

RATIO Example

Assessed Value:	<u>150,000.00</u>	
Sale Price for L/B:	300,000.00	Ratio = 50% Sale 1
Assessed Value:	<u>75,000.00</u>	
Sale Price Land:	150,000.00	Ratio = 50% Sale 2
Assessed Value:	<u>30,000.00</u>	
Sale Price Land:	50,000.00	Ratio = 60% Sale 3
Assessed Value:	<u>170,000.00</u>	
Sale Price L/B:	250,000.00	Ratio = 68% Sale 4
Assessed Value:	<u>80,000.00</u>	
Sale Price L/B:	120,000.00	Ratio = 67% Sale 5

The Ratio is calculated for **all the sales combined** (L/B and Land only)

The **Median ratio** = all the ratios listed high to low and equals the middle.

Ex: 68 67 **60** 50 50 / the middle is 60, the Towns median ratio is 60%

The **Mean ratio** = all the ratios added together, divided by the number of ratios.

Ex: $50+50+60+68+67 = 295$, take the 295 divided by 5 ratios = 59%

The **Weighted Mean** or Aggregate = The total of Assessed Values divided by the total of Sale Price.

Ex: $150,000+75,000+30,000+170,000+80,000 = \$505,000.00$ Assessed Value
 $300,000+150,000+50,000+250,000+120,000 = \$870,000.00$ Sale Price
 $505,000.00$ divided by $\$870,000.00 = 58\%$

The Ratio calculated by **Strata/Category**:

The **Median ratio** for strata = all the ratios listed high to low and equals the middle.

Ex: 68 67 50 / the middle is 67, the Towns median ratio is 67% for L/B

Ex: 60 50 / the middle is 55, the Towns median ratio is 55% for Land.

The **Mean ratio** for strata = all the ratios added together, divided by the number of ratios.

Ex: $68+67+50 = 185$. take the 185 divided by 3 ratios = 62% for L/B

Ex: $60+50 = 110$, take the 110 divided by 2 ratios = 55% for Land

The **Weighted Mean** or Aggregate for strata = total of Assessed Values divided by the total of Sale Price.

Ex: $150,000+170,000+80,000 = \$400,000.00$ Assessed Value of L/B
 $300,000+250,000+120,000 = \$670,000.00$ Sale Price L/B
 $400,000.00$ divided by $\$670,000.00 = 59\%$ for L/B

COD Example

COD is calculated as follows:

Use the median ratio, which is 60% minus the sales ratio for each sale, to find the Absolute Deviation.

$$\begin{array}{r} \text{Ex: } 60\% \text{ (median)} - 50\% \text{ (ratio for sale 1)} = 10.00 \\ 60\% \text{ (median)} - 50\% \text{ (ratio for sale 2)} = 10.00 \\ 60\% \text{ (median)} - 60\% \text{ (ratio for sale 3)} = 0.00 \\ 60\% \text{ (median)} - 68\% \text{ (ratio for sale 4)} = 8.00 \\ 60\% \text{ (median)} - 67\% \text{ (ratio for sale 5)} = \underline{7.00} \\ \hline 35.00 \text{ (sum)} \end{array}$$

The sum = 35.00%

The average absolute deviation (35.00% divided by 5 number of sales) = 7.00%

Then to calculate the COD, use the Average Absolute Deviation 7.00% and divide it by the Median Ratio of 60%. $7.00 \text{ divided by } 60.00 = \underline{\text{a COD of 11.66}}$

Remember the **lower the COD**, the **higher or better the proportionality** is throughout Town; The **higher the COD (greater than 20)**, the **less proportionality** is throughout Town.

PRD Example

PRD is a statistic for measuring fairness of appraisals between high & low value properties.

Mean Ratio divided by the Weighted Mean Ratio.

$$59 \text{ divided by } 58 = 1.01 \text{ (see Ratio example, Page 1)}$$

Remember the **lower the PRD**, means the lower value properties are being favored, and **high value properties are over appraised**.

And if the **PRD is over 100**, means the higher value properties are being favored and are under appraised.