



# The Sales Comparison Approach

## Level I Tutorials 2015



# Sales Comparison Approach

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- The Sales Comparison Approach uses sales prices as evidence of the value of similar properties.
- The price at which a particular property sells is the price determined by the interaction of supply and demand at the time of sale.



# Sales Comparison Approach

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- If supply or demand factors shift, prices generally rise or fall.
- The sales comparison approach is most suitable when there are frequent sales of similar properties.



# Sales Comparison Approach

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- Because no two properties are exactly alike, methods must be used to adjust the prices of sold properties, or comparables.
- The known prices are adjusted by adding or subtracting the amount which a given feature appears to add to, or subtract from, the price of the comparison property.



# Sales Comparison Approach

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- Adjustments may also need to be made for time and terms of sale.
- We will take a look at how the sales comparison approach is used and some of the factors that are involved in using it.



# Sales Comparison Approach

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- Let's look at a few basic definitions:
  - **Demand:** the desire and ability to purchase commodities and/or services. Specifically, it is the quantity of a particular commodity or service that buyers want to purchase at a certain price. Demand is represented by buyers.
  - **Supply:** the availability of commodities and/or services for purchase. Specifically, it is the quantity of a particular commodity or service that sellers offer for sale at a certain price. Supply is represented by sellers.



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- An inverse relationship exists between price and quantity demanded.
- As the price goes down, the quantity demanded increases; as the price goes up, the quantity demanded decreases.



# Sales Comparison Approach

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- Factors that affect demand:
  - The price of the commodity
  - Consumer income
  - The price of related goods – substituting one brand of paint for another at a lower price or buying a house in neighborhood A instead of in neighborhood B
  - The price of complimentary goods – paint brushes, nails, etc.



# Sales Comparison Approach

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- Consumer expectations of future price changes – increases in interest rates, the price of winter gas or heating oil, automaker incentives.





# Sales Comparison Approach

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- Factors that affect supply:
  - The price of the commodity
  - The availability of land, labor, management and capital
  - Available technology
  - Housing prices
  - Size of the housing stock available
  - Construction costs and methodologies





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- When the quantity of goods offered for sale equals the amount of goods demanded for purchase, you have the market value.
- The marketplace is where the buyers and sellers meet to exchange property rights for other assets.





# Sales Comparison Approach

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- A **buyer's market** is a market that exists when oversupply and excess capacity permit buyers to drive price levels down.
- A **seller's market** is a market that exists when demand is so strong that supply levels fall and sellers escalate prices.





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- Markets and their products are interconnected (or linked) with other markets. Horizontal linkages occur when substitute or complimentary products create relationships between related and unrelated markets. (For example, changes in interest rates affect demand for real estate.)





# Sales Comparison Approach

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- Horizontal market linkages provide the rationale for
  - The sales comparison approach to value
  - Determining adjustments to the comparables
  - Establishing how market participants purchase land





# Sales Comparison Approach

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- Let's look at value:
  - Value is composed of five economic factors that must be present to create it. They are:
    - Utility – the ability of a good to create and satisfy human desires and needs; usefulness
    - Scarcity – demand must exceed supply for a commodity to have value





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- Desire – the wish to acquire an item to satisfy human needs that goes beyond the essentials to supply life
- Purchasing power – the ability to purchase goods for sale with cash or its equivalent
- Salability – a commodity that for any reason cannot be sold has no value





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- A distinction must be made between the terms real estate and real property.
- Real Estate is the physical land and the appurtenances affixed to the land. It is the tangible part of real property.





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- Real Property includes all the interests, rights and benefits included in owning the physical real estate. We can give up some of the rights and retain others, such as selling mineral rights or retaining a life estate.





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- Market value is defined as by the IAAO in “Mass Appraisal of Real Property” as: “The most probable price (in terms of money) which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus.”





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- Implications of the definition:
  - Buyer and seller are typically motivated by self interest and personal gain
  - Both parties are well informed or advised and act in what they consider to be their best interests
  - A reasonable time is allowed for exposure on the open market





# Sales Comparison Approach

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- Payment is made in terms of cash or in terms of financial arrangements comparable to cash
- The price is unaffected by special financing or concessions





# Sales Comparison Approach

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- The steps required in the sales comparison approach:
  1. Definition of the appraisal problem
  2. Data collection and verification
  3. Analysis of market data to develop units of comparison and select attributes for adjustment
  4. Development of reasonable adjustments





# Sales Comparison Approach

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5. Application of the adjustments to the comparable sales
6. Analysis of adjusted prices to estimate value of subject property

The formula for the sales comparison approach is:

$$SP_C +/- Adj. = V$$





# Sales Comparison Approach

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- The sales comparison approach estimates the market value of a subject property by adjusting the sales prices of comparable properties for differences between the comparables and the subject.





# Sales Comparison Approach

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- Comparability is a measure of similarity between a sales and a subject.
- Sale property and subject property should be similar with respect to date of sale, economic conditions, physical attributes and competitiveness in the same market.





# Sales Comparison Approach

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- Selecting the Comparables:
  - Three to five is usually adequate, but a larger number improves confidence in the final estimate, increases the awareness of patterns of value and stabilizes assessments over time.
  - Units of comparison may be the property as a whole or some smaller measure of the size of the property.





# Sales Comparison Approach

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- Common units of comparison are square feet of gross building area; square feet of net rentable area; front footage; number of rooms or units; and the gross rent multiplier.





# Sales Comparison Approach

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- Attributes are such things as age, size, number of bathrooms, quality of construction, design, land area, and location.
- The sale price is a function of how buyers and sellers perceive the utility of important property attributes.





# Sales Comparison Approach

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- Is the attribute quantitative or qualitative?
- Qualitative attributes usually represent demand because they measure utility, and are usually adjusted with percentages. They are based on discrete, predefined categories.



# Sales Comparison Approach

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- Quantitative attributes that measure the range of housing services available usually represent supply, but they can represent demand as well. They are usually adjusted with dollar amounts, and are based on measuring or counting.





# Sales Comparison Approach

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- Let's look at some attributes and whether they are quantitative or qualitative:
  - Building size – quantitative
  - Air conditioning – qualitative
  - Condition – qualitative
  - Bathrooms – quantitative
  - Year built - quantitative





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- How do the relationships between the attributes contribute to value?
  - How do they relate to one another? Are the adjustments added together to form a total adjustment, or are they to be multiplied, or some combination?
  - How do changes in quality and size relate to changes in value? Does a second bathroom make the same contribution to value as the first?





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- Once you have selected your comparables and your attributes and determined the relationship of your attributes and their contribution to value, you are ready to determine the adjustment amounts (coefficients).





# Sales Comparison Approach

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- Making proper adjustments to value is the most important step in order to arrive at credible value indications for the subject property.
- There are five steps in the adjustment process.





# Sales Comparison Approach

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- Step 1 – Identify all elements of comparison affecting the market value of the subject property.
- Step 2 – Compare the amenities of each comparable with those of the subject, quantifying the difference between the comps and the subject property.





# Sales Comparison Approach

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- Step 3 – Apply the appropriate adjustments for each difference to the unit of comparison or the total sale price of the comps and develop a net adjustment for each comp.
- Step 4 – Bracket the adjusted values of the comps by identifying those that are superior, similar or inferior to the subject.





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- Step 5 – Reconcile the indications of value into a final estimate of the subject.
- Sales with inferior amenities are adjusted upward to the subject.
- Sales with superior amenities are adjusted downward to the subject.





# Sales Comparison Approach

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Superior – Better – More Than

↓ -

MV Subject \_\_\_\_\_

↑ +

Inferior – Poorer – Less Than





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- Lump sum adjustments are actual dollar amounts that represent the market's perception of the difference between the comp and the subject. For example, an adjustment of \$1,000 may represent the market's opinion of the contributory value of a second bathroom.





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- Percentage adjustments represent a value difference between the comp and the subject, expressed as a percentage of the sale price.
- Cumulative percentage adjustments – differences are expressed as a percentage for each item and are summed to determine the net adjustment to the comp sale price.





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- Multiplicative percentage adjustments – individual adjustment percentages are multiplied by each other to determine the total adjustment.





# Sales Comparison Approach

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- Percentage and lump sum adjustments are made in successive order:
  - Property rights conveyed
  - Financing terms
  - Conditions of sale
  - Market conditions
  - Location
  - Physical characteristics
  - Non-realty components





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- The adjustments always have to be done in this order.
- There are several different ways to determine the adjustments, and we will briefly discuss them.





# Sales Comparison Approach

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- Paired sales:
  - Useful when many homogenous sales are available
  - One method of determining time adjustments as long as there have been no changes between the sale dates of the resale properties
  - Can be used to estimate qualitative and quantitative adjustments





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- Multiple Regression Analysis:
  - Does not require strict similarity between parcels
  - Statistical technique for estimating unknown data on the basis of known and available data (sale prices and property characteristics)





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- Adaptive Estimation Procedure (AEP or feedback):
  - A valuation equation is specified and adjusted as data on individual sales are sequentially processed and analyzed. The process continues, with each sale processed many times, until the model converges on a satisfactory solution.





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- Cost Method:
  - Based on the theory that the market value of an improved parcel can be estimated by the sum of the land value and the depreciated value of the improvements.
  - Formula is:  $MV = LV + (RCN - D)$





# Sales Comparison Approach

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- Now let's try a Paired Sales Problem that will show how the attribute amounts are determined.



## Class Problem # 1

### Paired Sales Analysis

Listed below are five sales of comparable single family residential properties that have recently occurred in a neighborhood. Using the given data below determine the appropriate lump sum dollar adjustment (Contributory value) for the following elements:

Bedroom: \_\_\_\_\_

Bathroom: \_\_\_\_\_

Basement: \_\_\_\_\_

Extra parking bay in garage: \_\_\_\_\_

| Sale       | # 1       | # 2         | # 3         | # 4         | # 5        |
|------------|-----------|-------------|-------------|-------------|------------|
| Sale Price | \$140,400 | \$ 126,000  | \$ 130,000  | \$ 124,000  | \$ 135,500 |
| Sq. Feet   | 1,800     | 1,650       | 1,800       | 1,600       | 1,800      |
| Bedrooms   | 4         | 3           | 4           | 3           | 4          |
| Bathrooms  | 2         | 2           | 2           | 1           | 2          |
| Foundation | Basement  | Crawl Space | Crawl Space | Crawl Space | Basement   |
| Garage     | 2 Car     | 2 Car       | 2 Car       | 2 car       | 1 Car      |

(NOTE: Variations in square footage are due to the different number of rooms and do not require adjustment; this is allowed for in the adjustments for bedrooms and bathrooms.)



## Class Problem # 1 Answer

### Paired Sales Analysis

Listed below are five sales of comparable single family residential properties that have recently occurred in a neighborhood. Using the given data below determine the appropriate lump sum dollar adjustment (Contributory value) for the following elements:

|                              |          |
|------------------------------|----------|
| Bedroom:                     | \$4,000  |
| Bathroom:                    | \$2,000  |
| Foundation:                  | \$10,400 |
| Extra parking bay in garage: | \$4,900  |

| Sale       | # 1        | # 2         | # 3         | # 4         | # 5        |
|------------|------------|-------------|-------------|-------------|------------|
| Sale Price | \$ 140,400 | \$ 126,000  | \$ 130,000  | \$ 124,000  | \$ 135,500 |
| Sq. Feet   | 1,800      | 1,650       | 1,800       | 1,600       | 1,800      |
| Bedrooms   | 4          | 3           | 4           | 3           | 4          |
| Bathrooms  | 2          | 2           | 2           | 1           | 2          |
| Foundation | Basement   | Crawl Space | Crawl Space | Crawl Space | Basement   |
| Garage     | 2 Car      | 2 Car       | 2 Car       | 2 car       | 1 Car      |

(NOTE: Variations in square footage are due to the different number of rooms and do not require adjustment; this is allowed for in the adjustments for bedrooms and bathrooms.)

**Class Problem # 1 Answer**  
Paired Sales Analysis

Bedroom:                      Sale 2 and Sale 3 are identical except Sale 3 has one extra bedroom.

|        |                      |             |
|--------|----------------------|-------------|
| Sale 3 | 4 bedrooms           | \$130,000   |
| Sale 2 | 3 bedrooms           | (\$126,000) |
|        | indicated adjustment | \$4,000     |

Bathroom:                      Sale 2 and Sale 4 are identical except Sale 2 has one extra bathroom.

|        |                      |             |
|--------|----------------------|-------------|
| Sale 2 | 2 bathrooms          | \$126,000   |
| Sale 4 | 1 bathrooms          | (\$124,000) |
|        | indicated adjustment | \$2,000     |

Foundation:                      Sale 1 and Sale 3 are identical except Sale 1 has a basement.

|        |                      |             |
|--------|----------------------|-------------|
| Sale 1 | Basement             | \$140,400   |
| Sale 3 | Crawl Space          | (\$130,000) |
|        | indicated adjustment | \$10,400    |

Extra parking bay:                      Sale 1 and Sale 5 are identical except Sale 1 has a 2 car garage.

|        |                      |             |
|--------|----------------------|-------------|
| Sale 1 | 2 car garage         | \$140,400   |
| Sale 5 | 1 car garage         | (\$135,500) |
|        | indicated adjustment | \$4,900     |



# Sales Comparison Approach

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- From an analysis of value indicators, a unit of measurement is selected that most clearly reflects the purchaser's behavior in the marketplace.
- As a general rule, the best market indicator is the one with the lowest variance.



# Sales Comparison Approach

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- The unit of measurement chosen is used as the starting point for adjustments.
- The next step is market analysis to select the attributes to be adjusted and the size of the adjustments.



# Sales Comparison Approach

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- For instance, if you are working with apartment buildings, you might use price per apartment, price per room or square footage.
- For a general-purpose commercial building, you might use sale price per square foot.





# Sales Comparison Approach

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- For residential properties, you might use number of bedrooms or bathrooms, exterior finish, foundations, garages or location (on water or golf course).





# Sales Comparison Approach

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- Let's try a simple problem where you will determine the indicated value of a subject property using the comparable properties and the value of the chosen attributes.



**Class Problem # 2**  
Adjusting Comparable Sales

You are reviewing an appeal of a three bedroom, two bath ranch style house that has 2,420 square feet of this subject house has a full basement and an attached two car garage. You have located 5 recent comparable sales in the same neighborhood.

- Sale # 1: This is a four bedroom, three bath ranch style home containing 2,600 square feet of living area. It has a full basement and an attached three car garage. Sale price is \$275,000.
- Sale # 2: This is a three bedroom, two bath ranch style home that has 2,400 square feet of living space. It is on a crawl space and has a one car attached garage. Sale price is \$230,000.
- Sale # 3: This is a three bedroom, two and one half bath residence containing 2,400 square feet of living area. It has a full basement and a three car attached garage. Sale price is \$245,000.
- Sale # 4: This is a three bedroom, two and one half bath home located on a crawl space. It contains 2,600 square feet of living area and has a two car attached garage. Sale price is \$245,000.
- Sale # 5: This is a four bedroom, two bath home with 2,500 square feet of living space. It has a full basement and a three car attached garage. Sale price is \$262,250.

You have determined that the following elements of comparison are influential on value: Bedrooms, bathrooms (both full and half), garage bays, and basement. You have conducted a paired sales analysis and determined the contributory value of these elements as follows:

|             |      |         |      |          |
|-------------|------|---------|------|----------|
| Bedrooms:   |      |         |      | \$8,000  |
| Bathrooms:  | Full | \$3,000 | Half | \$1,000  |
| Garage bay: |      |         |      | \$4,000  |
| Basement:   |      |         |      | \$15,000 |

Using the grid, determine the estimation of value for the subject property.

|                 | SUBJECT | SALE # 1 | SALE # 2 | SALE # 3 | SALE # 4 | SALE # 5 |
|-----------------|---------|----------|----------|----------|----------|----------|
| SALE PRICE      |         |          |          |          |          |          |
| BEDROOMS        | 3       |          |          |          |          |          |
| BATHROOMS       | 2       |          |          |          |          |          |
| GARAGE          | 2 CAR   |          |          |          |          |          |
| FOUNDATION      | BSMNT   |          |          |          |          |          |
| NET ADJ.        |         |          |          |          |          |          |
| ADJ SALES PRICE |         |          |          |          |          |          |
| SQ FEET         | 2,420   |          |          |          |          |          |
| SALE PRICE/SF   |         |          |          |          |          |          |



**Class Problem # 2 Answer**  
Adjusting Comparable Sales

|                 | SUBJECT |       | SALE # 1   |       | SALE # 2  |       | SALE # 3  |       | SALE # 4  |       | SALE # 5   |  |
|-----------------|---------|-------|------------|-------|-----------|-------|-----------|-------|-----------|-------|------------|--|
| SALE PRICE      |         |       | \$275,000  |       | \$230,000 |       | \$245,000 |       | \$245,000 |       | \$262,250  |  |
| BEDROOMS        | 3       | 4     | (\$8,000)  | 3     |           | 3     |           | 3     |           | 4     | (\$8,000)  |  |
| BATHROOMS       | 2       | 3     | (\$3,000)  | 2     |           | 2 1/2 | (\$1,000) | 2 1/2 | (\$1,000) | 2     |            |  |
| GARAGE          | 2 CAR   | 3 CAR | (\$4,000)  | 1 CAR | \$4,000   | 3 CAR | (\$4,000) | 2 CAR |           | 3 CAR | (\$4,000)  |  |
| FOUNDATION      | BSMNT   | BSMNT |            | CRAWL | \$15,000  | BSMNT |           | CRAWL | \$15,000  | BSMNT |            |  |
| NET ADJ.        |         |       | (\$15,000) |       | \$19,000  |       | (\$5,000) |       | \$14,000  |       | (\$12,000) |  |
| ADJ SALES PRICE |         |       | \$260,000  |       | \$249,000 |       | \$240,000 |       | \$259,000 |       | \$250,250  |  |
| SQ FEET         | 2,420   | 2,600 |            | 2,400 |           | 2,400 |           | 2,600 |           | 2,500 |            |  |
| SALE PRICE/SF   |         |       | \$100.00   |       | \$103.75  |       | \$100.00  |       | \$99.62   |       | \$100.10   |  |

It appears the square foot value of the comps would be \$100.00/square foot. Therefore, 2,420 square feet times \$100.00/square feet equals **(subject estimated value)**

**\$242,000**



## Class Problem # 3

### Time Adjustment Problem

- Sale # 1 Sold one year ago for \$62,000 and resold 7 months ago for \$65,100.
- Sale # 2 Sold one year ago for \$67,000 and resold 5 months ago for \$72,225.
- Sale # 3 Sold one year ago for \$65,000 and resold 1 month ago for \$71,500.
- Sale # 4 Sold one year ago for \$67,250 and resold 3 months ago for \$73,300.

Determine the indicated percentage adjustment for time per month \_\_\_\_\_

Determine the indicated percentage adjustment for time per year \_\_\_\_\_

| A      | B                              | C                               | D        | E                          | F                          |
|--------|--------------------------------|---------------------------------|----------|----------------------------|----------------------------|
| SALE # | FIRST SALE<br>SELLING<br>PRICE | SECOND SALE<br>SELLING<br>PRICE | % CHANGE | MONTHS<br>BETWEEN<br>SALES | PERCENT<br>CHANGE<br>MONTH |

|   |  |  |  |  |  |
|---|--|--|--|--|--|
| 1 |  |  |  |  |  |
| 2 |  |  |  |  |  |
| 3 |  |  |  |  |  |
| 4 |  |  |  |  |  |

PERCENT PER MONTH

PERCENT PER YEAR

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### Class Problem # 3 Answer

#### Time Adjustment Problem

| A      | B                              | C                               | D        | E                          | F                          |
|--------|--------------------------------|---------------------------------|----------|----------------------------|----------------------------|
| SALE # | FIRST SALE<br>SELLING<br>PRICE | SECOND SALE<br>SELLING<br>PRICE | % CHANGE | MONTHS<br>BETWEEN<br>SALES | PERCENT<br>CHANGE<br>MONTH |
| 1      | \$62,000                       | \$65,100                        | 5.0%     | 5                          | 1.0%                       |
| 2      | \$67,000                       | \$72,225                        | 7.8%     | 7                          | 1.1%                       |
| 3      | \$65,000                       | \$71,500                        | 10.0%    | 11                         | 0.9%                       |
| 4      | \$67,250                       | \$73,300                        | 9.0%     | 9                          | 1.0%                       |

PERCENT PER MONTH

1%

PERCENT PER YEAR

12%

$$(C - B) / B = D$$

$$D / E = F$$





# Practice Problems

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- Now we will spend some time working the Sales Comparison Practice Problems 1 Thru 3.



**Practice Problem # 1**  
Market Analysis of Attributes

You have analyzed the market and have determined that the following are important attributes in a home. Basement--Bedroom--Garage--Bathroom. You used market information to arrive at the following information.

Sale # 1) Sold for \$144,000. It has 1,800 square feet, 3 bedrooms, a full basement, a two car garage and 2 bathrooms.

Sale # 2) Sold for \$153,300. It has 2 bathrooms, no basement and 3 bedrooms. It also has a 1 car attached garage and the home has 1,980 square feet.

Sale # 3) Sold for \$163,800. It has a full basement and a 2 car garage and 1 bathroom. There are 3 bedrooms and a total of 2,100 square feet.

Sale # 4) This home has 1,700 square feet, no basement but has a 2 car garage and 2 bathrooms. It has 3 bedrooms and recently sold for \$127,500.

Sale # 5) This home sold for \$140,600. It contains 1,900 square feet, 2 bedrooms, a full basement, a 2 car garage and 1 bathroom.

Using the grid below, develop the dollar amount to add for each attribute based on a cost of selling price per square foot.

| Element of Comparison | House #1 | House #2 | House #3 | House #4 | House #5 |
|-----------------------|----------|----------|----------|----------|----------|
| Sale Price            |          |          |          |          |          |
| Square Footage        |          |          |          |          |          |
| Basement              |          |          |          |          |          |
| Bedrooms              |          |          |          |          |          |
| Garage                |          |          |          |          |          |
| Baths                 |          |          |          |          |          |
| Price/Square Foot     |          |          |          |          |          |

Basement: \_\_\_\_\_ per square foot  
 Bedrooms: \_\_\_\_\_ per square foot  
 Garages: \_\_\_\_\_ per square foot  
 Bathrooms: \_\_\_\_\_ per square foot

## Practice Problem # 1 Answer

### Market Analysis of Attributes

What you want to do is find two houses with everything exactly the same except for the item you are looking for. Then net the two square foot prices to arrive at the value for the item. Example: You are wanting to know what value a basement adds to the value of the home. Use sale number #1 and sale # 4. Both have 3 bedrooms, both have a two car garage, both have 2 bathrooms. The only thing they differ in is the basement which is the item you are trying to get a value for. So Sale # 1 has a price of \$80.00 per square foot and sale #4 has a price of \$75.00 per square foot. The difference in the two sales is \$5.00 per square foot. That is what we are looking for--\$5.00 per square foot for the basement. We are saying that a basement adds \$5.00 per square foot to the cost of the structure.



**Practice Problem # 1 Answer**  
Market Analysis of Attributes

|                   | HOUSE # 1 | HOUSE # 2 | HOUSE # 3 | HOUSE # 4 | HOUSE # 5 |
|-------------------|-----------|-----------|-----------|-----------|-----------|
| Sale Price        | \$144,000 | \$153,300 | \$163,800 | \$127,500 | \$140,600 |
| Square Footage    | 1800      | 1980      | 2100      | 1700      | 1900      |
| Bedrooms          | 3         | 3         | 3         | 3         | 2         |
| Basement          | Yes       | No        | Yes       | No        | Yes       |
| Garage            | 2         | 1         | 2         | 2         | 2         |
| Baths             | 2         | 2         | 1         | 2         | 1         |
| Price/Square Foot | \$80.00   | \$77.42   | \$78.00   | \$75.00   | \$74.00   |

|            |                           |                  |
|------------|---------------------------|------------------|
| Basement:  | <u>\$5.00</u> Per Sq. Ft. | <u>1 &amp; 4</u> |
| Bedrooms:  | <u>\$4.00</u> Per Sq. Ft. | <u>3 &amp; 5</u> |
| Garages:   | <u>\$2.42</u> Per Sq. Ft. | <u>2 &amp; 4</u> |
| Bathrooms: | <u>\$2.00</u> Per Sq. Ft. | <u>1 &amp; 3</u> |



## Practice Problem # 2

### Sales Comparison

Your subject property has three bedrooms, one bath, an attached 2 car garage and no fireplace. It has forced hot air heat.

You have analyzed the market and found 4 sales to use as comparables.

You have also found that sales prices have increased 5% each year for the last 5 years.

Sale # 1: 4 bedroom, 2 bath with an attached 2 car garage. It has a large fireplace, hot water heat & sold 2 years ago for \$172,500.

Sale # 2: 3 bedroom, 1 bath with a 1 car attached garage. No fireplace and has forced hot air heat. Sold recently for \$171,850.

Sale # 3: 3 bedroom and 2 baths. An attached 2 car garage with an average fireplace and hot water heat. Sold 2 years ago for \$176,500.

Sale # 4: 4 bedroom, 2 baths and an attached 2 car garage. It has a large fireplace and hot water heat. Sold 1 year ago for \$185,000.

Estimate a value for the subject property rounding to the nearest \$100.

#### ADJUSTMENT AMOUNTS:

|                     |          |
|---------------------|----------|
| 4TH BEDROOM         | \$8,000  |
| EXTRA BATH          | \$5,000  |
| 1 CAR GARAGE        | \$9,000  |
| 2 CAR GARAGE        | \$13,200 |
| AVERAGE FIREPLACE   | \$4,000  |
| LARGE FIREPLACE     | \$4,800  |
| FORCED HOT AIR HEAT | \$4,500  |
| HOT WATER HEAT      | \$5,600  |

|                     | SUBJECT | SALE # 1 |  | SALE # 2 |  | SALE # 3 |  | SALE # 4 |  |
|---------------------|---------|----------|--|----------|--|----------|--|----------|--|
| SALE PRICE          |         |          |  |          |  |          |  |          |  |
| TIME ADJ            |         |          |  |          |  |          |  |          |  |
| TIME ADJ SALE PRICE |         |          |  |          |  |          |  |          |  |
| BEDROOMS            |         |          |  |          |  |          |  |          |  |
| BATHS               |         |          |  |          |  |          |  |          |  |
| GARAGE              |         |          |  |          |  |          |  |          |  |
| FIREPLACE           |         |          |  |          |  |          |  |          |  |
| HEAT                |         |          |  |          |  |          |  |          |  |
| NET ADJ             |         |          |  |          |  |          |  |          |  |
| ADJ SALES PRICE     |         |          |  |          |  |          |  |          |  |

ESTIMATED VALUE INDICATED BY THE SALES COMPARISON APPROACH:



**Practice Problem # 2 Answer**  
Sales Comparison

Your subject property has three bedrooms, one bath, an attached 2 car garage and no fireplace. It has forced hot air heat. You have analyzed the market and found 4 sales to use as comparables. You have also found that sales prices have increased 5% each year for the last 5 years.

- Sale # 1: 4 bedroom, 2 bath with an attached 2 car garage. It has a large fireplace, hot water heat & sold 2 years ago for \$172,500.  
 Sale # 2: 3 bedroom, 1 bath with a 1 car attached garage. No fireplace and has forced hot air heat. Sold recently for \$171,850.  
 Sale # 3: 3 bedroom and 2 baths. An attached 2 car garage with an average fireplace and hot water heat. Sold 2 years ago for \$176,500.  
 Sale # 4: 4 bedroom, 2 baths and an attached 2 car garage. It has a large fireplace and hot water heat. Sold 1 year ago for \$185,000.

Estimate a value for the subject property rounding to the nearest \$100.

**ADJUSTMENT AMOUNTS:**

|                     |          |
|---------------------|----------|
| 4TH BEDROOM         | \$8,000  |
| EXTRA BATH          | \$5,000  |
| 1 CAR GARAGE        | \$9,000  |
| 2 CAR GARAGE        | \$13,200 |
| AVERAGE FIREPLACE   | \$4,000  |
| LARGE FIREPLACE     | \$4,800  |
| FORCED HOT AIR HEAT | \$4,500  |
| HOT WATER HEAT      | \$5,600  |

|                     | SUBJECT | SALE # 1   |            | SALE # 2 |           | SALE # 3   |            | SALE # 4  |            |
|---------------------|---------|------------|------------|----------|-----------|------------|------------|-----------|------------|
| SALE PRICE          |         |            | \$172,500  |          | \$171,850 |            | \$176,500  |           | \$185,000  |
| TIME ADJ            |         | 2 YRS @ 5% | \$17,250   |          | NONE      | 2 YRS @ 5% | \$17,650   | 1 YR @ 5% | \$9,250    |
| TIME ADJ SALE PRICE |         |            | \$189,750  |          | \$171,850 |            | \$194,150  |           | \$194,250  |
| BEDROOMS            | 3       | 4          | (\$8,000)  | 3        | \$0       | 3          | \$0        | 4         | (\$8,000)  |
| BATHS               | 1       | 2          | (\$5,000)  | 1        | \$0       | 2          | (\$5,000)  | 2         | (\$5,000)  |
| GARAGE              | 2       | 2          | \$0        | 1        | \$4,200   | 2          | \$0        | 2         | \$0        |
| FIREPLACE           | NONE    | LARGE      | (\$4,800)  | NONE     | \$0       | AVERAGE    | (\$4,000)  | LARGE     | (\$4,800)  |
| HEAT                | FORCED  | HOT WATER  | (\$1,100)  | FORCED   | \$0       | HOT WATER  | (\$1,100)  | HOT WATER | (\$1,100)  |
| NET ADJ             |         |            | (\$18,900) |          | \$4,200   |            | (\$10,100) |           | (\$18,900) |
| ADJ SALES PRICE     |         |            | \$170,850  |          | \$176,050 |            | \$184,050  |           | \$175,350  |

ESTIMATED VALUE INDICATED BY THE SALES COMPARISON APPROACH:

**\$176,100**

**Practice Problem # 3**  
**Paired Sales Analysis**

You are valuing a subject property for an assessing official. The subject property is 12 years old in average condition. It has an attached garage. It does not front a golf course. Your property has 1,500 square feet and is of average quality. You have researched the market and found three comparable sales.

#1.) This home sold for \$95,800 2 years ago. It is in good condition with 1,700 square feet. This home has an attached garage and fronts a golf course. It is 12 years old and in good condition and average quality.

#2.) Sold 18 months ago. It is a good quality home with 1,600 square feet and a detached garage. It does not front a golf course and is 10 years old and in good condition. The sale price was \$94,900 and the quality is good.

#3.) This home sold for \$83,900 18 months ago. It is 8 years old, in average condition and does not front a golf course. It has 1,500 square feet and a detached garage and is average quality.

Using the following, value your subject property and round your answer to the nearest \$1,000.

- Time: \$500 per month increase
  - Age: \$1500 per year
  - Condition: \$5000 difference between Average and Good
  - Location: Fronting a golf course sell for \$5000 more
  - Floor Area: \$48/Sq Ft
  - Garage: \$800 less for detached garage
  - Quality: \$4000 between average and good
- Value the subject property and round to the nearest \$1,000

|                     | Subject | Sale # 1 | Sale # 2 | Sale # 3 |
|---------------------|---------|----------|----------|----------|
| Sale Price          |         |          |          |          |
| Time Adj            |         |          |          |          |
| Time Adj Sale price |         |          |          |          |
| Age                 | 12      |          |          |          |
| Condition           | Avg     |          |          |          |
| Fronts Golf Course  | No      |          |          |          |
| Floor Area (SF)     | 1500    |          |          |          |
| Garage              | Att     |          |          |          |
| Quality             | Avg     |          |          |          |
| Net Adjustment      |         |          |          |          |
| Adjusted Sale Price |         |          |          |          |



**Practice Problem # 3 Answer**  
**Paired Sales Analysis**

|                     | Subject | Sale # 1 |            | Sale # 2 |            | Sale # 3 |           |
|---------------------|---------|----------|------------|----------|------------|----------|-----------|
| Sale Price          |         |          | \$95,800   |          | \$94,900   |          | \$83,900  |
| Time Adj            |         | 2 yrs    | \$12,000   | 18 Mos.  | \$9,000    | 18 Mos.  | \$9,000   |
| Time Adj Sale price |         |          | \$107,800  |          | \$103,900  |          | \$92,900  |
| Age                 | 12      | 12       | \$0        | 10       | (\$3,000)  | 8        | (\$6,000) |
| Condition           | Avg     | Good     | (\$5,000)  | Good     | (\$5,000)  | Avg      | \$0       |
| Fronts Golf Course  | No      | Yes      | (\$5,000)  | No       | \$0        | No       | \$0       |
| Floor Area (SF)     | 1500    | 1700     | (\$9,600)  | 1600     | (\$4,800)  | 1500     | \$0       |
| Garage              | Att     | Att      | \$0        | Det      | \$800      | Det      | \$800     |
| Quality             | Avg     | Avg      | \$0        | Good     | (\$4,000)  | Avg      | \$0       |
| Net Adjustment      |         |          | (\$19,600) |          | (\$16,000) |          | (\$5,200) |
| Adjusted Sale Price |         |          | \$88,200   |          | \$87,900   |          | \$87,700  |

If you round each one you will get \$88,000

If you use the median you will get \$87,900 rounded to nearest \$1,000 is also \$88,000





# Contact Us

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