

# STATE OF INDIANA

DEPARTMENT OF LOCAL GOVERNMENT FINANCE



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## MEMORANDUM

TO: County Assessors

FROM: J. Barry Wood, Assessment Division Director *JBW*

DATE: February 4, 2009

SUBJECT: Annual Adjustment ("Trending") Guidance

The purpose of this memorandum is to provide county assessors with instruction and guidance from the Department of Local Government Finance ("Department") for the annual adjustment, or "trending," process. This memorandum supplements and clarifies the current annual adjustment process as outlined in 50 IAC 21.

As required by law, the Department will conduct ratio studies for assessments after December 31, 2008 (i.e. beginning with the March 1, 2009 assessment date). IC 6-1.1-30-14(4).

Although the Department will be conducting the ratio studies to be used in determining the assessed valuations, it is still the responsibility of the county assessor to do the annual adjustment work (e.g., developing and applying the "trending" factor for all classes of property and all neighborhoods). It is also highly recommended that to help identify any potential problems, the county conduct its own internal ratio study before submitting the assessed value information to the Department.

### Sales Verification Requirements

The county assessor is required to retain and properly verify all sales disclosure forms forwarded under IC 6-1.1-5.5-3. The county assessor is required to use the sales verified to determine whether a trending factor must be applied.

Each county assessor is required to complete sales verification prior to the March 1 assessment date. Sales data must be routinely confirmed. A sales disclosure form required by IC 6-1.1-5.5 is the manner in which sales data is confirmed.

Sales used in a ratio study must be screened to determine whether they reflect the market value-in-use of the property transferred.

Every arm's length, open-market sale that appears to meet the conditions of a market value transaction must be included in the ratio study unless one (1) of the following occurs:

- (1) data for the sale are incomplete, unverifiable, or suspect.
- (2) the sale fails to pass one or more specific tests of acceptability.

Sale prices used in the ratio study must be adjusted for financing, assumed long-term leases, personal property, gift programs, and date of sale. *IAAO Standard on Ratio Studies*, Appendix A (July 2007); *IAAO Standard on Ratio Studies*, Standard 6 (July 1999).

#### Period from Which Sales Are Drawn

The period from which sales are drawn “should be as short as possible and, ideally, no more than one year.” *IAAO Standard on Ratio Studies*, Standard 4.4 (July 2007); *IAAO Standard on Ratio Studies*, Standard 5.4 (July 1999).

**Therefore, the Department will allow the county assessor to use sales of properties occurring between January 1, 2008 and December 31, 2008, with a January 1, 2008 valuation date, for the March 1, 2009 assessment date (pay-2010).**

However, a sales period of longer than one (1) year may be required to produce a representative sample for some strata within a township in a county that does not produce enough sales activity. In such instances, to develop an adequate sample size, the sales used in ratio studies can span a period as long as five (5) years provided there have been no significant economic shifts or changes to property characteristics; and sales prices have been adjusted for time as necessary. *IAAO Standard on Ratio Studies*, Standard 4.4 (July 2007); *IAAO Standard on Ratio Studies*, Standard 5.4 and Standard 8.4 (July 1999).

#### Sample Representativeness

A ratio study is valid to the extent the sample is sufficiently representative of the population. A ratio study sample is representative when the distribution of ratios of properties in the sample reflects the distribution of ratios of properties in the population. To be a representative sample, the sample must proportionally reflect major property characteristics (e.g., property class, location, size, age) present in the population of sold and unsold properties. The county assessor must incorporate a quality control program to ensure that sold and unsold parcels are assessed at the same level. *IAAO Standard on Ratio Studies*, Appendix D (July 2007); *IAAO Standard on Ratio Studies*, Standard 5.5 (July 1999).

**A ratio study sample with fewer than five (5) sales must not be used due its exceptionally poor reliability.** When a sample stratum initially contains fewer than five (5) sales or exhibits unacceptable variability as measured by the coefficient of dispersion (COD), the first course of action to remedy the situation should be to expand the period from which sales are drawn, as described above. However, in some situations, further stratification, combination, or delineation of the neighborhoods will address this issue, although care must be taken to avoid over representing newly constructed property in the sample. *IAAO Standard on Ratio Studies*, Standard 3.4 and Standard 6.4 (July 2007); *IAAO Standard on Ratio Studies*, Standard 8.4 (July 1999).

Also, when there are insufficient sales of improved commercial and industrial properties, per 50 IAC 21-5-2(b), the county assessor is required to use other indices to derive an annual adjustment factor or modify the values, such as updated Marshall and Swift cost and depreciation tables, income data, rental data, market value appraisals, and other relevant evidence derived from appeals, governmental reports, multiple listing service (MLS) data, and other information.

### Outliers

Outlier ratios are very low or high ratios as compared with other ratios in the sample. One extreme outlier can have a controlling influence over some statistical measures. Outlier ratios can result from an erroneous sale price, a non-market sale, unusual market variability, a mismatch between property sold and the property assessed, and other reasons. *IAAO Standard on Ratio Studies*, Standard 5.2 (July 2007); *IAAO Standard on Ratio Studies*, Standard 6.6 (July 1999).

The preferred method of handling an outlier ratio is to subject it to additional scrutiny to determine whether the sale is a non-market transaction or contains an error in fact. If the error can be corrected (e.g., data entry error), the property must be kept in the sample. If the error cannot be corrected or inclusion of the identified outlier would reduce sample representativeness, the sale must be excluded.

The method listed in Appendix B of the *IAAO Standard on Ratio Studies* (July 2007) should be used to identify outliers.

After identification, the cause of each outlier must be determined by investigation. Outliers should only be excluded when they represent truly unusual values that are not characteristic of a larger systemic pattern in the data. **All trimmed outliers must be reported to the Department along with a brief explanation of the reason for their removal.**

### Sales Chasing

Sales chasing is using the sale of a property to trigger a reappraisal of that property. It is against both the *IAAO Standard on Ratio Studies* (July 1999 and July 2007) and Department policy to allow sales chasing to occur. Sales chasing causes invalid uniformity results in a ratio study, and causes invalid assessment level results unless similar unsold parcels are assessed by a method that produces the same percentage of market value as the one used for the parcels that sold. **Sales chasing causes inequitable treatment of taxpayers by shifting the tax burden to taxpayers who have recently purchased property.**

Field visits and multiple-listing services (MLS) may be used to update assessed values, provided the updates are based on actual changes in parcel characteristics, such as additional outbuildings or changes in square footage. However, this may not be done to update the effective age, grade, or condition of a sold parcel unless unsold parcels are similarly updated. A list of all parcels whose characteristics have been changed should be reported to the Department, along with a brief explanation of the update.

All ratio studies will be evaluated by the Department using the methods listed in Appendix D of the *IAAO Standard on Ratio Studies* (July 2007). The technique described under D.1: Comparison of Average Value Changes — the Mann-Whitney test — will be the most commonly employed method, although the use of other methods is not precluded.

When the Mann-Whitney test is used, it will be conducted at the neighborhood level. All neighborhoods with five (5) or more sold parcels will be tested. At least ninety-five percent (95%) of all tested neighborhoods must pass the Mann-Whitney test for the ratio study to be approved. For example, a county with one hundred (100) testable neighborhoods must have at least ninety-five (95) of those neighborhoods pass the Mann-Whitney test for the ratio study to be approved.

The null hypothesis in all cases will be that the percent change of sold properties in a neighborhood is not greater than the percent change of unsold properties in that neighborhood. This hypothesis must be rejected with at least ninety-five percent (95%) confidence before sales chasing can be said to have occurred. An adjustment for multiple tests will be used to ensure that the total percentage of false positives is not greater than five percent (5%). Parcels that have undergone substantial changes—as reflected by either a change in property class or as reported by the assessor—will not be tested. Such reported changes must be subject to substantiation by comparing the data reported in the eight (8) standard files submitted contemporaneously with the ratio study to the data so reported for the relevant parcels in the prior year. *See also IAAO Standard on Ratio Studies*, Standard 10 (July 1999).

#### Over-stratification

Care must be taken not to over-stratify, that is, to create strata that are too small to achieve statistical reliability. *IAAO Standard on Ratio Studies*, Part 2, Standard 3.5.2 (July 2007); *IAAO Standard on Ratio Studies*, Standard 4.4 (July 1999).

#### Change for Change's Sake

According to the *IAAO Standard on Property Tax Policy*, Standard 4.2.2 (August 2004), in the annual adjustment process, the county assessor is required to re-evaluate the factors that affect value each year, express the interactions of those factors mathematically, and use mass appraisal techniques to estimate property values. As a result, although it is necessary to observe and evaluate, **it is not always necessary to change the assessment of each property each year to achieve current market value-in-use.**

In other words, as stated in the *Statewide Property Tax Equalization Policy Report* conducted by the Indiana Fiscal Policy Institute (October 2005), **assessments only need to be changed when there is a clear indication based on market evidence that valuations no longer meet assessment level and uniformity standards, or when there are significant physical changes.**

If you have any additional questions or comments about this memorandum, please contact me at [bwood@dlgf.in.gov](mailto:bwood@dlgf.in.gov) or (317) 232-3762.