

JAMES A. GRAASKAMP COLLECTION OF TEACHING MATERIALS

V. INDUSTRY SEMINARS AND SPEECHES - SHORT TERM

I. Other Presentations In Which Either The Date And /  
Or Sponsoring Organization Is Missing

2. Appraisal Topics

s. "Appraisal of Transitional  
Neighborhoods, circa 1985

## Transitional Neighborhoods

Babcock once said that it is impossible to appraise properties situated in transitional neighborhoods because of the uncertainties involved. Appraisal subjects located in those areas that are in decline or rejuvenation have many variables that are not definite or easily determinable. For example, a subject located in a neighborhood in a state of change towards rejuvenation may have unanswerable variables such as the rate of change in the neighborhood or the rate of improving demographics. Larger scale uncertainties such as federal law or the overall economy may change or perhaps end the rate of change in that neighborhood.

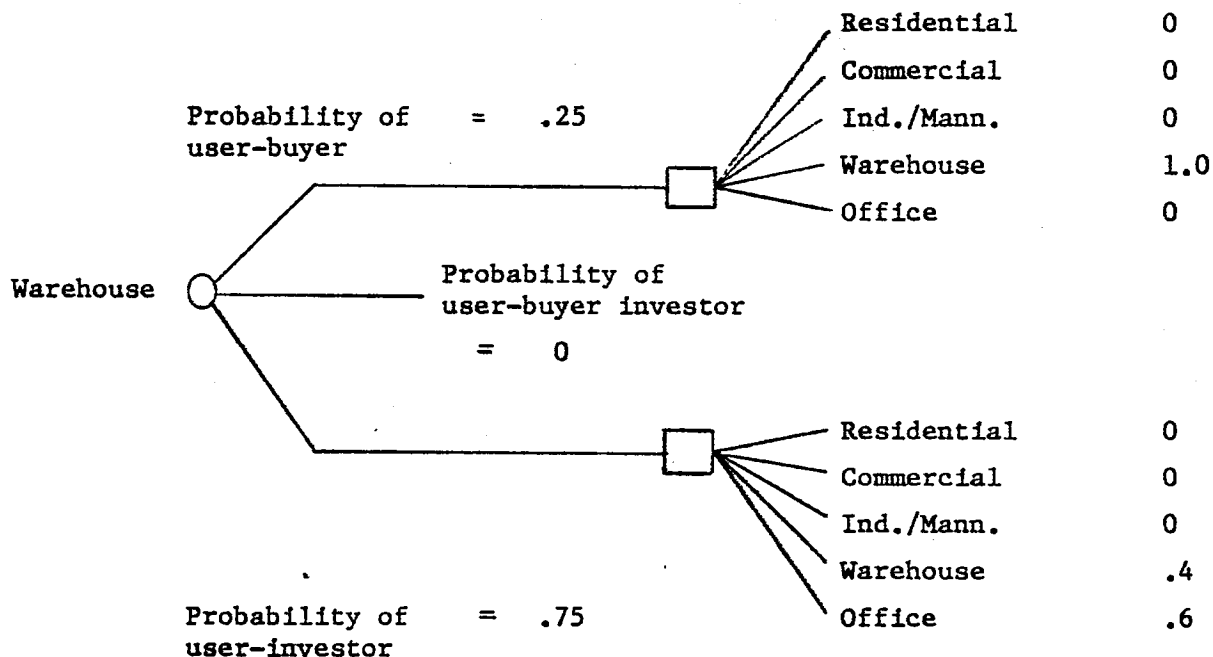
The most probable buyer also is uncertain in transitional areas. A rejuvenating neighborhood may attract both buyer-users and buyer-investors. Any firm statement as to who the buyer will be is pure speculation.

The problems stated above when appraising transitional properties exist with 624 East Wilson Street. This property is clearly within a transitional neighborhood. Associated uncertainties such as rate of rejuvenation and most probable buyer and its impact on the future most probable use becomes an issue of paramount importance. Contemporary and classical appraisal have always ignored future most probable use. In transitional properties future most probable use will impact the net present value of the subject and, therefore, impact the value of the subject. The difficulty lies in predicting future cash flows when there are no certain future uses existing.

Decision making techniques given no certain data <sup>is</sup> used in many business professions for predicting future outcomes. These techniques can be applied to real estate. Bayesian statistics is one such technique that could be useful for determining future outcomes. Bayesian statistics is the assignment of probabilities of occurrence for unknown variables (using sample data or estimations), to reach a final decision or set of decisions.

Using Bayesian methodology, a model can be implemented in order to arrive at an appraised value that considers future uses for the subject. Given the most probable use of warehousing and the most probable selling price of \$280,000 as a warehouse, the model shown in Exhibit I summarizes the concept used for this decision model. The following steps were considered to derive the model shown in Exhibit I:

EXHIBIT I



Step 1: The first uncertain variable in this model is the determination of the most probable buyer. In this model, two potential buyers have been considered, the investor-buyer and the buyer who will use the space. A third possibility is a user-buyer who is also a speculator, but since no possible buyers were found fitting this description, a probability of zero was given. Since only two potential buyer-users could be identified, the probability that the buyer will be an investor is greater than the probability that the buyer will be a user. Let's assign a probability of .75 to the buyer-investor and .25 to the buyer-user. These numbers are educated approximations based on research of possible buyers.

Step 2: Since we have now determined the probabilities associated with the user, the next step is to determine the most probable future use and the probabilities associated with that use. As was shown in the text of the appraisal, residential, commercial and industrial/manufacturing can be eliminated as possibilities for redevelopment due to the existing physical and political frictions. Probabilities of zero will be given to these potential future uses. When the most probable buyer is also the user, then the assumption that the space will remain warehouse is reasonable. A probability of 1.0 is given to warehousing as a future use. This leaves a probability of zero for office. When the most probable buyer is an investor, different assumptions must be used. Given that the investor is trying to maximize profit, there is a strong possibility that the subject will be converted to a more profitable office building. Since the neighborhood has already experienced development (Fauerbach, Cardinal Hotel, MG&E) the probability that the subject will be ready for conversion in five years is strong and will be estimated at .6. The probability that the subject will not be converted to office, but will remain warehouse is slightly less, and will be estimated at .4. Again these probabilities are only educated approximations based on research. More accurate estimations may be obtained by using comparable situation regression processes. However, given the scope of this study, this is not possible.

Step 3: The next step is to assign values to the various uses. Warehousing has already been given a most probable selling price of

\$280,000. In order to most accurately determine the most probable selling price of office space, the process of comparable sale analysis and regression should be used. However, given the scope of the project, comparable sales will be foregone in favor of an income approach. Using an income approach will be a valid indication of value because of the hypothetical nature of the model. Using that data stated in Scenario Four and a capitalization rate of 10%, net income of \$43,467 is found and the most probable selling price becomes \$435,000.

Gross Income	\$192,000
5% vacancy (less)	( 9,600)
mgt. pmt. (less)	( 65,973)
expenses (less)	<u>( 72,960)</u>
	\$ 43,467

cap. at 10% = \$434,467  
 = \$435,000

Step 4: Having determined the values for the future potential uses, the next step is to multiply the values by the assigned probabilities.

User-buyer	User-investor
\$280,000 (warehouse)	\$280,000 (warehouse)
<u>X 1.0</u>	<u>X .4</u>
\$280,000	\$112,000
<u>X .25</u>	435,000 (office)
\$ 70,000	<u>X .6</u>
	261,000
	112,000
	+ 261,000
	<u>373,000</u>
	<u>X .75</u>
	\$279,750
\$ 70,000	
<u>279,750</u>	
\$349,750	

The impact of a future use of office with the above associated probabilities is to increase the most probable selling price by \$69,750. Because the probabilities chosen for this model were not determined using the most accurate methods (regression, etc.), I would be hesitant to declare the

most probable selling price <sup>at</sup> \$350,000. Had proper techniques for estimating probabilities been implemented, along with proper determination of most probable selling price for each use, then the final value reached using Bayesian statistics and decision theory would yield the most accurate value for this transitional property (this would require a great amount of research initially, too large for the scope of one individual). However, since the probabilities used were not arbitrary but based on research, I would not hesitate to increase the upper limit of value by \$70,000 to \$395,000.