

asset efficiency

why it matters and how to measure it

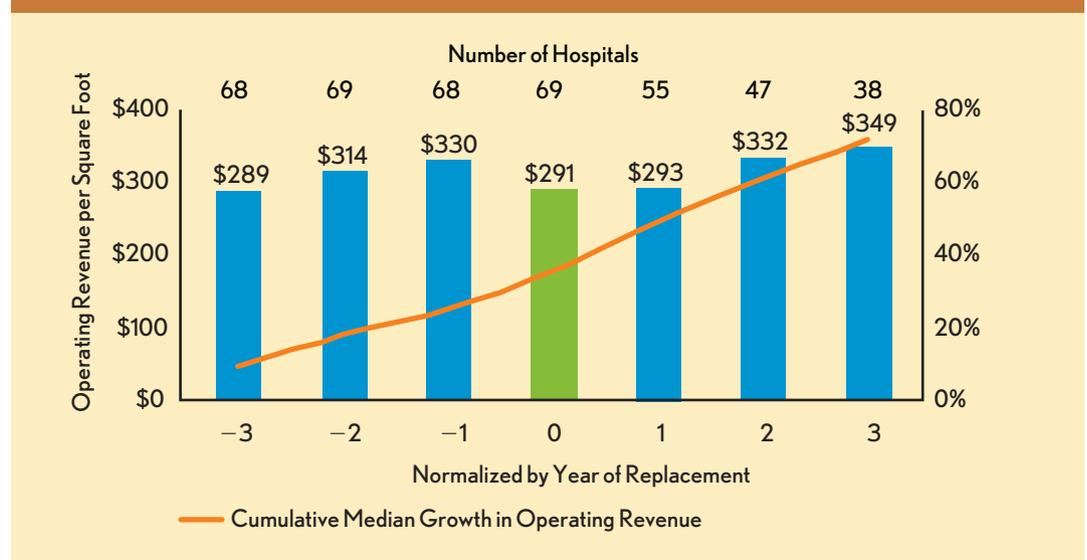
With hospital construction costs of \$300+ per square foot and capital scarce, asset efficiency—defined as production per unit of assets—should be a hot button issue for hospital leaders seeking to improve performance or planning a significant investment. Improving asset efficiency means reducing the assets required to achieve revenue targets or increasing revenues generated by deployed assets.

Square feet per bed has long been a hospital industry benchmark. However, this ratio has limited utility because it does not control for variances in throughput or the proportion of outpatient business activity. Two alternative measures of facility asset efficiency are highly

relevant given current construction and renovation costs per square foot.

Operating revenue per square foot (OR/SF) provides useful insight because it accounts for variability in both inpatient and outpatient activity and throughput. A study of the nation's 72 community hospitals that were replaced between 2000 and 2007 describes median cumulative growth in operating revenue of 71.9 percent for years -3 to 3 (year 0 is the year of replacement). However, from year -1 to year 0, growth in operating revenue was outstripped by additions to hospital square footage. Median OR/SF decreased 11.8 percent from year -1 to year 0 and remained flat in year 1. These median results suggest that it

MEDIAN OPERATING REVENUE PER SQUARE FOOT WITH CUMULATIVE MEDIAN OPERATING REVENUE GROWTH, YEAR -3 TO YEAR 3



takes three years worth of volume gains and price increases after year -1 for a hospital to achieve the productivity it was experiencing prior to facility replacement, as measured by OR/SF.

Square feet per adjusted occupied bed (AOB, i.e., $\text{patient days} \div 365 \times [\text{Inpatient Gross} + \text{Outpatient Gross}] \div \text{Inpatient Gross}$) accounts for variances in the proportion of outpatient business activity, throughput, and length of stay while eliminating variability due to payer mix and pricing. After remaining flat during prereplacement years, median square feet per AOB increased by 27.7 percent between year -1 and year 1, indicating increasing asset intensity (more square feet) per unit of production (AOB) and declining asset efficiency. However, in Year 2 and Year 3, volume increases and operating efficiencies reduced the median square feet per AOB by 7.6 percent from peak levels in year 1, indicating improving asset efficiency.

A substantial minority of replacement hospitals had fewer square feet per AOB in year 2 (33 percent of 48) and 3 (35 percent of 38) than in year-1. For these organizations, a replacement provided enhanced production per square foot and increased asset efficiency.

The huge cost of hospital facilities, constrained access to capital, and uncertainty over the future payment environment all point to the need to enhance asset efficiency and facility productivity. Improved project planning and analytical tools can help hospitals meet these challenges. ●

This analysis was developed by Stroudwater Associates. For more information, contact Jeff Sommer, practice leader of capital access and planning services, at jsommer@stroudwaterassociates.com.

MEDIAN SQUARE FEET PER ADJUSTED OCCUPIED BED, YEAR -3 TO YEAR 3

