The Annual Adjustment Process

Department of Local Government Finance

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Why are assessments adjusted through trending?

- Indiana Constitution requires fair and equitable property tax assessments.
- 2002 Indiana Supreme Court ruled that current method was unconstitutional and ordered different standard be used.
- General Assembly ordered property be assessed using Market Value-In-Use

What is reassessment?

Reassessment (IC 6-1.1-4-4(b))

- Assessors physically inspect each property to ensure that records are correct
- Inspection accomplishes the gathering of data appropriate to value the property
  - Does this property still have a free-standing garage and an in-ground pool?
  - Is the building on this property still 1,200 square feet or has it increased/decreased in size?

What is trending?

Trending *(i.e. annual adjustment)*

- Property values are adjusted (the adjustment can be positive or negative) on an annual basis to bring them closer to market value-in-use. The assessing official uses sales of properties in a neighborhood, area, or class of property from the previous two (2) years to determine the adjustment factor.

- In the past, assessed values were adjusted only after a reassessment, which came as far apart as 10 years. Trending now occurs every year.

Reassessment vs. Trending

- Trending was implemented to supplement, not replace, the reassessments, which current law calls for every 5 years.
- Without trending, reassessments resulted in dramatic shifts in assessed values because the values of properties were typically only adjusted during a reassessment year.
- Trending requires the assessor to annually adjust the value of the property based on market value-in-use, which is primarily determined from sales.

How does trending work?

History of Property Valuation Changes

	Property Sales														
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Tax Year															
2009 Pay 2010 (4)													2009 Pay 2010		
2008 Pay 2009												2008 Pay 2009			
2007 Pay 2008											2007 Pay 2008				
2006 Pay 2007 (3)										2006 Pay 2007 (3)					
2005 Pay 2006						No Sales from these years used; No change to 2001 Pay 2002 Values									
2004 Pay 2005															
2003 Pay 2004															
2002 Pay 2003 (2)				2002 Pay 2003 (2)											
2001 Pay 2002		Market Value did not apply; no change in values until 2002													
2000 Pay 2001															
1999 Pay 2000															
1998 Pay 1999															
1997 Pay 1998															
1996 Pay 1997															
1995 Pay 1996 (1)	1995 Pay 1996 (1)														

NOTES:

(1) Reassessment
(2) First use of Market Value
(3) First Annual Trending
(4) DLGF to allow the use of one year of sales only

Data Source: Department of Local Government Finance

2/19/2009

How does trending work?

- Each year, the assessed value is multiplied by an adjustment factor.
- Values can go up. . .

2008 assessed value:	$100,000
Neighborhood factor:	x 1.1
2009 assessed value:	$110,000

How does trending work?

- Each year, the assessed value is multiplied by an adjustment factor.
- Values can go up. . .

  . . .or down.

2008 assessed value:	$100,000
Neighborhood factor:	x 0.9
2009 assessed value:	$90,000

How does trending work?

- Whether values go up or down depends on recent sales prices:

Prices rise Factor rises

Prices fall Factor falls

The Adjustment Factor

- All properties in a county are divided into distinct neighborhoods.
- A neighborhood contains similar properties:
  - Property class
  - Construction type
  - Condition
- **The sold properties in your neighborhood are what determine the adjustment factor that is applied to your property.**

How does trending work?

- Each year, the assessed value is multiplied by an adjustment factor.

2008 assessed value:	$100,000
Neighborhood factor:	x 1.1
2009 assessed value:	$110,000

The Adjustment Factor

- To calculate the adjustment factor, the assessor calculates the sales ratio for all properties that sold in the neighborhood.

- Assessed Value: $90,000
- Sale Price: $100,000
- Ratio: 0.9

Examples of Sales Ratios

Assessed Value	Sales Price	Sales Ratio
$89,000	$103,000	0.86
$84,000	$93,000	0.90
$100,000	$98,000	1.02
$94,000	$88,000	1.06
$92,000	$81,000	1.13

Examples of Sales Ratios

Assessed Value	Sales Price	Sales Ratio
$89,000	$103,000	0.86
$84,000	$93,000	0.90
$100,000	$98,000	1.02
$94,000	$88,000	1.06
$92,000	$81,000	1.13

The Adjustment Factor

- In this example, the adjustment factor is:

$$1 / 1.02 = .98$$

- The assessed value of **ALL** properties in the neighborhood is multiplied by 0.98 to arrive at the new assessed value.

Examples of Sales Ratios

Assessed Value	Sales Price	Sales Ratio
$89,000	$103,000	0.86
$84,000	$93,000	0.90
$100,000	$98,000	1.02
$94,000	$88,000	1.06
$92,000	$81,000	1.13

What is a Ratio Study?

- A comparison between sales and assessed values in the county to ensure that market values are being used to determine assessed values.
- Determines if assessments are accurate and equitable (mass appraisal basis).
- Standards can be found in 50 IAC 21.

What is a Ratio Study?

A ratio study answers two questions:

1. Are all properties assessed at market value-in-use?

   Assessment **LEVEL**

2. Are all properties assessed using the same standard?

   Assessment **UNIFORMITY**

Ratio Study Example

Parcel Number	Sale Date	Sale Price	Assessed	Sales Ratio
70110515101900	09-Nov-07	$38,000	$37,200	0.98
70073210300100	09-Jul-08	$250,000	$242,200	0.97
70073235201200	02-Jun-08	$20,000	$20,600	1.03
70073235600100	02-Jul-07	$350,000	$353,700	0.90
70072935101000	02-Jul-07	$200,000	$206,400	1.03
70072840000300	17-Aug-07	$54,748	$59,100	1.08
70110515100100	09-Aug-07	$30,000	$34,000	1.13

Assessment Level

- Are properties assessed at market value-in-use?
- Look at the median ratio:
  - Between 0.90 and 1.10: YES!
  - Otherwise: NO!

Assessment Uniformity

- Our target is the median ratio.
- The coefficient of dispersion tells us how close all the other ratios are to the median ratio.
  - The lower it is, the better.

Take Home Points

- In most years, your property is trended, not reassessed.
- Your property is only compared to sold properties in the same neighborhood.
- The median ratio of properties in your neighborhood determines the adjustment factor for all properties, including yours.

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Extra Slides

What is a Ratio?

- Actual: 90
- Advertised: 100

$$\text{Ratio} = \frac{90}{100} = 0.90$$

The Sales Ratio

- Assessed Value: $90,000
- Sale Price: $100,000
- Ratio: 0.9

The Sales Ratio

- This is the Sales Ratio (or A/S Ratio):

$$\frac{\text{Assessed Value}}{\text{Sales Price}}$$

Examples of Sales Ratios

Assessed Value	Sales Price	Sales Ratio
$89,000	$103,000	0.86
$84,000	$93,000	0.90
$100,000	$98,000	1.02
$94,000	$88,000	1.06
$92,000	$81,000	1.13

What is the Median?

The Median divides the road perfectly in half

The Median Ratio

Assessed Value	Sales Price	A/S Ratio
$89,000	$103,000	0.86
$84,000	$93,000	0.90
$100,000	$98,000	1.02
$94,000	$88,000	1.06
$92,000	$81,000	1.13

The Median Ratio divides the column of ratios perfectly in half

What is Dispersion?

Not Much Dispersion

Lots of Dispersion

Dispersion is how close you are to your target!

Coefficient of Dispersion (COD)

0.88 0.94 0.98 1.04 1.05

Low COD

0.67 0.89 0.98 1.03 1.31

High COD

Coefficient of Dispersion (COD)

A/S Ratio	Median	Deviation
0.86	1.02	0.16
0.90	1.02	0.12
1.02	1.02	0.0
1.06	1.02	0.04
1.13	1.02	0.09

COD = 0.08 / 2 ÷ 1.02 = 0.08

Average Deviation — Median

What is Equity?

- Simply put: Fairness
- Assessing all properties using the same standard.

What is Equity?

Umpire Favors

Umpire Doesn’t Favor

NOT Equitable!

Two Types of Equity

- Vertical Equity
  - High and low-value properties are assessed using the same standard.
- Horizontal Equity
  - Sold and unsold properties are assessed using the same standard.

Vertical Equity Violations

House is under-assessed

NOT Equitable!

House is over-assessed

Vertical Equity Violations

Yankee Fans Houses
Under-assessed

Red Sox Fans Houses
Over-assessed

Vertical Equity Violations

Expensive Houses: Under-assessed

Inexpensive Houses: Over-assessed

Price-Related Differential (PRD)

- The PRD is a number which tells you whether vertical equity is violated:
  - Between 0.98 and 1.03: OK!
  - Otherwise: NOT OK!
    - Less than 0.98: Expensive houses over-assessed.
    - Greater than 1.03: Inexpensive houses over-assessed.

Price-Related Differential

Assessment	Sales Price	Ratio
$89,000	$103,000	0.86
$84,000	$93,000	0.90
$100,000	$98,000	1.02
$94,000	$88,000	1.06
$92,000	$81,000	1.13

Average Ratio = 0.99

- Step 1
  Calculate the Average Ratio

Price-Related Differential

Assessment	Sales Price	Ratio
$89,000	$103,000	0.86
$84,000	$93,000	0.90
$100,000	$98,000	1.02
$94,000	$88,000	1.06
$92,000	$81,000	1.13
$459,000	$463,000	

- Step 2 Sum the Assessed Value and Sales Price Columns

Price-Related Differential

Assessment	Sales Price	Ratio
$89,000	$103,000	0.86
$84,000	$93,000	0.90
$100,000	$98,000	1.02
$94,000	$88,000	1.06
$92,000	$81,000	1.13
$459,000 ÷	$463,000 =	0.99

- Step 3 Divide the sum of Assessed Values by the sum of Sales Prices.
- The answer is the **Aggregate Ratio**.

Price-Related Differential

Assessment	Sales Price	Ratio
$89,000	$103,000	0.86
$84,000	$93,000	0.90
$100,000	$98,000	1.02
$94,000	$88,000	1.06
$92,000	$81,000	1.13

- Step 4 Divide the **Average Ratio** by the **Aggregate Ratio**.

$$\frac{0.99}{0.99} = 1.0$$

Horizontal Equity Violations

- Sales Chasing
  - Using the sale of a property to trigger a reappraisal of that property at or near the selling price (IAAO Standard on Ratio Studies, 2007).

Sales Chasing in Practice

House 1

Assessment: $100,000

House 2

Assessment: $100,000

Two Identical Houses

House 1

Assessment: $100,000

SOLD! For $130,000

House 2

Assessment: $100,000

Did NOT Sell

Two Identical Houses

House 1

Assessment: $100,000

SOLD! For $130,000

Re-assess: $130,000

Pays more property taxes

House 2

Assessment: $100,000

Did NOT Sell

Don't re-assess: $100,000

Pays same property taxes

Why Sales Chase?

- Sales chasing makes a ratio study look better than it is.
  - Properties appear to be assessed at market value in use.
  - Properties appear to be assessed using the same standard.
  - **But they are NOT!**