Guidelines

The Institute’s Income/Expense Analysis® research program is now 64 years old. A brief survey of 200 apartment properties has developed into a major annual research effort encompassing over 10,250 properties. From this database, IREM annually produces over 1,000 pages of analysis published in five specialized volumes.

In 1976, the original apartment building study was supplemented with a survey of suburban office building operations. In 1978, the condominium and cooperative section was broken out of the apartment report and appeared for the first time as an independent publication. In 1982, the office building study was expanded to include downtown properties. In 1986, the Institute introduced a fourth publication analyzing the operating experience of federally assisted apartment buildings. In 1991, the Institute introduced a fifth publication based on the statistical analysis of shopping centers.

A consistent effort has been made to match the systematic increase in sample population and report quantity with qualitative improvements in the format, the method of statistical analysis, and the accuracy of the publications. This edition of the Income/Expense Analysis®: Shopping Centers provides the reader with nearly 100 line items relating to net operating income.

The Income/Expense Analysis® Database

The Income/Expense Analysis® database of the Institute of Real Estate Management is a valuable resource with a wide range of applications. Real estate professionals, private investors, governmental agencies, and researchers across the country have turned to these surveys for sixty-four years to answer many of their questions. This data can prove to be of great service if correctly used and interpreted. It can achieve its purpose, however, only if it is applied accurately and carefully.

How is this information used in the real estate community? It may play many roles in a property’s conception, development, and life. It is frequently applied to the preparation of feasibility studies on contemplated developments: Will the income stream anticipated in a particular location successfully support the project’s development and operating cost demands? What revenues can be expected from different locations and different types of developments? Are market conditions for this type of project favorable?

The Income/Expense Analysis® database is constantly used in budgeting for buildings under development and those already in full operation: Have ongoing building maintenance requirements been fully anticipated? Which expense categories are increasing, and at what rate?

These surveys are also applied to the detailed analysis of individual markets: What revenues will a particular market support? Are project rentals keeping pace with comparable properties? Will higher rentals be offset by increased vacancies?

The data is also drawn upon to verify cash flow projections for appraisals using an income approach to value. The information is also included in management reviews, many aspects of real estate research, tax appeals, etc. And certainly, its most obvious use is in operating comparisons for individual properties.

Method of Statistical Analysis

All of the income and expense figures reported in this publication are represented as “medians” and “ranges”. This method of statistical analysis was adopted for several reasons.

An important factor is the consideration of the real purpose of these published statistics. They are intended to serve as a benchmark against which property managers, owners, developers, and investors can compare their own operating experience and are not intended to set a standard for the industry or to determine the ideal operating ratio.

It is evident that no two properties are going to encounter identical maintenance problems or run up the same utility bills during the year in spite of any structural, geographical, or operational similarities. The median and chosen range reflect far more accurately the real diversity in operating experience than a simple average.

In this publication the median describes what might be called the “typical” expense for a given sample, and the range reflects the upper and lower limits within which the central portion of the sample falls. (For a complete explanation of these values, refer to the section entitled “Interpretation of a Page of Data.”)

Another reason for adopting the median is to insure that exceptionally high or low figures do not unduly affect the published reports. This is particularly important for small samples, where one large property with extraordinary maintenance costs could significantly increase the calculated average maintenance expenses for its city.

All data collection forms are carefully and systematically audited by project staff and by computer to eliminate any properties that fall too far outside normal operating experience. Use of the median further protects the reported figures from any unidentified errors or extremes.

Our coding techniques insure that all information is held in strict confidence. Only the totals are published, never individual statistics or names.
This edition has been compiled with the intention of facilitating the location of desired statistics. The reports have been grouped as follows:

**METROPOLITAN AREA REPORTS**
Three pages of data appear for each metropolitan area reported for Open Shopping Centers. The choice of metropolitan areas is determined by sample size.

**ANALYSIS BY CENTER SIZE AND AGE**
Where samples are sufficiently large, the data is further analyzed by size and age of the center. The breakdown of these categories appears as follows:
- Center Size: (Gross Leasable Area) in square feet:
  - 20,000 to 49,999
  - 50,000 to 99,999
  - 100,000 to 199,999
  - 200,000 to more

**REGIONAL REPORTS**
This section contains similar breakouts for selected regions of the United States. The reader should refer to the map following this introduction to determine the geographical area represented by each region number. Certain regions have been grouped to insure a significant sample for each regional area reported.

**NATIONAL REPORTS**
The totals of the entire United States sample is reported as well as an analyses of the United States data by center size and age group, as described above.

**SPECIAL REPORTS**
Special Reports include Leasing Fees, Merchants’ Association, Marketing Fund, Renovation, Expansion, Type of Ownership, Gross Sales and Real Estate Tax Analysis.

**Sample Composition**
The sources of the financial data in this publication are the Institute’s CERTIFIED PROPERTY MANAGER® (CPM®) members and other real estate professionals who are involved with the fiscal management of shopping centers. Data collection forms are distributed at the beginning of each calendar year and are accepted from January through the reporting deadline of April 30.

To be included in the sample, a submitted property must meet the following criteria:
- The minimum floor area of an accepted center is 20,000 square feet.
- The center must have been in operation for a full 12 months in the calendar year reported.

Contributors whose properties meet these criteria and whose buildings are included in the sample receive a complimentary copy of the Analysis or a fifty percent discount when it is published as well as an individual computer analysis of their building’s income and expenses.

**Cautions in Interpretations**
The data in this report can prove to be of great service if correctly used and interpreted. It can achieve its purpose, however, only if it is applied accurately and carefully.

In the following paragraphs, the possible benefits of judicious interpretation are reviewed, along with the methods of putting these statistics to their proper and best use.

It is important to establish clearly what these statistical summaries cannot do and what they do not pretend to do. They do not establish standards for the operation of real property. They do not determine the proper or “ideal” operating experiences for a particular property type. They are summaries of the operating experience of contributed properties and provide a valuable basis for analysis and comparison.

It must be kept in mind that these summaries are compiled from a voluntary sample. The buildings included in the sample were not statistically selected and do not necessarily reflect the total range of operating experiences for a particular city or region.

Any analysis of this data must place it in its proper context, with a full understanding of its advantages and limitations. These considerations can be grouped into three categories:
- General factors influencing interpretation.
- Factors relating to a specific market.
- Factors to be considered in comparing a particular property to the published statistics.

There are two important considerations which fall within the first category. First of all, the data is limited by time. In interpreting the contents of these surveys, the careful analyst will take into account the inevitable inflation that occurred subsequent to the operating year summarized.

It is also significant to note that there are variations in the sample base from year to year due to the voluntary nature of the contributions. In consequence, reported fluctuations in income and expenses must be interpreted with this in mind.

When evaluating the data on a particular market it must be remembered that market conditions can experience dramatic changes in a relatively short period of time. New projects coming on line, for example, can have a significant impact on a
local inventory. Changes in the economic climate, such as dramatic swings in interest rates, or unemployment rates, can result in short term shifts in market conditions. Thus, the data must be interpreted in its current context.

In addition, particularly on the metropolitan level, it is important to consider the relative size of each sample, and the relative size of the properties in the sample. By taking this information into account, any comparisons made will be more fruitful.

Finally, when making a comparison between a particular property and the survey results, it must be remembered that there are many possible reasons why the two might differ. The property in question might not be of a comparable size. The type of tenants for that property, or for the sample collected, might have special needs and require special or exceptional expenditures. Different owners and managers have naturally differing maintenance and care policies. The physical and structural features of the building may not closely match sampled properties. Lease terms may vary significantly and must be taken into account in a careful interpretation. A proper analysis requires that such considerations be explored.

When applied intelligently, this data can prove to be of great value and consequence. That is why it is drawn upon by thousands of lenders, appraisers, property owners, investors, developers, government agencies, researchers, and real estate professionals. It is of particular benefit to the professional managers of real property assets. And that is why, in view of the important asset management decisions with which they are faced, that you will find copies of the Income/Expense Analysis® publications in many CERTIFIED PROPERTY MANAGER® (CPM®) offices.

Comparing Your Property’s Experience With the Data in This Publication

PREPARATION

For any comparison to be possible, it is essential that your property’s income and expense figures share a format which is similar to the data as it appears on these pages. For effective comparison, you should convert your annual operating figures to match the income and expense categories as they are defined in the Appendix. A comparative data worksheet has been provided in that section for this purpose.

Your figures should then be translated to dollars per square foot. As a basis for your calculations for income, you may use either Total Potential Gross Leasable Area or Total Average Actual Occupancy. For each expense figure, you may use any of four categories: Total Potential Gross Leasable Area; Total Average Actual Occupancy; Balance (of Shopping Center) Total Potential Gross Leasable Area; or Balance (of Shopping Center) Total Average Actual Occupancy. Each income and expense figure for your property should be divided by the total floor area or average actual occupancy of your center.

For example, if your annual insurance cost was $3,850 and your building’s Gross Floor Area is 50,000 square feet, your annual insurance cost in dollars per square foot would be $0.08 ($3,850 ÷ 50,000 = 0.077; 0.077 rounded to the nearest whole cent is 0.08).

CHOOSING THE APPROPRIATE TABLE

You are now ready to take advantage of the data in the publication. You must now choose a sample or table which will provide you with an effective basis for comparison. There are intentionally many tables that may compare in one way or another with your property. It is recommended that you choose more than one.

If the metropolitan area where your building is located appears in the book as a selected sample, you may wish to begin by comparing your property with others in your city.

You may also want to compare your figures with data from your region, and with similar properties of the same size and age.

ABSTRACTING COMPARABLE FIGURES FROM THE TABLES

When you have chosen a suitable table, you will want to use only those figures on the table which compare with your property’s operations. For example, there are seven maintenance expense categories listed on most pages of the publication. However, in any one year, your property may incur expenses in only three or four of those categories.

If that is the case, pull from each table only those figures which correspond to your property’s operations. For example, if your building did not require HVAC repairs, plumbing repairs, or roof repairs, do not copy those comparables on your worksheet.

Consequently, you should only use the subtotals and totals that appear in the book for quick preliminary comparison. After you have abstracted the data that directly applies to your property, you should calculate your own.

USING THE PUBLISHED RANGES

Having chosen appropriate tables, and selected from those tables the median income and expense data that applies to your property, you can begin to compare specific figures. You may quickly discover that your property does not exactly match many of the published median expenses reported. You may note that your real estate tax figure is several cents above the median for your city.

There are many reasons, discussed previously, that might explain why your property’s expenses differ from a citywide median. However, for any particular line item, you can now benefit from the published ranges which appear for those samples with more than 10 buildings. You should return to the
table and examine the Low and High columns which appear to the right of the median column.

In the following section, the layout and interpretation of each page of data will be described in greater detail.

**Layout of a Page of Data**

**FULL-PAGE REPORTS**

The data for “Selected Metropolitan Areas,” “Selected Regions,” and “Total USA” is presented on three-page format for open centers. Each report is identified in the upper right hand corner of the page. The Chart of Accounts printed on the left side of the page is divided into Income and Expenses.

The individual expense categories are grouped by type and subtotaled. Because the results are reported as medians and ranges, the subtotals will not add up exactly to the figure for Total Expenses. (Refer to page 11 for further explanation of subtotal calculations.)

The figure in the first column of any report describes the number of centers in the line-item sample. The next figure to the right is the size of the line-item sample in square feet (in multiples of 10,000) for the category. The next three columns represent respectively:

- The median value of the line-item sample (*Med*) in dollars per square foot.
- The lower limit of the interquartile range (*Low*) in dollars per square foot.
- The upper limit of the interquartile range (*High*) in dollars per square foot.

In the expense section of any report, only the median will appear for Balance (of the Shopping Center) Total Potential Gross Leasable Area and Balance (of the Shopping Center) Average-Actual-Occupancy.

**REDUCED-FORMAT REPORTS**

The reduced-format reports analyze metropolitan, regional, and national data by size and by age group.

These reports differ from the full-page reports only in the choice of the line items printed. Essential line items and all subtotals and totals for the major income and expense categories are presented across the page in a horizontal format identical to the full-page reports.

**GREEN BUILDING SURVEY**

In 2010, a Green Building survey was introduced. The Green Building Survey is located in Part 5. The survey results break down green certifications to the types of green systems used in the properties surveyed. The survey also includes buildings which reported energy and water conservation modifications. All figures are based on the number of buildings that participated in the Green Survey. Not all buildings reported a certification, program or rating.

A green building is a building that has earned one of the qualifying certifications, see question #2 on the Going Green Building Survey in the Appendix. A non-green building is a building that has not earned a qualifying certification but has implemented at least one green system, see question #4 on the Going Green Building Survey in the Appendix.

Table 1A identifies the percentages of properties that are IREM® Certified Sustainable Properties and LEED® certified and the LEED® level they achieved. Table 1B identifies the percentages of properties that are certified in Green Globes™, BREAM® USA, and Local/Regional/State programs. Table 2A tracks both capital and non-capital operating efficiency improvements over the last five year. Table 2B summarizes EnergyStar® buildings and there ratings.

Table 3A lists the percentages of buildings (both green and non-green buildings) that have implemented energy efficient systems. Table 3B lists percentages of buildings utilizing renewable energy, Table 3C represents percentages of water management systems being used and Table 3D represents percentages of other green features and programs.

The second report on Green Buildings compares the utilities of all buildings, non-green buildings and green buildings. Due to sample size constraints not all reports may be available.
INTERPRETATIONS

A variety of charts and graphs are contained in this edition of the Analysis. However, the vast majority share a basic format which are described and explained in the following paragraphs.

The Chart of Accounts

The various line-items are listed in a column on the left side of each data page. A number of abbreviations were adopted because of space limitations. A few of these are clarified below. For complete definitions of the terms used and the various income and expense categories, the reader should refer to the appendix.

ABBREVIATIONS
For each of the following abbreviations, the term or expression abbreviated follows in italics.

GLA: Gross Leasable Area
AAO: Average Actual Occupancy
GROSS MINIMUM: Gross Potential Minimum Rent
ACTUAL MINIMUM: Actual Minimum Rent
NON-ENCL CA SVS: Non-Enclosed Common Area Services
FOOD CRT: Food Court
R/E TAX RCVRY: Real Estate Tax Recovery
TEMP TENANT INC: Temporary Tenant Income
GRND LEASE; G/L: Ground Lease
BALANCE: Balance of Shopping Center
EXPNS: Expenses
MAINT & REPAIR; M&R: Maintenance and Repair
HVAC: Heating, Ventilation and Air Conditioning
PAINT/DECORATE: Painting and Decorating
COMBO ELEC: Combination Electricity
UTILS: Utilities
ADMIN FEE: Administration Fee
PRKG LOT/SDWLK: Parking Lot/Sidewalk
OTHER TAXES/FEES: Other Taxes, Fees, and Permits
PROF SRVCS: Professional Services
E/I RATIO: Expenses over Income Ratio
CAM: Common Area Maintenance

The Floor Area Categories

The medians and ranges are calculated in dollars per square foot for each of the two floor areas listed for income: Total Potential GLA (Gross Leasable Area) and Total Average Actual Occupancy. For expenses, in addition to the above mentioned categories, medians are listed for Balance (of Shopping Center), Total Potential GLA and Balance (of Shopping Center) Average Actual Occupancy. Definitions of these categories are found in the Appendix.

The Line-item Sample

All of the properties did not report a dollar figure for each line-item. The figures in “Centers” column identify the number of properties in the sample reporting floor area and a dollar figure for that line-item. This is especially important in areas where the reader should pay particular attention to the number of properties used to calculate each line.

If the line-item sample is very small (less than five buildings), care should be taken interpreting the results.

The next figure to the right, in the Square Feet column (abbreviated Sq. Ft.), gives the total number of square feet in the line-item sample, in multiples of 10,000 square feet.

The Calculations

MEDIAN

The median of a set of measurements is defined as the middle measurement, identified after the measurements have been arranged in order of magnitude. As an example, if there are 13 buildings reporting the following values for Real Estate Taxes in dollars per square foot-

0.72 0.76 0.88 0.89 0.94 0.97 0.99 MED 1.05 1.07 1.10 1.13 1.24 1.26

-the Middle value of 0.99 is the median. If there is an even number of values reported, the higher of the two values has been chosen as the median. For purposes of comparison, the calculated average for this distribution is 1.00, very near the chosen median.

THE RANGE

In addition to the median, for samples of 10 or more buildings the “interquartile range” is reported in terms of a Low and a High value. After the set of measurements has been arranged in order of magnitude, the Low and High values are chosen so that the bottom 25 percent of the sample falls below the Low and the top 25 percent of the sample lies above the High. Using the same example, for the following values-

0.72 0.76 0.88 0.89 LOW 0.94 0.97 0.99 1.05 1.07 1.10 HIGH 1.13 1.24 1.26

-the Low value is 0.89 and the High value is 1.10.

In interpreting the data as it appears in this publication for a particular line-item, such as Insurance, the value that best
describes the sample is the median (Med) with the central 50 percent of the values falling between the Low and the High.

**SUBTOTAL CALCULATIONS**

Due to the nature of calculation the median and the variability of line-item samples as discussed in the previous section, line-item medians will not add up to the medians obtained for subtotals or totals.

In the following, the median subtotal is not the sum of the three-bolded figures that appear above it. Rather, the median subtotal is calculated independently.

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**Occupancy Level**

The square footage occupancy level and tenant occupancy levels are calculated as percentages of Gross Leasable Area.

**Other Remarks**

The operating expenses in the publication do not reflect such items as ground rent, mortgage interest, amortization, depreciation, income taxes, or capital expenditures for alterations, improvements or remodeling of occupied or public areas.

- The blanks that appear in reported data represent insufficient data for that line-item, and not zero calculation.