4-1-1998

Value Allocation in Regional Shopping Centers

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Understanding consumer shopping patterns is essential in estimating the value of regional shopping centers. Consumer shopping behavior determines retail sales at regional shopping centers which, in turn, impacts shopping center rents and value. This article quantifies the effects of consumer shopping behavior on nonanchor tenant sales in regional shopping centers. The results of this study reveal that the effects of location, comparison shopping, and department store image are important in estimating shopping center patronage and retail sales. They also indicate that the value of a mall can be allocated to real estate and non-real estate value.

The value of a regional shopping center is primarily determined by its rental rates, and the shopping center's rental rates are attributable to the retail sales in the center. In short, the value of a regional shopping center is dependent on the level of retail sales that it generates, and regional shopping center sales are dependent on consumer shopping behavior. Consumers shop at regional shopping centers for a variety of reasons; the three primary reasons are location, comparison shopping, and department store fashion image.[1]

The three categories used to assess different consumer behaviors follow the retail real estate literature. Shopping center "location" suggests that the consumer will purchase a desired item at the nearest center that carries the good. "Comparison shopping," also referred to as retail agglomeration and retail clustering, is the agglomeration of retailers in one location, which reduces consumer search costs. "Department store fashion image" is more formally referred to as a retail demand externality, where department stores attract consumers to a mall that spill over to nonanchor tenants.

This article measures the effects of shopping center location, comparison shopping,

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1. For a comprehensive review of the shopping center literature, see Mark J. Eppli and John D. Benjamin, "The Evolution of Shopping Center Research: A Review and Analysis," *The Journal of Real Estate Research* (Winter 1994): 5–32; and C. Samuel Craig, Avijit Ghosh, and Sara McLafferty, "Models of the Retail Location Process: A Review," *Journal of Retailing* (Spring 1984): 5–36.

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and department store fashion image on nonanchor retail sales, or the smaller in-line tenants that usually sell a specific type of good (i.e., housewares, women's apparel, shoes, etc.). Evaluating these three factors allows appraisers to analyze the components of value in operating regional shopping centers.[2] More specifically, because USPAP Standards Rule 1-2(e)[3] requires that real estate value be separated from non-real estate value, this research has important applications in real property valuations for tax purposes, property financing, and equity investment decisions. Specific applications of the allocation of value include:

Ad valorem tax assessments: Separating real property value from other property value in operating entities is of critical importance in real property tax assessments and is required by USPAP Standards Rule 1-2(e).

Assessing collateral risk for a lender: The risks involved in lending on real property is different from lending on department store image. In addition, section 197 of the U.S. Tax Code allows for the depreciation of intangible assets over a 15-year period. This period is shorter than the 39-year period for nonresidential real estate and therefore could affect the value of the assets to tax-oriented investors.

Pension funds: Pension fund managers need to consider the ramifications of non-real estate value because they may not be investing in a passive asset. (If this is the case, income taxes are levied against the investment income under provisions in the Unrelated Business Income Tax clause).

Understanding the underlying source of retail sales in regional shopping centers is critical to the valuation of these shopping centers. The appraiser should know how to evaluate the customer drawing power of a regional shopping center to assess the center's risk and expected return to an investor.

CONSUMER SHOPPING BEHAVIOR AND RETAIL SALES

Consumer shopping behavior has changed dramatically since the days before the auto-

mobile and the interstate roadway system. In the early twentieth century, consumers patronized the nearest shopping center because of high transportation costs both in terms of time and money. Thus, the proximity of a retail location to a customer explained most, if not all, retail sales. Sales attributable to the locational aspects of a shopping center are attributable to the real estate (i.e., land and building). As the automobile eased the time cost of transportation and comparison shopping in regional shopping centers began to explain a portion of retail sales, the importance of a store's location diminished. Regional shopping center owners enhance comparison shopping by offering a variety of stores that carry a range of similar goods, reducing the search costs of visiting many standalone retail sites for a particular dress, belt, tie, etc. Large department stores provide the critical mass and variety of retail goods necessary for comparison shopping.

Further accelerating the trend away from the importance of store location to other consumer shopping behaviors was the movement of fashion-oriented department stores to the suburbs. A sizable body of research has shown that consumers are willing to travel longer distances to patronize a center with an anchor tenant that has a positive customer image than one with a negative image.[4] John Nevin and Michael Houston reveal that the image of a special store, usually an anchor department store, is of primary importance in drawing customers to a shopping center, and that customers view the shopping center facility as a secondary decision criterion.[5] Using the image of supermarkets as a draw to neighborhood shopping centers, Thomas Stanley and Murphy Sewall show that supermarket image is a critical customer draw, concluding:

> This study suggests that stores whose chains have strong favorable images can draw consumers from longer distances than similar-sized stores representing a chain that is perceived as mediocre. Some stores in the study area were able to attract many consumers in spite of relatively long drive times, while

The appraiser should know how to evaluate the customer drawing power of a regional shopping center to assess the center's risk and expected return to an investor.

2. For a review of the business enterprise value debate, see Mark T. Kenney, "Business Enterprise Value: The Debate Continues," *The Appraisal Journal* (January 1995): 33–40; and "Does Shopping Mall Development Create Business Value?," *The Appraisal Journal* (July 1994): 303–313.

3. Appraisal Standards Board, *Uniform Standards of Professional Appraisal Practice* (Washington, D.C.: The Appraisal Foundation, 1998).

4. Eppli et al., 5–32, and Craig et al., 5–36.

5. John R. Nevin and Michael J. Houston, "Image as a Component of Attraction to Intraurban Shopping Areas," *Journal of Retailing* (Spring 1980): 77–93.

other stores with more square footage and shorter driving time characteristics were much less successful in attracting the subjects.[6]

Stanley and Sewall's findings reveal that the effects of image also exist in neighborhood shopping centers. More recently, Mark Eppli and James Shilling provide evidence of department store customer draw in regional shopping centers using regression analysis.[7] To summarize, many consumers today are willing to bypass well-located, standalone stores and less desirable shopping centers to travel to a more distant shopping center that offers comparison shopping and fashion-oriented department stores. In other words, consumers have become more retailer sensitive and less location sensitive in determining which center they patronize.

REAL ESTATE VALUE AND INTANGIBLE ASSET VALUE IN REGIONAL SHOPPING CENTERS

Understanding consumer shopping patterns in regional shopping centers is critical to estimating retail sales. As regional shopping center sales directly affect shopping center value, appraisers and tax assessors need to understand the source of retail sales.

An example using a famous hamburger franchise may illuminate the challenges of allocating value between real estate value and intangible asset value (the incremental value that is associated with the non-real estate components in regional shopping centers) for an operating business. These fast-food restaurants are generally located at busy intersections where food sales are attributable to both restaurant location and brand name recognition. The franchise's image emanates from the consumer's expectation of standard, uniform fare of acceptable quality delivered in a clean surrounding at a set price. Therefore, part of its sales is attributable to a convenient location, and part is attributable to its franchise image.

Conventional wisdom is that the portion of sales that is attributable to location (land and building) is considered real estate value and thus is subject to ad valorem property taxes. However, the sales that are attribut-

able to its image, an image that has been carefully cultivated over decades of advertising, is franchise or intangible value and thus is not subject to real estate taxes. To impose an ad valorem property tax on the additional sales that the franchise is able to maintain over that of a locally known fastfood restaurant would be inappropriately taxing the franchise's value as real estate.

Similar to fast-food franchise value, shopping center owner-operators and anchor department stores also cultivate a positive image in the minds of consumers. Shopping center developers use the positive fashion image of the anchor department stores to draw to a center customers who also shop at the smaller nonanchor retailers. The additional nonanchor retail sales that accrue to the shopping center owner from the fashion image of the department stores may be an intangible asset, as it is the image component, not a locational component, that causes customers to patronize a particular center. Finally, similar to the anticipated reduction in sales at a particular location from the departure of that burger franchisee, the loss of a fashion-oriented anchor department store retailer can reduce nonanchor retail sales.

Some argue that department stores do not have alternative locations to mall locations, and thus must locate in the mall. This is not the case. Department stores historically located to downtowns on a standalone basis, and their early moves to the suburbs were often made as standalone stores. Today, department stores frequently locate in regional malls because the economic incentives paid by developers make mall sites the lowest cost alternative to the department stores.

The decrease in nonanchor retail sales that were formerly created by the spillover of customers from a fashion-oriented department store that departed is therefore attributable to that store's high-fashion image, not the land and building. To entice a fashion-oriented department store to locate in a particular regional shopping center, developers are required to pay the department store a franchise fee in the form of cash incentives, below-market rents, and/or land subsidies. These franchise fees enhance the value of the operating enterprise (i.e., the regional mall)

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6. Thomas J. Stanley and Murphy A. Sewall, "Image Inputs to a Probabilistic Model: Predicting Retail Potential," *Journal of Marketing* (July 1976): 48–53.

7. Mark J. Eppli and James D. Shilling, "Changing Economic Perspectives on the Theory of Retail Location," *Megatrends in Retail Real Estate*, edited by John D. Benjamin (Norwell, Massachusetts: Kluwer Academic Publishers, 1995), chapter 4.

through the expectation of higher nonanchor tenant sales than those likely to be experienced without the fashion-oriented department store franchise. Ultimately, because such franchises can ply their images at alternative sites, franchise value is not site specific, and thus needs to be separated from real estate value for ad valorem tax purposes.

SEPARATING REAL ESTATE VAUE FROM INTANGIBLE ASSET VALUE IN REGIONAL SHOPPING CENTERS

The separation of the real estate value in an operating entity from non-real estate value is required by USPAP Standards Rule 1-2(e). The importance and difficulty of separating real estate and non-real estate (or going-concern) value are described in *The Appraisal of Real Estate:*

> Going-concern value is the value of a proven property operation. It includes the incremental value associated with the business concern, which is distinct from the value of the real estate. Going-concern value includes an intangible enhancement of the value of an operating business enterprise, which is produced by the assemblage of land, building, labor, equipment, and marketing operation. This assemblage creates an economically viable business that is expected to continue. Going-concern value refers to the total value of a property, including both real property and intangible personal property attributed to business value.
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> Going-concern appraisals are commonly conducted for hotels and motels, restaurants, bowling alleys, industrial enterprises, retail stores, shopping centers, and similar properties. For these properties, the physical real estate assets are integral parts of an ongoing business. It may be difficult to separate the market value of the land and the building from the total value of the business, but such a division of realty and nonrealty components of value is possible and often required by federal regulations.[8]

To separate real estate value from non-real estate value in regional shopping centers, appraisers must determine the retail sales source that delineates the source of real estate and intangible value.

As noted earlier, in regional shopping centers there are three primary sources of retail sales for the nonanchor tenants: location (land and building), comparison shopping, and anchor department store image.

Sales attributable to the socioeconomic characteristics of an area (i.e., the income and population of the area) attach to the location of the shopping center and thus are part of the real estate assets. Nonanchor retail sales dependent on the image of the department stores are attributable to an intangible asset, as department store image is not site specific. Based on current shopping center research, no clear determination has been provided to identify whether sales attributable to comparison shopping attach to the real estate or non-real estate assets.[9]

EXPLAINING NONANCHOR TENANT SALES IN REGIONAL SHOPPING CENTERS

In examining the factors that affect non-anchor sales in regional shopping centers, it is necessary to quantify the effect of location, comparison shopping, and department store image on nonanchor sales per square foot.

Regional Shopping Center Data

The database used in the regression analysis is unique because of its size and thoroughness. It includes over 4,500 non-anchor lease observations from 54 shopping centers located throughout the United States. Obtained from three separate data sources, the sample is representative of regional shopping centers located throughout the United States. A diverse set of data that parallels the universe of regional shopping centers is important to obtain results that can be generalized to other regional shopping centers.

Tables 1 and 2 describe the characteristics of the shopping center data. The average regional shopping center contains 775,000 square feet of floor space with a range of 184,000 to 1.551 million square feet. To account for a variety of different shopping center sizes with differing anchor and nonanchor tenants, the database includes a 184,000-square-foot shopping center in rural Iowa that has an anchor store of 54,000 square feet. While this center, by size, would be considered a community center, it does act as a regional mall for that market.

Aggregate household income for a 10-mile radius ring around each shopping center averages $8.155 billion. In the average cen-

8. Appraisal Institute, *The Appraisal of Real Estate*, 11th ed. (Chicago, Illinois: Appraisal Institute, 1996), 26.

9. Eppli et al., 5–32, and Craig et al., 5–36.

TABLE 1 Sample Averages and Value Ranges by Shopping Center Characteristic for 54 Shopping Centers in the United States

Shopping Center Characteristic	Average	Range Low	Range High
Center size (in thousand square feet)	775	184	1,551
Aggregate household income (in billions)	8.155	0.25	29.56
Number of department stores	2.76	1.00	6.00
Department store square feet (in thousands)	440.2	54.0	984.2
Department store image (scale of 1 to 10, 10 high)	5.28	1.31	8.55
Parking ratio	5.69	2.80	8.50
Center age (in years)	18.9	5.00	33.0
Number of observations	54	54	54

Note: The shopping center database was obtained from three separate sources—one shopping center developer/investor and two large pension investment companies. The data includes enclosed shopping centers only and is for the 1990 calendar year.

TABLE 2 Distribution of Shopping Centers by Total Square Feet of Space Occupied by Department Stores in 1990

Department Store Square Feet Per Shopping Center (in thousands)	Number of Observations	Frequency of Observations
0–150	7	13%
150–300	7	13%
300–450	14	26%
450–600	13	24%
600–750	8	15%
750–900	4	7%
900–1,050	1	2%
Total	54	100%

ter there are 2.76 department stores that occupy 440,200 square feet of space and maintain a department store image of 5.28. In addition, the average shopping center has 5.69 parking stalls per 1,000 square feet of gross leasable area and a mean age of 18.9 years. Both quantitative and qualitative factors are used to describe the department stores in table 2. Approximately half of the shopping centers maintain between 300,000 and 600,000 square feet of space occupied by department stores, with the remaining half evenly distributed below and above that range. The qualitative department store factors were determined using a survey of department store image. (A copy of the department store image survey and department store participants are available from the author.) Department store image for all department stores ranged from a low of 1.31 to a high of 9.55.

Factors Affecting Non-Anchor Sales Per Square Foot

A five-variable regression model was used to estimate nonanchor sales per square foot (the dependent variable). Three independent variables reflect location attributes, including ag-gregate household income, high population density, and low population density. Aggregate household income is the combined income of all households within a 10-mile radius ring of each shopping center. High population density is a binary variable (i.e., has a value of 0 or 1) that maintains a value of one for the two shopping centers located in the New York City metropolitan area. Similarly, low population density is a binary variable that maintains a value of one for all shopping centers not located in or near a metropolitan statistical area (MSA). The comparison shopping variable uses total square feet occupied by department stores to assess the benefits of comparison shopping. Finally, the department store image variable is the average image of all department stores in the center. Regression results are presented in table 3. The five-variable model explained 76.7% of nonanchor sales per square foot (R^2), and produced an F-statistic that is significant at the 95% level.

Additional regression analyses were run that included independent variables for parking ratio, shopping center age, physical layout of center, center location (area of the country in which the center is located). Individu-

TABLE 3 Explanation of Nonanchor Sales Per Square Foot

Independent Variable	Regression Coefficient	t-ratio
Constant	111.49	4.77
Aggregate household income (in billions)	1.330	1.33
High population density (B)	124.01	4.00
Low population density (B)	-49.38	-2.85
Department store square feet (in thousands)	0.1353	4.27
Average department store image	13.22	3.16
R^2		76.7%

Note: B designates a binary variable (i.e., a variable that has a value of 0 or 1).

ally and grouped, these additional independent variables were not significant, and thus were not included in the presented results. When these additional independent variables were included in the regression model, the significance and magnitude of the five variables used in the presented model were robust (i.e., had a very small change in the significance of the variable and the size of the variable cofficients). To be clear, the four variables that are significant at the 95% level in the presented model remain significant at or above the 95% level in all other models.

All the independent variables, except aggregate household income, have the expected sign and are significant at the 95% level. With a credible model of nonanchor sales per square foot established, the magnitude of the variable coefficients can be assessed.

To assess the effect that each independent variable has on nonanchor sales per square foot in the average shopping center, the variable coefficient is multiplied by the variable average. Table 4 indicates the relatively small effect that a change in aggregate household income within the pertinent trade area has on nonanchor retail sales. For each additional billion dollars of aggregate household income, nonanchor tenant sales per

square foot increases $1.33, or nonanchor sales per square foot increases $10.85 for an area with $8.155 billion in aggregate household income. There may be several reasons for this occurrence. Collinearity with the population density variables is responsible for a portion of insignificance of the aggregate household income variable. However, it should be noted that when one plots several shopping centers along with competing centers using a mapping program, the primary reason for the insignificance of the aggregate household income becomes clear. In each market, developers have tended to increase the supply of shopping centers in direct proportion to the increase in aggregate household income and size of the metropolitan areas. Therefore, as aggregate household income increases, a new center is constructed to meet the anticipated increase in retail sales, thus limiting the effect of aggregate household income on nonanchor sales.

Shopping centers located in high population density areas (such as New York City) can expect additional sales of $124.01 per square foot over a shopping center not located in the New York City metropolitan area. Conversely, shopping centers located in low population density areas (non-MSAs) would expect

TABLE 4 Estimation of Nonanchor Sales Per Square Foot Using Variable Averages

Independent Variable	Regression Coefficient (a)	Variable Average (b)	Effect on Nonanchor Sales Per Square Foot (a × b)
Constant	111.49	N/A	$111.49
Aggregate household income (in billions)	1.330	8.155	10.85
High population density (B)*	124.01	N/A**	N/A
Low population density (B)*	-49.38	N/A	N/A
Department store square feet (in thousands)	0.1353	440.2	59.56
Department store image	13.22	5.285	69.87
Estimated nonanchor sales per square foot for the average shopping center in the database			$251.77

* B designates a binary variable (i.e., a variable that has a value of 0 or 1).

** It is not appropriate to average binary variables.

The results confirm that fashion-oriented department stores draw more customers to a shopping center than discount-oriented department stores.

$49.38 less in nonanchor sales per square foot than shopping centers located in MSAs. An average value is not given for the high and low population density variables because a shopping center either is or is not located in one of these areas; therefore, averaging these two variables is inappropriate.

Comparison shopping is enhanced as the amount of space occupied by department stores increases, which, in turn, has a positive effect on nonanchor tenant sales per square foot. For each additional thousand square feet of department store space, nonanchor tenant sales per square foot increase slightly more than 13 cents. The average regional shopping center maintains 440,200 square feet of space occupied by department stores, increasing nonanchor store sales per square foot by an estimated $59.56, supporting the notion of positive agglomeration effects in regional shopping centers.

Regression analyses were also completed where "department store square feet occupied" was replaced by "total mall square feet occupied." For the five-variable model, R^2 fell to approximately 0.728 from 0.767, and the t-ratio also fell to 2.99 for mall square feet occupied from a t-ratio of 4.27 department store square feet occupied. However, coefficient magnitude changed little after accounting for the size differential between total mall square feet and department store square feet.

Conventional wisdom and developer incentive packages suggest that fashion-oriented department stores draw more customers to a shopping center than discount-oriented department stores; the results here confirm this behavior. With household income, population density and department store square feet occupied held constant, the results show that department store image is not only highly significant in estimating the sales of nonanchor tenants, but that the magnitude of this variable is large (see table 4). For a regional shopping center with an average department store image of 5.285, nonanchor retailers can expect $69.87 more in sales per square foot over a center without this demand externality. In other words, almost 28% of nonanchor sales in an average regional mall is explained by department store image. These results explain why a good location no longer guarantees the success of a shopping center as consumers are becoming more retailer sensitive and less location sensitive when selecting a shopping center.

Implications for Suburban Mall

A hypothetical mall called "Suburban Mall" is used to apply the results of the regression analysis. (The values presented for Suburban Mall are actual numbers for a regional shopping center disguised for confidentiality.) Prior to assessing the effect that the regression coefficients have on nonanchor retail sales in Suburban Mall, it is necessary to determine whether the results of this research can be applied to Suburban Mall. If the Suburban Mall clearly falls outside the database characteristics, the regression model results to estimate nonanchor tenant sales per square foot for Suburban Mall cannot be used.

The first independent variable in the regression analysis, which tests for spatial economic effects, is aggregate household income in a 10-mile radius. The average aggregate household income for the database is $8.155 billion, with a range of $0.2534 billion–$29.556 billion. Aggregate household income for a 10-mile radius ring around Suburban Mall is $5.59 billion, which is in the middle of the aggregate household income range (see table 1). The other two independent variables assessing spatial economic effects are high population density and low population density. Suburban Mall is located in the Suburbia MSA and by definition is in neither a high nor low population density market.

Retail clustering is tested for using the amount of square feet occupied by the department stores. The average amount of space occupied by department stores in the data base is 440,200 square feet. The range of space occupied by the department stores is 54,000–984,200 square feet, with four shopping centers maintaining a department store occupancy greater than 800,000 square feet. The amount of space occupied by department stores in Suburban Mall is 914,500 square feet. Although the amount of space occupied by department stores at Suburban Mall is in the upper end of the data range, there are four shopping center observations in the data with a similar level of space occupied by department stores.

The level of department store image is measured using a survey of the 48 department stores in the database. Average department store image ranged from 1.31 to 8.55, with an average of 5.285. The average department store image for Suburban Mall is 5.03. With two higher-image department stores and three lower-image department store an-

chors, the average department store image for Suburban Mall is very close to the data average. In summary, Suburban Mall maintains a set of shopping center characteristics similar to the collected database.

Having established this fact, the regression coefficient estimates presented in table 4 can be used to estimate nonanchor sales per square foot at the Suburban Mall. These regression coefficients are then multiplied by the independent variable characteristics for Suburban Mall in column b of table 5. Estimated nonanchor store sales per square foot at Suburban Mall are: $118.92 (attributable to location variables), $123.73 (comparison shopping), and $66.50 (department store image). The location category includes the regression constant.

ALLOCATING VALUE IN REGIONAL SHOPPING CENTERS

The first step in allocating shopping center value to real estate value and non-real estate value is to determine the sources of nonanchor retail sales in regional shopping centers. The sources of nonanchor retail sales per square foot in regional shopping centers from table 4 and represented in table 6 reveal that for the average shopping center,

location (land and building) explains 48.6% ($122.34 per square foot of nonanchor retail sales; comparison shopping explains 23.7% ($59.56 per square foot) of nonanchor retail sales; and department store image explains 27.7% ($69.87 per square foot) of nonanchor retail sales. The value of Suburban Mall can be allocated between real estate value and non-real estate value using the results from table 5. The total value of Suburban Mall can be allocated by using the proportion of nonanchor sales attributable to location, comparison shopping, and department store image components for that center. Table 7 reveals that at Suburban Mall, nonanchor retail sales can be allocated as follows: 38.5% to location, 40.0% to comparison shopping, and 21.5% to department store image.

Assuming a total fair market value of $68 million for the nonanchor tenant space in Suburban Mall, table 7 reveals the allocation of value: location ($26.18 million), comparison shopping ($27.2 million), and department store image ($14.62 million). Based on a well-established body of research, the location value of $26.18 million is real estate value, and the department store image value of $14.62 million is non-real estate value. However, research has not provided a clear determination on whether comparison shop-

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TABLE 5 Estimation of Nonanchor Sales Per Square Foot for Suburban Mall

Independent Variable	Regression Coefficient (a)	Suburban Mall Variable (b)	Effect on Nonanchor Sales Per Square Foot (a × b)
Constant	111.49	N/A	$111.49
Aggregate household income (in billions)	1.330	5.59	7.43
High population density (B)*	124.01	N/A**	N/A
Low population density (B)*	-49.38	N/A	N/A
Department store square feet (in thousands)	0.1353	914.5	123.73
Department store image	13.22	5.03	66.50
Estimated nonanchor sales per square foot for Suburban Mall			$309.15

* B designates a binary variable (i.e., a variable that has a value of 0 or 1).

** It is not appropriate to average binary variables.

TABLE 6 Value Allocation Based on Source of Nonanchor Sales Per Square Foot at the Average Regional Shopping Center

Sales Attributable to	Source of Nonanchor Sales Per Square Foot	Source of Nonanchor Sales
Location (land and building)*	$122.34	48.6%
Comparison shopping	59.56	23.7%
Department store image	69.87	27.7%
Total estimated sales per square foot	$251.77	100.0%

* The location variable includes the regression constant.

TABLE 7   Value Allocation for Suburban Mall

Characteristic	Source of Nonanchor Sales Per Square Foot	Percent of Value	Value in Dollars
Location (land and building)	$118.92	38.5%	$26,180,000
Comparison shopping	123.73	40.0%	$27,200,000
Department store image	66.50	21.5%	$14,620,000
Total value of Suburban Mall	$309.15	100.0%	$68,000,000

Note: Assumes a total fair market value of $68 million for Suburban Mall's nonanchor tenant space.

ping is attributable to real estate assets or non-real estate assets in the valuation of a shopping center. As such, the range of real estate value for Suburban Mall ranges from $26.18 million (without including the effects of comparison shopping in the real estate value) to $53.38 million, including the effects of comparison shopping in real estate value. Conversely, the range of non-real estate value for Suburban Mall is between $14.62 million–$41.84 million without and with all the effects of comparison shopping included in non-real estate value, respectively.

Consumer shopping behavior determines retail patronage patterns. A large body of research suggests that the combined effects of location, comparison shopping, and department store image captures a majority of consumer shopping behavior. Using these three characteristics of consumer shopping behavior, this article quantifies the effects of each nonanchor retailer sales per square foot in regional shopping centers. Based on these findings, the $68 million value of Suburban Mall can be allocated to real estate and non-real estate value.