence Interval	98.4	81.8
Coefficient of Variation	15.3	16.8

RES: Primary Residential Property   This Sample Is: Parametric
VAC: Vacant Land Property   This Sample Is: Parametric

1997 Utah Assessment/Sales Ratio Study
Cache County
Summary Report

General Data	RES	VAC
Number of Sales	650	337
Population of Property Class	18,129	14,740
Price Related Differential	1.00	1.09

Dollar Weighted Mean

	RES	VAC
Upper Limit of Confidence Interval	98.5	93.9
Dollar Weighted Mean	97.6	87.0
Lower Limit of Confidence Interval	96.6	80.0

Median

	RES	VAC
Upper Limit of Confidence Interval	98.6	98.7
Median	97.5	96.2
Lower Limit of Confidence Interval	96.8	92.0
Coefficient of Dispersion	8.6	23.1

Mean

	RES	VAC
Upper Limit of Confidence Interval	98.3	98.9
Mean	97.4	95.7
Lower Limit of Confidence Interval	96.5	91.5
Coefficient of Variation	11.9	36.4

RES:	Primary Residential Property	This Sample Is:	Non-Parametric
VAC:	Vacant Land Property	This Sample Is:	Non-Parametric

CARBON

1997 Utah Assessment/Sales Ratio Study
Carbon County
Summary Report

General Data	RES	VAC
Number of Sales	158	42
Population of Property Class	6,456	3,379
Price Related Differential	1.04	1.49

Dollar Weighted Mean

	RES	VAC
Upper Limit of Confidence Interval	98.0	98.0
Dollar Weighted Mean	94.1	63.0
Lower Limit of Confidence Interval	90.3	27.9

Median

	RES	VAC
Upper Limit of Confidence Interval	97.5	112.0
Median	94.7	81.6
Lower Limit of Confidence Interval	90.8	61.1
Coefficient of Dispersion	24.2	51.4

Mean

	RES	VAC
Upper Limit of Confidence Interval	105.1	112.7
Mean	98.4	93.7
Lower Limit of Confidence Interval	91.6	74.7
Coefficient of Variation	44.1	65.0

RES: Primary Residential Property   This Sample Is: Non-Parametric
VAC: Vacant Land Property   This Sample Is: Parametric

DAGGETT

1997 Utah Assessment/Sales Ratio Study
Daggett County
Summary Report

General Data   RES

    Number of Sales   19
    Population of Property Class   182
    Price Related Differential   1.06

Dollar Weighted Mean

    Upper Limit of Confidence Interval   105.9
    Dollar Weighted Mean   96.1
    Lower Limit of Confidence Interval   86.3

Median

    Upper Limit of Confidence Interval   121.5
    Median   98.8
    Lower Limit of Confidence Interval   76.6
    Coefficient of Dispersion   19.1

Mean

    Upper Limit of Confidence Interval   114.2
    Mean   101.5
    Lower Limit of Confidence Interval   88.8
    Coefficient of Variation   26.1

RES: Primary Residential Property   This Sample Is: Parametric

DAVIS

1997 Utah Assessment/Sales Ratio Study
Davis County
Summary Report

General Data	RES	COM	VAC
Number of Sales	463	12	82
Population of Property Class	49,619	1,840	7,576
Price Related Differential	0.99	0.95	1.05

Dollar Weighted Mean			
Upper Limit of Confidence Interval	98.1	99.9	106.1
Dollar Weighted Mean	96.8	86.4	99.6
Lower Limit of Confidence Interval	95.6	73.0	93.2

Median			
Upper Limit of Confidence Interval	97.3	101.4	109.5
Median	96.0	72.8	103.7
Lower Limit of Confidence Interval	94.5	64.5	98.0
Coefficient of Dispersion	10.1	19.6	20.4

Mean			
Upper Limit of Confidence Interval	96.8	94.3	111.8
Mean	95.6	82.0	104.9
Lower Limit of Confidence Interval	94.5	69.7	97.9
Coefficient of Variation	13.3	23.8	30.1

RES:	Primary Residential Property	This Sample Is:	Parametric
COM:	Commercial Property	This Sample Is:	Parametric
VAC:	Vacant Land Property	This Sample Is:	Parametric

DUCHESNE

1997 Utah Assessment/Sales Ratio Study
Duchesne County
Summary Report

General Data	RES	COM	VAC	SEC
Number of Sales	84	11	212	12
Population of Property Class	3,720	427	15,989	427
Price Related Differential	1.05	1.08	1.25	1.14
Dollar Weighted Mean				
Upper Limit of Confidence Interval	94.7	87.0	81.0	73.1
Dollar Weighted Mean	89.2	69.4	74.2	60.1
Lower Limit of Confidence Interval	83.8	51.7	67.5	47.2
Median				
Upper Limit of Confidence Interval	93.0	139.7	92.6	98.9
Median	87.4	67.8	84.8	56.9
Lower Limit of Confidence Interval	81.7	52.4	76.8	47.2
Coefficient of Dispersion	24.6	23.6	49.3	36.2
Mean				
Upper Limit of Confidence Interval	101.0	91.7	101.6	86.6
Mean	93.7	74.8	92.8	68.7
Lower Limit of Confidence Interval	86.5	58.0	84.2	50.7
Coefficient of Variation	35.5	33.9	69.7	41.6

RES:	Primary Residential Property	This Sample Is:	Parametric
COM:	Commercial Property	This Sample Is:	Parametric
VAC:	Vacant Land Property	This Sample Is:	Non-Parametric
SEC:	Secondary Residential Property	This Sample Is:	Parametric

1997 Utah Assessment/Sales Ratio Study
Emery County
Summary Report

General Data	RES	VAC
Number of Sales	25	16
Population of Property Class	3,048	2,677
Price Related Differential	1.06	1.24

Dollar Weighted Mean

Upper Limit of Confidence Interval	94.9	106.2
Dollar Weighted Mean	86.0	74.7
Lower Limit of Confidence Interval	77.1	43.1

Median

Upper Limit of Confidence Interval	96.2	139.5
Median	87.5	70.3
Lower Limit of Confidence Interval	73.8	24.4
Coefficient of Dispersion	24.0	80.2

Mean

Upper Limit of Confidence Interval	103.7	137.7
Mean	91.3	92.6
Lower Limit of Confidence Interval	78.9	47.6
Coefficient of Variation	32.9	91.8

RES:	Primary Residential Property	This Sample Is:	Parametric
VAC:	Vacant Land Property	This Sample Is:	Parametric

1997 Utah Assessment/Sales Ratio Study
Garfield County
Summary Report

General Data	RES	VAC	SEC
Number of Sales	19	76	11
Population of Property Class	1,303	5,561	130
Price Related Differential	1.03	1.03	1.12

Dollar Weighted Mean

	RES	VAC	SEC
Upper Limit of Confidence Interval	100.8	100.1	77.9
Dollar Weighted Mean	93.6	93.7	57.8
Lower Limit of Confidence Interval	86.4	87.3	37.8

Median

	RES	VAC	SEC
Upper Limit of Confidence Interval	113.0	100.0	125.6
Median	90.2	91.4	64.3
Lower Limit of Confidence Interval	79.3	85.7	28.8
Coefficient of Dispersion	17.4	26.3	36.2

Mean

	RES	VAC	SEC
Upper Limit of Confidence Interval	105.8	103.4	84.7
Mean	96.3	96.4	64.7
Lower Limit of Confidence Interval	86.7	89.4	44.8
Coefficient of Variation	20.6	31.5	46.4

RES:	Primary Residential Property	This Sample Is:	Parametric
VAC:	Vacant Land Property	This Sample Is:	Parametric
SEC:	Secondary Residential Property	This Sample Is:	Parametric

1997 Utah Assessment/Sales Ratio Study
Grand County
Summary Report

General Data	RES	VAC
Number of Sales	60	68
Population of Property Class	1,997	2,019
Price Related Differential	1.01	1.08

Dollar Weighted Mean		
Upper Limit of Confidence Interval	94.6	95.0
Dollar Weighted Mean	89.6	85.6
Lower Limit of Confidence Interval	84.6	76.3

Median		
Upper Limit of Confidence Interval	96.6	100.0
Median	91.7	96.3
Lower Limit of Confidence Interval	85.0	86.8
Coefficient of Dispersion	14.6	23.6

Mean		
Upper Limit of Confidence Interval	95.1	100.9
Mean	90.3	92.6
Lower Limit of Confidence Interval	85.6	84.2
Coefficient of Variation	20.3	37.1

RES:	Primary Residential Property	This Sample Is:	Parametric
VAC:	Vacant Land Property	This Sample Is:	Parametric

1997 Utah Assessment/Sales Ratio Study
Iron County
Summary Report

General Data	RES	COM	VAC	SEC
Number of Sales	335	25	262	42
Population of Property Class	6,354	585	2,046	585
Price Related Differential	1.02	1.06	1.14	1.00

Dollar Weighted Mean

	RES	COM	VAC	SEC
Upper Limit of Confidence Interval	99.9	107.5	92.2	100.9
Dollar Weighted Mean	97.9	97.7	83.8	92.1
Lower Limit of Confidence Interval	95.8	87.9	75.5	83.3

Median

	RES	COM	VAC	SEC
Upper Limit of Confidence Interval	101.2	113.7	98.2	97.3
Median	99.0	100.0	94.5	93.8
Lower Limit of Confidence Interval	97.1	84.7	91.7	84.2
Coefficient of Dispersion	12.5	17.9	23.1	15.2

Mean

	RES	COM	VAC	SEC
Upper Limit of Confidence Interval	101.7	114.6	99.7	97.8
Mean	99.6	103.8	95.6	91.9
Lower Limit of Confidence Interval	97.5	93.0	91.4	86.1
Coefficient of Variation	19.6	25.3	35.7	20.5

RES:	Primary Residential Property	This Sample Is:	Non-Parametric
COM:	Commercial Property	This Sample Is:	Parametric
VAC:	Vacant Land Property	This Sample Is:	Non-Parametric
SEC:	Secondary Residential Property	This Sample Is:	Parametric

1997 Utah Assessment/Sales Ratio Study
Juab County
Summary Report

General Data	RES	VAC
Number of Sales	63	34
Population of Property Class	2,005	5,614
Price Related Differential	1.00	1.19

Dollar Weighted Mean

	RES	VAC
Upper Limit of Confidence Interval	98.3	100.3
Dollar Weighted Mean	92.4	85.7
Lower Limit of Confidence Interval	86.5	71.0

Median

	RES	VAC
Upper Limit of Confidence Interval	99.7	102.8
Median	91.4	94.9
Lower Limit of Confidence Interval	84.3	77.1
Coefficient of Dispersion	20.6	47.8

Mean

	RES	VAC
Upper Limit of Confidence Interval	98.8	127.8
Mean	92.0	101.7
Lower Limit of Confidence Interval	85.3	75.5
Coefficient of Variation	29.1	73.4

RES:	Primary Residential Property	This Sample Is:	Parametric
VAC:	Vacant Land Property	This Sample Is:	Parametric

KANE

1997 Utah Assessment/Sales Ratio Study
Kane County
Summary Report

General Data	RES	VAC	SEC
Number of Sales	56	236	39
Population of Property Class	1,867	10,876	1,489
Price Related Differential	1.03	1.16	1.08

Dollar Weighted Mean

	RES	VAC	SEC
Upper Limit of Confidence Interval	96.8	87.3	88.9
Dollar Weighted Mean	89.6	82.3	79.5
Lower Limit of Confidence Interval	82.5	77.2	70.2

Median

	RES	VAC	SEC
Upper Limit of Confidence Interval	97.8	94.4	90.3
Median	93.1	91.1	79.5
Lower Limit of Confidence Interval	84.3	85.4	72.4
Coefficient of Dispersion	17.7	30.7	25.9

Mean

	RES	VAC	SEC
Upper Limit of Confidence Interval	99.4	100.6	95.7
Mean	92.5	95.3	86.1
Lower Limit of Confidence Interval	85.5	89.9	76.6
Coefficient of Variation	27.9	43.9	34.0

RES:	Primary Residential Property	This Sample Is: Parametric
VAC:	Vacant Land Property	This Sample Is: Non-Parametric
SEC:	Secondary Residential Property	This Sample Is: Parametric

MILLARD

1997 Utah Assessment/Sales Ratio Study
Millard County
Summary Report

General Data	RES	VAC
Number of Sales	76	72
Population of Property Class	3,376	10,016
Price Related Differential	1.11	1.50

Dollar Weighted Mean

	RES	VAC
Upper Limit of Confidence Interval	93.0	65.9
Dollar Weighted Mean	85.8	55.4
Lower Limit of Confidence Interval	78.6	45.0

Median

	RES	VAC
Upper Limit of Confidence Interval	97.3	88.3
Median	85.6	76.4
Lower Limit of Confidence Interval	80.9	56.3
Coefficient of Dispersion	27.8	51.3

Mean

	RES	VAC
Upper Limit of Confidence Interval	102.8	96.7
Mean	95.1	83.0
Lower Limit of Confidence Interval	87.3	69.4
Coefficient of Variation	35.6	69.8

RES:	Primary Residential Property	This Sample Is:	Parametric
VAC:	Vacant Land Property	This Sample Is:	Parametric

1997 Utah Assessment/Sales Ratio Study
Morgan County
Summary Report

General Data	RES	VAC
Number of Sales	35	29
Population of Property Class	1,696	735
Price Related Differential	1.00	1.02

Dollar Weighted Mean

	RES	VAC
Upper Limit of Confidence Interval	102.2	101.4
Dollar Weighted Mean	98.5	88.7
Lower Limit of Confidence Interval	94.8	76.1

Median

	RES	VAC
Upper Limit of Confidence Interval	103.3	107.1
Median	99.4	97.8
Lower Limit of Confidence Interval	95.0	71.2
Coefficient of Dispersion	8.4	23.5

Mean

	RES	VAC
Upper Limit of Confidence Interval	102.2	100.9
Mean	98.2	90.3
Lower Limit of Confidence Interval	94.3	79.6
Coefficient of Variation	11.7	31.1

RES:	Primary Residential Property	This Sample Is:	Parametric
VAC:	Vacant Land Property	This Sample Is:	Parametric

1997 Utah Assessment/Sales Ratio Study
Puite County
Summary Report

General Data   RES

    Number of Sales   14
    Population of Property Class   544
    Price Related Differential   1.05

Dollar Weighted Mean

    Upper Limit of Confidence Interval   101.6
    Dollar Weighted Mean   93.7
    Lower Limit of Confidence Interval   85.7

Median

    Upper Limit of Confidence Interval   136.9
    Median   96.4
    Lower Limit of Confidence Interval   69.8
    Coefficient of Dispersion   18.0

Mean

    Upper Limit of Confidence Interval   111.2
    Mean   97.9
    Lower Limit of Confidence Interval   84.7
    Coefficient of Variation   23.6

RES: Primary Residential Property   This Sample Is: Parametric

1997 Utah Assessment/Sales Ratio Study
Rich County
Summary Report

General Data	RES	VAC	SEC
Number of Sales	14	90	18
Population of Property Class	618	6,286	987
Price Related Differential	1.04	1.05	1.04

Dollar Weighted Mean	RES	VAC	SEC
Upper Limit of Confidence Interval	112.1	98.2	94.2
Dollar Weighted Mean	96.5	93.0	83.8
Lower Limit of Confidence Interval	80.8	87.8	73.3

Median	RES	VAC	SEC
Upper Limit of Confidence Interval	115.0	100.0	102.6
Median	108.3	95.2	89.3
Lower Limit of Confidence Interval	57.6	89.4	71.2
Coefficient of Dispersion	12.2	20.3	18.3

Mean	RES	VAC	SEC
Upper Limit of Confidence Interval	111.9	103.4	97.1
Mean	99.9	97.5	87.4
Lower Limit of Confidence Interval	87.9	91.7	77.7
Coefficient of Variation	21.0	28.4	22.3

RES:	Primary Residential Property	This Sample Is:	Non-Parametric
VAC:	Vacant Land Property	This Sample Is:	Parametric
SEC:	Secondary Residential Property	This Sample Is:	Non-Parametric

SALT LAKE

1997 Utah Assessment/Sales Ratio Study
Salt Lake County
Summary Report

General Data	RES	COM	VAC	SEC
Number of Sales	8,429	99	197	15
Population of Property Class	207,803	12,763	34,506	2,711
Price Related Differential	0.97	0.94	1.00	1.00

Dollar Weighted Mean

	RES	COM	VAC	SEC
Upper Limit of Confidence Interval	102.1	103.6	100.7	108.6
Dollar Weighted Mean	102.0	100.8	96.6	96.6
Lower Limit of Confidence Interval	101.8	98.0	92.4	84.6

Median

	RES	COM	VAC	SEC
Upper Limit of Confidence Interval	99.1	96.9	99.1	111.5
Median	99.0	95.4	96.5	103.3
Lower Limit of Confidence Interval	98.8	94.5	92.6	68.0
Coefficient of Dispersion	4.9	9.1	13.5	14.8

Mean

	RES	COM	VAC	SEC
Upper Limit of Confidence Interval	99.3	97.3	99.3	108.0
Mean	99.1	94.6	96.9	97.0
Lower Limit of Confidence Interval	99.0	92.0	94.5	85.9
Coefficient of Variation	7.3	13.9	17.9	20.7

RES:	Primary Residential Property	This Sample Is:	Non-Parametric
COM:	Commercial Property	This Sample Is:	Parametric
VAC:	Vacant Land Property	This Sample Is:	Parametric
SEC:	Secondary Residential Property	This Sample Is:	Parametric

SAN JUAN

1997 Utah Assessment/Sales Ratio Study
San Juan County
Summary Report

General Data	RES	VAC
Number of Sales	18	42
Population of Property Class	1,763	1,921
Price Related Differential	1.02	1.21

Dollar Weighted Mean		
Upper Limit of Confidence Interval	101.6	96.4
Dollar Weighted Mean	97.5	82.6
Lower Limit of Confidence Interval	93.3	68.7

Median		
Upper Limit of Confidence Interval	99.3	100.0
Median	96.3	96.7
Lower Limit of Confidence Interval	95.0	92.7
Coefficient of Dispersion	5.9	23.3

Mean		
Upper Limit of Confidence Interval	107.0	113.7
Mean	99.8	100.2
Lower Limit of Confidence Interval	92.6	86.7
Coefficient of Variation	14.6	43.3

RES:	Primary Residential Property	This Sample Is:	Non-Parametric
VAC:	Vacant Land Property	This Sample Is:	Non-Parametric

SANPETE

1997 Utah Assessment/Sales Ratio Study
Sanpete County
Summary Report

General Data	RES	COM	VAC
Number of Sales	76	12	130
Population of Property Class	5,227	451	17,158
Price Related Differential	0.97	0.85	1.10

Dollar Weighted Mean

	RES	COM	VAC
Upper Limit of Confidence Interval	94.1	147.0	88.6
Dollar Weighted Mean	89.1	114.5	82.5
Lower Limit of Confidence Interval	84.0	82.0	76.5

Median

	RES	COM	VAC
Upper Limit of Confidence Interval	93.8	145.1	94.4
Median	86.3	86.1	85.4
Lower Limit of Confidence Interval	80.1	53.5	79.1
Coefficient of Dispersion	19.7	38.8	32.0

Mean

	RES	COM	VAC
Upper Limit of Confidence Interval	91.9	122.1	97.1
Mean	86.6	96.9	91.0
Lower Limit of Confidence Interval	81.2	71.6	85.0
Coefficient of Variation	26.8	41.1	38.7

RES:	Primary Residential Property	This Sample Is:	Parametric
COM:	Commercial Property	This Sample Is:	Parametric
VAC:	Vacant Land Property	This Sample Is:	Parametric

1997 Utah Assessment/Sales Ratio Study
Sevier County
Summary Report

General Data	RES	VAC
Number of Sales	77	57
Population of Property Class	4,930	8,376
Price Related Differential	0.97	1.03

Dollar Weighted Mean

	RES	VAC
Upper Limit of Confidence Interval	99.5	95.2
Dollar Weighted Mean	95.1	87.6
Lower Limit of Confidence Interval	90.7	80.0

Median

	RES	VAC
Upper Limit of Confidence Interval	97.3	99.4
Median	90.8	90.9
Lower Limit of Confidence Interval	88.2	80.2
Coefficient of Dispersion	14.1	24.5

Mean

	RES	VAC
Upper Limit of Confidence Interval	96.2	97.8
Mean	92.4	90.0
Lower Limit of Confidence Interval	88.5	82.3
Coefficient of Variation	18.3	32.2

RES:	Primary Residential Property	This Sample Is:	Parametric
VAC:	Vacant Land Property	This Sample Is:	Parametric

1997 Utah Assessment/Sales Ratio Study
Summit County
Summary Report

General Data	RES	VAC	SEC
Number of Sales	188	143	87
Population of Property Class	6,839	9,804	6,997
Price Related Differential	0.97	1.04	1.03

Dollar Weighted Mean

	RES	VAC	SEC
Upper Limit of Confidence Interval	96.6	102.4	95.4
Dollar Weighted Mean	94.3	95.0	88.3
Lower Limit of Confidence Interval	92.0	87.6	81.1

Median

	RES	VAC	SEC
Upper Limit of Confidence Interval	93.7	100.0	95.4
Median	92.2	97.4	91.7
Lower Limit of Confidence Interval	90.5	93.2	88.8
Coefficient of Dispersion	11.3	20.5	13.3

Mean

	RES	VAC	SEC
Upper Limit of Confidence Interval	94.1	103.8	94.5
Mean	91.8	98.5	90.9
Lower Limit of Confidence Interval	89.6	93.4	87.3
Coefficient of Variation	17.0	32.0	18.5

RES:	Primary Residential Property	This Sample Is:	Non-Parametric
VAC:	Vacant Land Property	This Sample Is:	Non-Parametric
SEC:	Secondary Residential Property	This Sample Is:	Parametric

TOOELE

1997 Utah Assessment/Sales Ratio Study
Tooele County
Summary Report

General Data	RES	VAC
Number of Sales	178	43
Population of Property Class	7,218	7,295
Price Related Differential	0.96	1.02

Dollar Weighted Mean		
Upper Limit of Confidence Interval	92.6	103.2
Dollar Weighted Mean	90.2	94.9
Lower Limit of Confidence Interval	87.9	86.7

Median		
Upper Limit of Confidence Interval	90.8	102.6
Median	86.7	97.6
Lower Limit of Confidence Interval	83.7	90.0
Coefficient of Dispersion	13.8	20.0

Mean		
Upper Limit of Confidence Interval	88.5	105.9
Mean	86.3	96.9
Lower Limit of Confidence Interval	84.1	88.0
Coefficient of Variation	17.3	30.0

RES:	Primary Residential Property	This Sample Is:	Parametric
VAC:	Vacant Land Property	This Sample Is:	Parametric

UINTAH

1997 Utah Assessment/Sales Ratio Study
Uintah County
Summary Report

General Data	RES	COM	VAC
Number of Sales	216	14	56
Population of Property Class	6,149	636	9,114
Price Related Differential	1.01	0.99	1.04
Dollar Weighted Mean			
Upper Limit of Confidence Interval	97.6	110.0	106.7
Dollar Weighted Mean	96.1	94.8	91.3
Lower Limit of Confidence Interval	94.7	79.5	75.9
Median			
Upper Limit of Confidence Interval	98.9	125.5	100.0
Median	97.7	92.8	93.2
Lower Limit of Confidence Interval	95.9	66.2	84.6
Coefficient of Dispersion	8.9	18.0	22.6
Mean			
Upper Limit of Confidence Interval	99.4	105.3	103.8
Mean	97.5	93.6	94.6
Lower Limit of Confidence Interval	95.5	81.8	85.5
Coefficient of Variation	14.7	21.9	35.9

RES: Primary Residential Property   This Sample Is: Non-Parametric
COM: Commercial Property   This Sample Is: Non-Parametric
VAC: Vacant Land Property   This Sample Is: Parametric

UTAH

1997 Utah Assessment/Sales Ratio Study
Utah County
Summary Report

General Data	RES	COM	VAC
Number of Sales	283	50	76
Population of Property Class	71,479	3,515	23,896
Price Related Differential	1.01	1.18	1.05

Dollar Weighted Mean

	RES	COM	VAC
Upper Limit of Confidence Interval	96.4	84.8	98.0
Dollar Weighted Mean	94.0	71.9	89.0
Lower Limit of Confidence Interval	91.5	58.9	79.9

Median

	RES	COM	VAC
Upper Limit of Confidence Interval	97.2	85.5	102.0
Median	95.3	72.0	99.3
Lower Limit of Confidence Interval	93.0	64.4	92.6
Coefficient of Dispersion	12.2	38.6	17.0

Mean

	RES	COM	VAC
Upper Limit of Confidence Interval	96.6	97.6	99.2
Mean	94.7	85.2	93.8
Lower Limit of Confidence Interval	92.9	72.7	88.5
Coefficient of Variation	16.7	51.2	24.9

RES:	Primary Residential Property	This Sample Is: Parametric
COM:	Commercial Property	This Sample Is: Non-Parametric
VAC:	Vacant Land Property	This Sample Is: Parametric

1997 Utah Assessment/Sales Ratio Study
Wasatch County
Summary Report

General Data	RES	VAC	SEC
Number of Sales	69	109	13
Population of Property Class	2,798	7,428	222
Price Related Differential	1.01	1.02	1.03

Dollar Weighted Mean

	RES	VAC	SEC
Upper Limit of Confidence Interval	100.5	103.1	93.4
Dollar Weighted Mean	95.9	98.0	79.4
Lower Limit of Confidence Interval	91.4	92.8	65.3

Median

	RES	VAC	SEC
Upper Limit of Confidence Interval	99.9	105.7	135.0
Median	98.0	99.6	78.0
Lower Limit of Confidence Interval	92.1	96.1	54.8
Coefficient of Dispersion	11.9	18.7	25.6

Mean

	RES	VAC	SEC
Upper Limit of Confidence Interval	100.5	104.3	98.3
Mean	96.4	99.5	81.6
Lower Limit of Confidence Interval	92.4	94.8	65.0
Coefficient of Variation	17.5	24.8	34.0

RES:	Primary Residential Property	This Sample Is:	Parametric
VAC:	Vacant Land Property	This Sample Is:	Parametric
SEC:	Secondary Residential Property	This Sample Is:	Parametric

1997 Utah Assessment/Sales Ratio Study
Washington County[10]
Summary Report

General Data	RES	COM	VAC
Number of Sales	558	12	303
Population of Property Class	19,130	1,057	17,395
Price Related Differential	1.01	1.04	1.07

Dollar Weighted Mean

	RES	COM	VAC
Upper Limit of Confidence Interval	92.7	81.2	92.2
Dollar Weighted Mean	91.4	66.8	86.5
Lower Limit of Confidence Interval	90.1	52.3	80.9

Median

	RES	COM	VAC
Upper Limit of Confidence Interval	95.4	99.0	93.8
Median	94.4	65.8	90.9
Lower Limit of Confidence Interval	93.3	49.2	88.8
Coefficient of Dispersion	11.2	28.2	23.0

Mean

	RES	COM	VAC
Upper Limit of Confidence Interval	93.5	83.5	96.3
Mean	92.2	69.6	92.5
Lower Limit of Confidence Interval	91.0	55.7	88.7
Coefficient of Variation	16.7	31.8	36.3

RES:	Primary Residential Property	This Sample Is:	Non-Parametric
COM:	Commercial Property	This Sample Is:	Parametric
VAC:	Vacant Land Property	This Sample Is:	Non-Parametric

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[10] Primary and Secondary Residential property have been combined in the Primary Residential property category.

1997 Utah Assessment/Sales Ratio Study
Wayne County
Summary Report

General Data	RES	VAC
Number of Sales	33	29
Population of Property Class	678	1,748
Price Related Differential	1.01	1.08

Dollar Weighted Mean		
Upper Limit of Confidence Interval	100.7	133.7
Dollar Weighted Mean	96.2	114.2
Lower Limit of Confidence Interval	91.7	94.8

Median		
Upper Limit of Confidence Interval	107.7	150.0
Median	101.0	115.7
Lower Limit of Confidence Interval	86.8	87.5
Coefficient of Dispersion	11.7	38.4

Mean		
Upper Limit of Confidence Interval	101.9	147.0
Mean	97.1	123.4
Lower Limit of Confidence Interval	92.3	99.8
Coefficient of Variation	13.9	50.4

RES:	Primary Residential Property	This Sample Is:	Parametric
VAC:	Vacant Land Property	This Sample Is:	Parametric

1997 Utah Assessment/Sales Ratio Study
Weber County
Summary Report

General Data	RES	VAC
Number of Sales	1,615	173
Population of Property Class	51,306	9,327
Price Related Differential	1.00	1.06

Dollar Weighted Mean

	RES	VAC
Upper Limit of Confidence Interval	96.4	92.1
Dollar Weighted Mean	95.6	86.0
Lower Limit of Confidence Interval	94.8	79.9

Median

	RES	VAC
Upper Limit of Confidence Interval	94.5	99.2
Median	93.8	93.3
Lower Limit of Confidence Interval	92.9	88.0
Coefficient of Dispersion	12.3	20.9

Mean

	RES	VAC
Upper Limit of Confidence Interval	96.2	94.8
Mean	95.4	90.9
Lower Limit of Confidence Interval	94.6	87.1
Coefficient of Variation	16.6	28.4

RES: Primary Residential Property   This Sample Is: Non-Parametric
VAC: Vacant Land Property   This Sample Is: Parametric

APPENDICES

September 20, 1996

Dear Property Owner:

The laws of the State of Utah require this office to conduct a study each year to determine the relationship between assessed value and the current market value of all classes of real estate. Section 59-1-210(14) of the Utah Code empowers the Tax Commission to request information needed to ensure fair property taxation.

Public records indicate that you **bought (or sold)** real property during our study period. Please answer questions one (1) through eleven (11) concerning the transfer of the described property and return the 'Real Property Transfer Survey' form by ***October 10, 1996***. **A prompt response will insure that you do not receive a second mailing of the questionnaire**.

If you have not been involved in a transaction which included exchange of monies, but ***recently refinanced, corrected a defective title, created a family trust or added/deleted names on a deed,*** it will only be necessary to complete question ***#7*** of the survey. This question pertains to the reasons for the sale. Item *(G) Transfer of Convenience*, would be the applicable response for these types of transfers.

A postage paid, business reply envelope is enclosed for your convenience. Please include the reference number from the questionnaire on any correspondence. The information you supply will help ensure that property taxes are fair and equitable; and that each property pays its fair share of the cost of local government. If you need assistance, please call 297-3647 during normal business hours. If you are calling from outside of the Salt Lake area, you may call 1-800-662-4335, enter 1, 73647 (ext).

Sincerely,

Valuation Appraiser
Sales Ratio Studies
Property Tax Division

September 20, 1996

SECOND REQUEST

Dear Property Owner:

This office recently sent you a Real Property Transfer Survey regarding a real estate transaction to which you were a party. Our records indicate that **we have not yet received the completed survey.**

Utah law requires this office to conduct the study annually to determine the relationship between taxable value and the current market value of all classes of real estate. Utah Code Ann. Section 59-1-210(14) (Supp. 1987) empowers the Tax Commission to request information needed to ensure fair property taxation. The information you supply will help ensure that property taxes are fair and equitable.

Enclosed is a copy of the survey form recently sent to you. If you have not been involved in a transaction which included exchange of monies, ***but recently refinanced, corrected a defective title, created a family trust or added/deleted names on a deed***, it will only be necessary to complete question #7 of the survey. This question pertains to the reasons for the sale. Item *(G) Transfer of Convenience*, would be the applicable response for these types of transfers.

Please complete and return it by ***October 10, 1996***, in the postage paid business reply envelope provided. If you have already returned the first survey, <u>please accept our thanks for your cooperation and discard this second request</u>. If you need assistance, please call 297-3647 during normal business hours. If you are calling from outside of the Salt Lake area, you may call 1-800-662-4335, enter 1, 73647 (ext).

Sincerely,

Valuation Appraiser
Sales Ratio Studies
Property Tax Division

SCREENING CRITERIA

The existence of any of the following conditions will cause a sale to be eliminated from the study.

1. Sales involving a trade or exchange of property or loan assumption and where no specific value can be determined for the property traded and exchanged or the loan balance assumed.

2. Sales by the sheriff or other county officials; other forced sales.

3. Sales for which the improvements sold are not included in the assessment or the assessment included an improvement value for an improvement built after the sale.

4. Sales to or by the federal government, state or local government, or utilities.

5. Sales which included personal property and no specific value amount was assigned to the personal property.

6. Sales of minerals or timber only, or rights to mines or timber cuts.

7. Sales between known affiliated companies or corporations, or between companies or corporations and their officers, principles, etc.

8. Sales of cemetery lots and other exempted property.

9. Sales involving real estate located in more than one county.

10. Sales to or by any church, lodge, school, or other benevolent, fraternal, or education organization.

11. Sales conveying an unspecified, undivided, or fractional interest in property or merely conveying a life estate where such interest is not separately assessed.

12. Sales in which the seller retains possession of the property for over one year from the transaction date as stated on the deed.

13. Sales in which the seller retains a lease on the property for over one year from the transaction date as stated on the deed.

14. The instrument recorded describes an easement.

TAX COMMISSION RULE R861-1A-11

R861-1A-11 Appeal of Factor Order Pursuant to Utah Code Ann.
59-2-704 (1953)
R861-1A-11 Administrative Procedures

A. Appeal of Factor Order. Any county appealing a factor order issued pursuant to Utah Code Ann. Section 59-2-704(2), or any amendment initiated by the Commission to the order, shall, within 15 days of the mailing of an order to factor, request in writing a hearing before the Commission. The Commission shall immediately set the time and place of the hearing which shall be held no later than March 1 of the tax year to which the factor applies.

B. Hearings. Hearings on factor-order appeals shall be conducted as formal hearings and shall be governed by the procedures contained in these rules. If the parties are able to stipulate to a modification of the factor order, and it is evident that there is a reasonable basis for modifying the factor order, then an amended factor order may be executed by the Commission. One or more commissioners may preside at a hearing under this rule with the same force and effect as if a quorum of the Commission were present. However, a decision must be made and an order signed by a quorum of the Commission.

C. Decisions and Orders. The Commission shall render its decision and order no later than March 15. Upon reaching a decision, the Commission shall immediately notify the county assessor or if unavailable, his deputy, by telephone and shall confirm the order by mail. A county desiring to appeal the order must petition for reconsideration within ten days after the county assessor has been notified by telephone. No petition for reconsideration will be entertained unless evidence not reasonably available at the time of the hearing is to be presented. Oral argument on reconsideration will be heard only if the Commission determines it to be in the public interest. The Commission shall render a decision and order on a petition for reconsideration no later than March 31 and shall notify the county assessor by telephone and by mail.

D. Sales Information. Access to Commission property sales information shall be available by written agreement with the Commission to any county assessor appealing under this rule. All other reasonable and necessary information shall be available upon request, according to Commission guidelines.

E. Conflict with Other Rules. This rule supersedes all other rules which may otherwise govern such proceedings before the Commission.

TAX COMMISSION RULE R884-24P-27

R884-24P-27. Standards for Assessment Level and Uniformity of Performance Pursuant to Utah Code Ann. Section 59-2-704.5.

    A. "Urban counties" means counties classified as first or second class counties pursuant to Section 17-16-13.

    B. The Tax Commission adopts the following standards of assessment performance regarding assessment level and uniformity:

    1. Adjustment shall be ordered for a property class or subclass if the measure of central tendency is not within 10 percent of the legal level of assessment or the 95 percent confidence interval of the measure of central tendency does not contain the legal level of assessment.

    a) The measure of central tendency shall be the mean for parametric samples and the median for nonparametric samples.

    b) The adjustment shall be calculated by dividing the legal level of assessment by the measure of central tendency when uniformity meets the standards in B.2., or by the 95 percent confidence interval limit nearest the legal level of assessment when the standards in B.2. are not met.

    2. Corrective action for the property being appraised under the cyclical appraisal plan for a given year shall be ordered if the measure of dispersion is outside the following limits for the coefficient of dispersion (COD), or for the coefficient of variation (COV) when data are normally distributed:

    a) In urban counties, the limit for the COD is 15percent or less for primary residential and commercial property, and 20 percent or less for vacant land and secondary residential property.

    b) In rural counties, the limit for the COD is 20 percent or less for primary residential and commercial property, and 25 percent or less for vacant land and secondary residential property.

    c) The limit for the COV is 1.25 times the COD.

    d) Corrective action may contain language requiring a county to create or follow its cyclical appraisal plan.

    e) If the sample size does not meet the requirements of B.3., or if there is reason to question the reliability of statistical data achieved under B.3., an alternate performance evaluation shall be conducted, which may result in corrective action. The alternate performance evaluation shall include review and analysis of the following:

    (1) the county's procedures for use and collection of market data, including sales, income, rental, expense, vacancy rates, and capitalization rates;

    (2) the county-wide land, residential, and commercial valuation guidelines and their associated procedures for maintaining current market values;

    (3) the accuracy and uniformity of the county's individual property data through a field audit of randomly selected properties;

    (4) the county's level of personnel training, ratio of appraisers to parcels, level of funding, and other workload and resource considerations.

    3. To achieve statistical accuracy in determining assessment level under B.1. and uniformity under B.2. for any property class or subclass, the acceptable sample size shall consist of 10 or more ratios.

    a) To meet the minimum sample size, the study period may be extended.

    b) A smaller sample size may be used if that sample size is at least 10 percent of the class or subclass population.

    c) All input to the sample used to measure performance shall be completed by September first of each study cycle.

STATUTORY BASIS FOR
ASSESSMENT/SALES RATIO STUDIES

SECTION 59-2-704

(1) Each year, to assist in the evaluation of appraisal performance of taxable real property, the commission shall conduct and publish studies to determine the relationship between the market value shown on the assessment roll and the market value of real property in each county. The studies shall include measurements of uniformity within counties and use statistical methods established by the commission. County assessors may provide sales information to the commission for purposes of the studies. The commission shall make the sales and appraisal information related to the studies available to the assessors upon request.

(2) The commission shall each year, order each county to adjust or factor its assessment rates using the most current studies so that the assessment rate in each county is in accordance with that prescribed in Section 59-2-103. The adjustment or factoring may include an entire county, geographical areas within a county, and separate classes of properties. Where significant value deviations occur, the commission shall also order corrective action.

(3) If the commission determines that sales data in any county is insufficient to perform the studies required under Subsection (1), the commission may conduct appraisals of property within that county.

(4) If a county fails to implement factoring or corrective action ordered under Subsection (2), the commission shall:

> (a) implement the factoring or corrective action; and
> (b) charge 100% of the reasonable implementation costs to that county.

(5) If a county disputes the factoring or corrective action ordered under Subsection (2), the matter may be mediated by the Multicounty Appraisal Trust.

(6) The commission may change the factor for any county which, after a hearing before the commission, establishes that the factor should properly be set at a different level for that county. The commission shall establish the method, procedure, and timetable for the hearings authorized under this section, including access to information to ensure a fair hearing. The commission may establish rules to implement this section.

STATUTORY BASIS FOR
STANDARDS OF ASSESSMENT LEVEL/UNIFORMITY

SECTION 59-2-704.5

(1) In accordance with Title 63, Chapter 46a, Utah Administrative Rulemaking Act, and after receiving the advice of the Utah Assessors Association, the commission shall by rule adopt standards for determining acceptable assessment levels and valuation deviations within each county. The standards shall be used for determining whether factoring or corrective action is required under Subsection 59-2-704(2).

(2) As part of its review of the standards for determining acceptable assessment levels and valuation deviations within each county, the commission shall consider any relevant standards promulgated by the International Association of Assessing Officers.

(3) By October 1, 1998, and every five years thereafter, the Revenue and Taxation Interim Committee shall review the commission's standards and determine whether the standards should be modified.

STATUTORY BASIS FOR
MANDATORY CYCLICAL APPRAISALS

SECTION 59-2-303.1

(1) Beginning January 1, 1994, each county assessor shall annually update property values of property as provided in Section 59-2-301 based on a systematic review of current market data. In addition, the county assessor shall complete a detailed review of property characteristics for each property at least once every five years.

      (a) The commission shall take corrective action if the commission determines that:

      (i) a county assessor has not satisfactorily followed the current mass appraisal standards, as provided by law;

      (ii) the sales-assessment ratio, coefficients of dispersion, or other statistical measures of appraisal performance related to the studies required by Section 59-2-704 are not within the standards provided by law; or

      (iii) the county assessor has failed to comply with the requirements of Subsection (1).

      (b) For purposes of this section, "corrective action" includes:

      (i) factoring pursuant to Section 59-2-704;

      (ii) notifying the state auditor that the county failed to comply with the requirements of this section; or

      (iii) filing a petition for a court order requiring a county to take action.

(2) (a) By July 1, 1993, each county assessor shall prepare a five-year plan to comply with the requirements of Subsection (1).

      (b) The plan shall be available in the county assessor's office for review by the public upon request.

      (c) The plan shall be annually reviewed and revised as necessary.

GLOSSARY

Of particular importance in any sales ratio study is a clear understanding of the definitions used in the analysis. This is especially true for Utah because of the unique nature of some of its property tax laws.

Appraisal: An opinion by a qualified appraiser of the estimated value of real property. Elements of the analysis include: preliminary survey and planning; collection of data; application of cost, comparative sales, or income approaches; correlation and reconciliation of indicated values; and the final value estimate.

Arms-length Transaction: A real estate sale between two unrelated, knowledgeable parties, neither of whom is under abnormal pressure from the other and each is attempting to maximize his gains.

Assessment Level: The level of assessment after application of any fractional assessment ratio, partial exemption, or other adjustment.

Assessment Uniformity: The degree to which properties within a specific class or county are assessed at equal percentages of market value. The most common measure of uniformity is the coefficient of dispersion.

Coefficient of Dispersion (COD): The average absolute deviation of all assessment/sales ratios from the chosen measure of central tendency expressed as a percentage of the measure of central tendency. The lower the coefficient of dispersion, the more uniform are the assessments.

Coefficient of Variation (COV): The standard deviation expressed as a percentage of the mean.

Confidence Interval: The interval within which the population parameter (true median, mean, etc.) will be found in relation to the statistic from the sample data (the ratio study median, mean, etc.). This interval varies in relation to the confidence level desired, i.e. 90%, 95%, 99%, etc.

Confidence Level: The certainty that the statistician has in his confidence interval including the true parameter (true median, mean, etc.) of the whole population, i.e. all property in the county.

Date of Sale: The date on which the real property sale was agreed to. The data of recording may be used as a proxy for the date of sale. (See Transaction Date)

Deed Recordation: The process of registering a real property sale with the county recorder's office.

Dispersion: The degree to which data are distributed around a measure of central tendency. Measures of dispersion include the range, average deviation, standard deviation, coefficient of dispersion, and coefficient of variation.

Dollar-Weighted Mean (DWM): The measure of central tendency weighted by the dollar value of each entry. It is calculated by dividing the sum of all the adjusted assessments by the sum of all the adjusted sales prices.

Factoring: The process by which all assessments or a group of assessments are adjusted to meet the legal level of assessment. Factoring is considered appropriate when coefficients of dispersion are relatively low. The correct factor is calculated by dividing the target level of assessment by the current level of assessment.

Intangible Property: The non-physical evidence of ownership and of property rights such as patent rights, copyrights, notes, mortgages, deeds of trust, and stock certificates.

Mann-Whitney Test: A test that seeks to determine whether the differences in values between two sets of data from a population are statistically significant.

Mean: The result of adding all the values and dividing by the number of values.

Measures of Central Tendency: Those statistics which measure the tendency of ratio data to center about a typical or central value. Measures of central tendency include the median, the mean, the mode, and the dollar-weighted mean.

Measures of Variability: Those statistics which measure the amount of dispersion, variability, or dissimilarities of ratio data. Some measure absolute differences, while others measure relative variability. Included as measures of variability are the range, average absolute deviation, and the standard deviation. Measures of relative variability include the coefficient of dispersion and the coefficient of variation.

Median: The middle observation of a set of numbers when ranked or arrayed according to magnitude. It is the middle number when there is an odd number in the set. It is the average of the middle two observations when there is an even number in the set.

Mode: The value in a set of numbers that occurs most often.

Normal Distribution: A symmetrical and bell-shaped frequency distribution where 68 percent of the observations occur within one standard deviation of the mean and 95 percent occur within two standard deviations.

Observation: One recording or occurrence of a sale ratio in the sample.

Parameter: An estimated numerical descriptive measure of the population such as the arithmetic mean.

Parametric: A statistic whose interpretation depends on the distribution of the data. Parametric statistics are most reliable when the data sample is normally distributed.

Population: The total number of properties in an assessment jurisdiction of a property class of interest.

Price-Related Differential: This is the mean assessment/sales ratio divided by the weighted mean assessment/sales ratio. It is an indication of the progressivity or regressivity of the property tax within a specific county and may be used within specific classes if the sample size is at least 29. As a rule of thumb, a price-related differential greater than 1.03 indicates regressivity may be present, and a differential of less than 0.98 signals that progressivity may be a concern.

Progressivity: The assessment of higher-priced properties at a higher percentage of market value than lower-priced properties.

Property Class: An assigned category of property used in the analysis of sales in the assessment/sales ratio study. Utah uses four principal categories: 1) primary residential, 2) commercial, 3) vacant land, and 4) secondary residential.

Quit Claim Deed: This document transfers to the buyer any interest the seller may have, without warranty to clear title.

Random Sample: A sample chosen such that each unit in the population has an equal chance of being selected.

Reappraisal: A county-wide re-valuation of all properties indicated when coefficients of variation or dispersion indicate that significant inconsistencies exist.

Real Estate: The physical parcel of land and improvements to the land.

Real Property: The sum of tangible and intangible property rights in land and improvements; the rights, interests, and benefits connected with real estate.

Regressivity: The assessment of lower-priced properties at a higher percentage of market value than higher-priced properties.

Sale Price: The total purchase price for which real property is sold on the open market.

Sale Ratio: The ratio of an appraised value (or assessment) to the sale price of a property.

Sample: A number of properties selected from the whole population of properties. The sample is usually much smaller than the population. The sample for ratio study purposes is usually all qualified sold properties.

Standard Deviation: The statistic calculated by subtracting the mean from each value of a sample and squaring the remainders, adding these squares together, and dividing by the sample size less one, and finally taking the square root of the result.

Statistical Estimator: This estimates some characteristic of the sample drawn from the population for study. Parameters are used to estimate some characteristic about the population in general.

Statistics: Numerical descriptions calculated from a sample to estimate measures (parameters) for the population. Statistics include the mean, median, and the coefficient of dispersion

Transaction Date: The date the real property transaction was agreed on, indicating that on that date it was worth the specified value.

Warranty Deed: A document from seller to buyer transferring title free and clear of all encumbrances except those specifically spelled out or of public record.

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