

# Acute Care Nonprofit Hospitals in New Hampshire

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FINANCIAL PERFORMANCE AND CONDITION

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# **Report on the Financial Condition of the 23 Acute Nonprofit New Hampshire Hospitals**

**Kane Consulting Group  
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This report examines the financial performance and condition of the 23 acute care nonprofit hospitals in New Hampshire

The report begins with an overview of the aggregate annual statement of operations (“income statement” equivalent) and changes in net assets (“equity” equivalent) of all 23 hospitals. It then describes key ratios and the variability of those ratios within the 23 hospitals over the five years 2003-2007. New Hampshire hospital performance is compared to hospital performance in the northeast region and nationally where benchmarks are available. Appendix One provides our methodology for calculating key ratios.<sup>1</sup> The final section of the report reviews the aggregate cash flow statements of the hospitals, to gain deeper insight into where funds come from and where they go within the hospital sector.

For the ratio and cash flow analyses, critical access hospitals (CAH) are broken out from the state aggregate numbers for purposes of trend and comparative analysis for this subgroup. The CAH analyses are presented by topic area (profitability, liquidity, solvency, plant age, cash flows) along with the related analyses of the hospital sector as a whole.

## **Aggregate Annual Statement of Operations and Changes in Net Assets Of Unrestricted Funds**

Table 1 below is an aggregate annual income statement of the 23 nonprofit acute New Hampshire hospitals covering the 5-year period 2003-2007. It provides an overview of profitability and related performance features of the hospitals on a combined basis. The data relationships shown in Table 1 should not be construed as representative of a typical hospital. Financial profiles of individual hospitals vary, and there is a wide range of profitability both greater and lesser than indicated in Table 1. Total margins in 2007, for example, ranged from positive 15.5% to negative 7%.

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<sup>1</sup> Comparable regional and national performance measures are from the *2008 Almanac of Hospital Financial and Operating Indicators*, Ingenix.

Table 1: Annual Statement of Operations and Changes in Net Assets,  
23 New Hampshire Non-Profit Hospitals, 2003-2007

<u>\$ in thousands</u>	2003	2004	2005	2006	2007	<u>avg annual % change</u>
<b>OPERATING REVENUES:</b>						
Gross Patient Service Revenue	\$3,969,825	\$4,599,275	\$5,324,664	\$5,829,838	\$6,411,102	15%
Less Revenue Deductions:						
Free Care (at charges)	\$83,425	\$90,757	\$114,259	\$141,208	\$156,738	22%
Bad Debt (at charges)	\$124,591	\$150,353	\$159,046	\$164,751	\$178,359	11%
Contractual Adjustments	\$1,630,349	\$2,006,199	\$2,443,343	\$2,688,620	\$3,037,088	22%
Net Patient Service Revenue	\$2,131,460	\$2,351,966	\$2,608,016	\$2,835,259	\$3,038,917	11%
Other Operating Revenues	\$89,464	\$87,279	\$111,596	\$105,261	\$122,197	9%
<b>TOTAL OPERATING REVENUE</b>	<b>\$2,220,924</b>	<b>\$2,439,245</b>	<b>\$2,719,612</b>	<b>\$2,940,520</b>	<b>\$3,161,114</b>	<b>11%</b>
<b>OPERATING EXPENSES:</b>						
Depreciation and Amortization	\$116,556	\$123,489	\$138,178	\$149,561	\$160,369	9%
Interest Expense	\$33,758	\$31,727	\$41,160	\$44,893	\$46,223	9%
Other Operating Expenses	\$1,995,583	\$2,177,023	\$2,414,092	\$2,637,337	\$2,834,284	11%
<b>TOTAL OPERATING EXPENSE</b>	<b>\$2,145,897</b>	<b>\$2,332,239</b>	<b>\$2,593,430</b>	<b>\$2,831,791</b>	<b>\$3,040,876</b>	<b>10%</b>
<b>NET OPERATING INCOME</b>	<b>\$75,027</b>	<b>\$107,006</b>	<b>\$126,182</b>	<b>\$108,729</b>	<b>\$120,238</b>	<b>15%</b>
<b>NONOPERATING REVENUES:</b>						
Interest and Dividend Income	\$20,607	\$24,039	\$18,876	\$31,904	\$37,580	21%
Realized Gains on Investments	-\$7,178	\$33,254	\$39,468	\$40,127	\$56,764	
Other Income/Loss	-\$7,448	-\$3,732	\$3,129	-\$3,158	-\$2,084	
<b>TOTAL NONOPERATING REVENUE</b>	<b>\$5,981</b>	<b>\$53,561</b>	<b>\$61,473</b>	<b>\$68,873</b>	<b>\$92,260</b>	<b>361%</b>
<b>EXCESS OF REVENUE OVER EXPENSE</b>	<b>\$81,008</b>	<b>\$160,567</b>	<b>\$187,655</b>	<b>\$177,602</b>	<b>\$212,498</b>	<b>41%</b>
Extraordinary charges	-\$2,789	-\$4,289	\$0	-\$966	\$0	
Net assets released for capital	\$6,077	\$6,339	\$7,375	\$15,536	\$4,647	
Unrealized gains	\$93,590	\$14,501	\$20,700	\$11,513	\$54,780	
Minimum pension liability	-\$108,251	\$59,112	-\$88,642	\$103,222	\$68,274	
Transfers to affiliates	-\$34,674	-\$29,846	-\$17,142	-\$29,037	-\$42,818	
Other changes in Net Assets	\$1,918	-\$3,360	\$1,739	\$1,789	-\$184,057	
<b>TOTAL CHANGES IN NET ASSETS</b>	<b>\$36,879</b>	<b>\$203,024</b>	<b>\$111,685</b>	<b>\$279,659</b>	<b>\$113,324</b>	<b>52%</b>

Table 1 shows a healthy hospital sector in the aggregate, with steadily rising operating revenues that grow slightly faster, on average, than operating expenses, 11% vs 10% respectively per year. Operating profits peak in 2005 and remain well above 2003 levels in 2006 and 2007, and over the five years total over a half-billion dollars. Adding back noncash expenses (depreciation and amortization), the sector generated cash from operations of over \$1.2 billion dollars over the five year period.

Nonoperating revenues, particularly realized gains from selling marketable securities, grew dramatically, allowing the “bottom line”, or “excess revenue over expense” to grow an average annual rate of 41% between 2003 and 2007. Nonoperating revenues added an additional \$282 million to the \$ 1.2 billion in cash generated by the sector from operating activities alone.

Below the “excess revenue over expense” line are transactions that affect the total change in “net assets” but are not considered to be part of the operating statement according to generally accepted accounting principles. The total impact of these “below the line” items over the five years was a \$74 million reduction in net assets, largely due to the 2007 impact of accounting changes related to pension accounting (reported as “other changes in net assets”). The other major drawdown of net assets was transfers to affiliates, which totaled roughly \$154 million over the five years. On the plus side, “net assets released for capital”, which represented the amount of donated capital used for capital spending over the period, totaled close to \$40 million, and “unrealized gains”, the increase in the market value of securities investments held on the balance sheet, added \$195 million to net assets.

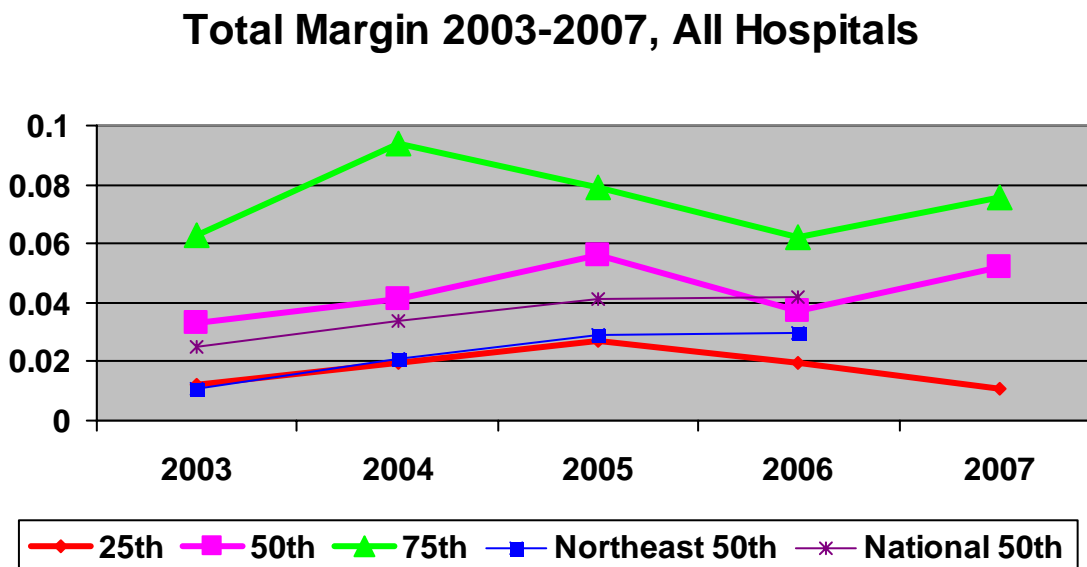
In sum, the sector showed healthy profitability and growth in net assets over the period. The next section describes the distribution of financial performance within the sector.

## Ratio Analysis

### *Profitability*

#### Total Margins:

Figure 1



Total margin includes both operating income and all nonoperating revenues (investment income, unrestricted gifts, gains and losses on joint ventures and equity investments) in the numerator, and the sum of total operating revenues and nonoperating revenues in the denominator.

Median<sup>2</sup> total margins over this time period are above national and regional medians, except for 2006 when the New Hampshire median is roughly at the national median (see Figure 1). Until 2006, the bottom quartile (25%) of hospitals in New Hampshire approach the northeast regional median (50<sup>th</sup> percentile), indicating better than regional performance even at the lowest quartile (25<sup>th</sup> percentile) in the state.

Comparables were not available for 2007; however it appears that total margins improved over 2006 for more than 50% of the hospitals. At the same time, the lowest quartile hospitals experienced declining total margins. The range in total margins in 2007 was a minus 7% to a positive 16%, with two hospitals reporting negative total margins.

Table 2 compares the median Critical Access Hospital (CAH) total margin to that of all New Hampshire hospitals and to CAH's in the northeast region. The median total

<sup>2</sup> value at which 50 % of hospitals fall above, and 50% fall below

margins for hospitals that had critical access status as of 2007<sup>3</sup> were below the medians for all New Hampshire hospitals except in 2006. However New Hampshire CAH total margins were similar to CAH hospital medians in the northeast region and nationally in most years.

Table 2  
Median Total Margin

	2003	2004	2005	2006	2007
All NH (n=23)	.033	.041	.056	.037	.052
CAH –NH	.0212	.026	.027	.042	.026
CAH: Northeast	.011	.030	.029	.040	
CAH: National	.021	.026	.037	.040	

### Operating Margins:

Figure 2 shows the trend, by quartile, of all New Hampshire hospitals' operating margins, which are primarily the results of providing patient care. The trend for the bottom half of hospitals is upward through 2006, while the top quartile drifts slowly downward between 2003 and 2005, then recovers in 2006. In 2007, operating margins in all quartiles decline. The reasons for the drop are not entirely clear from the financial statements. Figure 3, showing the expense growth trend by quartile, does not indicate any across-the-board spike in expense growth in 2007. Figure 4, however, does show a relatively steeper decline in the growth rate of revenue in 2007. The factors behind the decline in 2007 operating margin are explored further below.

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<sup>3</sup> 3 of the 12 obtained CAH for only the last two years, 2006 and 2007, but their total margins were included for all years in the table

Figure 2

### Operating Margin 2003-2007

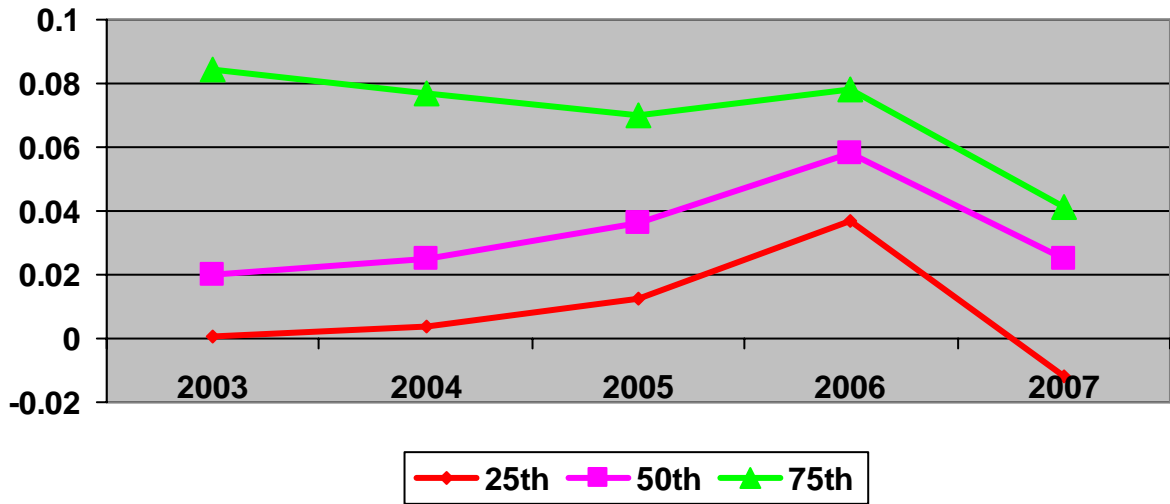


Figure 3

### Expense Growth Trend 2003-2007

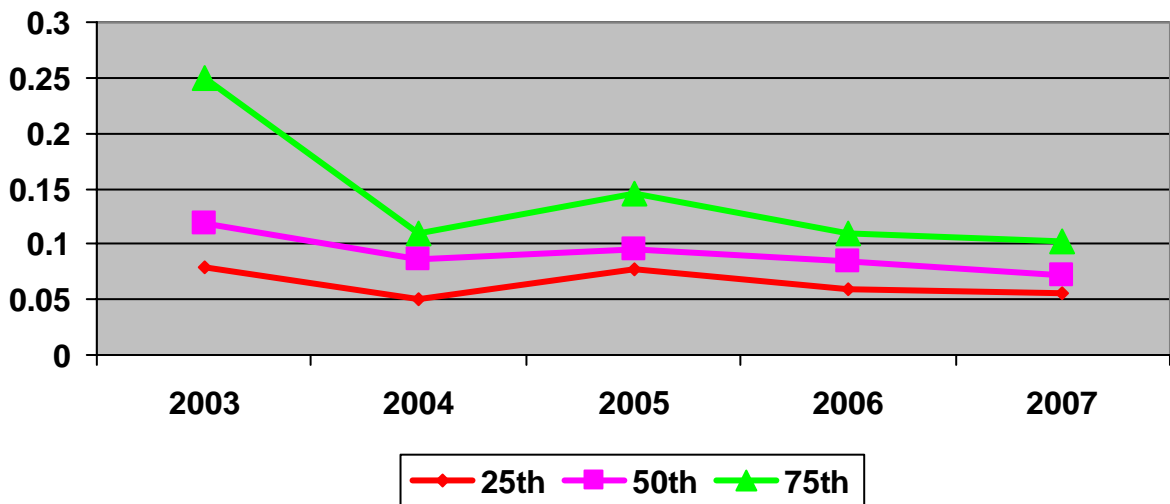
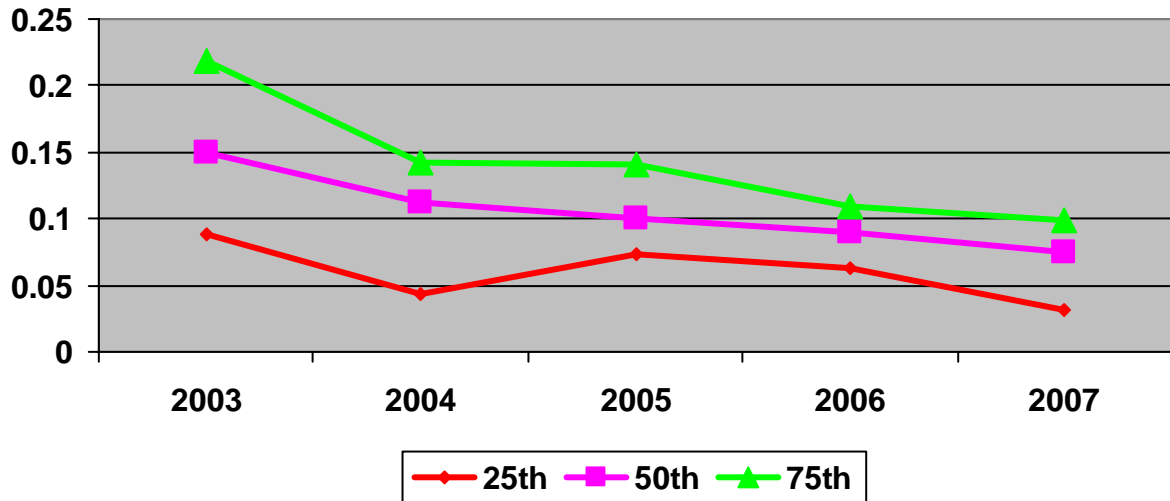


Figure 4

### Revenue Growth Trend 2003-2007



CAH's reported lower operating margins than did all New Hampshire hospitals in every year of our analysis. In 2007, 8 of the 12 CAH's reported a drop in operating margins, suggesting that there may be revenue constraints related to CAH status that came into play in 2007 more than in earlier years. In 2007, median revenue growth for CAHs slowed considerably relative to prior years as well as relative to expense growth in that year, as shown in Table 4. Two CAH's experienced negative revenue growth in 2007.

Table 3  
Median Operating Margins, CAH Hospitals

	2003	2004	2005	2006	2007
All NH	.020	.025	.036	.058	.025
CAH - NH	.015	.017	.013	.023	-.001

(comparable regional and national medians are not reported for operating margin ratios)

Table 4  
Median Annual Growth in Revenues and Expenses, CAH Hospitals

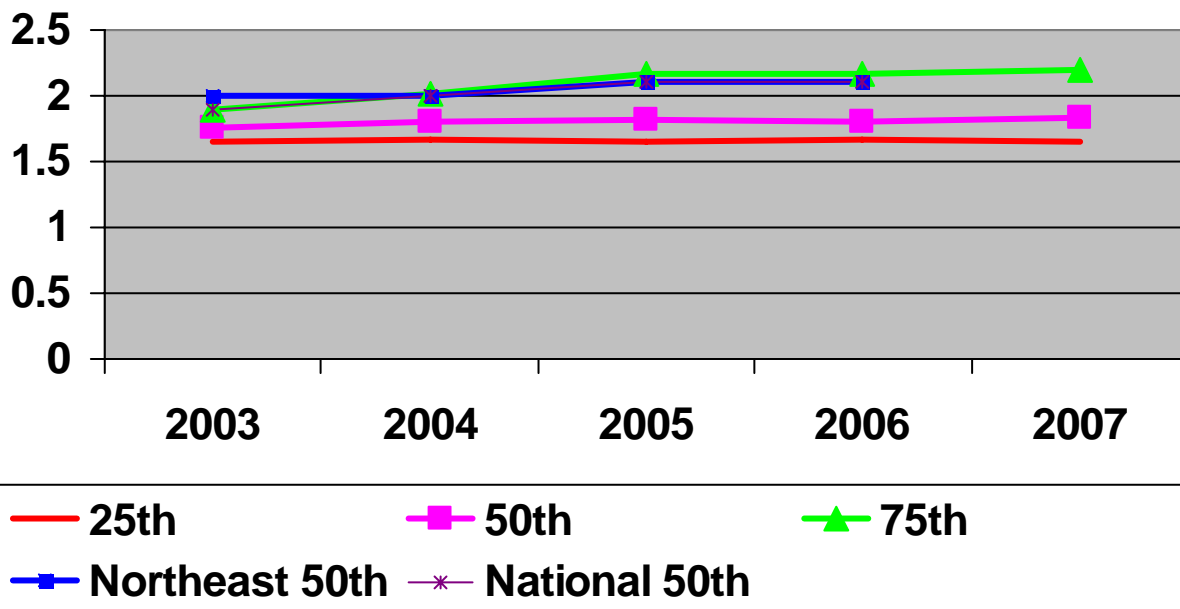
	2003	2004	2005	2006	2007
All NH – Revenue Growth	.149	.112	.101	.09	.075
CAH – NH- Revenue Growth	.15	.116	.086	.096	<b>.051</b>
All NH	.118	.087	.095	.085	.071



Expense Growth					
CAH NH Expense Growth	.116	.089	.087	.085	.070

Figure 5

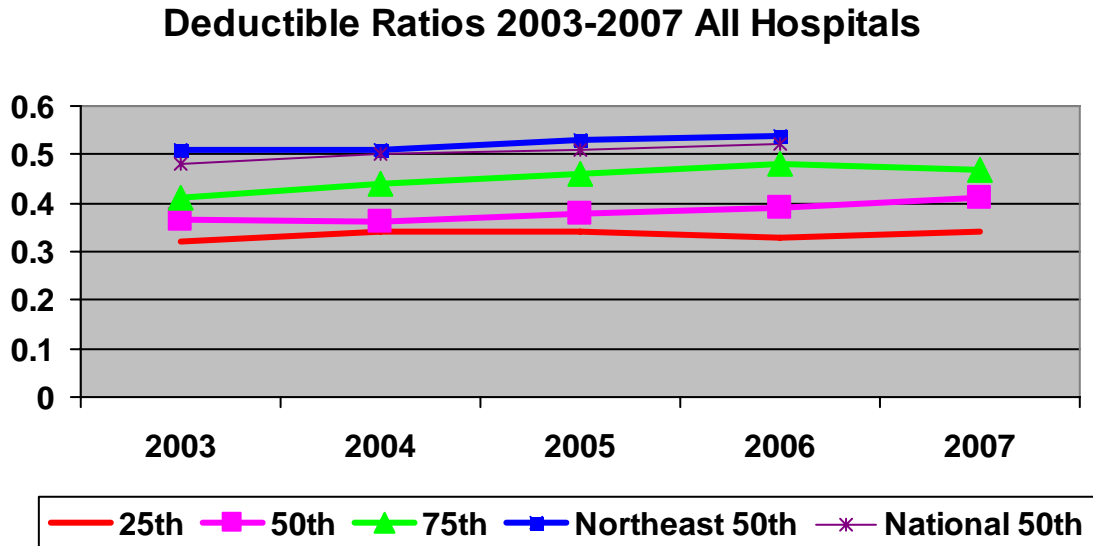
### Markup Ratio 2003-2007 All Hospitals



The markup ratio is the relationship between hospital “charges” and hospital costs. Few payers pay charges, although uninsured patients and those payers that base payments on a “discount off charges” are affected by charges. Figure 5 indicates that the markup medians for New Hampshire are below the median Northeast and National markup ratios, and have remained relatively stable over the last five years. The range (minimum – maximum) of markups in 2007 was between 1.5 and 2.6. Only the top quartile values have risen noticeably over the period; in other words, 25% of New Hampshire hospitals had a markup ratio higher than 2.19 in 2007, compared to 1.89 in 2003. The markup ratio does not say how New Hampshire charges compare with those of other regions because it is expressed as a percentage of cost, and cost levels vary among regions.

Median Critical Access hospital markups and deductibles are below those of the state as a whole, between 1.67-1.68. The 2007 range of markups for the critical access hospitals was between 1.5 and 1.8.

Figure 6



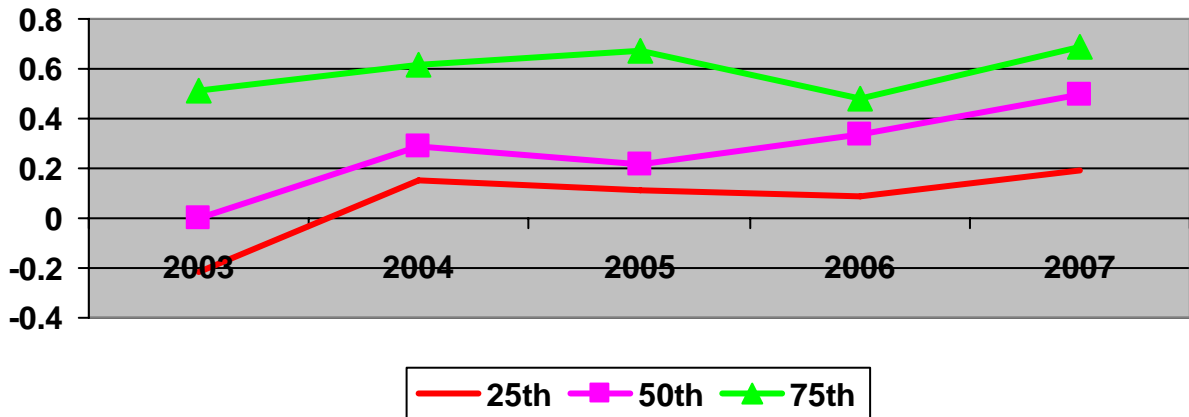
Related to the markup ratio (the amount hospitals raise prices relative to their costs) is the deductible ratio, the amount that payers discount payments relative to those prices (also called “charges”). With markups fairly steady in New Hampshire, the deductible ratios have also stayed fairly steady and well below national and regional deductible levels. The range in deductibles in 2007 was .26 to .54, quite similar to the range in 2006. This suggests that the reduction in revenue growth in 2007 was not due to a noticeable increase in the deductible ratio.

CAH median deductibles were below those of the state as a whole, between .33 - .35 for the five year period of analysis. The 2007 range of deductibles was between .26 and .42, the same as it was in 2006.

The slower growth in revenues in 2007, which contributed to the drop in operating margins in 2007, appear not to be due to significant increases in deductibles (the amount that third parties discount payments relative to charges). What could be behind the slowing revenue growth is a growth in bad debts (revenue deductions in our data, so they would affect revenue growth), or a slowing in utilization growth. Utilization data (days, visits) is not provided in audited financial statements so we are unable to analyze this factor in our report. However there was evidence of a rise in bad debts, particularly for CAH hospitals, in 2007.

Figure 7

### Nonoperating Revenue as Percentage of Total Surplus



Nonoperating revenue as a percentage of total surplus provides insight into the proportion of hospitals’ “bottom lines” coming from nonoperating sources such as investment income, unrestricted gifts, and income/losses from equity investments and joint ventures.<sup>4</sup> The trend (Figure 7) in New Hampshire shows a growth in reliance on nonoperating revenue to generate a positive total margin. As of 2007, 50 % of New Hampshire hospitals relied on nonoperating revenues for 50% or more of their total bottom line.

The largest source of nonoperating revenues in recent years has been gains on the sale of securities, which relies upon effective investment strategies in the capital markets to succeed. Figure 8 shows the proportion of nonoperating revenues coming from just sales of securities.

<sup>4</sup> Comparable data for the US and the northeast region are not available.

Figure 8

### Gains on Sales of Securities as Percentage of Nonoperating Revenue

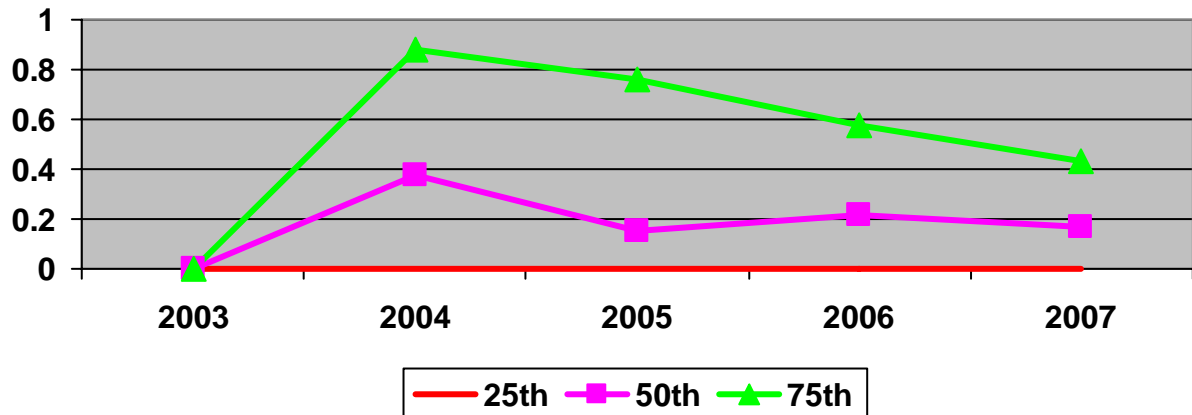


Figure 8 shows that at least 25% of hospitals do not report any security sales gains; this reflects a mix of one-two hospitals truly having no security sale gains, and 3 – 4 hospitals not separating out securities gains from interest and dividends when reporting investment income, or doing so only on a consolidated (multiple entity) basis. 50% of hospitals report up to 20% of nonoperating revenue coming from gains (except in 2004, when it rose to 38% of nonoperating revenue). However 25% of hospitals report at least half of their nonoperating revenue is from securities sales gains (slightly fewer hospitals in 2007 report such heavy reliance). Combining the implications of Figure 7 with Figure 8, hospitals that have recently relied heavily on nonoperating revenue, and have earned that revenue by gains on sales of securities will find 2008 to be a particularly difficult year to make ends meet, given the current unrest in capital markets.

Relatively more CAHs are more reliant on realized gains and other sources of nonoperating revenue than New Hampshire hospitals as a whole. The table below summarizes the medians for CAH vs all NH hospitals for these two ratios over the 2003-2007 period.

Table 4  
Median Nonoperating Revenue as Percentage of Total Surplus

	2003	2004	2005	2006	2007
All NH	0	.29	.22	.34	.5
CAH - NH	.18	.38	.52	.33	.60

Median Realized Gain as a Percentage of Nonoperating Revenue

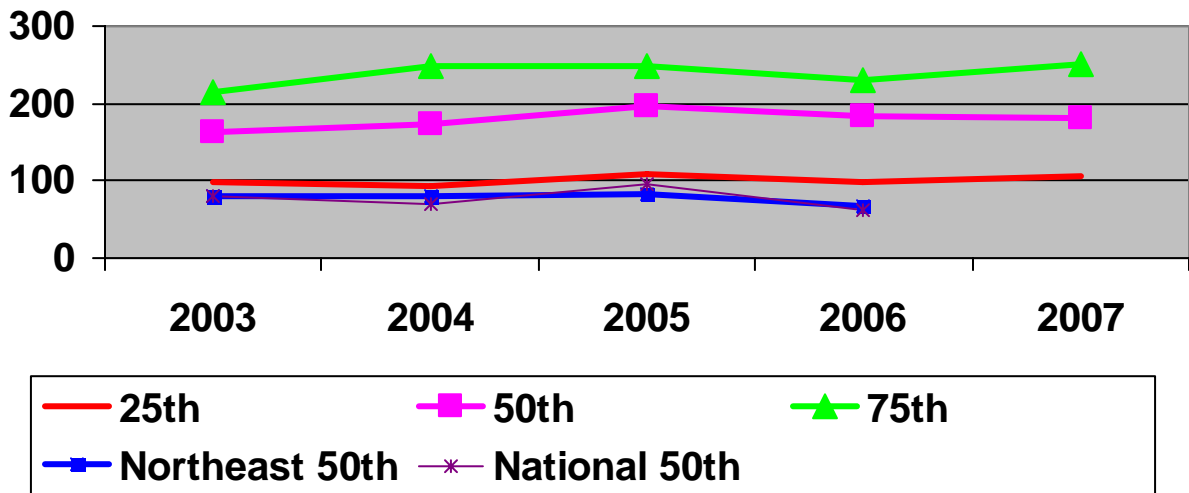
	2003	2004	2005	2006	2007
All NH	0	.38	.15	.22	.17
CAH - NH	0	.49	.19	.27	.22

### Liquidity

NH hospitals may be more reliant on nonoperating revenues than regional or national hospitals because they have more cash, relative to their size and operating needs, to invest in marketable securities. Figure 9 supports this interpretation; it describes the distribution of values of days cash on hand, including long term unrestricted investments (includes board –designated, but excludes trustee- held and donor-restricted assets), compared to regional and national medians. New Hampshire acute care hospitals' days cash on hand are higher than national or regional medians. Fifty percent of hospitals in the Northeast and the US have the same or less days cash on hand than does the bottom 25% of hospitals in New Hampshire.

Figure 9

### Days Cash On Hand, All Unrestricted Sources, 2003-2007



CAH hospital medians are also well above critical access hospitals in the Northeast and the US, as the table below describes. The 2007 range for the NH CAH's is from 46 to 396 days of cash on hand, which is also the range of days cash on hand for all 23 hospitals.

Table 5  
 Median Days Cash on Hand, All Unrestricted Sources

	2003	2004	2005	2006	2007
NH – All	162	174	197	183	182
CAH-NH	141	145	176	177	186
Northeast CAH	87	100	80	78	
National CAH	72	61	80	69	

Working capital is generally not a problem in New Hampshire for the hospitals, whether or not they are CAH's. Their median days in accounts receivable (the time it takes to collect patient accounts receivable) are at or below (better than) the national medians, while their average payment period is within the same range as national medians and regional medians, indicating that NH hospitals are not having problems financing their collections.

Figure 10

### Days in Accounts Receivable

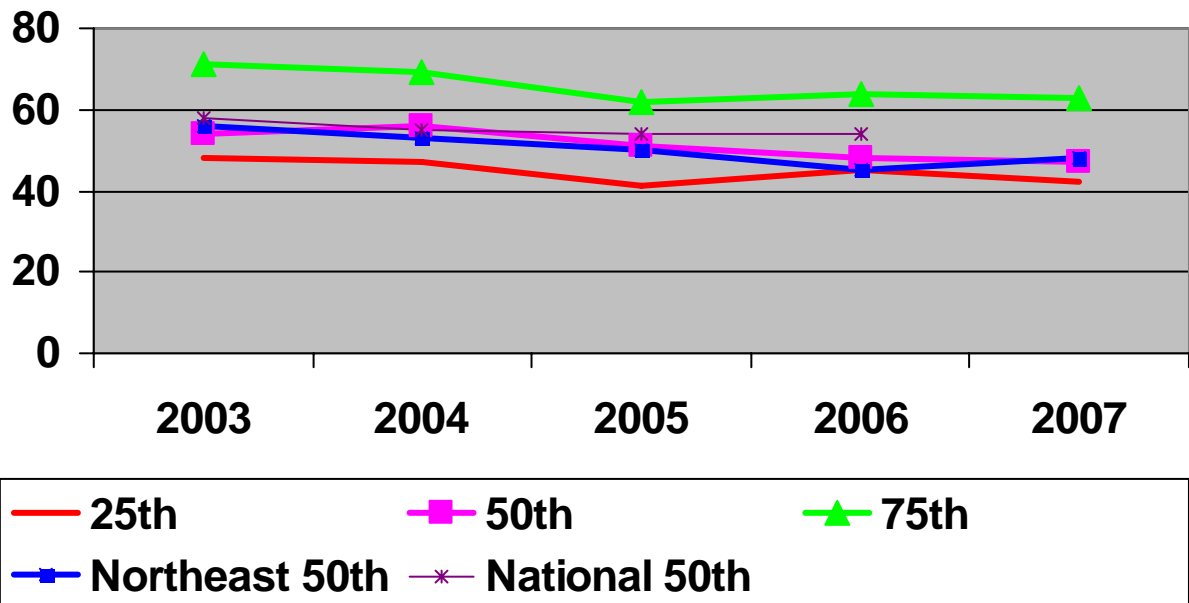
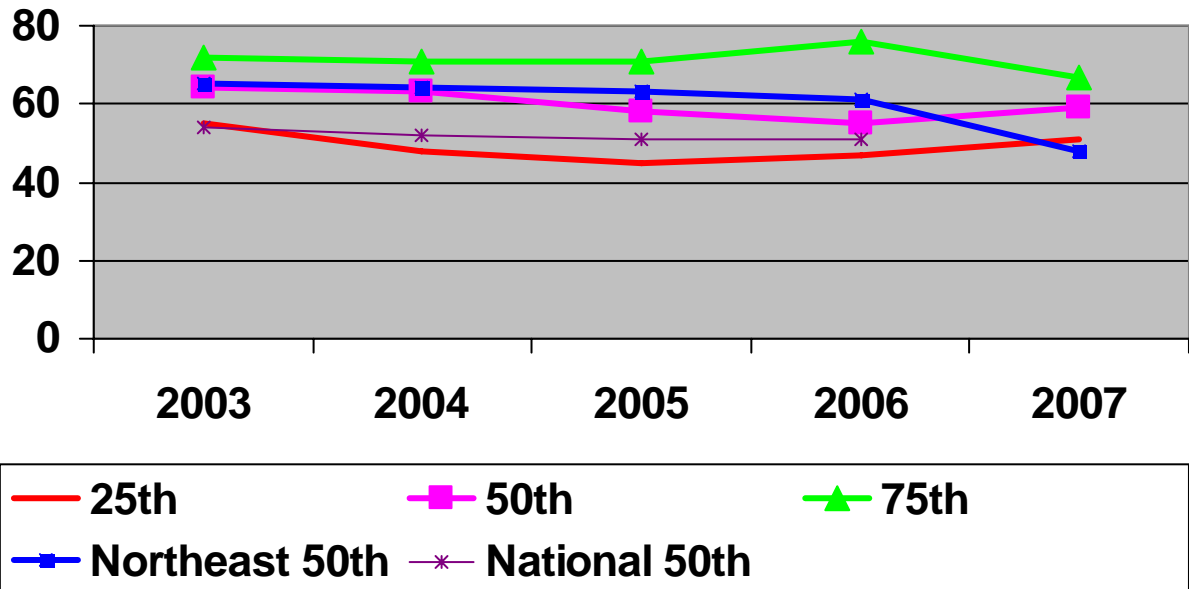


Figure 11

## Average Payment Period



New Hampshire CAH's are also well within normal limits with respect to their ability to collect receivables and pay their current liabilities on time.

Table 6  
Days in Accounts Receivable, CAH Medians

	2003	2004	2005	2006	2007
NH – All	54	56	51	48	47
CAH - NH	60	67	59	53	57
Northeast CAH	58	60	55	59	
National CAH	61	59	59	59	

Average Payment Period, CAH Medians

	2003	2004	2005	2006	2007
All NH	64	63	58	55	59
CAH - NH	61	59	58	57	61
Northeast CAH	60	59	57	57	
National CAH	51	49	51	51	



## Solvency

The equity financing ratio (see Figure 12) expresses the proportion of total unrestricted assets that is funded by equity, conversely that is not funded by debt and other liabilities. While the use of debt can be advantageous under reasonable terms and limits, and is usually appropriate to fund long term capital improvements, excessive debt levels cause financial strain and may lead to insolvency. Higher equity financing ratios are generally healthier, although most financially healthy hospitals should have some debt for working capital and property, plant, and equipment financings as a way to minimize their overall cost of capital. The national interquartile (25<sup>th</sup> to 75<sup>th</sup> percentile) range is between 40% and 70% equity financing, translating into a .4 and a .7 in Figure 12.

Figure 12

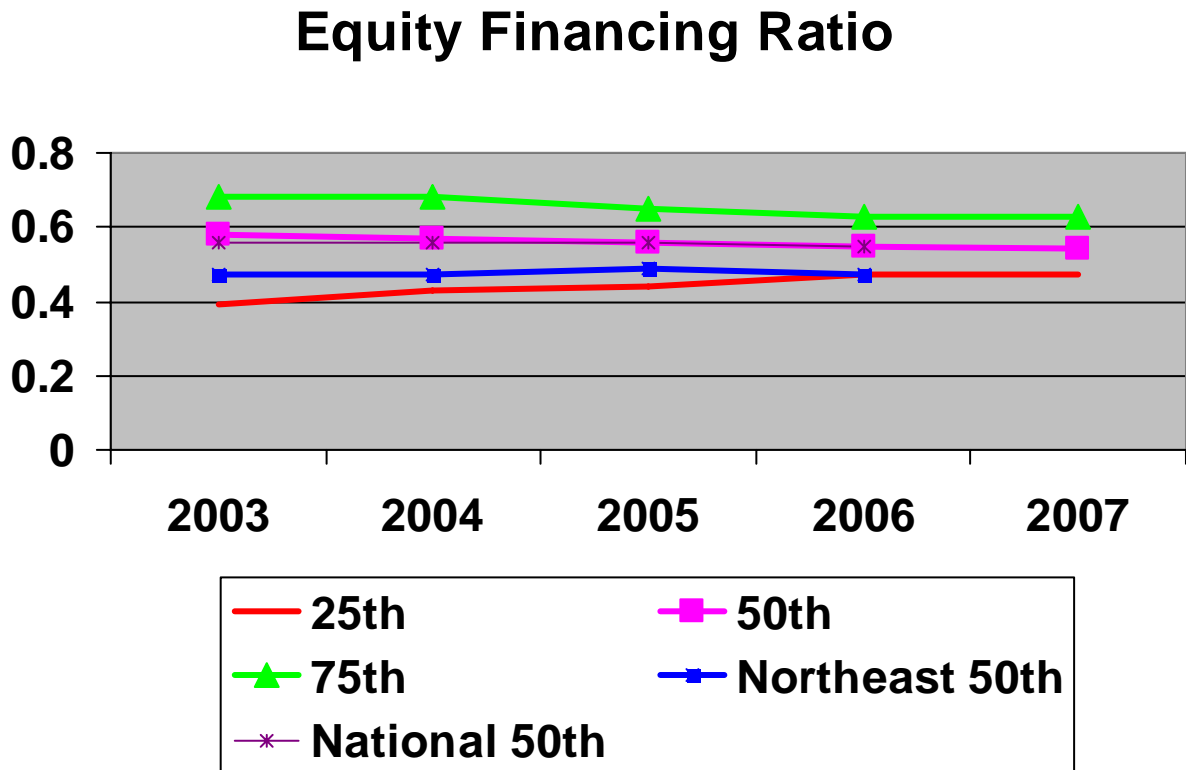


Figure 12 shows that the New Hampshire hospitals fall within the national interquartile range of equity financing, with the state median at the National median and higher (more favorable) than the median for the Northeast region. The trend is convergence toward the median, which means that hospitals with the least proportion of equity (the 25<sup>th</sup> percentile) have increased their equity proportions over this period (a good sign). Those with the highest proportion of equity have trended down toward the median, which in New Hampshire is generally due to increasing long term debt for capital acquisitions.

CAH's in New Hampshire had slightly higher equity financing ratios (healthier) than CAHs in the Northeast Region and nationally in the first 2 – 3 years of our analysis; since 2005 they have trended steadily downward and were below the national median in 2006. Most CAH's have a healthy equity financing ratio despite the downward trend, with a minimum of 40% (.4) and maximum 90% (.9) equity financing ratio.

Table 7

	2003	2004	2005	2006	2007
All NH	.58	.57	.56	.55	.54
CAH - NH	.65	.64	.6	.57	.55
Northeast	.56	.61	.57	.57	
National	.59	.6	.6	.6	

The next two figures describe the ability of hospitals to repay their debt. The cash flow to total debt ratio (figure 13) reflects the ability of hospitals to repay all debt principal (current and noncurrent) from cash flows generated by operations. The debt service coverage ratio (Figure 14) reflects the ability of hospitals to meet long-term debt principal and interest payments from cash flow generated by operations.

Figure 13

### Cash Flow to Total Debt

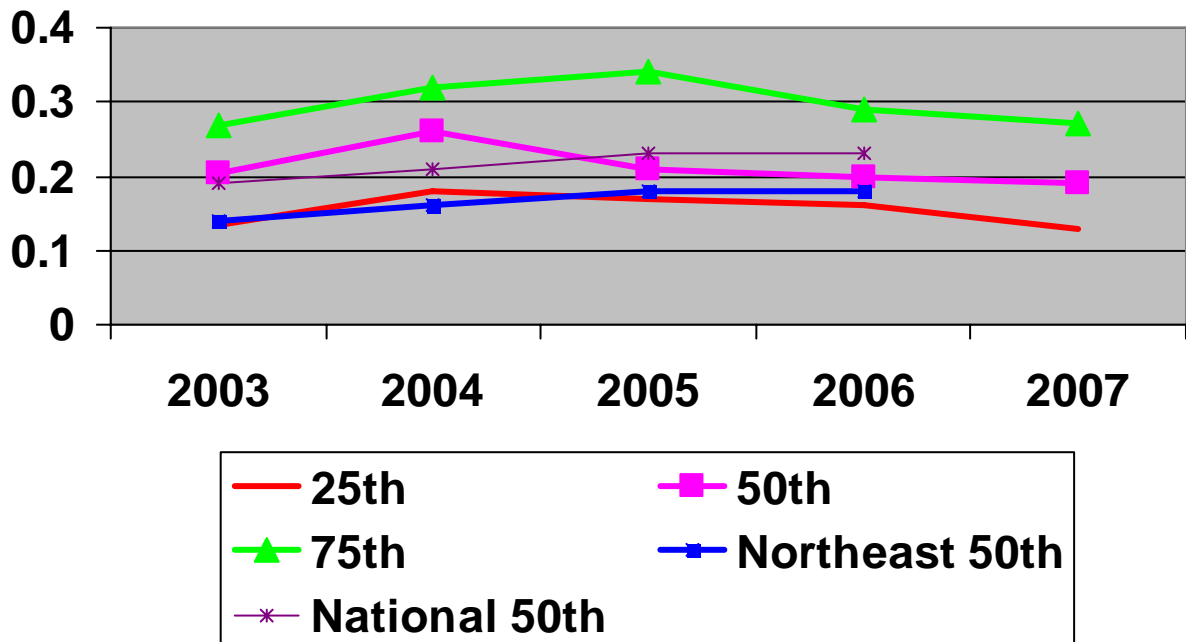


Figure 13 shows New Hampshire trends that peak (are most favorable) in 2004 or 2005, then decline in 2006 and 2007. Median cash flow to total debt ratios for New Hampshire hospitals start well above national and regional levels, and remain above regional levels throughout the period. In 2005, national medians exceed New Hampshire medians. This indicates less cash generation relative to debt; for 3 hospitals (all CAH's), it is below 10%, which indicates a heavy debt burden and vulnerability to small downturns in profitability.

CAH's cash flow to total debt ratios also trend downward, and their median drops to only 15% in 2007, suggesting greater financial vulnerability. The New Hampshire CAH medians are also, as of 2006, below regional and national medians. Three CAH's have a cash flow to total debt ratio below 10% which suggests that they may be struggling to repay their debts.

Table 8  
Cash Flow to Total Debt Ratios, Critical Access Hospitals

	2003	2004	2005	2006	2007
All NH	.20	.26	.21	.2	.19
CAH - NH	.2	.3	.2	.18	.15
Northeast Region CAH	.15	.25	.17	.22	
US-CAH	.19	.20	.25	.24	

Figure 14 describes debt service coverage , which focuses only on the hospitals’ ability to repay long term debt (principal and interest) on a timely basis. Most New Hampshire hospitals show quite robust debt service coverage ratios, with 75% of New Hampshire hospitals showing coverage ratios well above national and regional medians. In 2007, with the decline in margins, the debt service coverage ratios drop, but are still in a very healthy range for most hospitals.

Figure 14

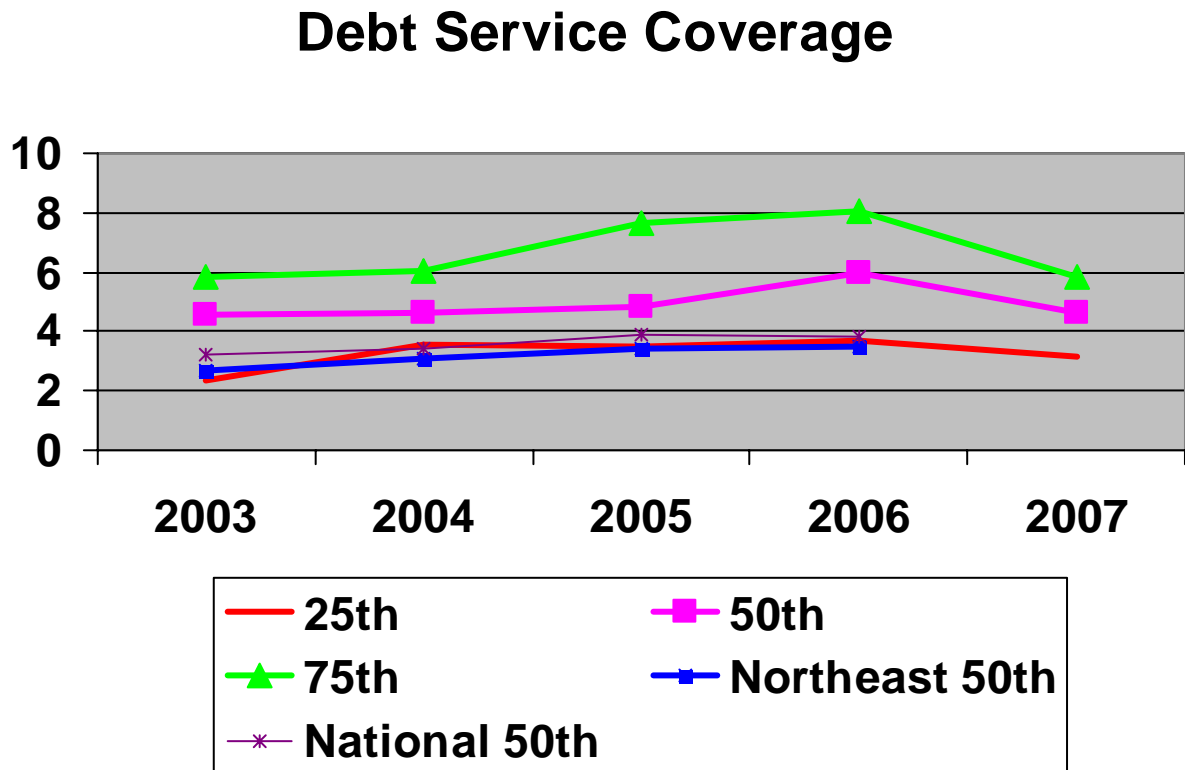


Table 9  
Median Debt Service Coverage, CAH's

	2003	2004	2005	2006	2007
All NH	4.59	4.61	4.8	5.99	4.66
CAH -NH	3.05	3.56	3.47	3.76	3.91
Northeast Region CAH	3.11	3.71	4.17	3.74	
National CAH	2.76	3	3.53	3.35	

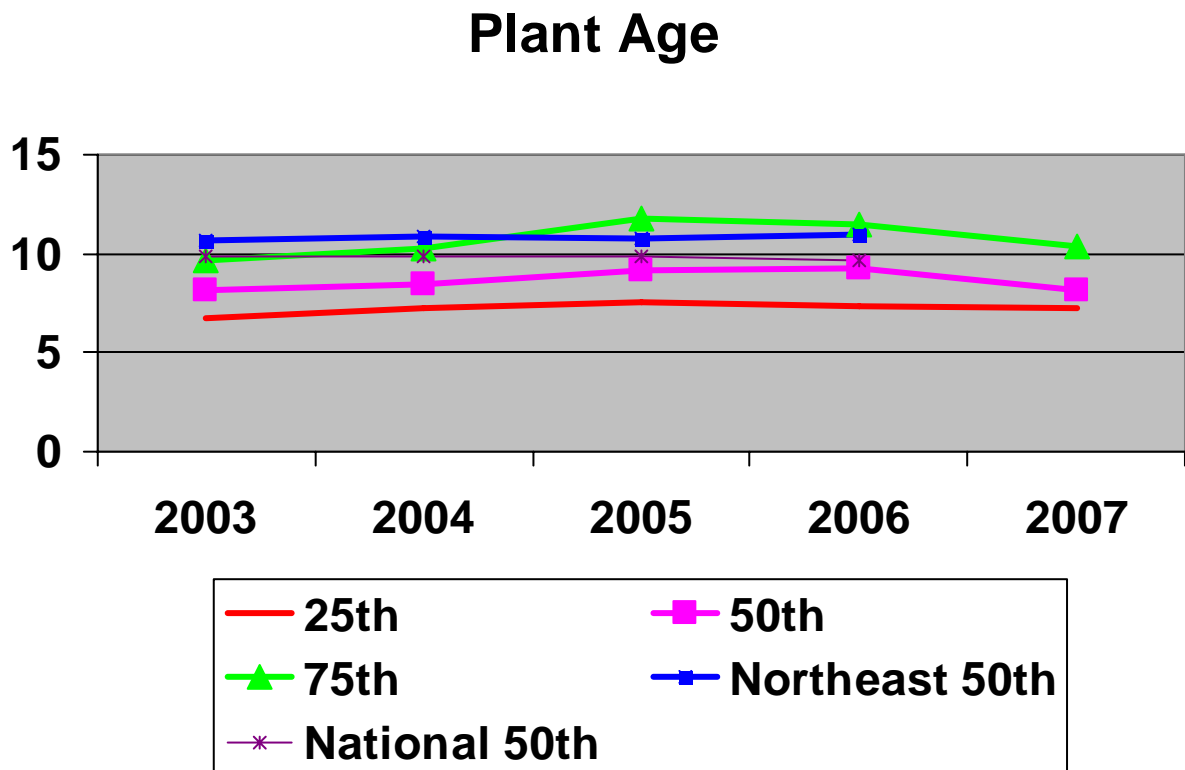
CAH debt service coverage ratios are quite healthy, generally above national levels but below Northeast Regional levels. However two CAH's have a debt service ratio below

1.5, a level that is often considered a minimum coverage ratio for accessing tax-exempt bond financing.

Plant age (Figure 15) is often discussed in the same section as solvency, since most long-term debt is borrowed to invest in property plant and equipment. A hospital with a lot of debt plus an old plant age may be competitively disadvantaged if newer hospitals are nearby. New Hampshire's rural landscape may reduce the competitive problem for older hospitals, but a very old hospital does need at some point to renovate to keep up with changes in medical technology and practices, and to be able to recruit and retain physicians.

Plant age, which is the result of dividing accumulated depreciation by depreciation expense, does not measure the actual age of any given hospital's plant and equipment, and should be used with care in drawing conclusions about the condition of hospital facilities, as it can also reflect differences in how hospitals account for fully depreciated assets (whether they retain them in the accumulated depreciation accounts or not). It is more useful as an indication of the relative ages of physical plant for any one hospital over time.

Figure 15



The median plant age of hospitals in New Hampshire is younger than national and regional medians, indicating a competitively comparable investment in property, plant, and equipment. Putting the solvency and plant age ratios together, the picture of New Hampshire hospitals in general is that, with a couple of exceptions, they have manageable amounts of debt and are investing competitively in their property, plant and equipment.

As the table below indicates, median plant age for New Hampshire CAHs is younger than Northeast Region and National medians, until 2006; comparable data for 2007 is not available, but the CAH –NH age drops below 2006 comparable plant ages. The oldest CAH hospital has almost no debt, and almost 400 days cash on hand (including board-designated), which suggests that it can modernize itself when competitive and technological conditions demand (which it is in the process of doing in 2008).

Table 10  
Median Plant Age, Critical Access Hospitals

	2003	2004	2005	2006	2007
All NH	8.11	8.47	9.18	9.3	8.2
CAH –NH	7.9	8.44	9.4	10.24	9.18
Northeast CAH	9.87	10.46	10.38	10	
National CAH	10.24	10.16	10.35	9.98	

### *Uncompensated Care*

Bad debt and free care are the two elements that go into total uncompensated care. Both elements are valued at charges when reported in the financial statements; these values can be reduced to an estimated cost by applying the overall cost to charges of all services to the bad debt and free care reported at charges.

In Figure 16, bad debt is valued at charges as a percentage of gross patient service revenue (GPSR) (which is also valued at charges), providing one measure of the trend and burden of bad debt on New Hampshire hospitals. Bad debt as a percentage of gross patient service revenue is relatively stable over the five year period, with a slight uptick in the top quartile from 4.3% to 4.8% in 2007, and a more gradual increase in the bottom (least percentage debt) quartile from 2% to 2.8%. The minimum value in 2007 was 1.7%, and the maximum was 8% of gross patient service revenue, and the interquartile range (between 25% and 75% percentiles) was between 2% and 4.8% over the period 2003-2007. Comparables are not available regionally or nationally; work done by the authors in Maine and Rhode Island show slightly lower interquartile ranges for the bad debt ratio, eg between 2.5% and 4% in Maine (1993-2003) and between 2% and 3.5% in Rhode Island (2002-2006).

Figure 16

## Bad Debt as Percent of GPSR - All NH

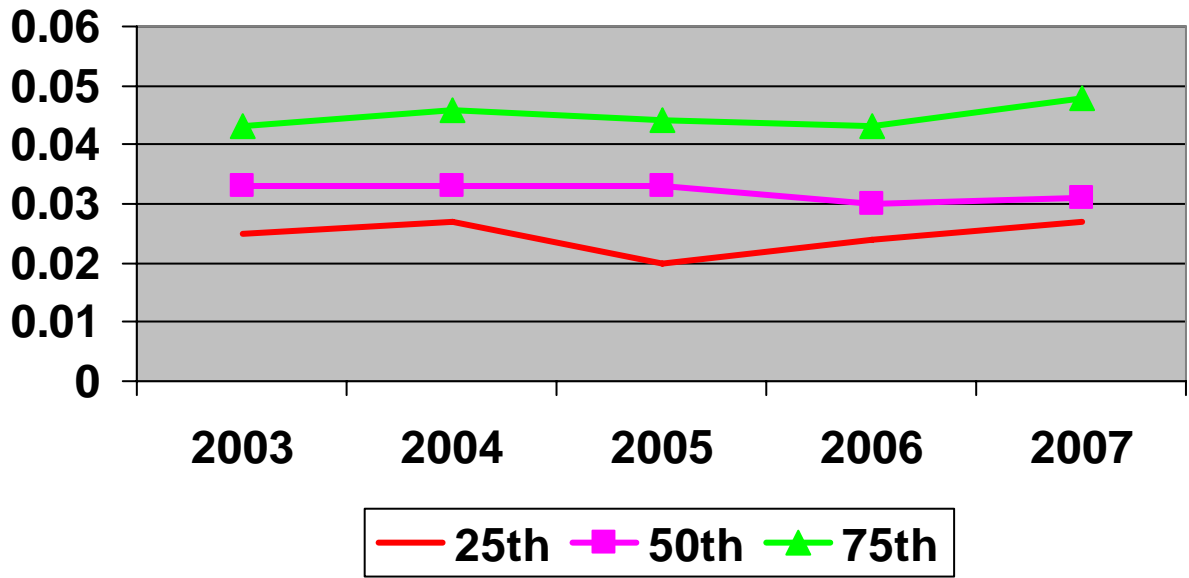
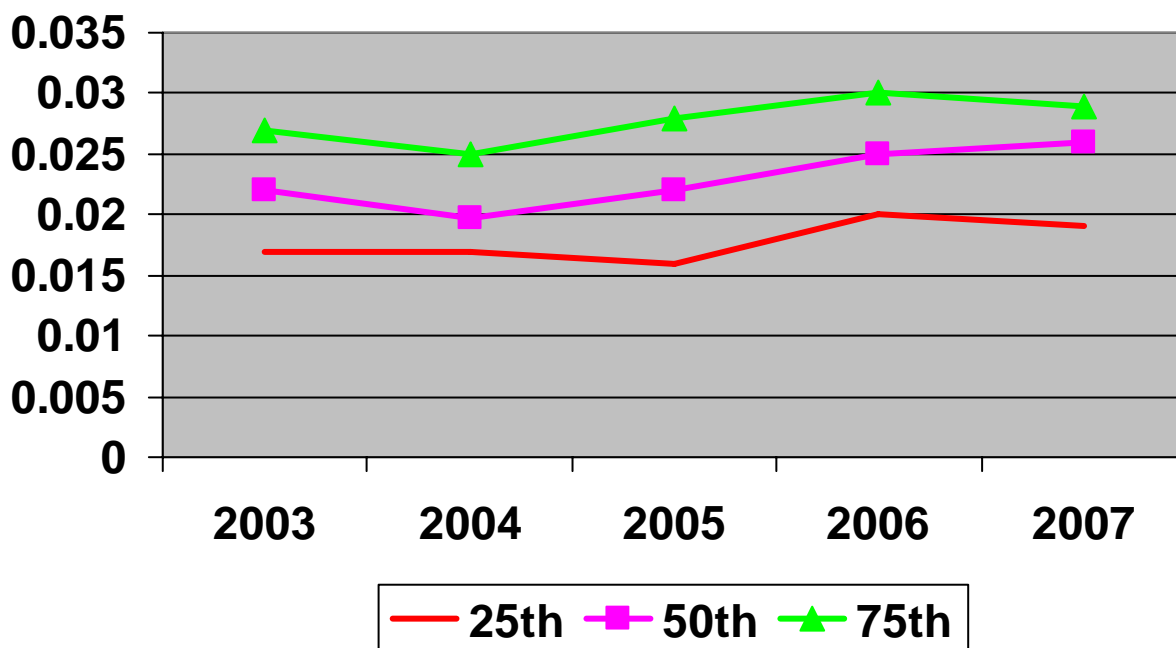


Figure 17

## Free Care as Percent GPSR - All NH



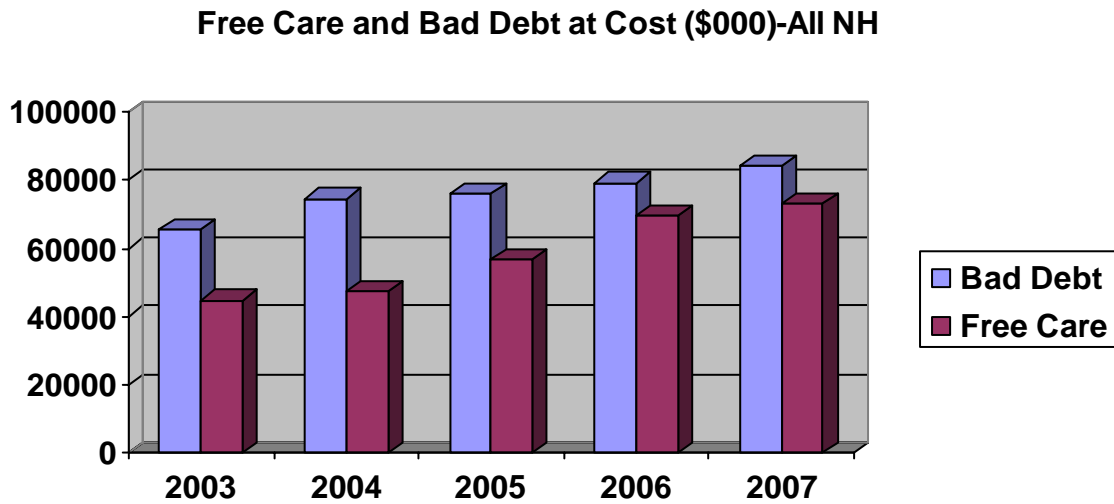
Free care (Figure 17) shows a rising trend in 2006 over earlier years for all quartiles, with 75% of hospitals staying below 3% of gross patient service revenue. The range in 2007 was 1.4% minimum to a maximum of 4.7%, and the interquartile range over the period 2003-2007 was between 1.5% and 3%. The interquartile range in Maine over an earlier period (1993-2003) was .8% to 1.8%, and for Rhode Island over the period 2002-2006 was .5% to 2.1%, both slightly lower than the New Hampshire ranges.

Figure 18 below shows the annual estimated cost of bad debt and free care, applying the average cost-to-charge ratio to the reported amounts valued at charges. Free care at cost grew significantly faster than did bad debt, at an average annual rate over the years 2003-2007 of 15.8% and 7.2% respectively. Total state-wide hospital free care and bad debt at cost for 2007 reached \$157 million,<sup>5</sup> up from \$110 million in 2003.

<sup>5</sup> Compared to a reported \$335 million in uncompensated care in 2007, valued at charges



Figure 18



The CAH median percentage Free Care to GPSR was very close to the state medians for all hospitals (see Table 11), while the range (minimum to maximum value) in 2007 was 1.4% to 4.7% . CAH’s share of total free care at cost rose from 15% in 2003 to 16% in 2007.

For bad debt, however, the CAH median percentage of GPSR rose above the state median in 2006 and 2007, at the same time that its share of all acute hospital bad debt in the state rose from 15% in 2003 to 22% in 2007. The CAH range (minimum to maximum) for bad debt as a percent of GPSR in 2007 was 1.9% to 8.1%.

Rising bad debt as a percentage of gross patient service revenue contributed to declining 2007 margins in at least 6 CAHs in 2007.

Table 11  
Median Free Care and Bad Debt as % GPSR

	2003	2004	2005	2006	2007
State Bad Debt all hospitals	.033	.033	.033	.030	.031
CAH –NH Bad debt	.033	.033	.031	.035	.040
State free care all hospitals	.022	.020	.022	.025	.026
CAH-NH Free Care	.023	.021	.024	.025	.027



### Aggregate Cash Flows, 2003-2007

These aggregate cash flows combine the sources and uses of cash over a five year period for two groups of hospitals. In table 12, the cash flows of the eleven non-critical access hospitals only are combined. In table 13, the cash flows of the twelve critical access hospitals only are combined<sup>6</sup>.

Table 12 indicates a very healthy balance of cash sources for the non-critical access hospitals: roughly 70% are internally generated, or from non-borrowed sources. The highest “quality” source of cash is what is earned on a recurring basis from operations (surplus plus noncash expenses), which totaled 66% of total cash sources for the non-critical access hospitals. Even more positive was that operating income made up 42% of cash from operations. Long term debt (27%) and other liabilities (2%) provided most of the remaining cash. Capital donations made up 2% of total cash sources over the period, a total of \$31 million over the five year period. Total cash sources generated over the five years was \$1.8 billion.

Table 12  
Non-Critical Access Hospitals Aggregate Cash Flows 2003-2007:  
Sources of Cash

	Sources in \$000		\$ Total Sources	% Operations
(a) Operating Income		\$513,388		42%
(b) Nonoperating Revenue		\$243,622		20%
(c) Noncash Expenses		\$471,482		39%
(d) Extraordinary Charges		(\$6,993)		(LT 1%)
Operations (surplus plus noncash expenses) (a+b+c+d)	\$1,221,499		66%	
Decrease Trustee-held Investments	\$57,325		3%	
Increase in Long Term Debt	\$595,395		27%	
Capital Donations	\$31,026		2%	
Affiliate Loans and Investments, Sale of Fixed Assets	\$10,058		LT 1%	
Increases in Other Liabilities	\$32,905		2%	
Total Sources	\$1,858,208			

<sup>6</sup> Cash sources and uses include the *net* effect of revenues and expenses (namely, the net income) of hospitals

Non-Critical Access Hospitals Aggregate Cash Flows 2003-2007  
Uses of Cash

	Uses in \$000	% Total Uses
Invest in Property, Plant, and Equipment	\$1,057,938	57%
Repay Long Term Debt	\$318,612	17%
Increase Cash and Board-Designated Investments	\$181,664	10%
Transfers and Investments in Affiliates	\$174,522	10%
Increase in Other Noncurrent Assets	\$82,838	4%
Increase Working Capital	\$42,634	2%
Total Uses	\$1,858,208	

Of the \$1.8 billion in cash generated over the period 2003- 2007, 57% was invested in property, plant and equipment. The ratio of capital expenditure (\$1,057,938) to aggregate depreciation expense (\$589,894) was 1.8 times, indicating that the hospitals were doing a solid job of maintaining their capital base, consistent with the plant age trend indicated in Figure 15 . The second largest use of cash was repayment of debt, using 17 % of total cash generated over the period. The non-critical access hospitals were net borrowers over the period, in that the increase in long term debt was about \$276 million more than was repaid. Figures 13 and 14 showing cash flow to total debt and debt service ratios indicate that the levels of debt incurred were conservative relative to the hospitals' ability to service their debt.

Another sign of financial strength was that the non-CAH hospitals were able to increase their cash and investments by almost \$182 million, even after making substantial capital investments. They were also able to transfer or invest almost \$175 million in affiliates, such as physician practices and other related entities, over the period 2003 -2007.

Critical access hospitals also performed well financially in aggregate, although not as well as the non-critical access hospitals. Table 13 describes their aggregate sources and uses of cash over the period 2003 -2007. Operations generated only 50% of total cash, and operating income contributed a much smaller share than was true of the non-CAH hospitals (16% compared to 42% for the non-CAH hospitals). Capital donations provided 3% of total cash sources, or nearly \$9 million. However, the CAH's had to rely more heavily on long term debt for their cash needs, comprising 44% of total cash sources.

Table 13  
Critical Access Hospitals Aggregate Cash Flows 2003- 2007

Sources of Cash

	Sources in \$000		% Total Sources	% Operations
(a) Operating Income		\$23,844		16%
(b) Nonoperating Revenue		\$38,526		26%
(c) Noncash Expenses		\$85,521		59%
(d) Extraordinary Charges		(\$ 2,076)		(1%)
Operations (surplus plus noncash expenses) (a+b+c+d)	\$145,815		50%	
Increase in Long Term Debt	\$128,984		44%	
Capital Donations	\$8,757		3%	
Affiliate Loans and Investments	\$6,043		2%	
Sale of Fixed Assets	\$1,960		LT 1%	
Increases in Other Liabilities	\$1,291		LT 1%	
Total Sources	\$292,850			

Uses of Cash

	Uses in \$000	% Total Uses
Invest in Property, Plant, and Equipment	\$142,584	49%
Repay Long Term Debt	\$ 65,861	22%
Increase Cash and Board-Designated Investments	\$ 42,209	14%
Increase Trustee Held Investments	\$ 32, 103	11%
Transfers to Affiliates	\$ 5,388	2%
Increase in Other Noncurrent Assets	\$ 2,608	1%
Increase Working Capital	\$ 2, 087	1%
Total Uses	\$292,850	

The aggregate cash uses of CAH's also differs from the non-CAH's, with proportionately less going into capital investment (49%) than the non-CAHs. The \$143 million in capital expenditures was 1.45 times the aggregate depreciation expense of the same period (\$98,259), not quite enough to maintain plant age (see Table 10) at 2003 levels, but adequate relative to CAH's regionally and nationally.

The CAH's, like the non-CAH hospitals, were net borrowers, adding roughly \$63 million net new debt to their balance sheets. Almost half of that was used to increase "trustee-held investments", which are primarily amounts set aside to service their debts or to invest in capital projects. Tables 7 through 9 indicate that this additional debt has lowered their equity financing and cash flow to total debt ratios below 2003 levels, but most are still in a reasonably healthy financial state. Debt service coverage ratios were more than adequate for all but 2 of the CAH's.

Finally, the CAH's in aggregate were able to increase their cash and board designated investments by \$42 million, a healthy sign that also improves their ability to generate interest and dividend income.

### **Summary**

Overall, most New Hampshire hospitals performed well over the period 2003- 2007. Strengths included strong growth in operating profits through 2006, total margins that were at or above regional and national benchmarks in all years with benchmarks available, very strong liquidity (especially days of operating expenses held in cash and unrestricted marketable securities), and strong solvency measures coupled with younger plant ages than national and regional benchmarks. Critical Access Hospitals are not as strong as the non-CAH hospitals in New Hampshire in operating profitability, and are more reliant on nonoperating revenues (investment income and gains on sales of securities), but most have very strong cash cushions that bolster their long-term financial viability.

Sector-wide sources of concern include the sharp drop in operating profitability in 2007 across all quartiles, which appears to be driven by multiple factors, including a sharp drop-off in revenue growth for some hospitals, a rising proportion of bad debt particularly for about half of the Critical Access Hospitals, and for some, the assumption of physician practices into the hospital entity. A second source of concern is a growing dependency on nonoperating revenues to produce total income, particularly among CAH's.

Within the sector there are wide variations in performance, with two hospitals facing serious financial challenges due to sustained operating losses and not much of a cash cushion to absorb them. Another five or six hospitals have very strong balance sheets and generally sustainable performance, but they experienced break-even or operating losses in 2007. On the other end of the performance range are 3 – 4 hospitals with total margins above 6% in most years, over 150 days' cash on hand, very manageable debt loads, and competitive plant age. In between are the majority of hospitals, which have steady profitability, solid liquidity, strong solvency, and are maintaining their plant and equipment at close to industry benchmarks.

## Ratio Definitions

<b>Profitability:</b>	Purpose	Calculation
Total Margin	Measures the organization's ability to cover expenses with revenues from all sources	Ratio of (Operating Income and Nonoperating Revenues)/(Total Operating Plus Nonoperating Revenues)
Operating Margin	Measures the organization's ability to cover operating expenses with operating revenues	Ratio of Operating Income/Total Operating Revenue
Markup Ratio	Measures the relationship between hospital-set charges and hospital operating costs; generally only self-pay and indemnity payers pay hospital charges	Ratio of (Gross Patient Service Charges Plus Other Operating Revenue) / Total Operating Expense
Deductible Ratio	Measures the relationship between hospital's contractual discounts negotiated with (private payers) or taken by payers (Medicare and Medicaid) and hospital charges	Ratio of Contractual Adjustments/Gross Patient Service Revenue
Nonoperating Revenue Ratio	Measures the contribution of nonoperating revenues (activities that are peripheral to a hospital's central mission) to total surplus or deficit	Ratio of Nonoperating Revenues (includes unrestricted donations, investment income, realized gains (losses) on investments and peripheral activities)/Excess Revenue over Expense
Realized Gains /Nonoperating Revenue	Measures the contribution of realized gains (a subset of nonoperating revenues) to Nonoperating Revenues	Ratio of realized gains (losses)/Nonoperating Revenues
<b>Liquidity:</b>		
Days in Accounts Receivables	Measures how quickly revenues are collected from patients/payers	Patient Accounts Receivable/(Net Patient Service Revenue / 365)
Average Pay Period	Measures how quickly employees and outside vendors are paid by the hospital	(Accounts Payable and Accrued Expenses)/ (Average Daily Cash Operating Expenses) <sup>7</sup>
Days Cash on Hand	Measures how many days the	(Cash plus short-term investments

<sup>7</sup> (Operating Expenses Less Depreciation Expense Less Bad Debt Expense)/365

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	hospital could continue to operate if no additional cash were collected	plus noncurrent investments classified as Board Designated)/(Average Daily Cash Operating Expenses)
<b>Solvency:</b>		
Equity Financing Ratio	Measures the percentage of the hospital's capital structure that is equity (as opposed to debt, which must be repaid)	Unrestricted Net Assets/Total Unrestricted Assets
Cash Flow to Total Debt	Measures the ability of the hospital to pay off all debt with cash generated by operating and nonoperating cash flow	(Total Surplus (Deficit) plus Depreciation and Amortization Expense)/Total Liabilities
Debt Service Coverage	Measures the ability of the hospital to service its long-term debt (principle and interest) from operating and nonoperating cash flow	(Total Surplus (Deficit) plus Depreciation and Amortization Expense plus Interest Expense)/(prior year's Current Longterm Debt plus current year Interest Expense)
Average Age of Plant	Measures the relative age of fixed assets	Accumulated Depreciation/Depreciation Expense

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