

# **2016 Tippecanoe County Ratio Study Narrative**



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## **Introduction:**

The 2016 Tippecanoe County Ratio Study is an analysis of sale price compared to assessed values for residential and commercial parcels. The sales window for assessed values effective January 1, 2016 runs from January 1, 2015 through December 31, 2015. The analysis contained in this narrative substantiates the annual adjustments made to properties for the 2016 assessment year.

Annual ratio studies are broken into several different segments to compare similar properties in each township. These segments focus on sales of vacant and improved parcels, as well as residential and commercial/industrial parcels. Agricultural sales are omitted from the study due to unique legislation that dictates their assessment and leads to low correlation between sale price of agricultural parcels and their assessed values. Areas without enough sale activity to substantiate market wide adjustment are also omitted.

Annual adjustments to each type of property are tied to sales activity regardless of valuation methodology. Vacant land sales are used to set, or update base rates for land valuation in both residential and commercial areas. Improved sales of residential parcels are used to determine trending factors to be applied to each dwelling's depreciated replacement cost. Sales of Commercial and Industrial parcels, which are mostly valued on the income approach, are used to calibrate capitalization rates with respect to observed market trends (rents, vacancies, expenses, etc.) in order to set a level of valuation consistent with the Indiana Department of Local Government Finance guidelines per IC 6-1.1-5-14.<sup>1</sup>

The 2016 median level of assessment for Tippecanoe County is 94.38. All respective sections of the section are within 5% of the median ratio per the 2007 International Association of Assessing Officials (IAAO) Standard on Ratio Studies.<sup>2</sup>

## **National Trends and Local Observation:**

The 2015 calendar year saw a substantial increase in local sales activity compared to recent years, with sales volume reaching levels not seen since 2006. This trend is not confined to the local market; nationwide existing home sales grew 7% and new home starts grew 10%.<sup>3</sup> The 2015 Real Estate Report published by Coldwell Banker Shook notes that not only did existing home sales in Tippecanoe County increase by 11.5%, but the average sale price also increased 4.6%.<sup>4</sup> Tippecanoe County new home starts decreased slightly in 2015 (approximately 8%), however this report will not speculate on the decrease in new home starts as external factors (amount of buildable land in inventory, etc) have not been determined to have a correlative effect on home values that can't be reconciled through ratio study analysis and trending.

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<sup>1</sup> Wood, Barry. "2016 Ratio Study Guidance." Department of Local Government Finance. Indianapolis, IN. 2016. 1.

<sup>2</sup> "2007 IAAO Standard on Ratio Studies." International Association of Assessing Officials, Kansas City, MO. 2007. 17.

<sup>3</sup> Coldwell Banker Shook. Coldwell Banker Commercial Shook. "2015 Real Estate Report." Lafayette, IN. 2016. 2.

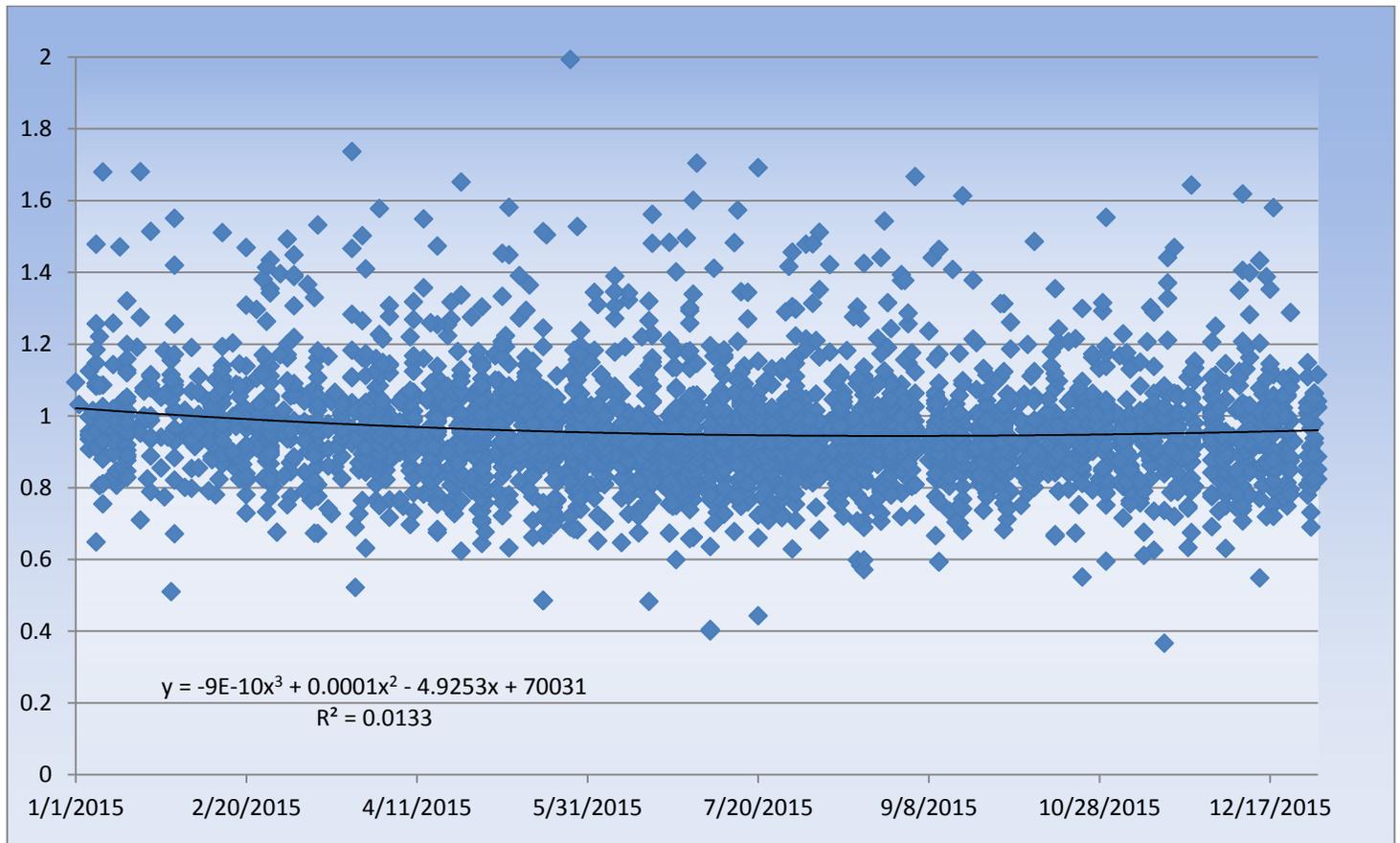
<sup>4</sup> Ibid. 6.

Nationally, commercial sales experienced a sharp increase in 2015 as well. Over \$530 billion of commercial & industrial (C&I) real-estate transaction volume occurred nationally in 2015, up 23% from 2014. Additionally, national sales levels on a price-per-square-foot basis increased across all commercial markets with a low point of 4% in lodging and a high of 14% in the multi-family property market.<sup>5</sup> The Tippecanoe County improved C&I analysis includes 76 valid transactions and \$130 million in sale value—both numbers far higher than volume experienced in recent years.

Tippecanoe County real-property market activity in 2015 showed increase in transaction volume and sales levels in all sectors, which is buttressed not only by the local data included in this report, but also national trends that show growth in all sectors of real-estate.

## Ratio of All Sales in 2016 Tippecanoe County Ratio Study

Table 1: The above is a graph depicting every sale in the 2016 Tippecanoe Ratio Study. The ratio is a measure of Assessed Value/Sale Price



The graph above demonstrates a broad trend of appreciating sale level vs. assessed value at approximately 2.6% during 2015. The increase is demonstrated by the inverse trend line—because all sales during the year are weighed equally with respect to sale date, and subsequently adjusted to median levels in order to maintain the county’s target AV/SP ratio, the trend line showing a lower ratio of AV/SP for sales at the end of the year indicates that the median levels the most recent sales were adjusted to are lower than the correlation between the annual adjustment and sale level at the beginning of 2015.

<sup>5</sup> Situs RERC. “Real Estate Report.” 4<sup>th</sup> Quarter 2015. Volume 44. No. 4. 2016. Page 37. Electronic Periodical. 8 March 2016.

### **Residential Sales Analysis:**

Residential sales volume in Tippecanoe County increased substantially in 2015. Not only did gross sales levels increase across vacant and improved residential properties, but the amount of sales determined to be valid for ratio study analysis increased far over previous ratio study levels. Residential improved sales increased by 40% from 2038 sales to 2857 and vacant sales increased 35%, up to 216 valid sales from 160 in the 2015 ratio study. The prevailing reason for increases in these sectors follows in property specific analysis.

### **Residential Vacant Sales:**

The 2016 assessment year (Jan 1, 2015-Dec. 31, 2015) includes 216 valid residential vacant land sales. These sales reinforce upward trends that have been observed locally as real-estate markets have stabilized regionally in recent years. Areas of new development south of the City of Lafayette in Wea Township, as well as west and north of West Lafayette in Wabash and Tippecanoe Townships feature the greatest amount of sales and several neighborhoods have shown cohesive sales data that allow for well supported site values in therein.

Several established sub-divisions in Tippecanoe County experienced further development of new phases that substantiate base-rate changes across-the-board in these areas. Stone's Crossing, neighborhood 625 in Wea Township, is a cohesive development with houses constructed after 2000. The lots had previously been flat valued at a base rate of \$25,000 and the neighborhood trending factor had been hovering around 10% over the past several years to account for the disparity in sale level and assessed value. In 2014 and 2015 phase 2 of the Stone's Crossing SD, which included development of previously platted lots on the western edge of the SD, gave our office fresh insight into the value of land in that sub-division. The slightly larger lots on the western edge of Stone's Crossing typically sold from \$48,000- \$53,000 while smaller, interior lots that are similar to the previously developed lots from phase 1 sold in the \$35,000-\$40,000 range. Given these sales our office determined to value the larger western lots at \$50,000/lot and the smaller interior lots at \$35,000/lot. Raising the phase 1 lots from \$25,000 to \$35,000 is not only substantiated well by ample vacant sales available, but also had the complimentary effect of driving the neighborhood trending factor back closer to 1, meaning the improvement values of the homes in Stone's Crossing are closely aligned with their depreciated replacement costs.



Figure 1: Stone's Crossing SD (ngh 625) with phase 2 developments located on Basal Ct., Druze Ave, and north Ensley St.

Successive phase development as well as infill of existing lots in suburban areas of Wea, Tippecanoe, and Wabash Townships support base rate changes in several neighborhoods. Demand for land/housing in West Lafayette and Harrison school districts is evidenced by development of new additions to existing/stable developments such as Stonehenge (neighborhoods 534 and 535), Harrison Highlands (ngh 795), and Winding Creek (ngh 555 and 785). These developments provide ample sales that support residential base rates that are the highest for large sub-divisions in Tippecanoe County. As an example, Winding Creek subdivision describes the boundary of the Coyote Crossing golf course and development of lots north of the golf course established standard lot rates of \$65,000 while lots on the course are valued upwards of \$120,000. Sales in this area support existing land values in Winding Creek neighborhood 555 on the south side of the golf course.



Figure 2: Winding Creek ngh 785, north of Coyote Crossing Golf Course. 10 vacant sales in 2015 with land values ranging from \$65,000 to \$121,000 for properties with golf course frontage.

Vacant sales in Fairfield Township, which is mostly comprised of the City of Lafayette, are not prevalent given the existing population density; however there are sales that indicate a need to address valuation levels in the single family residential areas around downtown Lafayette. Neighborhood 2513 is a new neighborhood for 2016 that includes a new planned development of townhomes just north of downtown on 5<sup>th</sup> Street. Lot sales in this development are exceedingly high compared to prevailing residential land values in the area. This new development, along with analysis of infill lots that are typically purchased for development by groups such as the Habitat for Humanity, will need to be used to abstract downtown land values in an attempt to stabilize residential land around downtown Lafayette moving forward.



Figure 3: Centennial Townhomes (ngh 2513) before demolition of previous structures, this picture displays current parcel lines.

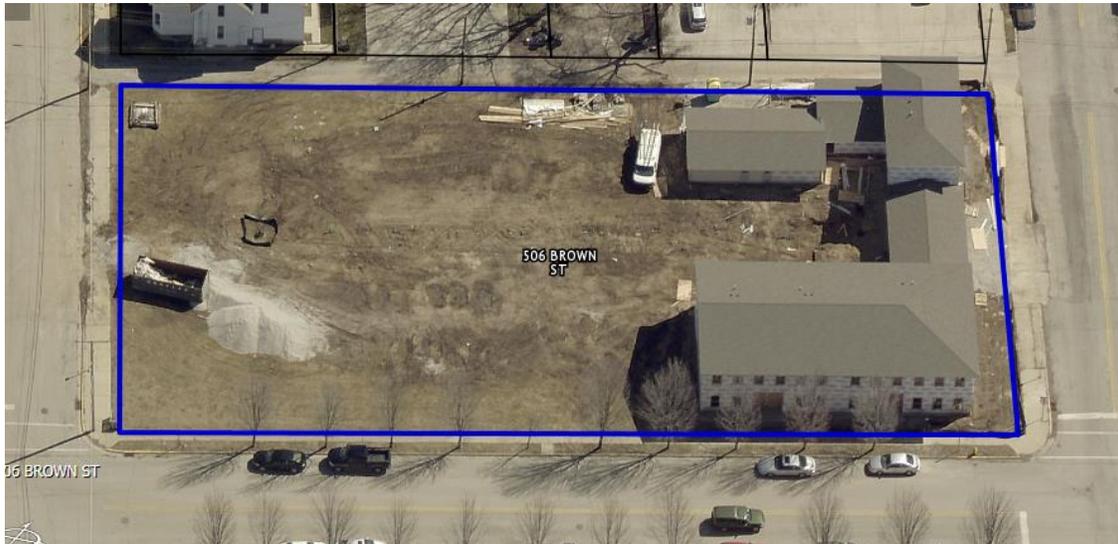


Figure 4: Centennial Townhomes (ngh 2513) at the start of redevelopment in April 2015. The PD includes 12 parcels, 4 of which sold vacant for the 2016 Ratio Study.

The remaining rural townships in Tippecanoe County lack sales volume in cohesive neighborhoods/developments to support over-arching recalibration of land base rates.

### **Residential Improved Sales:**

Valid residential improved sales increased by 40% from 2038 sales to 2857 for the 2016 assessment year. The reason for increase in sales of improved residential properties is multi-faceted. As previously mentioned, existing home sales in Tippecanoe County increased 11.5% from 2014 to 2015, and while this accounts for a large portion of the increase, valuation methodology and neighborhood delineation changes directly contributed to an increase in what our county considers valid sales.

Typically, the sales disclosure data file, which has to be submitted to the DLGF prior to the annual ratio study per 50 IAC 27-9-1 compliance standards, includes columns for sales data criteria unique to each sale that includes, but is not limited to whether or not the transaction is a residential rental property, contract sale, the result of foreclosure, or other circumstances which might be considered special, or atypical for an open market transaction. Historically, sales containing these criteria have been invalidated as a matter of cursory procedure in order to ensure that distressed sales or sales with uses that aren't typical for the neighborhoods where these properties were located didn't adversely affect overall valuation levels. For the 2016 Tippecanoe County ratio study, we have determined that there are many cases in which these special circumstances are in fact typical, and have resolved to use many of these sales in order to substantiate valuation levels of similar properties with similar uses, whether they be residential rentals, highly distressed homes, or something else altogether.

The largest change to our valuation methodology that led to an increase of several hundred valid sales is the determination to separate and value known residential rentals that contain under four rental units in a manner that is consistent with their use. Several investment groups hold residential rental real-estate located in Tippecanoe County in inventory, with property located in close proximity to Purdue University in West Lafayette driving the market. Through appeals, surveys, and additional research our office has

determined there is a difference in property value in-use for owner-occupied versus rental properties that might otherwise be identical. Some of the most basic discrepancies arise from factors such as rental properties not qualifying for typical financing and having a higher amount of risk associated with ownership. Because of these factors residential rental properties will typically trade at a lower sale level than a similar owner-occupied house. Collected rent and expense data, as well as an increased level of valid sales of these properties for 2016, substantiates a valuation methodology for these income-producing properties that is more consistent with their use than trending them with dissimilar owner-occupied residential properties. Tippecanoe County already had several residential rental neighborhoods for planned developments of purpose built duplexes, triplexes, etc., however in 2016 we created neighborhood 10012 to catch a greater amount of residential rentals. Neighborhood 10012 contains over 3500 known rental parcels that are stratified based on location and unit type in order to ensure equitable rent comparables for each respective type of rental property.

**Residential Improved Summary:**

The increased sale volume in Tippecanoe County during 2015 allowed for better delineation and calibration of existing valuation markets and models. Many neighborhoods that had previously required sub-markets for valuation were able to be valued individually. Additionally, several submarkets were able to be further divided into smaller submarkets of more comparable properties. Being more precise in neighborhood/sub-market delineation ensures valuation equitability with the most similar properties available in the market.

The average assessed value increase from 2015 to 2016 for improved residential property is 2.92%, while statistical analysis shows that the annual adjustments made have allowed us to diminish increases while maintain our desired level of assessment at a median of 94.21.

<b>2016 Tippecanoe County Improved Residential Statistics</b>										
			LCL	UCL		LCL	UCL			
	Count	Median	Median	Median	Mean	Mean	Mean	Wgt.Mean	PRD	COD
<b>Total</b>	<b>2857</b>	<b>94.21</b>	<b>93.72</b>	<b>94.59</b>	<b>95.99</b>	<b>95.44</b>	<b>96.54</b>	<b>93.69</b>	<b>1.02</b>	<b>11.12</b>

The confidence level of the confidence interval(s) was 0.050. The normality test was rejected when less than 0.100  
Sales ratios range from 0 to 1000.

**Commercial Improved Sales:**

In 2015, sales of commercial property in Tippecanoe County hit extremely high levels of both sale volume and sale level for the local market. There were 76 valid transactions with a total sale volume of \$129,349,900, anchored by the \$54 million sale of the Lafayette Pavilions shopping center in February of 2015. This high sale volume has created an opportunity for calibration and insight into how accurate our

income approach valuation models are when predicting value. County-wide, the vast majority of improved commercial parcels are valued on a capitalized income approach. Exceptions to this rule include special-use properties that lack market data and do not fit any of our established valuation models for income capitalization. The income approach relies on aggregate market data to support valuation models. Tippecanoe County's income approach values have historically been derived through in-house income/expense data verification while relying on third party research surveys for capitalization rates because the local market typically lacks sales volume to develop market-specific cap rates. The 76 sales in Tippecanoe County present a substantial sample by which to modify existing models, most specifically with respect to multi-family, retail, office, and warehouse/distribution properties.

For the sake of commercial improved ratio study analysis Fairfield and Wea townships have been combined as they are both mostly within the municipal boundaries of the City of Lafayette and share the same market base across most all commercial industries. Wabash Township, which includes the City of West Lafayette, is valued separately as the market is disparate due to the high volume of student housing, retail, and office/R&D facilities near Purdue University.

### **Multi-Family (Apartment) Sales:**

The multi-family sales pool includes 20 sales total- 10 from each Lafayette and West Lafayette. The sales pool in West Lafayette is anchored by the sale of the Lodge, a 205 unit townhouse style student apartment complex built in 2001. The Lodge sold for \$16,350,000 (\$79,750/unit) and is among the oldest of an array of similarly constructed complexes (of similar size) in the nearby area. The sale of The Lodge is a strong data point to substantiate the level of assessment of not only that complex, but also similar complexes of a similar age near the bottom end of newer townhouse style student apartments in the area.



Figure 5: The Lodge apartment complex (\$16.35m sale built in 2001) highlighted south of Cumberland Rd. The Lodge is directly across the street from Ivy Towns, a new 266 unit development of similar construction and amenities which began construction in 2014 and started leasing units in 2015.

Further apartment sales analysis in West Lafayette and Lafayette substantiated adjusting our models to allow for as high as a 3.5% increase in West Lafayette and a 2.5% increase in Lafayette in order to maintain target ratios and ratio study compliance. In reality, the West Lafayette market could substantiate a larger increase, but the heavy amount of appeal activity in the student apartment section has led the Assessor's office to determine that the prudent course of action is to stabilize values arrived at through incremental and defensible increases evidenced by local market activity.

### **Retail Sales:**

2015 had a lot of activity in the Tippecanoe County retail property market. By and large, the valid sales pool from Tippecanoe County mirrors observed trends in this sector nation-wide: the bottom end of the market's cap rates compressed, while the top end held relatively steady, compressing only slightly.<sup>6</sup> Sales levels at the local level would indicate a greater compression of cap-rates were it not for the more easily quantifiable decrease in market vacancy with an increase in market rents, especially at the base level of the Tippecanoe County retail sector.<sup>7</sup>

One notable transaction in the retail market is the sale of Lafayette Pavilions, Tippecanoe County's premier multi-tenant retail power center for over \$54 million in February 2015. The sale included the conveyance of 10 parcels which are comprised of the 300,000+ square foot main facility as well as two auxiliary 11,200 square foot multi-tenant retail facilities and several vacant out-lots. The sale of the property coincides with the end of a multi-year appeal process of the facility that was stipulated to agreement in advance of Indiana Board of Tax Review hearings on the property. The 2014 settlement value, when adjusted to 2015 sales levels, renders a 2015 assessed value on the property that is at 95.45% of the sale price—well substantiated both by evidence gained through the appeal process as well as the evidence of the property's individual value from the recent transaction. The alignment of local performance with nationally observed trends, compounded by the fact that the median sales ratio for retail properties based on the 2015 AV was 85% (target ratio is 90%), substantiates market increases as follows:

- Multi-tenant retail (classes 425, 426, 427) increases up to and including +3.5%
- Single-tenant retail (classes 420-424, 428, 429) increases up to and including +2.5%

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<sup>6</sup> Watts, Robert G. Realty Rates, Investor Survey. "Retail Facilities-All Types" "Retail Facilities-Anchored Centers" "Retail Facilities-Un-Anchored Centers" "Retail Facilities-Free Standing" "Retail Facilities-Convenience Store/Gas Stations" 1<sup>st</sup> Quarter 2016. 1<sup>st</sup> Quarter 2015. 2016. 2015. Web. February 29, 2016.

<sup>7</sup> Coldwell Banker Shook. Coldwell Banker Commercial Shook. "2015 Real Estate Report." Lafayette, IN. 2016. 15.



Figure 6: The Lafayette Pavilions Shopping center parcels conveyed in 2015 sale highlighted. Gross square footage of over 330,300 SF

## Office Sales:

Office performance in 2015 followed typical trends of all other commercial industries--- cap rates are relatively stagnant with the exception that the bottom tier has compressed slightly. Investments that drive lower cap rates are holding strong and the middle of the market is relatively unaffected based on cap-rate analysis alone. Local office vacancy is up slightly and rents are stabilized, with the exception that bottom end rents have increased slightly.<sup>8</sup> The local rent and vacancy data observed reconciles with our office cap rate study and sales activity to demonstrate relative stagnation in the office sector.<sup>9</sup>

Local sales activity (16 valid sales) is stronger than in recent years and indicates only a modest increase of 1%, concentrated primarily in Lafayette's Fairfield Township. The national rate of inflation over the same period of time of our sales window (Jan. 1 2015- Dec. 31, 2015) was 1.42%<sup>10</sup>, however the greatest amount of inflation increase happened in November (.5%) and December (.73%) of 2015. Due to this we are setting a 1.2% increase cap on all office properties for 2016.

## Industrial Sales:

2015 sales of industrial properties in Tippecanoe County saw an increase in activity much the same as retail and office markets. Given the 11 valid sales, which are far higher than typical for the local market in this sector, we are able to loosely gauge our market models vs. sales activity in the industrial sector. For

<sup>8</sup> Ibid. 15.

<sup>9</sup> Watts, Robert G. Realty Rates, Investor Survey. "Office Facilities-All Types" "Office Facilities-Suburban" "Office Facilities- Medical" 1<sup>st</sup> Quarter 2016. 1<sup>st</sup> Quarter 2015. 2016. 2015. Web. February 29, 2016.

<sup>10</sup> InflationData.com. Capital Professional Services, LLC. 2016. Web. March 14, 2016.

the purpose of this sales analysis, industrial property includes manufacturing, warehouse/distribution, shop/utility, R&D, and flex-space.

The sales present in the ratio study present a good mix of the properties listed above and substantiate what we've always suspected, but never had enough sales to confirm in prior studies-- that Tippecanoe County's industrial base is typically undervalued, especially with respect to warehouse facilities. Observed national trends in 2015 indicate a -10 to -20 basis point drop in industrial facility cap rates.<sup>11</sup> This information corroborates the local 2015 Shook report which shows compression of cap rates in industrial sectors coupled with relatively stabilized vacancy and rents. Similar to many other C&I property types, the top end rents held through 2015 while the bottom end increased marginally. (from \$2.50SF to \$2.75).<sup>12</sup> This information coupled with the sales pool substantiates our average market increase of 2.5% for industrial properties across the board. This increase also brings the median sales ratio for these properties to 90.35% which is at the low end of our aim for valuation level of C&I properties, while still reconciling the pre-existing gulf between industrial valuation levels and sale price.

### **Commercial Summary:**

The increase in commercial sales data in 2015, for the 2016 assessment year presents a stable base to substantiate market increases across property specific bases, while also evincing the need for increases in areas that the Tippecanoe County Assessor's Office has long suspected deficiencies. While the Fairfield/Wea Township (City of Lafayette) median ratio for commercial improved sales is within the 5% threshold of the county median as established by the 2007 IAAO Ratio Study Standards, at 89.44% it is still below our target assessment level of 90%. It is the opinion of the office that coming within 5% substantiates the quality of commercial market increases while also still being mindful not to increase assessment levels at too aggressive a pace, creating a local perception of volatility. The broader sales base in 2015 creates an opportunity to carry these sales into the future in order to ensure assessment levels of commercial properties reconcile within the target range for future years.

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<sup>11</sup> Situs RERC. "Real Estate Report." 4<sup>th</sup> Quarter 2015. Volume 44. No. 4. 2016. Page 12. Electronic Periodical. 8 March 2016.

<sup>12</sup> Coldwell Banker Shook. Coldwell Banker Commercial Shook. "2015 Real Estate Report." Lafayette, IN. 2016. 15.