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# STATE OF INDIANA

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DEPARTMENT OF LOCAL GOVERNMENT FINANCE



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**TO:** Assessing Officials  
**FROM:** Barry Wood, Assessment Division Director *J 3W*  
**RE:** 2012 Ratio Study Guidance  
**DATE:** December 2, 2011

The purpose of this memorandum is to provide guidance to assessing officials regarding changes in the ratio study review process by the Department of Local Government Finance (“Department”) for the 2012 assessment year. The first section describes the 2012 ratio study process in conjunction with the 2012 General Reassessment. The second section details changes to the ratio study submission format. These changes are described in more detail in the attached 2012 Ratio Study Format document.

## 2012 General Reassessment

Like prior years, the Department requires each County Assessor to have an approved ratio study prior to submitting 2012 certified assessed values to the County Auditor. Per IC 6-1.1-5-14, the County Assessor must deliver the real estate book (i.e., roll 2012 pay 2013 gross assessed values and balance) to the County Auditor by July 1, 2012. Although there is no statutory date for submission of the county’s ratio study, **to ensure on-time billing for 2012 pay 2013, it is highly recommended the ratio study be submitted by May 1, 2012.** Additionally, a county’s ratio study will not be reviewed until all datasets are compliant, particularly the Sales Disclosure Data File (50 IAC 27-9-1).

As part of the annual adjustment process, values in the ratio study were set using local market data such as the sale prices of comparable properties. For the 2012 annual adjustment, the values used in the ratio study shall be based on the updated land values, updated cost schedules (including the updated depreciation base year and location cost multipliers), and any changes in parcel characteristics discovered during the 2012 reassessment. **If necessary, further adjustment based on local market data (“trending”) may be performed to meet ratio study standards. However, the purpose of the 2012 reassessment is to value properties at their market value-in-use, as indicated by compliance with ratio study standards. If this goal is met without trending, no further adjustment is necessary.**

## RATIO STUDY SUBMISSION BY COUNTY

It is highly recommended that the county conduct an internal ratio study before submitting its ratio study to the Department. If an internal ratio study is completed, please forward a copy to the Department.

## ASSESSMENT DATE AND VALUATION DATE

- The assessment and valuation date are both March 1, 2012. All real property should reflect characteristics as of this date.
- Depreciation also should be applied relative to March 1, 2012. If an adjustment is necessary, and depreciation has not been updated as part of the annual adjustment process, the adjustment factor may need to be revised to take into account increased depreciation from the 2002 General Reassessment depreciation date of January 1, 1999.
- **Note: The cost tables will be updated on an annual basis. Depreciation also should be updated on an annual basis. It is not known at this time if the Depreciation Schedule will be updated for the 2013 annual adjustment.**

## PARCEL CHARACTERISTICS

All properties must be assessed based on their characteristics as of March 1, 2012. The physical inspection process is from July 1, 2010 to March 1, 2012. Parcel characteristics and data from properties inspected prior to July 1, 2010 must be confirmed by March 1, 2012 with a follow-up property visit, review of county building permit records (with a follow-up property visit, if necessary), or use of aerial photography (e.g., Pictometry) – see <http://www.in.gov/dlgf/files/100318 - Wood Memo - 2012 Reassessment Guidance.pdf>.

## RATIO STUDY REVIEW STANDARDS

The Department shall review all ratio studies for the 2012 General Reassessment according to the guidelines set forth in the 2007 *IAAO Standard on Ratio Studies*. **Aside from the following exceptions**, the 2012 ratio study review process is unchanged from the Department's guidance on sales review and ratio study analysis for 2011 – see <http://www.in.gov/dlgf/files/110111 - Wood Memo - 2011 Ratio Study Review Process and Annual Adjustment Guidance.pdf>.

### *Sales Window:*

Sales used in the 2012 ratio study must take place no later than March 1, 2012. The assessing official shall use sales of properties during a period of time from March 2, 2010 to March 1, 2012 for the March 1, 2012 assessment date (see the 2011 [read 2012] Real Property Manual - [http://www.in.gov/dlgf/files/Adopted\\_2011RealPropertyAssessmentManual.pdf](http://www.in.gov/dlgf/files/Adopted_2011RealPropertyAssessmentManual.pdf)). This is different than the 14-month timeframe used for the annual adjustment process. A longer time period may be required to produce a representative sample in some counties; however, no more than 5 years of sales may be used in the ratio study.

Older sales shall be time adjusted, if appropriate, in accordance with methods prescribed in the *2007 IAAO Standard on Ratio Studies*.

#### *Multiple Sales Years*

In the past, if multiple years of sales were used in any township in a section of the ratio study, then multiple years of sales should be used for all townships in that section. For example, if two years of sales were used in Adams Township in the residential vacant section, then all other townships in the residential vacant section should use two years of sales.

For the 2012 assessment process, counties may use sales older than one year in one township without expanding the sales window for other townships. However, time adjustments for older sales must be performed using all comparable older sales, including those sales whose inclusion in the ratio study is not necessary because of sufficient current sales. This will promote equity among townships with different sales windows without requiring the addition of older sales in townships where they are not needed for assessment purposes.

For example, Adams Township has sufficient 2011 sales but Boone Township does not. The sales window is expanded to 2010 sales for Boone Township. The county does not need to expand the sales window to 2010 sales for Adams Township. However, the county should use comparable 2010 and 2011 sales from both Adams and Boone Townships to determine whether a time adjustment is necessary for the 2010 sales used in Boone Township.

#### *Sales Chasing:*

Appendix D of the *2007 IAAO Standard on Ratio Studies* lists four methods that oversight agencies may use to detect sales chasing. Of these, the Department primarily uses the Mann-Whitney test outlined in D.1: Comparison of Average Value Changes. In *Mass Appraisal of Real Property*, Robert Gloudemans notes that:

When calculating average value changes, new parcels and parcels that have undergone a change in use or physical change (such as additions or renovations) should be excluded (p. 311 – 312).

In prior years, the Department has excluded these parcels from its analysis. However, in 2012 most counties will have a large number of properties whose assessed value has changed from reassessment activity rather than or in addition to market conditions. This makes average value changes such as those detected by the Mann-Whitney test unreliable for detecting sales chasing.

As a result, the Mann-Whitney test will not be used to detect sales chasing for the 2012 assessment process. The Department may use the other three (3) methods listed in Appendix D to detect sales chasing at its discretion.

## Ratio Study Format

As in prior years, ratio studies must be submitted in a spreadsheet compatible with Microsoft Excel 2007. The spreadsheet must contain one tab with ratio study data for each of the following types of property:

- Industrial Vacant
- Industrial Improved
- Commercial Vacant
- Commercial Improved
- Residential Vacant
- Residential Improved

In addition, the study should contain a *Summary* tab detailing the number of sales used and ratio statistics in each section of the ratio study.

For the 2012 General Reassessment, all ratio studies submitted to the Department also must include two additional tabs. The first tab is called *Formatted*. This tab shall contain the ratio study data located in the other six tabs in a format readable by the SPSS software program. This format is fully described in the attached document. This formatting can be done in Excel or another program. **Note: The SPSS software program is not needed to produce the formatting.**

Because of the way the SPSS software reads the data, only one parcel from a multi-parcel sale can be included in the *Formatted* tab. To fix this, the ratio study also should include a second new tab called *MultiParcelSales*. This tab will list all the data for each parcel in each multiple parcel sale included on the *Formatted* tab.

Adding these tabs will make the review process more efficient and should result in a faster approval time. While calculating ratio statistics by hand is time consuming, a software program like SPSS can perform these calculations very quickly. Listing multi-parcel sales in a separate tab also will make it easier to reconcile the sales used in the ratio study with the sales disclosure data reviewed by the Data Division.

The ratio study format is described in detail in the attached document.

Questions on this memo may be directed to Barry Wood, Assessment Division Director, at [bwood@dlgf.in.gov](mailto:bwood@dlgf.in.gov) or 317.232.3762 or David Schwab, Senior Statistician/Application System Analyst, at [dschwab@dlgf.in.gov](mailto:dschwab@dlgf.in.gov) or 317.234.5861.