

Level of Assessment Determination: An Owner's Manual for Maintaining Uniformity



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Revised August 2010

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1. Introduction

As an assessor, you are responsible for determining the level of assessment (LOA) for your assessing unit and for making sure that all properties are assessed at the same uniform percentage of value. As a matter of fact, the Real Property Tax Law (RPTL) requires that you annually:

- keep assessments uniform as of the valuation date (Sections 301, 305);
- sign an oath that the assessments are uniform (Section 505); and
- state the LOA on the tentative roll (Section 502).

Each assessment represents a percentage of market value, whether it is 100 percent or otherwise. The overall percentage of market value at which properties are assessed within each community is the LOA. For example, an LOA of 50% would indicate that assessments are at half of market value; whereas an LOA of 100% represents that a community is assessing at full value.

By maintaining assessments at market value or at a uniform percentage each year, your LOA will remain the same from one year to the next. Alternatively, you could adjust assessments each year to reflect a decreasing LOA if the market is appreciating or an increasing LOA if the market is depreciating. In either case, state law requires assessments to be uniform each year.

The Owner's Manual details:

- how to calculate the LOA for your assessing unit;
- how to conduct systematic analyses, time trends, and ratio studies for purposes of tracking the market, updating assessments, and maintaining your LOA; and
- additional sources of information.

2. Assessment Principles and Overview

The property tax is the single most important revenue source of local governments and schools. Assessed values upon which property taxes are based are also used in calculating state aid for education, the second largest revenue source for schools.

Property taxation begins with the determination of assessed values. You determine the value of each parcel in your assessing unit, decide the LOA, and apply it to each parcel to produce the assessment roll. Once your roll is produced, other local officials responsible for budgets and expenditures can divide their levy requirements by the taxable value of your assessment roll to determine tax rates.

$$\text{Tax Rate} = \text{Levy} / \text{Taxable Assessed Value}$$

The amount of taxes owed by any individual taxpayer is simply the sum of the applicable tax rates on his or her property multiplied by his or her assessed value.

$$\text{Taxes Owed} = (\text{Tax Rates}) \times (\text{Taxable Assessed Value})$$

The two most important principles in property assessment are the level of assessment and the uniformity of assessments. *Level of Assessment (LOA)* relates to the overall or average relationship between assessed values and market values. If you assess properties at market value, property owners can evaluate the accuracy and fairness of their assessments in a straightforward manner. If assessments differ significantly from market values, property owners will have difficulty comprehending and determining the fairness of their assessments.

Uniformity of Assessments relates to the consistency or equity of individual assessments. Consider two taxpayers with identical homes in the same neighborhood. If their assessments are equal, they will pay equal property taxes. If not, one will pay too much and one will pay too little. Similarly, if the value of one home in the neighborhood is twice that of another, its assessment should be twice as much. Uniformity measures the extent to which properties are assessed uniformly or at the same percentage of market value. Good uniformity is associated with equitable assessments. Poor uniformity implies inequitable assessments.

Except for New York, all states have legal standards for the level of assessment. The most common standard is 100 percent of market value. Other states have fractional percentages, e.g., 50% or 70%. In still others, stipulated fractional percentages vary by class of property. New York is alone in having no stipulated assessment level. Instead, New York's Real Property Tax Laws (RPTL 305) calls for you to determine your LOA and for the State to study whether you have done so accurately and, if not, to restate your LOA.

The importance of accurately determining the LOA cannot be overstated. LOAs are crucial for the fair and accurate apportionment of school and other state aid payments tied to local property values. Without LOAs, state aid would have no common basis and quickly collapse. Payments would favor municipalities with out-of-date, low assessments and punish those with accurate assessments.

You can accurately determine your LOA by studying the relationship between assessments and sales prices. This puts you "on top of the market," in a position to apply trends and adjustments so that assessments reflect current market values (or a target percentage thereof). This process promotes accurate and uniform assessments, the ideal state in an equitable property tax system.

3. Systematic Analysis to Determine the LOA

To ensure equity among taxpayers, assessors must monitor the local market and adjust property values to a common level. As mentioned, New York State statute requires assessors to state their LOA on each new assessment roll and offers incentives to maintain the level at full market value. In addition to stating the LOA, the assessor must produce an equitable roll, in which all properties are assessed at the stated percentage of market value.

There are four steps to follow when studying the marketplace to determine the LOA: (1) obtain current, accurate property inventory and market data, (2) group the data, (3) analyze the data and take actions to achieve the desired level, and (4) validate the results.

Obtain Property Inventory and Market Data

Equitable property values begin with current, accurate inventory data. This data falls into three categories:

- land characteristics, such as lot size and site desirability;
- improvement characteristics, such as living area, design, grade, garage capacity, year built, and condition;
- location, particularly market area and neighborhood.

Some of these items are *objective* (they are measured or counted) and others are subjective, requiring knowledge and judgment. Two of the most important subjective characteristics are building grade and condition. It is particularly important that these items be current and consistent. An error or inconsistency can easily impact the calculated value for a property by 15 to 25 percent.

Although aerial photos and GIS can help, verifying and updating property data requires field inspections. Field personnel must be adequately trained, knowledgeable, and conscientious. Building permits must be regularly reviewed and property records updated to reflect new construction. The International Association of Assessing Officers (IAAO) guidelines require that all properties be field inspected at least every 6 years to ensure that data are current and consistent (as mentioned, physical inspection at least once every six years is also required to qualify for Annual Aid).

Because of the importance of location in real estate values, assessors must assign properties to market areas and neighborhoods. Market areas are broad geographic areas in which properties are subject to the same economic influences and change in value at similar rates. All properties of a given type in a given market area are valued together using the same valuation schedules and formulas. Neighborhoods are specific geographic areas within a market area and are used to make adjustments for differences in location desirability. You can improve valuation accuracy by drawing neighborhood boundaries to capture such differences. Take care, however, to ensure that there will be adequate sales in each neighborhood for reliable analysis. Because location impacts values differently, create separate market area and neighborhood boundaries for residential and commercial properties.

In addition to property characteristics, valuation accuracy hinges on the adequacy and reliability of valuation data, namely sales, cost, and income data. Sales must be examined to identify valid, open market transfers from other transfers. This involves an examination of the *Real Property Transfer Report (RP-5217)* and often requires follow-up with a party to the transfer to verify the price and circumstances of the sale. Because construction costs change continually and vary greatly, cost data used in valuation schedules must be kept current and adjusted for local market conditions. Commercial property values can often be improved by obtaining income and expense data to allow for the use of the income approach, generally considered the most accurate valuation method for such properties.

Stratify or Group the Data

Stratification is the grouping of properties for analysis. The two most important criteria in this regard are property class (type or use) and location. Assessors should study the mix and types of properties and available market data in their jurisdictions to determine proper strata. Large jurisdictions with more parcels and market data can create more strata than smaller jurisdictions. For example, property use groups in a large, urban municipality might include single-family residences, condominiums, 2-4 plexes, apartments, small and strip retail properties, offices, warehouses, hotels/motels, and utilities, as well as several vacant land categories based on permitted zoning. In a small, rural municipality it may be sufficient simply to group properties as vacant land, residential, rural, commercial, or utility. In recreational areas, seasonal residences should be distinguished from year-round residences.

As mentioned, it is also important to stratify properties by market areas and neighborhoods to capture location differences. Often a market area can extend beyond the boundaries of a municipality, permitting the use of market data across several municipalities with the same economic base. Because market data are more limited and investors are more mobile, commercial market areas are typically larger than residential areas.

Analyze data

The third step in systematic analysis has two parts: a diagnostic stage and a prescriptive stage.

Diagnostic stage - the assessor determines the current level of assessment for each property strata by using time trend analysis and sales ratio analysis as described below.

- *Time trend analysis* involves a study of market trends over the time frame covered by the data and the adjustment of sales prices to the assessment date (or as close thereto as practical) based on the observed rate of change. For example, an assessor may use three years of sales prior to the valuation date in the systematic analysis (to obtain adequate market data) and determine that values have increased an average of 0.5 percent per month over the period. All sales would then be adjusted to the target date at this rate. If a sale occurred 16 months prior to the target date, it would be adjusted upward by 8 percent.

When market values are changing, time adjustments are essential in order to convert selling prices to a common denominator; otherwise they will not reflect the target date of the analysis and will lead to misleading results. By developing and applying time adjustments, systematic analysis can span a larger time frame and accommodate larger sample sizes, making possible a more reliable and detailed analysis. Under IAAO guidelines, up to five years of data can be analyzed in order to obtain adequate samples. Section 6 below outlines time trend techniques available to assessors.

- *Sales ratio study* is a study of the relationship between assessed values and market values as of a specific point in time (usually the assessment date). There are two primary components to a sales ratio study: level and uniformity. Ideally, the assessment level should be near the LOA used by the municipality and assessments should be uniform. Section 5 below describes how to perform a ratio study and explains the various measures of level and uniformity calculated in such studies.

Prescriptive stage involves acting on the results of the ratio study. This involves reviewing the level and uniformity indicators from the sales ratio study and determining what course of action to take. Possible scenarios include:

- No action. If your municipality has recently reappraised and the market has been stable, it is possible that the level of assessment has not changed and that uniformity is still good or at least acceptable. In this case no action is required.
- Apply market adjustments. If your municipality has recently reappraised and achieved good uniformity, the most likely scenario is that values can be trended to maintain the desired LOA. Trend factors should be based on ratio study results for the value groups created during the stratification phase of systematic analysis. A stratum in which the market has been comparatively strong will require a greater trend factor than a stratum for which the market has been comparatively weak.
- Reappraise some or all properties. If a revaluation has not been conducted for several years (or if a recent revaluation failed to produce good uniformity), you should plan a new revaluation. Sometimes certain strata may exhibit good equity while others do not. In this case, you may choose to reappraise the former group and trend values in the latter group. The IAAO recommends reappraisal of properties at least once every six years.

Remember, all properties are required by law to be assessed at the same uniform percentage of value each year. The prescriptive stage is the appropriate stage to apply the results of your analysis in order to keep assessments uniform, even if they are not at 100 percent.

Overview of Diagnostic Analysis		
Uniformity	Level ≠100%	Level = 100%
Poor	Reappraise	Reappraise
Good	Trend	OK as is

Validate Results

Assuming values are adjusted during the prescriptive phase of step 3 above, the final step is to validate results by rerunning the sales ratio study using the new values. The results should support your target LOA. Unless all values were trended by the same percentage, measures of assessment uniformity should also improve.

4. Importance of Current and Accurate Data

The importance of current and accurate data cannot be overemphasized. More than anything else, the success of systematic analysis and the general accuracy and uniformity of assessments rests on current, accurate data.

As discussed in section 7, ORPS maintains a data warehouse of market data and property characteristics taken from the final assessment rolls that are filed electronically by assessors and contractors on an annual basis. ORPS relies on this data in conducting systematic analyses and determining equalization rates. It is incumbent on assessors and their contractors, however, to keep this data current and accurate.

The single most important piece of market information is the sale price of a property. It is critical that someone knowledgeable of the local market reviews each sale to ensure that the price is representative and to determine whether the sale is an arm's-length, open market transfer usable for market analysis. Since commercial sales are fewer in number and more complex, they require special attention. You should try to

maximize the number of commercial sales available for analysis while ensuring that invalid sales are excluded.

Research has shown that the most important property characteristics are property class, neighborhood, square foot of living area, grade, age and condition, design, lot size, and site amenities, particularly water frontage, where applicable. Pay special attention to the accuracy of these features and, in particular, to ensuring the accuracy and consistency across of subjective features, such as grade and condition.

If you maintain a current, accurate database, you will be in a good position, not only to determine your LOA accurately, but also to achieve highly accurate and uniform assessments. All aspects of systematic analysis will also be substantially enhanced.

5. How to Conduct a Ratio Study

A ratio study is a study of the relationship between assessments and market values. Traditionally sales prices serve as market value proxies in such studies, although appraisals or CAMA estimates can also be used. Along with time trend analysis (section 6), a ratio study is part of the third step of systematic analysis. Thus, a ratio study begins with data gathering (step 1) and stratification (step 2). Properties are stratified by major property class and a separate set of ratio statistics is calculated for each class. Depending on available market data, properties are then sub-stratified by other key characteristics, particularly location (market area and neighborhood). In general, you should have at least 15 samples in each stratum for meaningful analysis; 30 is considered a benchmark for high reliability. The easiest way to expand sample size in a sales ratio study is to ensure that all valid sales are available and to use sales from several years (of course, the sales must be adjusted for time as discussed in section 6).

The three primary facets of a ratio study are (1) overall assessment level, (2) equity among property groups or strata, and (3) equity within groups.

Overall Level of Assessment

The overall level of assessment represents the overall ratio between assessments and market values. Three statistics are used to measure the assessment level:

1. Median ratio. This is the middle ratio. When there are an odd number of ratios, the median is found by arraying the ratios from smallest to largest, dividing the sample size plus 1 ($n+1$) by 2, and counting up the indicated number of ratios. For example, if there are 25 ratios, the median is ratio #13, since $(25+1) \div 2 = 13$. When the number of ratios is even, as in exhibit 1 below, the median is the average of the two middle ratios $(.934 + 1.000 \div 2)$. The median has the desirable feature of not being overly influenced by outlier ratios.
2. Mean ratio. The mean is the average of the ratios (.950 in exhibit 1). Particularly in small samples, the mean can be highly influenced by outlier ratios.
3. Weighted mean. Also known as the "aggregate ratio," the weighted mean is the sum of the assessed values divided by the sum of the sales prices (.960 in exhibit 1). The weighted mean is the only one of the three measures to use dollar values. Since it expresses the assessment ratio in dollar terms, it is considered the most appropriate measure of the equalization rate. Note, however, that the weighted mean can be influenced by outlier ratios, particularly if they occur for high value sales. ORPS uses the weighted mean in its equalization rate calculations, although outliers are trimmed to ensure that the measure is not influenced by such sales.

Exhibit 1

Example of Ratio Study Statistics

Assessment	Sale Price	Ratio	Rank	Ratio-Median (Abs Value)
12,000	40,000	.300	1	.667
24,000	60,000	.400	2	.567
90,020	140,000	.643	3	.324
80,040	120,000	.667	4	.300
60,000	80,000	.750	5	.217
62,000	80,000	.775	6	.192
48,000	60,000	.800	7	.167
84,000	100,000	.840	8	.127
112,080	120,000	.934	9	.033
100,000	100,000	1.000	10	.033
90,000	80,000	1.125	11	.158
158,060	140,000	1.129	12	.162
116,500	100,000	1.165	13	.198
48,000	40,000	1.200	14	.233
150,000	120,000	1.250	15	.283
180,040	140,000	1.286	16	.319
60,000	40,000	1.500	17	.363
79,800	60,000	1.330	18	.533
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1,554,540	1,620,000	17.094		4.876

Median = $(.934 + 1.000) \div 2 = .967$
 Mean = $17.094 \div 18 = .950$
 Weighted Mean = $1,554,540 \div 1,620,000 = .960$
 Average Absolute Deviation = $4.876 \div 18 = .271$
 COD (Coefficient of Dispersion) = $100 \times .271 \div .967 = 28.0$
 PRD (Price Related Differential) = $.950 \div .960 = .990$

Equity Among Property Groups

As discussed, one of the most important features of an equitable assessment system is uniformity in assessment levels between property groups. Consider residential properties in the two municipalities below. Both municipalities have an overall level of assessment of 100%. But is assessment equity equal? Note that in municipality A, homeowners in NBHD 204 will pay 50% more in taxes on comparable property than homeowners in NBHD 201. In municipality B, effective tax rates are similar regardless of neighborhood.

Municipality A		Municipality B	
NBHD	Assessment level	NBHD	Assessment Level
201	.800	710	.980
202	.900	711	1.030
203	1.100	712	.999
204	1.200	713	1.012
Totals	1.000	Totals	1.000

By calculating and comparing measures of the assessment level among property classes, neighborhoods, size groups, age groups, and other strata assessors can effectively ensure that all property groups are

appraised uniformly. Where a group is out of line, an adjustment or trend factor can be applied (prescriptive phase of diagnostic analysis).

Equity Within Groups

Although there are a number of useful measures of assessment uniformity for a property group, the most important is the coefficient of dispersion (COD). The COD represents the average percentage deviation from the median ratio and can be loosely thought of as the "average error." It is calculated as follows:

- Subtract the median from each ratio and take absolute values (drop the signs). The results represent the difference between each ratio and the median ratio. For example, in Exhibit 1 the median is .967. If you subtract .967 from the first ratio of .300 you will get -.667. By dropping the sign, the absolute value of the ratio-median is .667. Ideally the deviations would all be small. In exhibit 1, they range from .033 to .667.
- Find the average absolute deviation by determining the sum of all the ratio-medians as described in the step above and then dividing by the number of occurrences ($4.876 \div 18 = .271$ in exhibit 1).
- Divide the average absolute deviation by the median ratio and multiply by 100 ($.271 \div .967 * 100$) to obtain the COD (28.0 in exhibit 1). This step converts the average absolute deviation to a percentage. In this case, the COD indicates that the ratios differ from the median by an average of 28.0 percent.

A second important measure of uniformity is the price-related differential (PRD), which is a measure of equity between low-value and high-value properties. The PRD is computed by dividing the mean (.950 in exhibit 1), which is not dollar weighted, by the weighted mean (.960), which is dollar weighted. When these two measures differ by more than a small margin, it indicates inconsistency in the level of appraisal between low-value and high-value properties. Note that in exhibit 1 the PRD is .990, a good result.

Analyzing and Acting Upon Results

The IAAO has developed standards for the COD and PRD. The table below sets out COD standards, which vary by property type. The standard for the PRD is 0.98 to 1.03. PRDs below 0.98 indicate *assessment progressivity*, the condition in which low-value properties are under-assessed relative to high-value properties. PRDs above 1.03 indicate *assessment regressivity*, in which high-value properties are under-assessed relative to low-value properties. Of course, outliers can distort both the COD and PRD (IAAO standards condone the trimming of up to 5% of ratios provided a review does not indicate that they represent a systemic).

When COD and PRD standards are met, professional practice considers it acceptable to update property values through market adjustment or trend factors. When the standards are not met, "recalibration" of valuation tables and equations is required to address underlying problems and bring properties into proper alignment. Of course, if the problem involves outdated property data (or if it has been more than six years since the last data collection effort), a field review is also required.

Property Type	COD Should Not Exceed
Newer, homogeneous residences	10.0
Older, heterogeneous residences	15.0
Rural residential and seasonal properties	20.0
Commercial property - urban areas	15.0
Commercial property - rural areas	20.0
Vacant land	20.0

Ratio Study Software

Needless to say, conducting a sales ratio study would be a tedious affair without supporting software. Fortunately, there are a number of good options for assessors. First, RPS supports basic sales ratio analyses. Secondly, many assessors use spreadsheet software, such as Excel, to conduct sales ratio analyses. Third, statistical software, such as SPSS, are excellent for such studies and also include easy to

use charts and graphs that can assist in identifying patterns and trends. SPSS 11 contains a "ratio statistics" module for assessors. Below is an example of the output generated for the data in exhibit 1.

Ratio Statistics for AV / PRICE

Mean	.950
Median	.967
Weighted Mean	.960
Minimum	.300
Maximum	1.500
Ave Absolute Deviation	.271
Price Related Differential	.990
Coefficient of Dispersion	.280

Regardless of software used, ratios studies are a valuable tool. They provide assessors with the means to monitor performance against professional standards and identify both areas of strength and opportunities for improvement. Often they will suggest that appraisal performance for some properties is just fine or can be easily corrected through application of an adjustment factor, while other properties require greater attention. These analyses can help assessors identify priorities and maximize the use of available resources.

6. Time Trend Analysis

Time trend analysis is one of two steps in the diagnostic phase of systematic analysis. When market values are changing, time trend analysis is essential in order to determine the appropriate equalization rate as of the assessment date; otherwise calculated measures of the assessment level will reflect the approximate midpoint of sales used in the analysis.

All methods of time trend analysis rely on sales data. Because time is only one factor affecting sales prices, determining time trends with reasonable reliability requires a considerable volume of sales, more so than sales ratio analyses. Since there are often insufficient sales in individual municipalities for this purpose, ORPS in collaboration with assessors and county directors has constructed market areas that are generally large enough for the purpose. Of course, separate market areas have been defined for residential and commercial properties.

Assessors have available at least four methods of determining time trends. Each of these is explained below. These methods are explained in more detail in the IAAO texts listed in the references at the end of section 7.

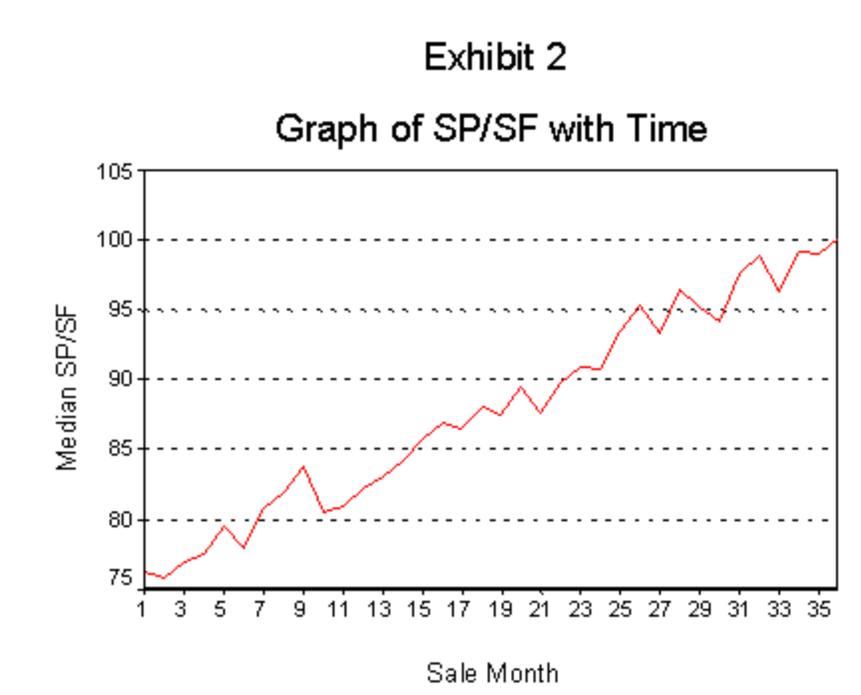
Resales Analysis

Assessors can compare prices of properties that have resold and extract an average rate of change between the initial sale and resale. It is important to understand that this method is compromised by any physical changes made to the property between sales.

Value Per Unit Analysis

In this method the assessor plots and analyzes changes in price-per-unit over the study period. The unit of comparison should be appropriate for the type of property, e.g., acres for rural land and square feet of living area for residential property. Exhibit 2 below shows a graph of sale price per square foot over a 36-month period. Inspection of the graph indicates that prices increased from approximately \$76 psf at the beginning of the period (month 1) to \$100 at the end of the period (month 36). This represents an increase of \$24 psf or 31.6% ($\$24 \div \76) over the 35-month span from month 1 to month 36, or an average of 0.90% per month ($31.6\% \div 35$).

Although the time trend can be "eyeballed" reasonably well, simple linear regression (available in spreadsheet programs like Excel and all statistical programs) can be used to fit the trend precisely. This method also has the advantage of determining the "standard error" or statistical reliability of the trend.



Sales Ratio Trend Analysis

Sales ratio trend analysis compares sale/assessment (S/A) ratios over a period of time. The assessments should be the existing assessments at the time of analysis. Expressing sales prices relative to assessments has the advantage that assessments reflect or control for virtually all property features that influence value (not just size as in the value per unit method). An upward trend in S/A ratios indicates inflation; a downward trend indicates deflation. The method works best when CODs are good. If assessment uniformity is poor, more sales are required to establish the trend. Outliers can be trimmed (since assessment performance is not being analyzed, trimming criteria can be more liberal than in sales ratio studies).

Exhibits 3 and 4 illustrate the method. Exhibit 3 shows a plot of 135 S/A ratios over a 24-month period. The regression trend line indicates that the S/A ratio increased from approximately 0.98 at the beginning of the period to approximately 1.18 by the end - an increase of 0.20 or 0.87% per month ($.20 \div 23 = .0087$).

Similarly, exhibit 4 shows a line graph of median S/A ratios over the same period. Again, one could eyeball the trend with reasonable accuracy, although regression analysis would enhance the analysis.

Since it only requires data on sale price, previous assessed value and sale date, sales ratio trend analysis can be effectively applied against any property type with adequate sales. Along with CAMA models (described next), it is one of two primary methods relied on by ORPS to establish time trends.

Exhibit 3 Graph of Sale/Assessment Ratios with Time

Exhibit 3

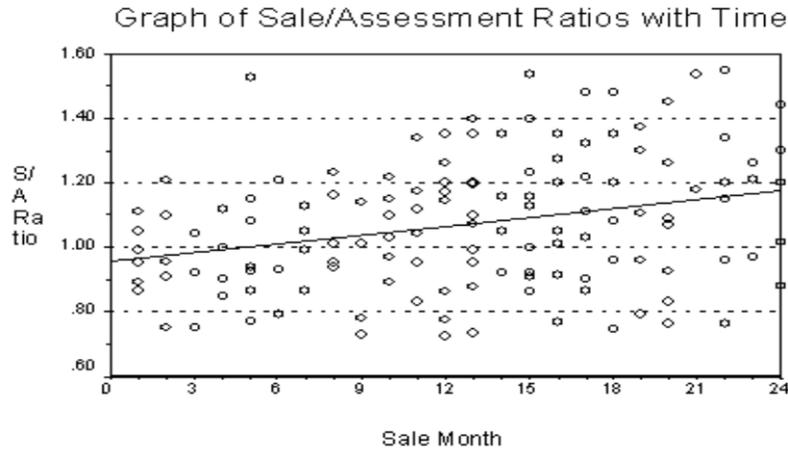
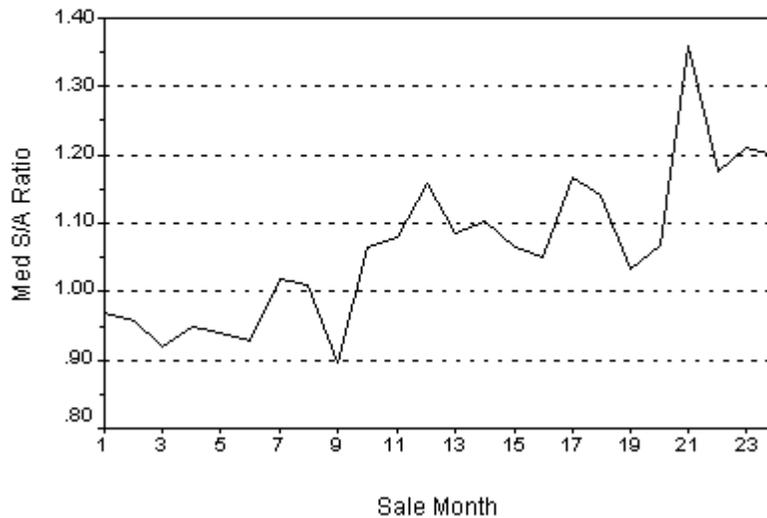


Exhibit 4

Line Graph of Median S/A Ratios with Time



CAMA Models

Municipalities that use multiple regression analysis or similar techniques can include time variables in their models. Assume that a CAMA model calibrated a coefficient of -240 for the variable MONTHS (1-36) and that the average sale price was \$100,000. This would indicate that values were declining by an average of .24% per month ($-240 \div 100,000$).

CAMA models have the advantage of explicitly controlling for the effects of all variables tested in the model - neighborhood, lot size, building size, construction grade, year built, and all other features for which variables were included in the model. Many options are available for testing alternative model formats and time

variables. As mentioned, it is one of two methods used extensively by ORPS (along with the sales ratio trend method). Statistical software (such as SPSS is required for this method).

Applying Trend Factors

Once the time trend is identified, sales prices must be adjusted to the target date (normally the assessment date). This can be done by creating a time variable centered on the assessment date. Assume, for example, that we found that sales were increasing at the rate of 0.50% percent per month over the 36-month period, January 2000 - December 2002, and we wish to adjust sales to the assessment date, January 1, 2003. Note that sales in December 2002 would, on average, have occurred ½ month before the assessment date, sales in November 2002 would have occurred 1.5 months before, and so forth. Thus our new time variable (which we will call MOS) ranges from .5 (Dec 2002) to 35.5 (Jan 2000). Time-adjusted sales prices (TASP) are computed as follows:

$$\text{TASP} = \text{Sales Price} * (1+.005*\text{MOS})$$

For example, a sale of \$100,000 in January 2002 would have an adjusted price of \$105,750:

$$\text{TASP} = 100,000 * (1+.005*11.5) = 100,000 * 1.0575 = 105,750$$

If the sale occurred in January 2000, the adjusted price would be:

$$\text{TASP} = 100,000 * (1+.005*35.5) = 100,000 * 1.1775 = 117,750.$$

Note the difference between MOS and MONTHS. The latter is used to develop the time trend and begins at the earliest month and counts forward. The former is used to apply the time trend and begins at the target (assessment) date and count backward (it would be negative for sales after the assessment date).

A sales ratio study comparing assessments with TASP is used to determine the equalization rate. When prior year assessments are used, the results indicate the amount of adjustment that must be made to achieve 100% or whatever the target rate is (diagnostic phase). When new or current year assessments are used, the indicated rate should approximate the desired rate (testing phase of systematic analysis).

7. Obtaining Resources and Help

The process of systematic analysis requires strong appraisal/analytical skills and supporting resources. As discussed, property data must be reviewed and updated as necessary, property strata must be created, market data must be assembled and analyzed, decisions made, and actions taken. Supporting resources, particularly personnel and software, are required.

Many assessing units in New York are small and lack the immediate wherewithal to undertake systematic analysis and keep values current and equitable, particularly in dynamic markets. The first step to obtaining the necessary capacity is *self-education*. As the official in charge of maintaining assessments, you must understand the goals, tasks, and mechanics of the assessment process. You will then be in a position to know what must be done and how to acquire the necessary skills and resources.

This guide is intended to provide a starting point in this self-education process. In addition to the references listed below, there are three primary sources of support that you and your staff can turn to for information and specific help.

- County Real Property Tax Services (RPTS). Many county RPTS departments possess skills in systematic analysis, are often closest to the assessor and may be able to provide hand's-on help dependant on time and resources available.
- New York State Office of Real Property Tax Services (ORPS). ORPS regional offices will assist assessors with systematic analysis to the extent that time and resources permit. ORPS manages a data warehouse of property characteristics and market data (but depends on assessors to keep

such data current and accurate) and maintains the New York Real Property System (RPS), which can be used to conduct both systematic analyses and full reappraisal activity. Schools and seminars are offered periodically on use of these tools and interpretation of results (see the training link on the ORPS web site: www.orps.state.ny.us).

- Contractors. There are a number of vendors available who can provide assistance with systematic analysis and follow-up reappraisal activity. Contractors can help group properties and define neighborhoods, collect and verify property data, assemble market information, develop valuation schedules and formulas, and defend values upon appeal. The key to a successful revaluation is to understand the tasks and requirements and to work closely with the contractor to ensure effective execution.

ORPS strives to work closely with assessors and counties on systematic analysis projects. In a process known as pre-decisional collaboration, these parties work together in analyzing market data to establish the LOA and measures of valuation uniformity. Pre-decisional collaboration can take place at three different levels.

- Lowest level. ORPS performs the necessary analysis, shares and explains the results, and seeks agreement on appropriate actions, which can range from simply establishing the LOA to contracting for a full reappraisal.
- Middle ground. All parties share data and participate in diagnostic analyses. They reach a joint decision on the prescriptive phase of the analysis. This level requires the full input and participation of the assessor and assumes a higher skill level.
- Highest level. The assessor, perhaps with the assistance of the county RPTS, performs the diagnostic analyses and reaches a tentative decision concerning follow-up actions. ORPS confirms the process and accepts the results. This represents the ideal state with the local governments able to conduct independent analyses, interpret results, and determine required actions.

ORPS has a number of publications and other materials that provide help with various aspects of systematic analysis and development of the LOA. Most of this information is available on the ORPS web site (www.orps.state.ny.us). In particular, look for the following links:

- Fair Assessments - the requirements and methods for keeping assessments up-to-date, as well as success stories, legal topics and related newsletter stories
- State Aid - details regarding Annual Aid, as well as Triennial and Consolidation Incentive Aid
- Assessors' Manuals (available from "Valuing and Assessing Real Property") - exemption administration, data collection and maintenance and the valuation reference manual
- Equalization and Tax Levy Distribution - rates, survey procedures, the LOA pamphlet, systematic analysis and more
- Real property system - RPS includes the CAMA system maintained by ORPS
- Training - requirements and opportunities for assessors, county directors and staff

In addition, the International Association of Assessing Officers (IAAO) has a wealth of publications, courses, and workshops for assessors that address all aspects of the assessment process. The following publications are particularly relevant:

- Assessment Practices: Self-Evaluation Guide (1999)
- Mass Appraisal of Real Property (2000)
- Standard on Mass Appraisal of Real Property (2002)
- Standard on Ratio Studies (1999)