

**RESEARCH PAPER**

# HOSPITALS CONTINUE FINANCIAL RECOVERY

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# INTRODUCTION

During the summer and fall of 2008, U.S. hospitals found themselves facing unprecedented financial challenges. Stock and bond values fell in nearly every asset class, dramatically affecting hospital investment values and income. Credit markets were in crisis, and some hospitals were forced to draw on cash reserves to satisfy financial covenants. There was concern that hospital demand was contracting in a segment of the economy that was once deemed “recession-proof.”

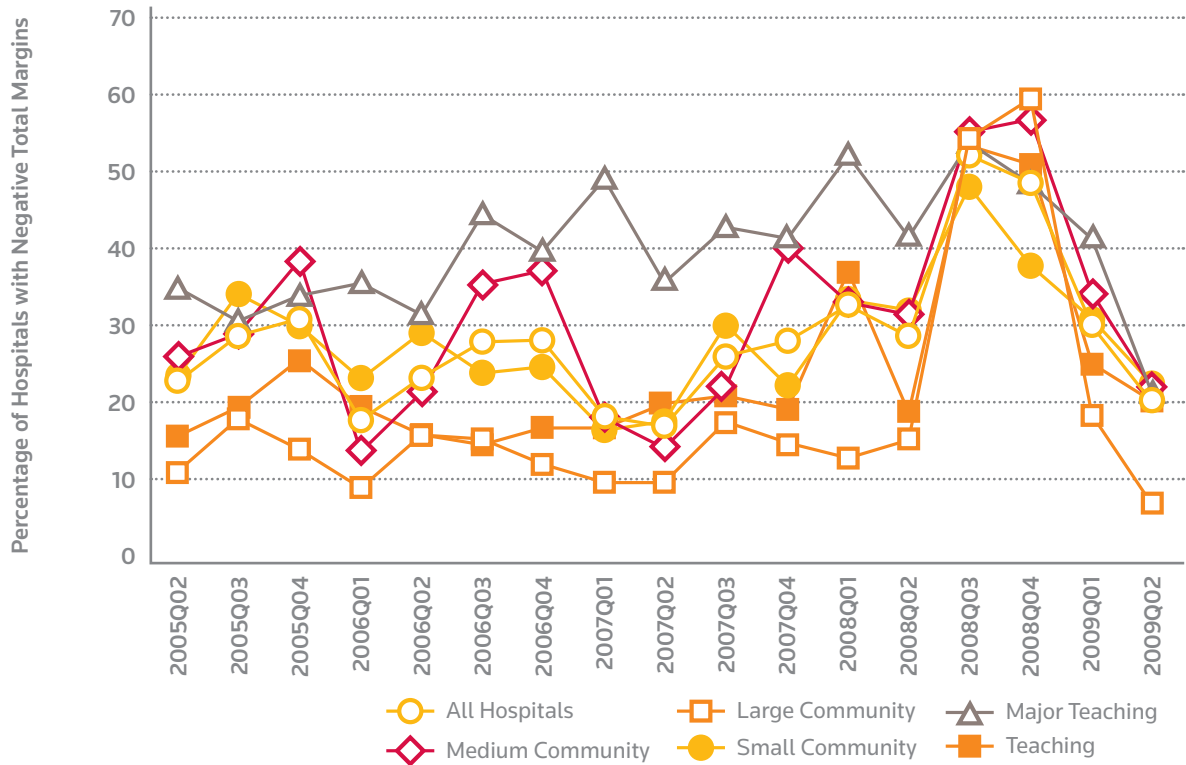
Earlier this year, Thomson Reuters provided a comprehensive review of the hospital marketplace, using then current financial and operational data through the third quarter of 2008. At that time, our hospital financial data reflected stress reported by many sources in the trade and general media. In the first quarter 2009, there were signs that some of the economic stresses faced by hospitals were starting to ease. In this brief, we provide an update with financial and operational information for second quarter 2009.

The source of information for this paper is the Thomson Reuters ACTION O-I® database, which provides an array of financial and operational indicators for a large sample of general acute care hospitals. More information about the hospital sample and methodology used to construct the estimates can be found in the last section of this report. Many of the charts in the following report contain data classified by hospital type (class). Definitions of the hospital classes may also be found in the last section.

# MARGINS, REVENUES, AND EXPENSES

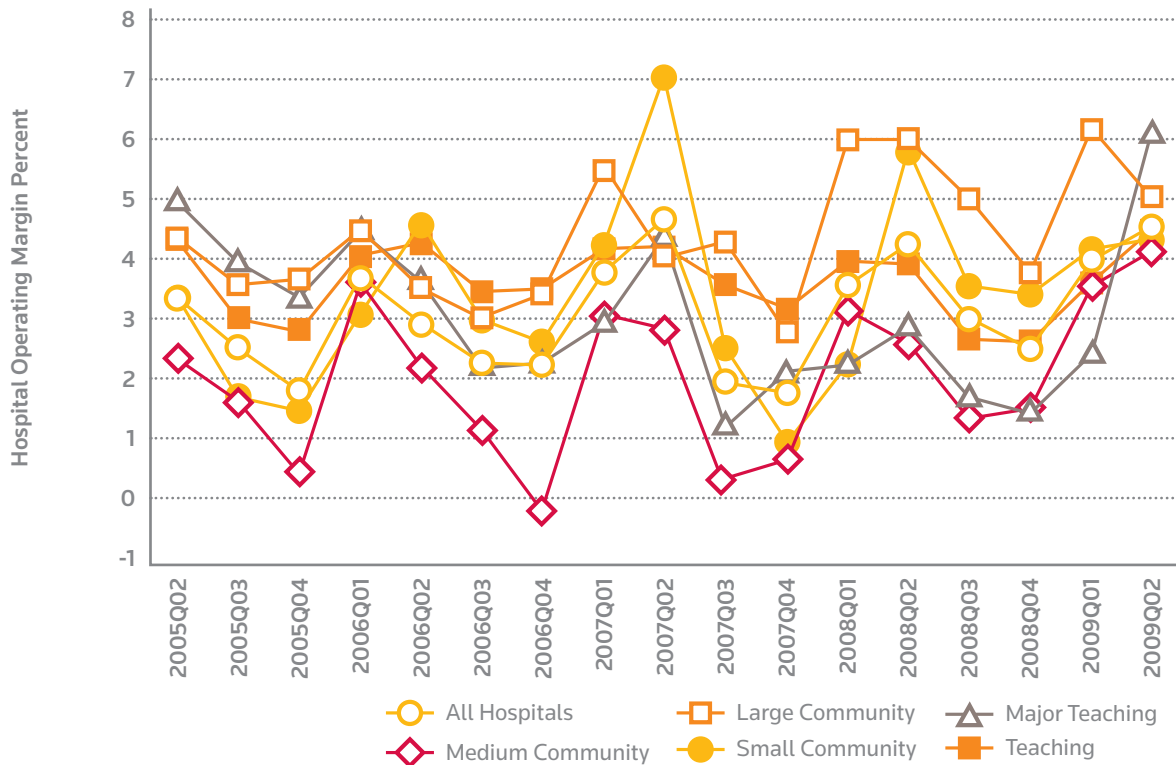
Hospital total margin plunged to historic lows in the last half of 2008 but recovered to pre-recession levels for all classes of hospitals by second quarter 2009. At present, about 20 percent of hospitals are operating with negative total margin (Figure 1). Large community hospitals, heavily impacted by declines in financial markets in 2008, experienced dramatic improvements with only 8 percent of hospitals operating with negative total margin in second quarter 2009.

**Figure 1: Hospital Negative Total Margins, 2005 Q2–2009 Q2**



Total margin consists of excess revenue derived from operations as well as non-operating margins derived primarily from investments. Operating margins have followed stationary cyclical patterns in the recent past. In second quarter 2009, median operating margins were greater than 4 percent for all hospital classes (Figure 2). Major teaching hospitals enjoyed the largest median operating margin (approximately 6 percent). Most hospital classes enjoyed higher operating margins in second quarter 2009 compared to a year earlier.

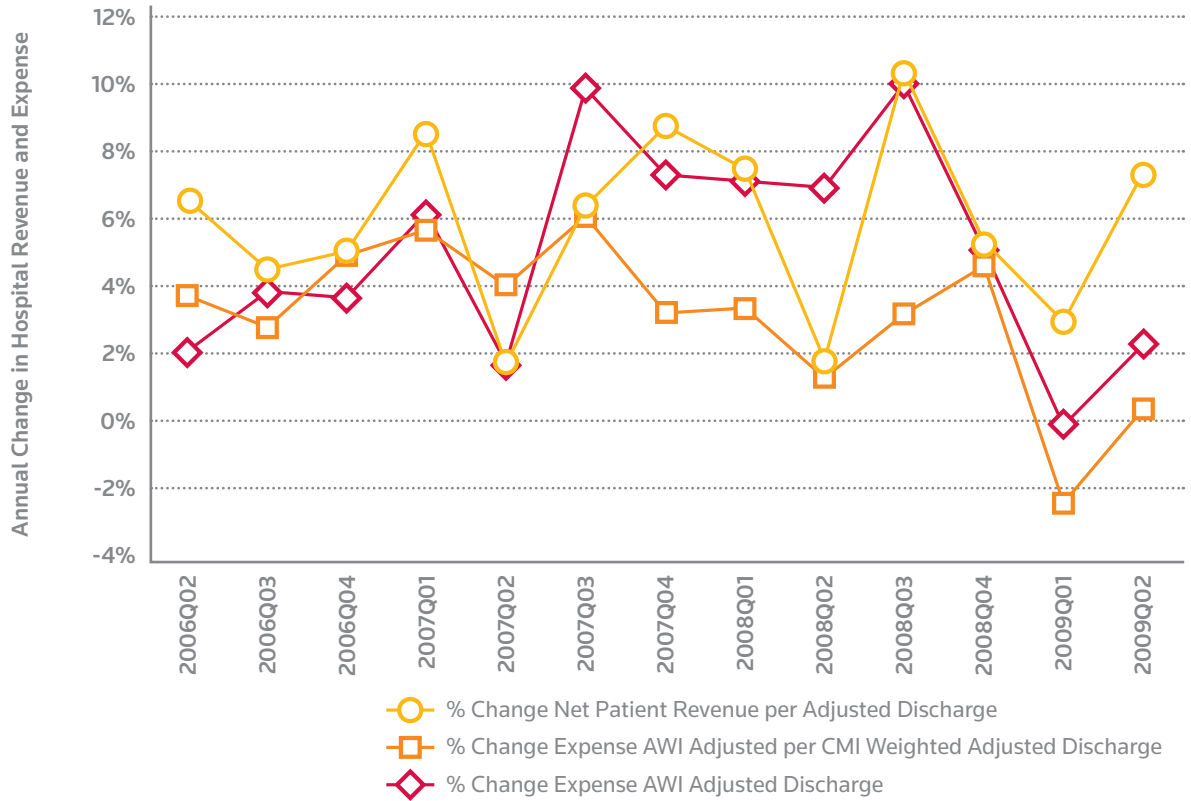
**Figure 2: Hospital Median Operating Margin by Hospital Class, 2005 Q2–2009 Q2**



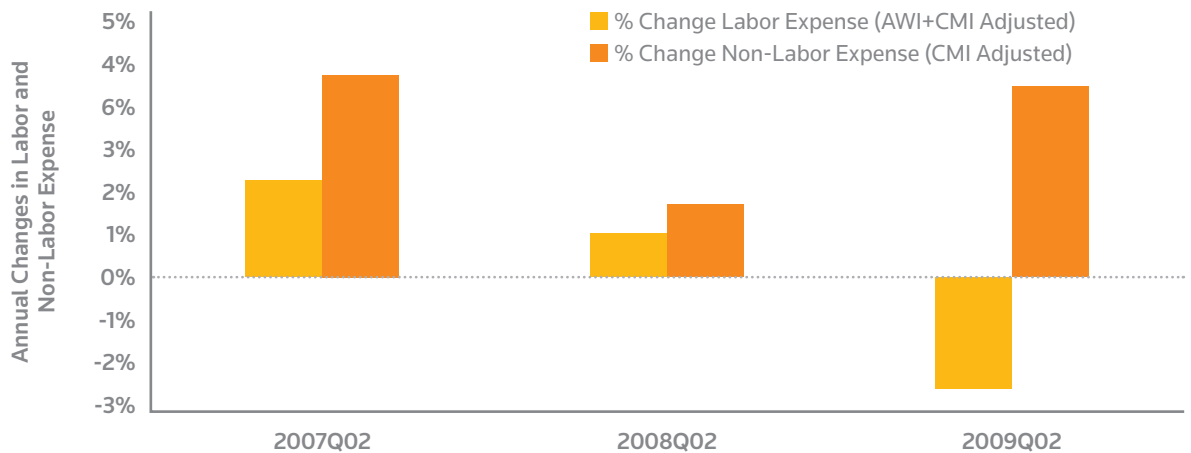
Revenue and expense trends interplay to produce the relatively stationary operating margin series observed in Figure 2.

Annual rates of revenue and expense growth declined between mid-2008 and first quarter 2009, but increased in second quarter 2009 (Figure 3). Median Net Patient Revenue grew approximately 7 percent on a year-over-year basis, and expenses grew 2 percent (or close to 0 percent with case-mix index adjustment). A closer analysis shows that hospitals are continuing to decrease labor expenses on a year-over-year basis, while non-labor expenses are increasing (Figure 4).

**Figure 3: Annual Change in Hospital Revenues and Expenses, 2005 Q2–2009 Q2**



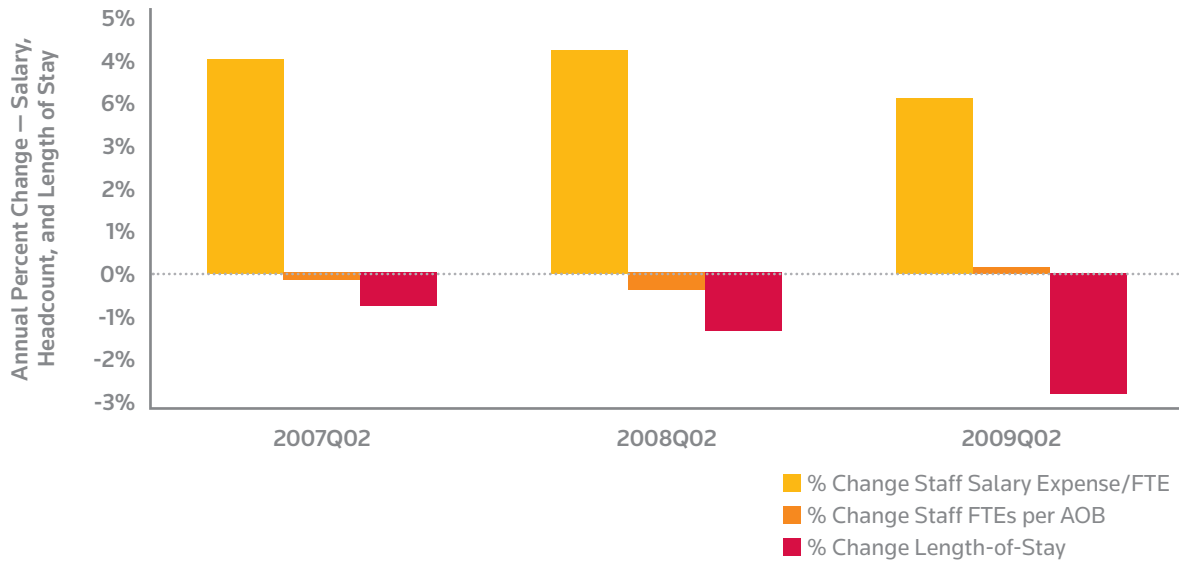
**Figure 4: Annual Change in Median Hospital Labor and Non-Labor Expenses, 2007–2009**



Non-labor expense growth has been driven by medical supplies; not drugs as might be expected: hospitals have been very effective in reducing drug expense since the beginning of 2007 in our data series.

How have hospitals reduced labor expense per adjusted discharge? Hospitals may have reduced salaries, reduced staff per bed, or increased discharge throughput (i.e., lowered length of stay). Figure 5 makes clear that reduction in labor expense per discharge has been achieved by reducing of length of stay. Salary expenses per FTE have inflated at 3–4 percent annually while staff levels per occupied bed have remained roughly constant. Hospitals have also reduced some other expenses that are of smaller magnitude, such as non-clinical contract labor, probably reflecting greater attention to human resource management after the start of the recession.

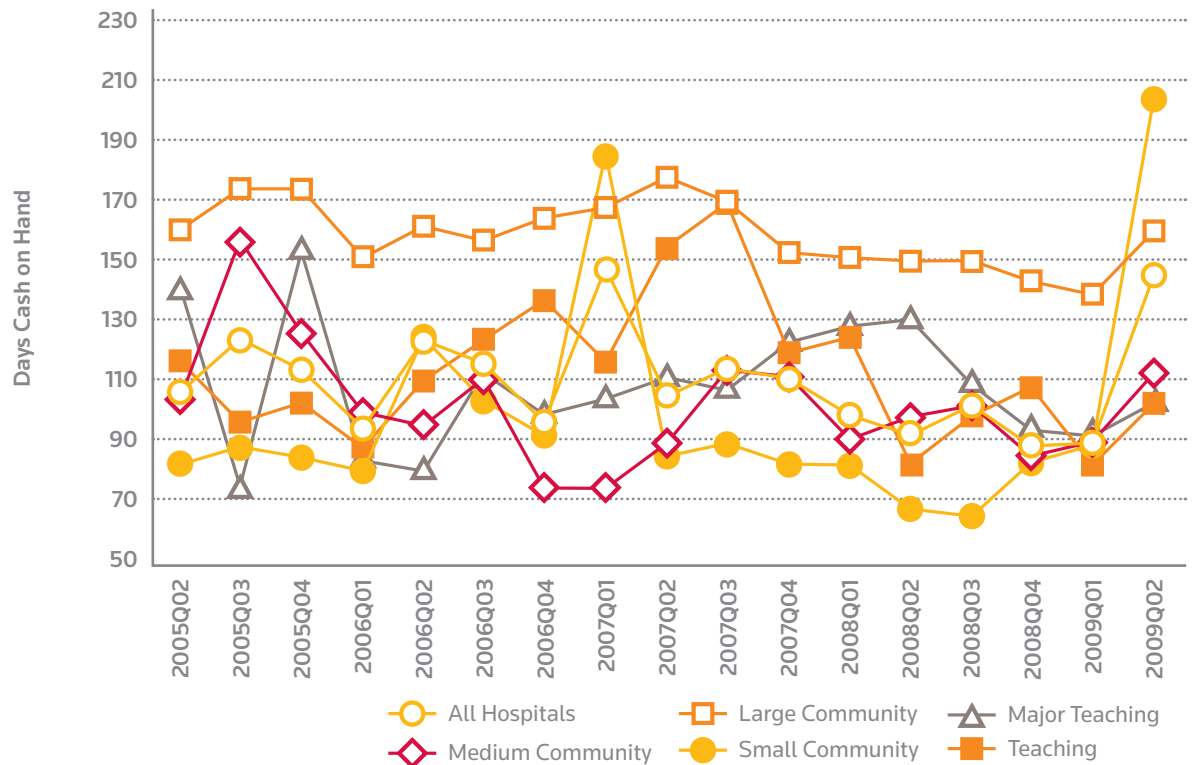
**Figure 5: Annual Change in Median Salaries, Staff per Adjusted Occupied Bed and Length of Stay, 2007–2009**



# OTHER OPERATING CHARACTERISTICS

Since the beginning of the recession, hospitals have faced credit market conditions that have potential impacts on interest expense for debt and free cash flow. In particular, there have been reports in the trade media of hospitals — drawing on cash to resolve problems with various debt covenants. Our estimates of one liquidity measure, days cash on hand (Figure 6) — show that the all-hospital median declined from over 110 days in the second quarter of 2005 to around 90 days in first quarter 2009. There is variability by class of hospital but the general trend downward through first quarter 2009 is apparent. Hospital liquidity improved significantly in second quarter 2009. When median days cash on hand increased for all classes of hospitals, and improved dramatically for small community hospitals.

**Figure 6: Hospital Median Days Cash On Hand, All Sources, 2005 Q2–2009 Q2**



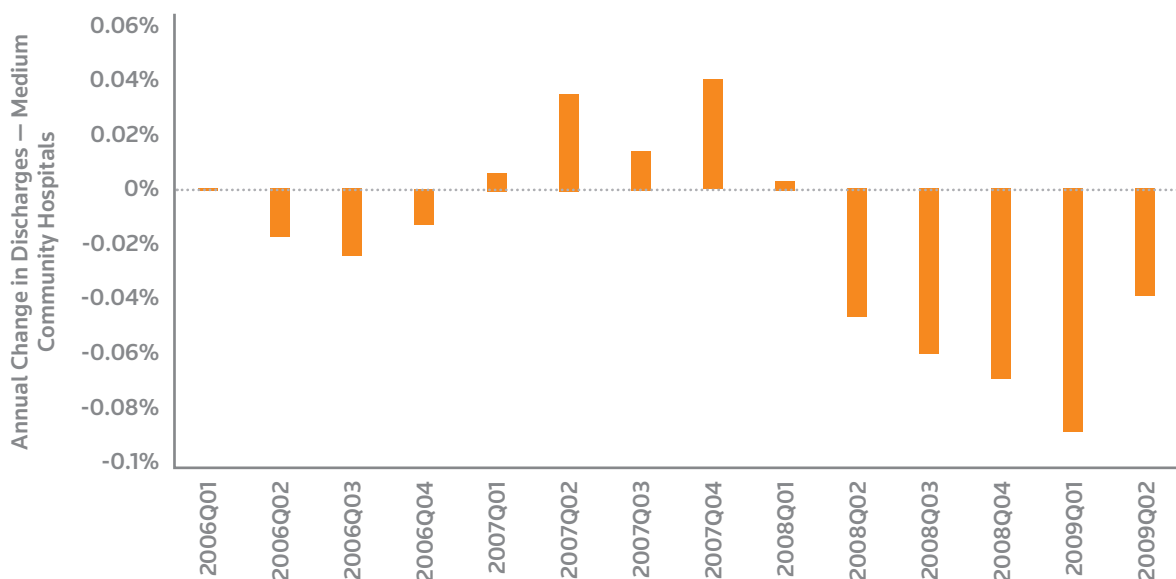


Some hospitals have reported declines in inpatient and outpatient case volumes attributable to the recession that started in fourth quarter 2007. We find some evidence of volume decline in our estimates. Mean inpatient discharges for all hospitals showed negative growth starting shortly after the start of the recession but became positive in second quarter 2009 (Figure 7). However, the rate of change in discharge volumes is highly variable and depends on hospital class (Figures 8-10). Major and minor teaching hospitals have experienced year-over-year growth in inpatient volume starting with the first quarter 2008 and continuing through second quarter 2009. Medium community hospitals were the only type that experienced year-over-year volume declines in second quarter 2009.

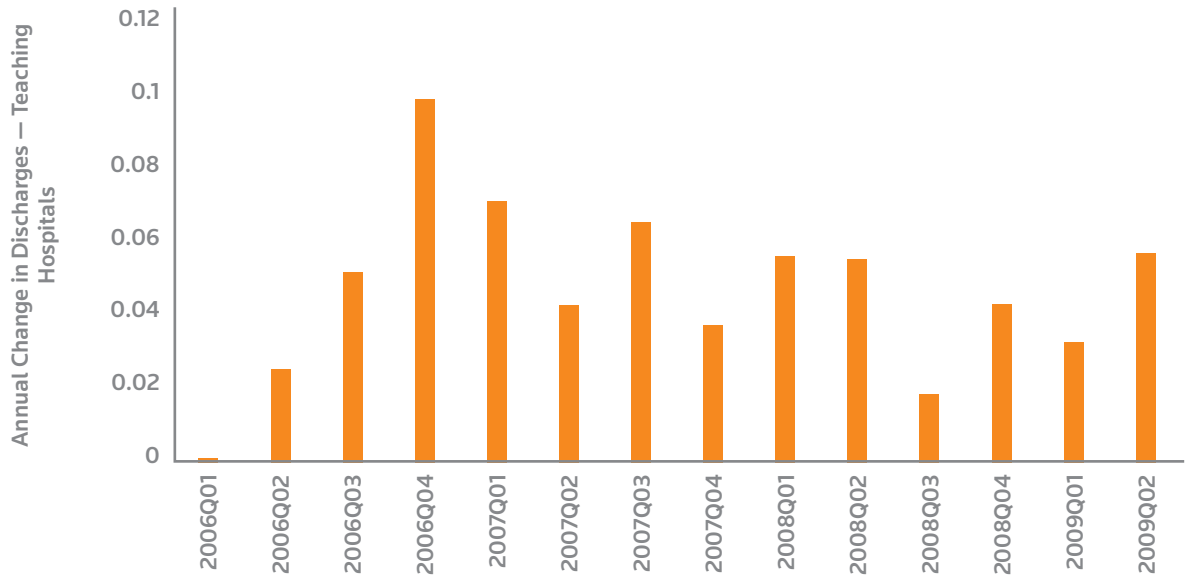
**Figure 7: Annual Change in Inpatient Acute Care Discharges, All Hospitals, 2006 Q2–2009 Q2**



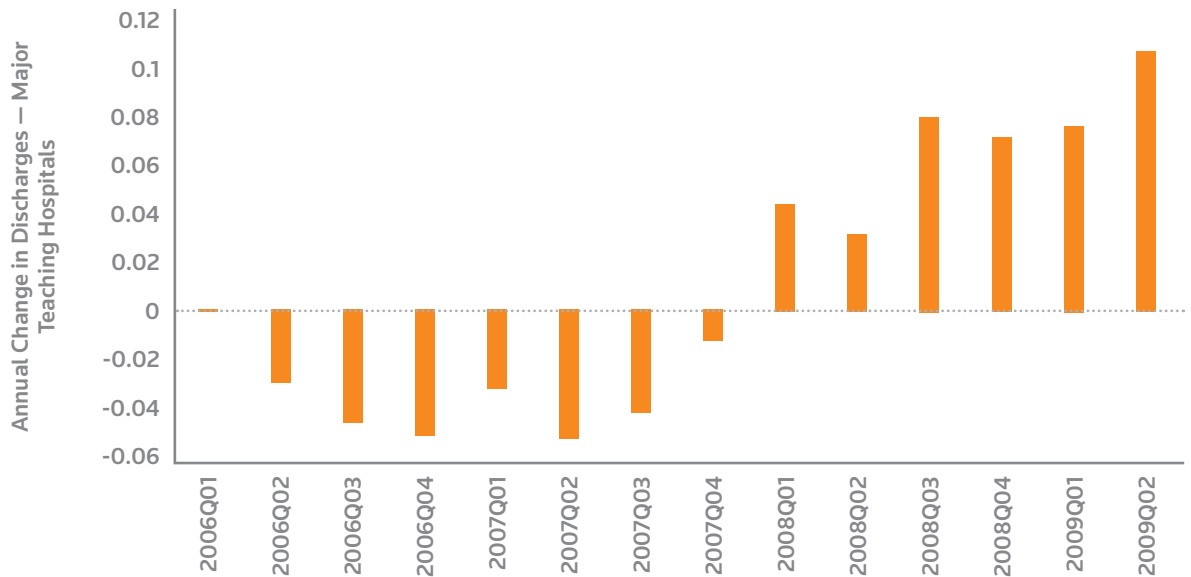
**Figure 8: Annual Change in inpatient Acute Care Discharges, Medium Community Hospitals, 2006 Q2–2009 Q2**



**Figure 9: Annual Change in Inpatient Acute Care Discharges, Teaching Hospitals, 2006 Q2–2009 Q2**



**Figure 10: Annual Change in Inpatient Acute Care Discharges, Major Teaching Hospitals, 2006 Q2–2009 Q2**



Is the severity of illness of inpatient discharges increasing? This might be expected if inpatient elective procedures are being deferred. The all-hospital case mix exhibits a stationary trend of near 0 percent change until fourth quarter 2007, followed by an abrupt change to 3–4 percent rates of increase through second quarter 2009 (Figure 11). This is likely due to the shift of the CMS to the MS-DRG system, which created refinements in patient diagnosis coding rather than increased acuity. Figure 12 exhibits rates of change in average length of stay, which exhibit no upward changes after 2007Q4, which might be expected if acuity is increasing — in fact there is some evidence that length of stay has been decreasing since the start of the recession. All other factors equal, this creates an “upcoding artifact” which artificially inflates the hospital case mix index. The increases observed in our data are consistent with those estimated by the CMS. Increases in the case mix index may contribute to improvements in operating revenue noted above as a result of higher Medicare payments associated with improved documentation coupled with a delay by the CMS in a negative “coding adjustment” to reimbursement rates.

Figure 11: Annual Change in Hospital Case Mix Index by Hospital Class, 2005 Q2–2009 Q2

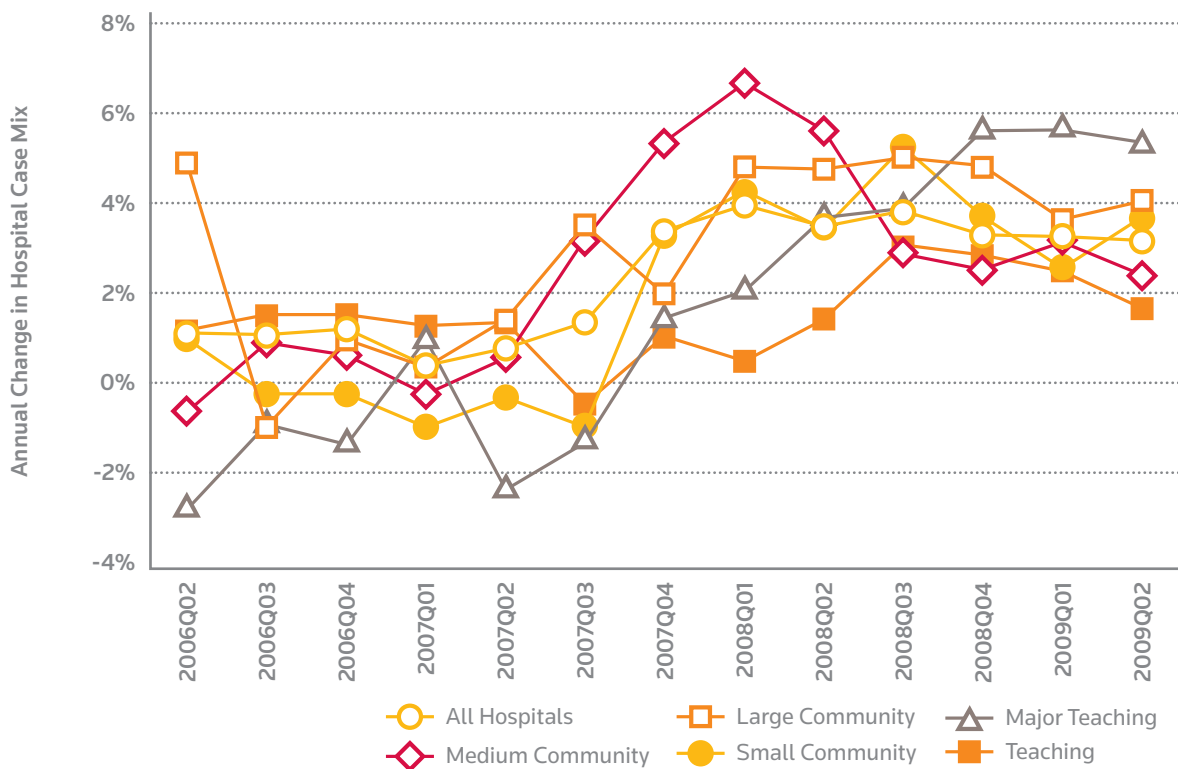
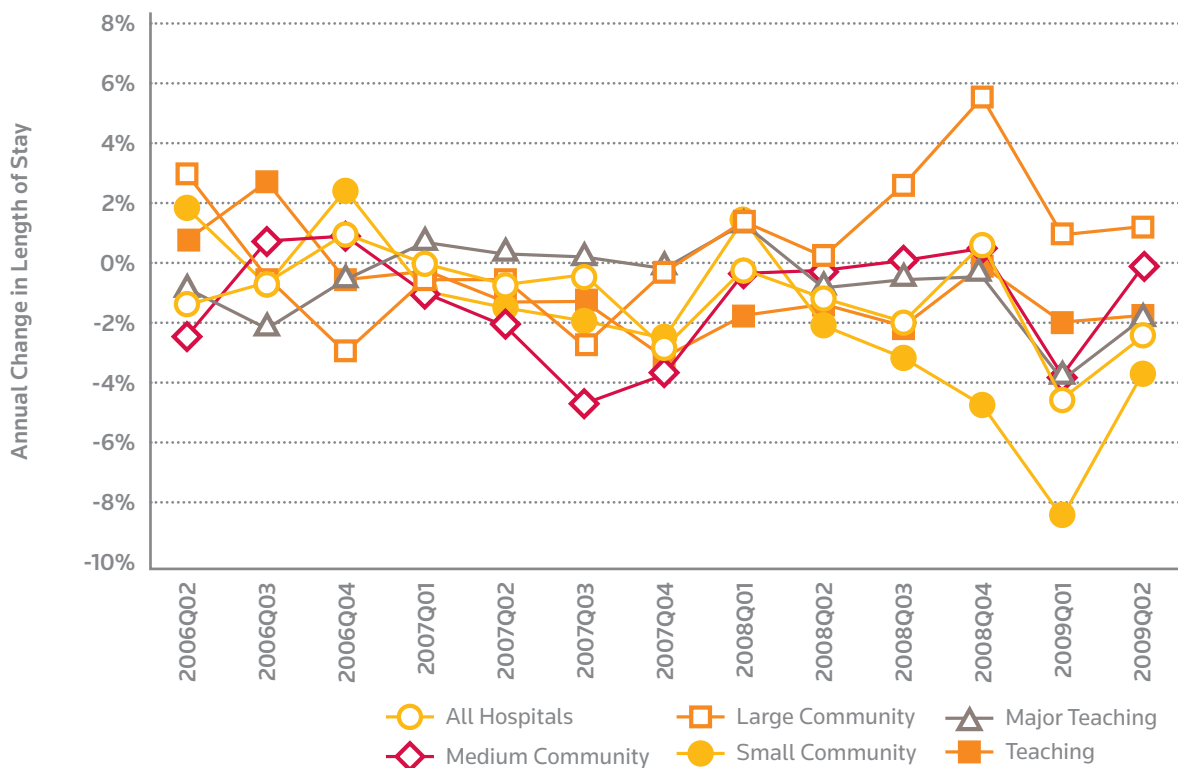


Figure 12: Annual Changes in Median Hospital Average Length of Stay, 2005 Q2–2009 Q2



## SUMMARY

- Hospital total margins continued recovery in second quarter 2009 with 20 percent of hospitals now operating in the red, a level typical of quarters prior to the start of the recession at the end of 2007. Total margin improved for all hospital classes, especially for small and large community hospitals, whose total margins were 12 percent and nearly 10 percent respectively.
- Operating margins followed stationary cyclical patterns. In second quarter 2009, median operating margins were greater than 4 percent for all hospital classes. Major teaching hospitals enjoyed the largest median operating margin (approximately 6 percent).
- Annual rates of revenue and expense growth declined between mid-2008 and first quarter 2009, but increased in second quarter 2009. Median Net Patient Revenue grew approximately 7 percent on a year-over-year basis and expenses grew 2 percent. A closer analysis shows that hospitals are continuing to decrease labor expenses on a year-over-year basis, while non-labor expenses are increasing. Labor expense decreases are not being achieved by salary or staffing reductions. Rather, average length of stay has been decreased, resulting in lower expenses per adjusted discharge.
- Hospital liquidity improved significantly in second quarter 2009. Median days cash on hand increased for all classes of hospitals, and improved dramatically for small community hospitals.
- Reversing year-over-year declines in total discharges, hospital discharge volumes resumed positive growth in second quarter 2009, led by robust discharge volume growth in teaching and major teaching hospitals. Medium community hospitals, however, may still be losing volume.
- The hospital case-mix index continued an upward trend in second quarter 2009 that began at the end of 2007. This is likely due to the shift of CMS to the MS-DRG system, which created refinements in patient diagnosis coding, rather than increased acuity. Increases in the case mix index may contribute to improvements in operating revenue as a result of higher Medicare payments.

## DATA SOURCES AND METHODOLOGY

The hospital operational and financial performance data used in this study are quarterly financial data (Q2 2005 through Q2 2009) for general acute care community hospitals in the proprietary Thomson Reuters ACTION O-I database. The quarterly samples have an average 540 reporting hospitals, comprised of 87 small community hospitals (26–99 beds), 156 medium community hospitals (100–249 beds), 97 large community hospitals (250+ beds), 112 teaching hospitals, and 88 major teaching hospitals.

Trend data reported here have been weighted to be representative of the U.S. general acute care population by hospital class, ownership, and geographic region (census region).

# NOTES

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- The 100 Top Hospitals® program incorporates a national hospital balanced scorecard and benchmarks, with academic and industry research partnerships that investigate hospital leadership, organizational change, best practices, and performance improvement. By combining publicly available data sets and our empirical, time-tested methodologies, the 100 Top Hospitals program objectively identifies the highest performers in the nation and national rates of improvement

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This research brief continues our monthly series focusing on the impact of the current recession on hospitals. The series combines current, proprietary Thomson Reuters data with public data to deliver unprecedented insight. Thomson Reuters works with its clients to provide information solutions to ease recession impacts in local markets. Read more of our research at <http://provider.thomsonhealthcare.com/Articles/>.

Consistent with Thomson Reuters guiding principles, this series will provide insights on factors that affect hospital business performance that are unbiased, reliable, and as current as possible. We will track metrics at a national and local level that may impact hospital financial or clinical performance. In doing so, we will:

- Use quantitative data to identify significant hospital industry changes
- Avoid reliance on opinion
- Incorporate public and Thomson Reuters proprietary data sources to construct findings

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