AHRQ HOSPITAL FINANCIAL MEASURES DATABASE

Methodology Report

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EXECUTIVE SUMMARY

Financial measures for hospitals are constructed from accounting data to indicate the hospital's ability to generate sufficient income to sustain the cost and quality of patient care services. Financial measures also indicate the hospitals' ability to support its other missions, including graduate medical education and other community services.

The purpose of this document is to describe the preparation of selected key measures about hospitals using Medicare Hospital Cost Report Public Use Files from the Centers for Medicare & Medicaid Services (CMS). This work at the Agency for Healthcare Research and Quality (AHRQ) is part of a project to augment the CMS public use data files for a variety of research uses:

- To describe differences in financial measures between groups of hospitals depending on essential characteristics such as location, size, and ownership,
- To analyze hospital financial performance over time, and
- To analyze the relationship of hospital finances to internal operational characteristics and external market conditions, demographics, illness surges, payer mix, and payer policies.

Selected hospital financial measures covered dimensions such as profitability, liquidity, and capital structure. For each measure, hospital-and group-level ratios were calculated. For the latter, mutually exclusive groups were identified and defined using the following characteristics: region of the country, bed size group, location, ownership, and teaching status.

This report discusses considerations in selecting these measures and shows the variation and differences in these financial measures by hospital characteristics from 2016-2019.

INTRODUCTION

Financial measures for hospitals are constructed from accounting data to indicate the hospital's ability to generate sufficient income to sustain the cost and quality of patient care services. Financial measures also indicate the hospital's ability to support its other missions, including graduate medical education and other community services. Such measures of financial performance are sometimes called "financial viability" by hospital administrators and financial accounting textbooks.[1]

Hospital income extends beyond revenue from patients and third-party payers to include charitable donations, government appropriations, and other activities that incur other expenses. More generally, a hospital is a complex organization with many objectives and constraints on its managerial and economic behavior.

Managers are concerned to satisfy both admitting physicians and patients with their facilities, services, employees, and pricing, as well as to appeal to donors and satisfy licensing, regulatory agencies, and third-party payers. To support increases and modernization of plants and equipment, they have to be attractive to lenders and stockholders or parent institutions.[2]

This document describes the preparation of selected key measures about hospitals from data submitted to CMS. This work at AHRQ is part of a project to augment the CMS public use data files for a variety of research uses:

- To describe differences in financial measures between groups of hospitals, depending on essential characteristics such as location, size, and ownership,
- To analyze hospital financial performance over time, and
- To analyze the relationship of hospital finances to internal operational characteristics and external market conditions, demographics, illness surges, payer mix and payer policies.

This paper discusses the selection and creation of financial performance measures and shows the variation in these financial measures by hospital characteristics from 2016-2019.

DATA SOURCES AND DEFINITIONS

Data Sources

This project uses data from 2016-2019 Medicare Hospital Cost Report Public Use Files (MCR PUFs).[3]. The MCR PUFs draw from the mandated and standardized reports by each hospital containing data on facility characteristics, employment, service utilization, and financial accounting of revenues, costs, and balance sheet items.[i] These data are extracted from the hospital fiscal year reports on Form 2552-10, maintained in the Healthcare Provider Cost Reporting Information System (HCRIS). The PUFs do not contain all measures reported in HCRIS but rather include a subset of commonly used measures.

We also used the American Hospital Association (AHA) annual survey[4] to help determine the hospitals to include in this project. In addition, we used the Provider of Service Files from CMS to determine hospital bed size and urban-rural designation.

Definition of Short-Term Acute Care Hospitals

To identify the short-term acute care hospitals, we used the short-term and community-based hospital identifiers from the AHA Annual Survey files. We excluded hospitals categorized as psychiatric, rehabilitation, and long-term care facilities. We also included hospitals from the MCR that were not matched in the AHA files but only if they fell under the following hospital types: short-term, children, or critical access. This approach ensured a comprehensive representation of relevant hospitals in our analysis.

We dropped hospitals that had missing data for all HCRIS worksheet measures, as well as those with reports covering fewer than 180 days of operation during the fiscal year. By implementing these exclusion criteria, we aimed to maintain data integrity and focus on hospitals with sufficient and reliable information.

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[i] The variables in the Hospital Cost Report PUF have not been edited or changed and will be identical to what is available in the online HCRIS SAS datasets. HCRIS datasets are updated quarterly, while the PUF is created annually. Therefore, the data may not match if compared with later versions of the HCRIS files. A variable to indicate the report's status code (as submitted, settled with or without audit, amended, reopened) is not available in the PUF.

Selection of Hospital Financial Measures

The AHRQ team identified and adapted a variety of ratios found to be important measures of hospital financial performance to hospital financial managers, governing boards, public policymakers, and analysts, based on textbooks by authors such as Cleverley, et al.[1] We selected 11 measures that cover dimensions such as profitability, liquidity, and capital structure.

Profitability measures evaluate a hospital's ability to generate income in excess of expenses on services. We included five measures under this category, which are ratios of:

1. Net income from patient care to cost of care,
2. Net income from patient care to patient revenue,
3. Overall net income to general fund balance,
4. Overall net income to total fixed assets, and
5. Overall net income to total revenue from all sources.

Net income from patient care services is the remainder from charges after subtracting discounts, allowances for bad debts and free care, and costs of care. This amount might be called "profit" or "margin," although most hospitals do not have investor owners who have a claim on such amounts.

Hospitals vary greatly in scale and scope of services; thus, net revenue margin in relation to the financial scale of the organization can be viewed in several ways. Two useful profitability ratios are *net income from patient care to cost of care* and *net income from patient care to patient revenue*. The former measure can be seen as a "markup" from cost to revenue. The latter measure is the margin rate commonly reported in the business reporting media to discuss managerial cost control.

A special note about hospital costs is needed. Two measures from the PUFs lead to very different results for net revenue from patient care services. For the first measure, a standardized system of calculating "allowable" costs of care is found in Schedules A through C of the MCR. The total for these costs is provided in the PUFs with the variable name "Total Costs." This measure is commonly used in research at AHRQ and in research and reimbursement policy at CMS.

A second measure for hospital costs is presented in the PUFs with the variable name "operating expenses" taken from the hospital's income statement in Schedule G3. With this variable, net income from services to patients can be calculated only from the hospital's income statement. However, that source is not limited to reimbursable cost centers and certain categories of nonallowable costs.

For this project, we have used both methods to calculate costs and net revenue from patient care. The results from the first method will be presented, while results from the second method will be briefly noted and kept available on request.

Three additional profitability ratios selected are overall net income to general fund balance, overall net income to total fixed assets, and overall net income to total revenue from all sources. Each of these measures starts with constructing net income from net patient revenue plus other income (donations, local government budgets, investment income, and other items), and subtracting all expenses. The result is the "bottom-line" net income of the institution, and it can be divided by the net fund balance (assets minus liabilities), as might be done in many businesses to measure "return on equity."

For investor-owned hospitals, this amount is before payment of income taxes or dividends. In the case of other hospitals, many stakeholders have an interest in the hospital's return on fund balance. Overall net income can be divided by total fixed assets, which can be used as one indicator of efficiency in deploying capital. A slightly different perspective on net income retention is given by the ratio of net income to total revenue from all sources.

Capital structure measures evaluate the health of a hospital's capital structure, measuring how a hospital's assets are financed and how able the hospital is to take on more debt. We included two measures under this category: (1) debt burdens to total assets and (2) average age of plant and equipment investments.

Debt burdens to total assets, or *leverage*, is the proportion of existing debt to fixed assets or to total assets and is one measure investors use to assess the risk of default. The leverage ratio is the kind of indicator that influences bond ratings for a business. *Average age of plant and equipment investments* is defined as the ratio of accumulated depreciation to current annual depreciation. It provides a rough indication of the age of the facilities and equipment and the potential need for considerable future resources to be invested in fixed assets to keep up with technology changes.

Liquidity measures evaluate the hospital's ability to cover costs in the event of fluctuations in revenue for normal business operations without taking on additional debt. A worsening liquidity position is usually a primary indication that a hospital is experiencing financial distress. We included two measures under this category (1) current assets to current liabilities and (2) quick ratio.

The *current assets to current liabilities* or *current ratio* assesses the hospital's ability to meet its current liabilities over the next year with its existing current assets (assets expected to be realized in cash during the fiscal year). The *quick ratio* measures a hospital's short-term liquidity against its short-term obligations. Essentially, the ratio removes selected noncash items from both current assets and current liabilities. Lenders and managers can follow these indicators for the hospital's ability to meet short-term needs to adapt to fluctuations, e.g., fluctuations in demand, labor markets, and payer policies.

Last, we included two measures of uncompensated care: (1) burden of uncompensated care cost and (2) burden of unreimbursed and uncompensated care cost. A high uncompensated care ratio indicates that a hospital is providing a significant amount of care to uninsured or "no-charge" patients. Their care might be covered by net revenue from insured patients, other sources of revenue, or cash reserves and borrowings. Unreimbursed care cost includes shortfalls in payments by local and State assistance programs for patients they cover.

Table 1 provides a list of the selected key financial measures, including the definition of each ratio (numerator and denominator) and the brief underlying rationale behind its inclusion. Appendix A lists the definition of each variable used in calculating the measures.

Table 1. Hospital Financial Performance Measures

Dimension	Definition	Brief Rationale
Profitability	Net Revenue Margin to Total Cost $$\frac{\text{Patient Revenue}^{a} - \text{Total Cost}^{b}}{\text{Total Cost}}$$	Markup from cost of patient care services to net revenue. Can indicate motivation and ability to obtain favorable pricing and case-mix and to manage costs.
	Net Revenue Margin to Patient Revenue $$\frac{\text{Patient Revenue} - \text{Total Cost}}{\text{Patient Revenue}}$$	Retention rate for patient revenue after subtracting cost. One indicator of a hospital's competitive strength in pricing and efficiency in its market service area.
	Net Income to General Fund Balance or Equity $$\frac{\text{Net Income}^{c}}{\text{General Fund Balance}^{d}}$$	An analog to return on equity in the for-profit sector. When this indicator is high, it indicates a relatively attractive business for raising additional capital.
	Net Income to Total Fixed Assets $$\frac{\text{Net Income}}{\text{Total Fixed Assets}^{e}}$$	An indicator of a hospital's managerial efficiency using the physical assets of the business.
	Overall Net Income to Total Revenue From All Sources $$\frac{\text{Net Income}}{\text{Patient Revenue} + \text{Other Revenue}}$$	Rate of retention of every dollar of revenue. Could indicate independence from need to raise additional outside financing for replacement of fixed assets or expansion.
Capital Structure	Average Age of Plant and Equipment Investments[f] $$\frac{\text{Accumulated Depreciation}}{\text{Current Depreciation}}$$	Indicator of the financial age of the hospital's fixed assets. The older the average age, the greater the short-term need for capital resources.
	Debt Burdens to Total Assets (Leverage) $$\frac{\text{Total Long-Term Liabilities}}{\text{Total Assets}}$$	Indicator of the degree to which a hospital has used debt to finance its assets.
Liquidity	Current Assets to Current Liabilities or Current Ratio $$\frac{\text{Total Current Assets}}{\text{Total Current Liabilities}}$$	Indicator of the hospital's ability to pay short-term obligations and meet contingencies. A ratio of 1.0 or higher indicates that all current liabilities could be adequately covered by the hospital's existing current assets.
	Quick Ratio $$\frac{\text{Total Current Assets} - \text{Inventory}}{\text{Total Current Liabilities} - \text{Deferred Income}}$$	Indicator of the hospital's ability to instantly use its near-cash assets.

Dimension	Definition	Brief Rationale
Other	Burden Cost of Uncompensated Care[g] $$\frac{\text{Total Uncompensated Care}}{\text{Total Cost}}$$	Measure of hospital care provided for which no payment was received.
	Burden Cost of Unreimbursed and Uncompensated Care[g] to Total Cost $$\frac{\text{Total Unreimbursed and Uncompensated Care}}{\text{Total Cost}}$$	Overall measure of hospital care provided for which no payment was received.

Net Revenue From Patient Care Services signals hospital's ability to sustain the current level of patient services without access to outside financing. Patient Revenue has already subtracted discounts from payers and allowances for bad debts.

Total Costs excludes nonreimbursable cost centers; Interest Cost and current depreciation are included in Total Cost. Net Income is (Net Revenue + all other revenue) – other expenses.

General Fund Balance is Total Assets – total liabilities. Total Fixed Assets have deducted cumulative depreciation. Total Fixed Assets have deducted cumulative depreciation.

Calculated as: (Sum of [Land, Improvements, Buildings, Leaseholds, Fixed Equipment, Minor Movable Equipment, HIT Assets]) − Net Total Fixed Assets)/Depreciation Cost. Individual asset categories were before depreciation, while Total Fixed Assets was net of accumulated depreciation.

Unreimbursed and uncompensated care includes bad debt writeoffs, "free care," uncompensated costs that might be recovered, and unreimbursable care.

Outlier Treatment

Recognizing that financial reporting can be subject to errors as well as legitimate extreme values, we considered several approaches from the literature for limiting the impact of extreme values while doing minimum data editing. Ultimately, for the purpose of the descriptive work here, we did not perform any preprocessing to remove outliers on either the variables or performance measures. Instead, we grouped hospitals by similar characteristics to obtain grouped results for each financial ratio.

Generally, the standard error of a group ratio is greatly reduced from the standard deviation among the hospitals in the group, depending on group size. Some financial indicator variables, perhaps due to intrinsically high variation or errors, may have unreliable group means, but we do not think it is appropriate to question individual hospital reports for this project.

In some cases, outliers can have a disproportionate impact on the results, leading to inflated standard errors for the grouped measure. In such situations, removing outliers may be considered to obtain more accurate and reliable results. However, several analytic methods can be used to minimize the impact of outliers. Examples include quantile regression, trimming or "Winsorizing" of the permitted outcome range before or during the fitting of a multivariate regression model, and other methods to down-weight extreme values when fitting a multivariate model.[5]

Ratio Calculation

For each measure, we calculated hospital-and group-level ratios[6,7] using numerators and denominators described in the previous section. Two different methods for calculating group-level ratios can be useful for descriptive purposes. One way is to calculate group ratios for each characteristic separately. Then, for example, urban hospitals can be compared with rural hospitals.

The second method taking prominence here is to identify and define mutually exclusive groups. We used the following characteristics: region of the country (Midwest, Northeast, South, West), bed-size group (1-99, 100-199, 200+ beds), location (urban, rural), ownership (for profit, nonprofit), teaching status (teaching, nonteaching). These characteristics were tested for independent contribution in a multivariate regression exercise.

For the group-level calculations, the total number of possible groups was 96. The construction of the final groups with sufficient N of hospitals within a group will be discussed separately. For each hospital group, we calculated the financial ratio by dividing the sum of the numerator by the sum of the denominator using Proc Surveymeans with the ratio option in SAS.[8] We compared group ratios with the overall national ratio for significant differences using the t-test.

Multivariate Regression of Individual Hospital Measures

We used multivariate regression models in a parallel approach to the group calculations to test the independent effects of specific hospital characteristics, including (1) ownership), (2) region, (3) teaching status, (4) location, (5) bed turnover rate (total discharges/bed size), and (6) bed-size group on various financial performance measures.

The analytical approach used multivariate linear regression. We integrated weighting to manage potential heteroscedasticity.[8] Notably, we did not perform data editing or exclusion of suspected errors. Instead, we used an iterative methodology.

The first step was to fit an ordinary least squares (OLS) regression for each financial measure to derive estimated residuals. Next, variances were calculated from the fitted residuals within each bed-size category. The inverse of the residual variance was used for fitting a second-round weighted regression to produce "generalized least squares" estimators of the parameters in the model.

The analysis indicated that the attributes ownership, region, and teaching status consistently exhibited noteworthy independent effects across most years and financial measures. However, certain years showed considerable deviations from this trend. In contrast, characteristics of location and bed size showed infrequent significant effects.

Several other metrics (e.g., bed turnover rate) showcased notable explainable variation. The use of high-performing years and financial measures' data resulted in fitted models exhibiting an average R-squared value of 0.48. Detailed regression results are provided in Appendix B.

Mutually Exclusive Grouping

Of the 96 possible mutually exclusive groups, many cannot be used because of no or too few members. We started with a criterion of a minimum N of 30 members. However, we preserved 4 groups with fewer members, although more than 10. Ultimately, the estimated standard errors of the group results will indicate if the group is not useful to compare with other groups.

When the count was too small, we used a hierarchy to fold up hospitals into some groups as needed, mixing teaching and nonteaching within an ownership category, then, as needed, mixing ownership within urban or rural if necessary for sufficient N. Region and bed size categories were never combined.

In only two cases, a very small number of large rural hospitals were mixed with urban hospitals in the same size group and region. This approach gave us a final count of 39 mutually exclusive groups of hospitals. Appendix C shows the hierarchy grouping of the hospitals.

DESCRIPTIVE RESULTS FOR GROUPS

Table 2 presents the characteristics of short-term hospitals in 2016-2019. Each year, about 4,600 short-term hospitals were included in the cohort. Of these, approximately 59% were small bed count (bed size 1-99), 80% nonprofit, over 70% nonteaching, and 60% in urban settings.

Table 2. Characteristics of Hospitals, 2016-2019

	2016		2017		2018		2019	
	(%)	N	(%)	N	(%)	N	(%)	N
All	100.0	4661	100.0	4631	100.0	4617	100.0	4569
Bed Size								
1-99	58.7	2735	58.8	2721	59.0	2722	59.1	2702
100-199	21.3	992	21.1	978	20.6	953	20.2	925
200+	20.0	934	20.1	932	20.4	942	20.6	942
Teaching Status								
Nonteaching	73.9	3444	73.3	3393	72.7	3358	71.9	3284
Teaching	26.1	1217	26.7	1238	27.3	1259	28.1	1285
Ownership								
For Profit	20.0	933	19.7	911	19.3	890	18.7	855
Nonprofit	80.0	3728	80.3	3720	80.7	3727	81.3	3714
Location								
Rural	39.6	1844	39.6	1835	39.4	1819	39.5	1805
Urban	60.4	2817	60.4	2796	60.6	2798	60.5	2764
Region								
Midwest	29.8	1388	29.8	1382	29.8	1374	29.7	1359
Northeast	12.3	572	12.0	557	12.2	563	12.2	558
South	38.7	1803	38.7	1791	38.6	1780	38.2	1746
West	19.3	898	19.5	901	19.5	900	19.8	906

Region: Hospitals in PR, VI grouped in the South. Hospitals in GU, MH grouped in West.

Tables 3.1-3.11 (after the Limitations section) present our results using the mutually exclusive group ratios. Due to the large variability in calculating simple means and medians of hospitals by individual characteristics, we limit our discussion to the 39 group ratios (the 11 tables in Appendix D show the results by single hospital characteristics). The discussion below illustrates the detailed findings and summarizes some observations and issues for analysts. We focused on 2019 results. All differences highlighted in this report meet or exceed the 0.05 significance level.

Table 3.1 reports group results for *net income from patient care to cost of care* (NIPC). Over the 4 years, the national ratio was essentially steady. The national estimate for 2019 was 0.1965 (SE=0.0087). Sixteen groups differed significantly from the national value, 7 lower (hospital groups [HG] 10, 12-14, 17, 36, 39) and 9 higher (HG 9, 20, 22, 25-28, 34, 38) than the national ratio.

For those groups below the national ratio, the range was from -0.1348 (a loss of 13.5% in relation to total cost) to a high of 0.1361. For the nine groups with higher ratios than the national, the full range was from 0.2639 to 0.4478. A check of the group characteristics can be briefly summarized:

- The seven lower NIPC groups were mostly in the Northeast, but one was in the South and two in the West. Only one of the lower NIPC groups was in the large bed-size category. The others were in the small or medium size category. There was a mix of rural and urban locations. Ownership was nonprofit in five groups and mixed in the other two. Six groups contained some teaching hospitals.
- The higher nine groups were in the Midwest, South, and West. They were all in the medium or large bed-size categories. Only one group contained only nonprofit hospitals. Six groups were for profit, and two were a mix of nonprofit and for-profit hospitals.

As we move from net income from patient care to overall net income, we should not be surprised if the other sources of income and other expenses led different groups of hospitals to appear lower or higher than the national estimates. Table 3.3 shows results for *overall net income to general fund balance* (ONIFB, referred to as return on equity in the financial press).

The national ratio for ONIFB in 2019 was 0.0849. Again, the ratio is steady across the 4 years. Based only on significant findings, no group had a negative ratio. Five groups were significantly lower, with ratios of 0.0167, 0.0187, 0.0340, 0.0371, and 0.0396 (HG 13, 7, 11, 8, and 4, respectively), while seven groups (HG 3, 18, 22, 26-27, 31, 34) were significantly higher than the national ratio, with values ranging from 0.1262 to 0.3504. Among group characteristics, one sees:

- The five lower ONIFB groups were in the Midwest and Northeast. They were small or medium sized, in urban locations, and nonprofit. One group contained only teaching hospitals.
- The seven significantly higher ONIFB groups were all urban hospitals in the South, West, or Midwest. They were all for profit. Bed-size category varied. The top three groups were in the small category, while the remaining four were medium or large. One group was teaching hospitals, one was nonteaching hospitals, and five groups were mixed.
- Interestingly, groups with a significantly low or high NIPC ratio did not closely predict having a low or high ONIFB. Of the three groups with the lowest NIPC, only one had a significantly low ONIFB. In particular, the group with a loss of 13.5% had an ONIFB of 4.4%. Of the top five groups with a high value of NIPC (HG 20, 25, 27, 34, and 9), only two had an ONIFB significantly greater than the national ratio.

Table 3.4 provides grouped results for *overall net income to total fixed assets* (sometimes called "asset turnover"). This ratio provides a somewhat different managerial indicator of effectiveness that does not consider the liabilities incurred to establish and modernize facilities and equipment.

Three cautions must be noted about this measure. First, some of a hospital's assets may appear on the books of a parent organization, such as a university, local government, holding company, or outside investor in the private sector. Second, because maintaining fixed assets can become more costly over time, an explanatory model for asset turnover could test for the effect of a measure of "age of investment," such as the one reported in Table 3.7. Finally, because liabilities are ignored, more income could be required to pay interest to debt holders.

The national estimate for asset turnover in 2019 was 0.1325 (SE=0.0090) and was steady over the 4 years. Eighteen of the 39 groups were significantly different from the national estimate, 9 lower (HG 2, 4, 7, 8, 10, 11, 13-15) and 9 higher (HG 3, 18, 20, 22, 26, 27, 31, 34, 38). Concerning group characteristics of the 18 groups, one sees:

- Among the nine groups with asset turnover below the national estimate, the range was between 0.0035 and 0.1036; all were either in the Midwest or Northeast regions. Most groups were small or medium in size, and one was large; most were urban, one was rural, and one was a mix in location, and all were mixed or nonprofit. Two were groups of medium-sized teaching hospitals.
- Among the nine groups above the national estimate, the range was 0.2309 to 0.4195, seven were located in the South or West regions and one in the Midwest. The groups were of all bed-size categories, most were located in urban areas, and all were for profit. Only one contained all teaching hospitals.

Table 3.6 provides grouped results for *debt burden to total assets* ("leverage"). Hospitals with more leverage can accumulate more net income when they provide a growing volume of service, especially if they serve a high proportion of better paying patients. On the other hand, they face a higher risk of bankruptcy when demand and income have adverse trends. High leverage can adversely affect the cost and availability of debt.

The national estimate of leverage in 2019 was 0.2573 (SE=0.0104) and was steady over the 4 years. Eight groups (HG 6, 16, 22, 24, 26, 27, 34, 38) had results significantly below the national estimate and five (HG 3, 14, 15, 32, 39) had results above the national estimate. These are some characteristics of the significantly different groups that illustrate a great deal of within-group variability:

- Of the eight groups with a leverage ratio below the national estimate, seven were negative. Four of those were in the South, and most were urban and for profit. Total assets were positive for all groups, so the negative leverage must be due to negative total liabilities, which is unusual given the definition of liabilities. A separate accounting category for Investments (e.g., in debt of other organizations) is available in MCR worksheet G. But explanations dealing with mergers/spinoffs, other related organizations, or other financial engineering and oddities are possible. Since the balance sheet variables are not currently used in Medicare reimbursement systems, they might be subject to less attention by auditors.
- For an analysis of within-group variation for leverage, we calculated the percentage of each group outside 4 standard errors of the interquartile range. Negative group leverage ratios ranged from -0.0183 to -0.9942. The groups with such low measures were mostly in the South and West (6 of 8), medium or large in bed-size category (7 of 8), and urban (7 of 8). Six were for profit and two were nonprofit. The percentage of hospitals in these groups below 4 standard errors of the group mean ranged widely, from 5% to 34%.
- The five groups with relatively high leverage ratios had values ranging from 0.3821 to 0.4318 and were in regions other than the South. They varied in size category, but four were in urban areas, three were nonprofit, one was for profit, and one had mixed ownership. Two were wholly teaching hospitals, while the other three were mixed with regard to teaching status. All five groups had substantial percentages of hospitals above 4 standard errors from the group ratio, ranging from 28% to 40%.

Table 3.7 reports the *average age of plant and equipment investments* (AAI), estimated by the ratio of accumulated depreciation for fixed assets to current annual depreciation. The national estimate was 12.4440 in 2019 (SE=0.3872). The ratio rose slowly from 2016 to 2019. However, the distribution of the groups was problematic. Of 18 groups with significantly different AAIs from the national estimate, 17 were lower (HG 1, 3, 6, 16, 18-20, 22-23, 26-27, 29-32, 34, 38) than the national AAI and one was higher (HG 9).

Another six groups had AAI estimates much higher than the national estimate but with very large within-group standard errors of estimate. Nearly all of these problematic data are in the Midwest and Northeast regions. We can only guess the types of circumstances that could lead to extreme highs or lows in accounting reports of depreciation. These six groups must have had a relatively large number of hospitals above the group ratio, but a relatively small percentage of the hospitals had ratios greater than 4 standard errors above the group ratio.

For group 4 in the table, with 222 hospitals, the group ratio was 17.76 with a high SE of 5.89, but only 5% of the hospitals were above the cutoff of 4 standard errors. If this measure could be retained after some cleaning of the underlying data, the hospital level of AAI offers a potentially useful explanatory variable in a model for costs (as previously demonstrated in Healthcare Cost and Utilization Project [HCUP] research) as well as profitability.

Table 3.8 shows grouped results for the ratio of *current assets to current liabilities*. The national estimate for 2019 was 2.0090 (SE=0.1007), having declined slightly over time from 2016. Three groups had negative ratios (HG 1, 20, 33), but only one is significant. These were the smallest groups in the study, with 22, 20, and 10 hospitals, respectively, in 2019. Another eight groups (HG 1, 7, 10, 11, 13, 22, 26, 32) had group ratios below the national estimate. Two groups (HG 25, 30) had a result significantly higher than the national estimate.

Table 3.9 shows grouped results for the *quick ratio*. The national estimate in 2019 was 1.9818 (SE=0.1022), down slightly from 2016. This measure had the same three small groups with a negative result (HG 1, 20, 33) as had a negative result for the ratio of current assets to current liabilities (Table 3.8). Group 20 had 20 hospitals and a group result of -24.08 (SE=539.95). Clearly, the group has at least one extremely low negative value in that group. Overall, nine groups had a result significantly below the national estimate and one group had a significantly higher estimate.

Tables 3.10 and 3.11 show group results for two methods of assessing the cost of uncompensated care in relation to total cost of care. As noted earlier, the first measure includes only specific groups of patients for whom no revenue is received. The second and larger measure also includes unreimbursed costs for patients with coverage from third-party payers, government programs, and patient payments. The discussion here will be limited to the larger measure of the *burden of unreimbursed and uncompensated cost to total cost* (UCTC).

The national ratio for UCTC was 0.0858 in 2019 (SE=0.0021). It slowly declined from 0.1093 in 2016. The 39 groups had a remarkably tight distribution around the national ratio. Four groups were significantly lower (HG 1, 3, 9, 37), and five groups were significantly higher (HG 16-17, 19, 23, 27) than the national ratio. With regard to group characteristics, one sees:

- The groups with UCTC below the national estimate had ratios between 0.0606 and 0.0737. All were in the West or Midwest region.
- The groups with relatively higher ratios had UCTC results from 0.0972 to 0.1224. These were all in the South region.

- It is interesting to compare significant deviation from the national ratio on UCTC with the group result for overall profitability. Only one group in the four (HG 3) with a relatively low ratio for UCTC had relatively high profitability (ONIFB).

DISCUSSION

Standardized hospital financial measures can provide valuable data for analyzing and evaluating the overall financial health, efficiency, and effectiveness of a hospital. We were able to demonstrate the development of hospital financial measures derived from MCR PUFs. These measures are used here to compare hospital groups with specific characteristics and to fit multivariate models to variation across individual hospitals. In future work, such measures can be used to compare group results over time and with multivariate methods to study changes over time and in relation to market environment, patient characteristics, payer mix, and policies. They also can be used to test for relationships with indicators of quality of care.

While these results show the feasibility of using selected financial measures in the MCR PUFs, these group results may stimulate development of various hypotheses and new tests. For example, the concentration of groups with high or low NIPC and high or low ONIFB among particular regions, bed-size categories, and ownership categories is noteworthy.

Many policy-relevant questions warrant further investigation. For example, we observe that differences between group profitability by ownership within location and size are rather large. Are they mainly compensating for greater tax liabilities of for-profit hospitals and less generous support of care for indigent people by local governments in particular regions?

Comparing groups that differ by teaching status but not other characteristics, how much does the bottom-line net income return on assets or fund balance differ from nonteaching hospitals? Does this difference depend on patient case mix and severity measures leading to relatively higher investment in fixed assets and staff compensation? Are there noteworthy interaction effects on net income ratios for teaching status, uncompensated cost burden, and ownership?

Current MCR PUF data only cover years before the COVID-19 public health emergency (PHE). The COVID-19 PHE caused significant disruption in hospital operations. During this time, hospitals reported higher operating expenses for expanding services, using cleaning supplies, and adding labor costs.[9,10] On the other hand, many hospitals received COVID-19 financial assistance from the federal government to offset costs, including through the Coronavirus Aid, Relief, and Economic Security Act (CARES Act).[11]

Recent findings have shown that COVID-19 relief funds helped hospitals in mitigating losses or helped improve financial performance.[12,13] As newer data are released by CMS, updating these measures to capture changes that may have occurred during the PHE period is therefore needed to compare these periods.

LIMITATIONS

This project used only a subset of financial and other service information in the MCR PUFs. Future measure development activities could include expanding the measures by using utilization variables (e.g., bed occupancy, length of stay, proportion of outpatient services to inpatient), as well as full-time-equivalent employment and contract workers and compensation. Input price indexes by area are available from other databases at CMS.

Not all data collected in HCRIS are available in the PUFs, which could hinder some followup research. For example, it would be helpful in all studies to know the completion status of a record, whether settled or as submitted. In addition, the number of special care unit beds available and used are variables reported in HCRIS but not in the PUFs and are likely important to studying the impact of the PHE.

It could be interesting to explore the use of other variables from the AHA Annual Survey, such as system membership or sponsorship of health maintenance organizations (HMOs) and preferred provider organizations. But we are not reporting on those as independent variables affecting financial performance at this time since this report is meant to accompany an augmented database available as public information.

Market structure and competition among hospitals can be studied with the aid of public files from the Dartmouth Atlas team. All-payer case-mix and severity scores or complexity scores can be obtained in HCUP databases. Area variables for standardized service areas can be obtained from the Area Resource File produced by HRSA.

As noted earlier in this report, other methods can be used to reduce the influence of extreme values that could be outright errors in reporting (e.g., entering negative numbers in fields designed to be later subtracted or using dollars in some parts of the report and thousands in other parts). Imputations can be substituted based on the historical experience of a particular hospital.

Winsorizing extreme variation has been used in some policy-relevant analyses at CMS and AHRQ rather than discarding extreme values or imputing for missing or discarded data. These methods represent an alternative approach to grouping hospitals to study variation. In a multivariate analysis of individual hospitals, down-weighting of extreme values can be implemented in a maximum likelihood model framework.

A number of studies in the past two decades have drawn comparisons between MCR data and audited financial reports of the same hospitals found in various databases. Such studies encompass diagnosis of types of apparent errors in reporting or computation, missing items, and discrepancies between reports for the same year. Findings from some of these studies and the urging of the Medicare Payment Advisory Commission may have led to improvements in the MCR reporting instructions in the 2010 form revisions that continue to change incrementally over time.

One such study published in 2018 used data from 655 hospitals for 2007-2011 to display some discrepancies in financial variables and ratios.[14] It is possible that such studies provide tools for analysts interested in prescreening data for various types of reported extreme values that may influence results.

Several of the selected measures with the most illustrations of problematic group results use variables from a hospital's balance sheet, reported in Schedule G and subsidiary parts in the MCR. These illustrations were noted with regard to leverage ratios, measures using depreciation for the age of investment, and working capital or liquidity ratios.

One measure using balance sheet data and depreciation that was originally selected for this study was eventually dropped, cash flow divided by total debt. This ratio is found in financial management textbooks as a predictor of bond ratings. However, our preliminary explorations found that even with grouping, there was too much remaining extreme variation, leading to puzzling negative national estimates.

Last, the multivariate analysis in this report should be a good beginning to test the individual contributions of basic hospital characteristics, together with measures of volume of care and asset turnover, to financial performance and a prelude to more ambitious analyses. Group results may be hiding substantial and testable differences within groups, as well as substantial within-group variation that tends to make some measures less useful.

Additional factors that can be further explored include hospital market environment, competitive market structure for hospitals, prevalence of HMO enrollment for insured populations, and state and local policies, such as Medicaid reimbursement and eligibility, that reduce the level of uncompensated care.

FINANCIAL MEASURE GROUP RATIOS: TABLES 3.1-3.11

Table 3.1. Net Income from Patient Care to Total Cost, Group Ratios by Year

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
0	All	4661	0.2095	0.0076		4631	0.2098	0.0081		4617	0.2236	0.0084		4569	0.1965	0.0087	
1	MW, Beds 1-99, Urban-No, Ownership: For Profit, Teaching Status: Mix	29	0.2978	0.0458		27	0.3296	0.0539	*	26	0.3017	0.0431		22	0.2914	0.0501	
2	MW, Beds 1-99, Urban-No, Ownership: Nonprofit, Teaching Status: Mix	657	0.2691	0.0304		657	0.2493	0.0302		657	0.2591	0.0312		657	0.2318	0.0283	
3	MW, Beds 1-99, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	62	0.2498	0.1254		61	0.2460	0.1127		58	0.2425	0.1149		55	0.2799	0.0998	
4	MW, Beds 1-99, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	229	0.2931	0.0264	**	225	0.2651	0.0297		225	0.2778	0.0181	**	227	0.2327	0.0187	
5	MW, Beds 100-199, Urban-No, Ownership: Mix, Teaching Status: Mix	28	0.4611	0.1532		30	0.3242	0.0396	**	26	0.2494	0.0774		25	0.4269	0.1549	
6	MW, Beds 100-199, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	23	0.3149	0.0520	*	24	0.2930	0.0444		25	0.3240	0.0346	**	21	0.2677	0.0471	
7	MW, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	76	0.2631	0.0335		77	0.2731	0.0318		72	0.2652	0.0327		69	0.2206	0.0378	
8	MW, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	96	0.2512	0.0281		98	0.2556	0.0305		99	0.2743	0.0291		97	0.2243	0.0323	
9	MW, Beds 200+, Urban-Mix, Ownership: Mix, Teaching Status: Mix	188	0.3128	0.0209	***	183	0.3003	0.0230	***	186	0.3143	0.0225	***	186	0.2843	0.0238	***
10	NE, Beds 1-99, Urban-No, Ownership: Mix, Teaching Status: Mix	112	0.1086	0.0333	**	105	0.1862	0.0268		108	0.1476	0.0135	***	106	0.0796	0.0263	***
11	NE, Beds 1-99, Urban-Yes, Ownership: Mix, Teaching Status: Mix	114	0.1390	0.0283	*	114	0.1134	0.0229	***	117	0.1566	0.0242	**	110	0.1457	0.0265	

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
12	NE, Beds 100-199, Urban-Mix, Ownership: Mix, Teaching Status: Mix	45	0.1910	0.0224		43	0.1849	0.0248		42	0.2064	0.0366		43	0.1361	0.0256	*
13	NE, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	52	0.1418	0.0157	***	50	0.1287	0.0143	***	47	0.1076	0.0152	***	45	0.0725	0.0204	***
14	NE, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	68	0.1246	0.0181	***	71	0.1094	0.0181	***	69	0.1072	0.0221	***	76	0.0944	0.0274	***
15	NE, Beds 200+, Urban-Mix, Ownership: Mix, Teaching Status: Mix	181	0.2138	0.0108		174	0.2155	0.0151		180	0.2199	0.0165		178	0.1792	0.0132	
16	S, Beds 1-99, Urban-No, Ownership: For Profit, Teaching Status: Mix	122	0.2452	0.0278		124	0.1139	0.0784		119	0.2102	0.0345		117	0.2142	0.0288	
17	S, Beds 1-99, Urban-No, Ownership: Nonprofit, Teaching Status: Mix	476	0.1217	0.0173	***	477	0.1047	0.0163	***	479	0.1166	0.0140	***	475	0.0897	0.0140	***
18	S, Beds 1-99, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	195	0.2153	0.0462		190	0.1944	0.0505		187	0.2197	0.0484		186	0.2751	0.0468	
19	S, Beds 1-99, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	238	0.2180	0.0378		238	0.2075	0.0390		244	0.1834	0.0319		235	0.1745	0.0344	
20	S, Beds 100-199, Urban-No, Ownership: For Profit, Teaching Status: Mix	27	0.3742	0.0412	***	24	0.3102	0.0376	**	21	0.3654	0.0500	**	20	0.4478	0.0494	***
21	S, Beds 100-199, Urban-No, Ownership: Nonprofit, Teaching Status: Mix	47	0.2385	0.0321		40	0.2249	0.0371		38	0.2478	0.0319		34	0.2301	0.0290	
22	S, Beds 100-199, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	127	0.3278	0.0777		126	0.2701	0.0285	*	121	0.2636	0.0223		103	0.2764	0.0252	**
23	S, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	126	0.2164	0.0130		126	0.2248	0.0246		123	0.1951	0.0168		123	0.2083	0.0137	

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
24	S, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	74	0.3005	0.0382	*	70	0.3087	0.0361	**	67	0.2924	0.0295	*	72	0.2489	0.0269	
25	S, Beds 200+, Urban-No, Ownership: Mix, Teaching Status: Mix	18	0.2837	0.0304	*	20	0.3024	0.0292	**	17	0.2922	0.0405		18	0.3377	0.0407	***
26	S, Beds 200+, Urban-Yes, Ownership: For Profit, Teaching Status: Nonteaching	44	0.2310	0.0240		43	0.2523	0.0349		39	0.2483	0.0295		33	0.2702	0.0295	*
27	S, Beds 200+, Urban-Yes, Ownership: For Profit, Teaching Status: Teaching	48	0.3112	0.0217	***	50	0.2980	0.0213	***	55	0.3308	0.0245	***	61	0.3324	0.0198	***
28	S, Beds 200+, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	89	0.2560	0.0298		84	0.2380	0.0350		87	0.2620	0.0317		87	0.2639	0.0283	*
29	S, Beds 200+, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	172	0.1913	0.0213		179	0.2058	0.0218		183	0.2161	0.0217		182	0.1974	0.0266	
30	W, Beds 1-99, Urban-No, Ownership: Mix, Teaching Status: Mix	293	0.1969	0.0217		296	0.1970	0.0231		296	0.2100	0.0227		298	0.1881	0.0212	
31	W, Beds 1-99, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	60	0.2498	0.0375		62	0.2526	0.0352		56	0.2351	0.0570		55	0.1952	0.0516	
32	W, Beds 1-99, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	148	0.0873	0.0332	***	145	0.1363	0.0420		150	0.1134	0.0403	**	159	0.1206	0.0449	
33	W, Beds 100-199, Urban-No, Ownership: Mix, Teaching Status: Mix	13	0.1309	0.0853		13	0.1426	0.1121		10	0.0579	0.1372		10	0.0335	0.1302	
34	W, Beds 100-199, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	58	0.2852	0.0309	*	53	0.2789	0.0314	*	54	0.2997	0.0303	*	58	0.3099	0.0395	**
35	W, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	65	0.1519	0.0349		63	0.1633	0.0375		68	0.1822	0.0382		61	0.1845	0.0398	

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
36	W, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	67	-0.0858	0.0752	***	70	-0.0264	0.0891	**	71	-0.0571	0.0794	***	68	-0.1348	0.0890	***
37	W, Beds 200+, Urban-Mix, Ownership: Nonprofit, Teaching Status: Nonteaching	52	0.2183	0.0178		51	0.2345	0.0182		46	0.2478	0.0216		48	0.3020	0.0574	
38	W, Beds 200+, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	33	0.2945	0.0258	**	33	0.3353	0.0338	***	33	0.3341	0.0308	***	29	0.2795	0.0293	**
39	W, Beds 200+, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	109	0.0652	0.0492	**	115	0.0866	0.0507	*	116	0.1755	0.0551		120	0.0928	0.0483	*

MW=Midwest, S=South, NE=Northeast, W=West. Hospitals in Puerto Rico and the Virgin Islands were grouped in the South. Hospitals in Guam and the Marshall Islands were grouped in the West.

Mix = Urban and Rural or For Profit and Nonprofit or Teaching and Nonteaching can be found in the Hospital Group.

P value <0.001=*** <0.01=** <0.05 =* (Group Ratios compared with Overall).

Table 3.2. Net Income from Patient Care to Patient Revenue, Group Ratios by Year

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
0	All	4613	0.1913	0.0040		4572	0.1932	0.0043		4567	0.2004	0.0045		4514	0.1854	0.0047	
1	MW, Beds 1-99, Urban-No, Ownership: For Profit, Teaching Status: Mix	29	0.2295	0.0272		27	0.2479	0.0305		26	0.2318	0.0254		22	0.2256	0.0300	
2	MW, Beds 1-99, Urban-No, Ownership: Nonprofit, Teaching Status: Mix	657	0.2120	0.0189		656	0.2007	0.0193		657	0.2058	0.0197		656	0.1906	0.0184	
3	MW, Beds 1-99, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	61	0.2747	0.0248	***	60	0.2642	0.0230	**	56	0.2792	0.0241	**	54	0.2723	0.0251	***
4	MW, Beds 1-99, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	229	0.2267	0.0158	*	221	0.2244	0.0161		225	0.2174	0.0111		225	0.1943	0.0110	
5	MW, Beds 100-199, Urban-No, Ownership: Mix, Teaching Status: Mix	28	0.3156	0.0718		30	0.2448	0.0226	*	26	0.1996	0.0496		25	0.2992	0.0761	
6	MW, Beds 100-199, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	23	0.2395	0.0301		24	0.2266	0.0265		25	0.2447	0.0197	*	21	0.2112	0.0293	
7	MW, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	76	0.2083	0.0210		77	0.2145	0.0196		72	0.2096	0.0205		69	0.1807	0.0254	
8	MW, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	96	0.2008	0.0179		97	0.2088	0.0183		99	0.2152	0.0179		96	0.1935	0.0183	
9	MW, Beds 200+, Urban-Mix, Ownership: Mix, Teaching Status: Mix	188	0.2383	0.0122	***	182	0.2337	0.0132	**	186	0.2391	0.0130	**	185	0.2240	0.0141	**
10	NE, Beds 1-99, Urban-No, Ownership: Mix, Teaching Status: Mix	111	0.1168	0.0186	***	105	0.1570	0.0191		108	0.1286	0.0102	***	104	0.0969	0.0121	***
11	NE, Beds 1-99, Urban-Yes, Ownership: Mix, Teaching Status: Mix	112	0.1375	0.0156	***	112	0.1157	0.0127	***	115	0.1484	0.0140	***	109	0.1356	0.0176	**

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
12	NE, Beds 100-199, Urban-Mix, Ownership: Mix, Teaching Status: Mix	45	0.1603	0.0158		43	0.1561	0.0177	*	42	0.1711	0.0252		43	0.1198	0.0198	**
13	NE, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	52	0.1242	0.0120	***	50	0.1141	0.0112	***	47	0.0971	0.0124	***	45	0.0676	0.0178	***
14	NE, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	68	0.1108	0.0143	***	71	0.0986	0.0147	***	69	0.0968	0.0180	***	76	0.0862	0.0229	***
15	NE, Beds 200+, Urban-Mix, Ownership: Mix, Teaching Status: Mix	181	0.1761	0.0074		174	0.1773	0.0102		180	0.1803	0.0111		178	0.1519	0.0095	**
16	S, Beds 1-99, Urban-No, Ownership: For Profit, Teaching Status: Mix	122	0.1969	0.0179		124	0.1022	0.0632		119	0.1737	0.0236		116	0.1797	0.0191	
17	S, Beds 1-99, Urban-No, Ownership: Nonprofit, Teaching Status: Mix	476	0.1085	0.0138	***	475	0.1003	0.0121	***	478	0.1048	0.0112	***	475	0.0823	0.0118	***
18	S, Beds 1-99, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	193	0.2135	0.0127		187	0.2111	0.0157		185	0.2184	0.0138		184	0.2463	0.0158	***
19	S, Beds 1-99, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	237	0.1793	0.0254		237	0.1721	0.0268		243	0.1552	0.0228		233	0.1490	0.0249	
20	S, Beds 100-199, Urban-No, Ownership: For Profit, Teaching Status: Mix	27	0.2723	0.0218	***	24	0.2368	0.0219		21	0.2676	0.0268	*	20	0.3093	0.0235	***
21	S, Beds 100-199, Urban-No, Ownership: Nonprofit, Teaching Status: Mix	47	0.1926	0.0209		40	0.1836	0.0247		38	0.1986	0.0205		34	0.1871	0.0192	
22	S, Beds 100-199, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	127	0.2469	0.0441		126	0.2126	0.0177		121	0.2086	0.0140		103	0.2165	0.0155	
23	S, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	126	0.1779	0.0088		126	0.1835	0.0164		121	0.1740	0.0087	**	123	0.1724	0.0094	

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
24	S, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	74	0.2311	0.0226		70	0.2359	0.0211	*	67	0.2262	0.0177		72	0.1993	0.0173	
25	S, Beds 200+, Urban-No, Ownership: Mix Teaching Status: Mix	18	0.2210	0.0184		20	0.2322	0.0172	*	17	0.2261	0.0242		18	0.2524	0.0228	**
26	S, Beds 200+, Urban-Yes, Ownership: For Profit, Teaching Status: Nonteaching	44	0.1877	0.0158		43	0.2014	0.0222		39	0.1989	0.0189		33	0.2127	0.0183	
27	S, Beds 200+, Urban-Yes, Ownership: For Profit, Teaching Status: Teaching	48	0.2374	0.0126	***	50	0.2296	0.0126	**	55	0.2486	0.0138	***	61	0.2495	0.0111	***
28	S, Beds 200+, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	88	0.2085	0.0180		83	0.2004	0.0209		87	0.2076	0.0199		87	0.2088	0.0177	
29	S, Beds 200+, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	172	0.1606	0.0150	*	179	0.1707	0.0150		183	0.1777	0.0147		182	0.1649	0.0186	
30	W, Beds 1-99, Urban-No, Ownership: Mix, Teaching Status: Mix	289	0.1817	0.0118		290	0.1877	0.0116		292	0.1888	0.0125		295	0.1742	0.0113	
31	W, Beds 1-99, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	60	0.1999	0.0240		62	0.2016	0.0224		55	0.2180	0.0233		54	0.1880	0.0250	
32	W, Beds 1-99, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	145	0.1104	0.0204	***	142	0.1510	0.0247		147	0.1360	0.0234	**	155	0.1503	0.0257	
33	W, Beds 100-199, Urban-No, Ownership: Mix, Teaching Status: Mix	13	0.1157	0.0667		13	0.1248	0.0859		10	0.0547	0.1226		10	0.0324	0.1219	
34	W, Beds 100-199, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	58	0.2219	0.0187		53	0.2181	0.0192		54	0.2306	0.0180		58	0.2366	0.0230	*
35	W, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	64	0.1519	0.0161	*	62	0.1609	0.0179		67	0.1749	0.0171		60	0.1796	0.0145	

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
36	W, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	51	0.1861	0.0211		54	0.2354	0.0380		55	0.2068	0.0295		53	0.1425	0.0578	
37	W, Beds 200+, Urban-Mix, Ownership: Nonprofit, Teaching Status: Nonteaching	52	0.1792	0.0120		51	0.1900	0.0120		46	0.1986	0.0139		48	0.2319	0.0339	
38	W, Beds 200+, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	33	0.2275	0.0154	*	33	0.2511	0.0190	**	33	0.2504	0.0173	**	29	0.2184	0.0179	
39	W, Beds 200+, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	93	0.1845	0.0191		99	0.1991	0.0202		101	0.2479	0.0215	*	103	0.2124	0.0147	

MW=Midwest, S=South, NE=Northeast, W=West. Hospitals in Puerto Rico and the Virgin Islands were grouped in the South. Hospitals in Guam and the Marshall Islands were grouped in the West.
Mix = Urban and Rural or For Profit and Nonprofit or Teaching and Nonteaching can be found in the Hospital Group.
P value <0.001=*** <0.01=** <0.05 =* (Group Ratios compared with Overall).

Table 3.3. Overall Net Income to General Fund Balance, Group Ratios by Year

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
0	All	4599	0.0986	0.0048		4558	0.0988	0.0046		4552	0.0822	0.0051		4493	0.0849	0.0056	
1	MW, Beds 1-99, Urban-No, Ownership: For Profit, Teaching Status: Mix	29	0.0948	0.0129		27	0.1030	0.0125		26	0.0981	0.0209		22	0.0681	0.0187	
2	MW, Beds 1-99, Urban-No, Ownership: Nonprofit, Teaching Status: Mix	657	0.0598	0.0062	***	655	0.0576	0.0060	***	656	0.0328	0.0090	***	655	0.0698	0.0063	
3	MW, Beds 1-99, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	61	0.3759	0.0994	**	60	0.3138	0.0825	**	56	0.3231	0.0953	*	54	0.3357	0.1083	*
4	MW, Beds 1-99, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	229	0.0748	0.0193		222	0.0643	0.0193		225	0.0346	0.0170	**	225	0.0396	0.0178	*
5	MW, Beds 100-199, Urban-No, Ownership: Mix, Teaching Status: Mix	28	0.2231	0.1277		30	0.1112	0.0146		26	0.0264	0.0394		25	0.1125	0.0244	
6	MW, Beds 100-199, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	23	0.1462	0.0366		24	0.1353	0.0268		25	0.2078	0.0320	***	21	0.1626	0.0420	
7	MW, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	76	0.0639	0.0198		77	0.0623	0.0203		72	0.0210	0.0091	***	69	0.0187	0.0131	***
8	MW, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	95	0.0603	0.0167	*	97	0.0593	0.0138	**	99	0.0273	0.0218	*	95	0.0371	0.0153	**
9	MW, Beds 200+, Urban-Mix, Ownership: Mix, Teaching Status: Mix	188	0.1002	0.0135		182	0.1032	0.0134		186	0.0637	0.0125		185	0.0745	0.0133	
10	NE, Beds 1-99, Urban-No, Ownership: Mix, Teaching Status: Mix	111	0.0004	0.0363	**	104	0.0507	0.0164	**	108	0.0569	0.0172		106	0.0029	0.0519	
11	NE, Beds 1-99, Urban-Yes, Ownership: Mix, Teaching Status: Mix	111	0.0718	0.0214		112	0.0616	0.0204		116	0.0676	0.0236		109	0.0340	0.0216	*

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
12	NE, Beds 100-199, Urban-Mix, Ownership: Mix, Teaching Status: Mix	45	0.0667	0.0178		43	0.0206	0.0296	**	42	0.0593	0.0611		43	-0.0559	0.0825	
13	NE, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	52	0.0617	0.0163	*	50	0.0585	0.0171	*	47	0.0371	0.0213	*	45	0.0167	0.0151	***
14	NE, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	68	0.0824	0.0323		71	0.0498	0.0316		69	0.0227	0.0319		76	0.0151	0.0356	
15	NE, Beds 200+, Urban-Mix, Ownership: Mix, Teaching Status: Mix	181	0.1013	0.0099		174	0.1188	0.0137		180	0.1048	0.0175		178	0.0706	0.0168	
16	S, Beds 1-99, Urban-No, Ownership: For Profit, Teaching Status: Mix	122	0.1072	0.0416		124	-0.0963	0.1011		118	-0.0059	0.0618		115	0.0622	0.0217	
17	S, Beds 1-99, Urban-No, Ownership: Nonprofit, Teaching Status: Mix	476	0.0512	0.0105	***	476	0.0283	0.0170	***	477	0.0437	0.0107	**	475	0.0788	0.0112	
18	S, Beds 1-99, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	193	0.2445	0.0522	**	187	0.2742	0.0584	**	185	0.3043	0.0548	***	183	0.3504	0.0681	***
19	S, Beds 1-99, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	235	0.1788	0.0556		236	0.1810	0.0704		242	0.0955	0.0246		231	0.1098	0.0263	
20	S, Beds 100-199, Urban-No, Ownership: For Profit, Teaching Status: Mix	27	0.1354	0.0411		24	0.1017	0.0323		21	0.0777	0.0220		20	0.0911	0.0259	
21	S, Beds 100-199, Urban-No, Ownership: Nonprofit, Teaching Status: Mix	47	0.0578	0.0132	**	40	0.0466	0.0182	**	38	0.0381	0.0147	**	34	0.0585	0.0143	
22	S, Beds 100-199, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	127	0.2745	0.1201		126	0.1712	0.0392		120	0.1663	0.0289	**	103	0.1469	0.0202	**
23	S, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	126	0.0952	0.0096		126	0.1067	0.0212		121	0.0860	0.0111		123	0.0996	0.0120	

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
24	S, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	74	0.0803	0.0141		70	0.0869	0.0124		67	0.0736	0.0182		71	0.0768	0.0256	
25	S, Beds 200+, Urban-No, Ownership: Mix Teaching Status: Mix	18	0.0743	0.0112	*	20	0.0803	0.0173		17	0.0865	0.0176		18	0.0940	0.0168	
26	S, Beds 200+, Urban-Yes, Ownership: For Profit, Teaching Status: Nonteaching	44	0.1031	0.0158		43	0.1096	0.0169		38	0.1232	0.0196	*	33	0.1262	0.0139	**
27	S, Beds 200+, Urban-Yes, Ownership: For Profit, Teaching Status: Teaching	48	0.1436	0.0177	*	50	0.1211	0.0120		55	0.1268	0.0100	***	61	0.1286	0.0087	***
28	S, Beds 200+, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	88	0.1171	0.0100		84	0.0703	0.0231		87	0.1087	0.0235		87	0.1052	0.0157	
29	S, Beds 200+, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	170	0.0945	0.0131		175	0.1061	0.0096		181	0.0894	0.0110		181	0.1062	0.0185	
30	W, Beds 1-99, Urban-No, Ownership: Mix, Teaching Status: Mix	286	0.0707	0.0086	**	287	0.0758	0.0087	*	290	0.0741	0.0078		291	0.0841	0.0059	
31	W, Beds 1-99, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	60	0.1955	0.0393	*	62	0.1640	0.0718		55	0.2004	0.0347	***	54	0.2183	0.0467	**
32	W, Beds 1-99, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	142	0.1002	0.0284		139	0.1134	0.0368		144	0.0833	0.0340		150	0.1519	0.0625	
33	W, Beds 100-199, Urban-No, Ownership: Mix, Teaching Status: Mix	13	0.0538	0.0889		12	0.1164	0.0242		10	0.1037	0.0263		10	0.1273	0.0501	
34	W, Beds 100-199, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	58	0.1376	0.0241		52	0.1655	0.0252	**	54	0.1512	0.0203	***	57	0.1361	0.0223	*
35	W, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	64	0.1098	0.0398		61	0.0986	0.0353		67	0.0737	0.0177		58	0.1169	0.0172	

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
36	W, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	50	0.0852	0.0196		54	0.1266	0.0418		54	0.0807	0.0314		53	0.0439	0.0244	
37	W, Beds 200+, Urban-Mix, Ownership: Nonprofit, Teaching Status: Nonteaching	51	0.1175	0.0158		50	0.1076	0.0152		45	0.0839	0.0181		47	0.1539	0.0615	
38	W, Beds 200+, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	33	0.1247	0.0154		33	0.1325	0.0175		33	0.1264	0.0124	**	29	0.1001	0.0238	
39	W, Beds 200+, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	93	0.0632	0.0395		99	0.0717	0.0376		100	0.1337	0.0277		101	0.0971	0.0157	

MW=Midwest, S=South, NE=Northeast, W=West. Hospitals in Puerto Rico and the Virgin Islands were grouped in the South. Hospitals in Guam and the Marshall Islands were grouped in the West.
Mix = Urban and Rural or For Profit and Nonprofit or Teaching and Nonteaching can be found in the Hospital Group.
P value <0.001=*** <0.01=** <0.05 =* (Group Ratios compared with Overall).

Table 3.4. Net Income to Total Fixed Assets, Group Ratios by Year

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
0	All	4587	0.1428	0.0073		4542	0.1495	0.0075		4534	0.1286	0.0080		4477	0.1325	0.0090	
1	MW, Beds 1-99, Urban-No, Ownership: For Profit, Teaching Status: Mix	29	0.2111	0.0755		27	0.2717	0.0875		26	0.2678	0.0816		21	0.1920	0.0893	
2	MW, Beds 1-99, Urban-No, Ownership: Nonprofit, Teaching Status: Mix	656	0.0839	0.0099	***	654	0.0808	0.0095	***	654	0.0462	0.0130	***	655	0.1036	0.0102	*
3	MW, Beds 1-99, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	60	0.4840	0.1391	*	59	0.5362	0.1314	**	55	0.5017	0.1491	*	53	0.4195	0.1289	*
4	MW, Beds 1-99, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	229	0.1224	0.0278		222	0.1104	0.0272		225	0.0562	0.0257	**	224	0.0688	0.0283	*
5	MW, Beds 100-199, Urban-No, Ownership: Mix, Teaching Status: Mix	28	0.4449	0.2555		30	0.2393	0.0422	*	26	0.0496	0.0809		25	0.2102	0.0680	
6	MW, Beds 100-199, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	23	0.2124	0.0431		24	0.2196	0.0460		25	0.3371	0.0626	***	21	0.2961	0.0858	
7	MW, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	76	0.1061	0.0291		76	0.1115	0.0306		72	0.0365	0.0153	***	69	0.0337	0.0228	***
8	MW, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	94	0.1025	0.0266		96	0.0935	0.0211	*	99	0.0424	0.0349	*	96	0.0559	0.0215	***
9	MW, Beds 200+, Urban-Mix, Ownership: Mix, Teaching Status: Mix	187	0.1616	0.0219		182	0.1728	0.0231		186	0.1105	0.0225		184	0.1368	0.0250	
10	NE, Beds 1-99, Urban-No, Ownership: Mix, Teaching Status: Mix	111	0.0005	0.0406	***	104	0.0632	0.0215	***	108	0.0716	0.0227	*	106	0.0035	0.0615	*
11	NE, Beds 1-99, Urban-Yes, Ownership: Mix, Teaching Status: Mix	111	0.0730	0.0242	**	112	0.0640	0.0235	***	116	0.0779	0.0260		109	0.0369	0.0248	***

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
12	NE, Beds 100-199, Urban-Mix, Ownership: Mix, Teaching Status: Mix	45	0.0828	0.0313		43	0.0249	0.0393	**	41	0.0727	0.0845		42	-0.0126	0.0771	
13	NE, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	52	0.0774	0.0206	**	50	0.0755	0.0208	***	47	0.0517	0.0295	*	45	0.0221	0.0203	***
14	NE, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	67	0.0661	0.0290	*	71	0.0398	0.0276	***	68	0.0247	0.0330	**	75	0.0151	0.0298	***
15	NE, Beds 200+, Urban-Mix, Ownership: Mix, Teaching Status: Mix	181	0.1028	0.0106	**	174	0.1330	0.0175		179	0.1218	0.0209		177	0.0830	0.0196	*
16	S, Beds 1-99, Urban-No, Ownership: For Profit, Teaching Status: Mix	122	0.1315	0.0623		122	-0.1180	0.1111	*	117	-0.0032	0.0810		113	0.1216	0.0555	
17	S, Beds 1-99, Urban-No, Ownership: Nonprofit, Teaching Status: Mix	474	0.0640	0.0146	***	473	0.0353	0.0216	***	474	0.0574	0.0148	***	472	0.1072	0.0171	
18	S, Beds 1-99, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	191	0.3047	0.0496	**	186	0.3157	0.0744	*	183	0.3212	0.0556	***	181	0.3868	0.0600	***
19	S, Beds 1-99, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	234	0.1493	0.0552		233	0.1866	0.0786		240	0.1041	0.0340		230	0.1227	0.0357	
20	S, Beds 100-199, Urban-No, Ownership: For Profit, Teaching Status: Mix	27	0.2150	0.0717		24	0.1760	0.0655		21	0.2009	0.0623		20	0.2790	0.0614	*
21	S, Beds 100-199, Urban-No, Ownership: Nonprofit, Teaching Status: Mix	47	0.0822	0.0218	**	40	0.0703	0.0324	*	38	0.0618	0.0283	*	34	0.0909	0.0239	
22	S, Beds 100-199, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	127	0.3263	0.1434		125	0.2127	0.0542		120	0.2262	0.0570		103	0.2309	0.0493	*
23	S, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	126	0.1352	0.0173		125	0.1508	0.0332		121	0.1239	0.0180		123	0.1429	0.0197	

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
24	S, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	74	0.1620	0.0418		70	0.1706	0.0396		67	0.1411	0.0430		70	0.1571	0.0614	
25	S, Beds 200+, Urban-No, Ownership: Mix Teaching Status: Mix	18	0.1542	0.0311		20	0.1614	0.0372		17	0.1573	0.0272		18	0.2098	0.0476	
26	S, Beds 200+, Urban-Yes, Ownership: For Profit, Teaching Status: Nonteaching	44	0.2544	0.0543	*	43	0.2681	0.0665		38	0.2953	0.0740	*	33	0.3496	0.0648	***
27	S, Beds 200+, Urban-Yes, Ownership: For Profit, Teaching Status: Teaching	48	0.3806	0.0459	***	50	0.3644	0.0485	***	55	0.4060	0.0511	***	61	0.3886	0.0444	***
28	S, Beds 200+, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	87	0.1717	0.0192		83	0.1063	0.0393		86	0.1965	0.0313	*	87	0.1669	0.0216	
29	S, Beds 200+, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	170	0.1555	0.0216		175	0.1792	0.0173		179	0.1476	0.0179		180	0.1831	0.0339	
30	W, Beds 1-99, Urban-No, Ownership: Mix, Teaching Status: Mix	286	0.1141	0.0178		287	0.1307	0.0181		290	0.1324	0.0172		291	0.1583	0.0132	
31	W, Beds 1-99, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	59	0.3610	0.0817	**	62	0.2194	0.1062		54	0.3266	0.0734	**	54	0.3304	0.0829	*
32	W, Beds 1-99, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	142	0.0900	0.0292		139	0.1090	0.0292		144	0.0768	0.0281		150	0.1070	0.0438	
33	W, Beds 100-199, Urban-No, Ownership: Mix, Teaching Status: Mix	13	0.1133	0.2117		13	0.1903	0.0948		10	0.2635	0.1124		10	0.2361	0.1034	
34	W, Beds 100-199, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	58	0.3222	0.0664	**	52	0.4315	0.0732	***	54	0.3932	0.0703	***	57	0.3795	0.0687	***
35	W, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	64	0.1441	0.0568		61	0.1451	0.0510		67	0.1060	0.0274		58	0.1729	0.0315	

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
36	W, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	50	0.1596	0.0351		53	0.2095	0.0724		54	0.1257	0.0593		53	0.0566	0.0395	
37	W, Beds 200+, Urban-Mix, Ownership: Nonprofit, Teaching Status: Nonteaching	51	0.1581	0.0297		50	0.1571	0.0284		45	0.1317	0.0309		47	0.2844	0.1222	
38	W, Beds 200+, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	33	0.4246	0.0731	***	33	0.4988	0.0994	***	33	0.5016	0.1001	***	29	0.3322	0.0726	**
39	W, Beds 200+, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	93	0.0645	0.0441		99	0.0834	0.0465		100	0.1611	0.0404		101	0.0910	0.0256	

MW=Midwest, S=South, NE=Northeast, W=West. Hospitals in Puerto Rico and the Virgin Islands were grouped in the South. Hospitals in Guam and the Marshall Islands were grouped in the West.
Mix = Urban and Rural or For Profit and Nonprofit or Teaching and Nonteaching can be found in the Hospital Group.
P value <0.001=*** <0.01=** <0.05 =* (Group Ratios compared with Overall).

Table 3.5. Net Income to Total Revenue from all Sources, Group Ratios by Year

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
0	All	4611	0.0673	0.0032		4571	0.0707	0.0032		4567	0.0664	0.0036		4515	0.0677	0.0038	
1	MW, Beds 1-99, Urban-No, Ownership: For Profit, Teaching Status: Mix	29	0.0796	0.0273		27	0.1032	0.0313		26	0.0986	0.0279		22	0.0751	0.0323	
2	MW, Beds 1-99, Urban-No, Ownership: Nonprofit, Teaching Status: Mix	657	0.0407	0.0046	***	656	0.0389	0.0044	***	657	0.0235	0.0064	***	656	0.0483	0.0048	**
3	MW, Beds 1-99, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	61	0.1623	0.0309	**	60	0.1529	0.0293	**	56	0.1523	0.0318	**	54	0.1451	0.0314	*
4	MW, Beds 1-99, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	229	0.0777	0.0080		221	0.0692	0.0090		225	0.0476	0.0103		225	0.0610	0.0105	
5	MW, Beds 100-199, Urban-No, Ownership: Mix, Teaching Status: Mix	28	0.1780	0.0835		30	0.0989	0.0149		26	0.0250	0.0362		25	0.1019	0.0277	
6	MW, Beds 100-199, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	23	0.0976	0.0184		24	0.0996	0.0191		25	0.1320	0.0199	**	21	0.1093	0.0336	
7	MW, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	76	0.0837	0.0118		77	0.0868	0.0111		72	0.0591	0.0148		69	0.0436	0.0232	
8	MW, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	95	0.0560	0.0132		97	0.0567	0.0095		99	0.0371	0.0285		96	0.0478	0.0114	
9	MW, Beds 200+, Urban-Mix, Ownership: Mix, Teaching Status: Mix	188	0.0794	0.0095		182	0.0838	0.0092		186	0.0681	0.0099		185	0.0865	0.0096	
10	NE, Beds 1-99, Urban-No, Ownership: Mix, Teaching Status: Mix	111	0.0002	0.0167	***	105	0.0420	0.0178		108	0.0284	0.0085	***	104	0.0276	0.0146	**
11	NE, Beds 1-99, Urban-Yes, Ownership: Mix, Teaching Status: Mix	112	0.0320	0.0101	***	112	0.0289	0.0099	***	115	0.0375	0.0106	**	109	0.0169	0.0109	***

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
12	NE, Beds 100-199, Urban-Mix, Ownership: Mix, Teaching Status: Mix	45	0.0328	0.0110	**	43	0.0101	0.0158	***	42	0.0235	0.0259		43	-0.0240	0.0324	**
13	NE, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	52	0.0484	0.0086	*	50	0.0504	0.0079	*	47	0.0227	0.0130	**	45	0.0214	0.0174	**
14	NE, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	68	0.0263	0.0122	**	71	0.0170	0.0116	***	69	0.0095	0.0137	***	76	0.0055	0.0132	***
15	NE, Beds 200+, Urban-Mix, Ownership: Mix, Teaching Status: Mix	181	0.0469	0.0050	***	174	0.0606	0.0077		180	0.0538	0.0095		178	0.0389	0.0090	**
16	S, Beds 1-99, Urban-No, Ownership: For Profit, Teaching Status: Mix	122	0.0475	0.0208		124	-0.0462	0.0432	**	119	-0.0023	0.0268	*	116	0.0393	0.0172	
17	S, Beds 1-99, Urban-No, Ownership: Nonprofit, Teaching Status: Mix	476	0.0293	0.0065	***	475	0.0223	0.0078	***	478	0.0255	0.0065	***	475	0.0440	0.0068	**
18	S, Beds 1-99, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	193	0.1132	0.0139	**	187	0.1124	0.0211		185	0.1150	0.0154	**	184	0.1429	0.0180	***
19	S, Beds 1-99, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	236	0.0749	0.0263		237	0.0845	0.0364		243	0.0498	0.0165		233	0.0618	0.0172	
20	S, Beds 100-199, Urban-No, Ownership: For Profit, Teaching Status: Mix	27	0.0859	0.0262		24	0.0691	0.0241		21	0.0713	0.0212		20	0.0931	0.0205	
21	S, Beds 100-199, Urban-No, Ownership: Nonprofit, Teaching Status: Mix	47	0.0405	0.0110	*	40	0.0348	0.0163	*	38	0.0293	0.0138	**	34	0.0434	0.0113	*
22	S, Beds 100-199, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	127	0.1259	0.0481		126	0.0824	0.0194		120	0.0982	0.0211		103	0.0935	0.0179	
23	S, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	126	0.0753	0.0086		126	0.0857	0.0173		121	0.0727	0.0097		123	0.0802	0.0098	

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
24	S, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	74	0.0762	0.0172		70	0.0812	0.0163		67	0.0738	0.0192		72	0.0755	0.0284	
25	S, Beds 200+, Urban-No, Ownership: Mix Teaching Status: Mix	18	0.0713	0.0122		20	0.0765	0.0174		17	0.0746	0.0110		18	0.0897	0.0182	
26	S, Beds 200+, Urban-Yes, Ownership: For Profit, Teaching Status: Nonteaching	44	0.1129	0.0201	*	43	0.1139	0.0250		39	0.1214	0.0256	*	33	0.1404	0.0232	**
27	S, Beds 200+, Urban-Yes, Ownership: For Profit, Teaching Status: Teaching	48	0.1336	0.0152	***	50	0.1382	0.0172	***	55	0.1551	0.0185	***	61	0.1646	0.0169	***
28	S, Beds 200+, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	88	0.0813	0.0079		83	0.0617	0.0122		87	0.0810	0.0168		87	0.0773	0.0105	
29	S, Beds 200+, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	172	0.0706	0.0090		179	0.0810	0.0073		183	0.0689	0.0081		182	0.0812	0.0142	
30	W, Beds 1-99, Urban-No, Ownership: Mix, Teaching Status: Mix	289	0.0579	0.0073		290	0.0639	0.0084		292	0.0638	0.0076		295	0.0778	0.0059	
31	W, Beds 1-99, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	60	0.1110	0.0203	*	62	0.0773	0.0342		55	0.1047	0.0180	*	54	0.1091	0.0223	
32	W, Beds 1-99, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	145	0.0461	0.0125		142	0.0598	0.0121		147	0.0436	0.0126		155	0.0575	0.0207	
33	W, Beds 100-199, Urban-No, Ownership: Mix, Teaching Status: Mix	13	0.0443	0.0750		13	0.0857	0.0332		10	0.0991	0.0322		10	0.1045	0.0341	
34	W, Beds 100-199, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	58	0.1131	0.0194	*	52	0.1401	0.0185	***	54	0.1347	0.0219	**	57	0.1316	0.0217	**
35	W, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	64	0.0628	0.0237		62	0.0425	0.0254		67	0.0447	0.0107		60	0.0754	0.0118	

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
36	W, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	51	0.0734	0.0138		54	0.1044	0.0258		55	0.0625	0.0253		54	0.0232	0.0209	*
37	W, Beds 200+, Urban-Mix, Ownership: Nonprofit, Teaching Status: Nonteaching	52	0.0835	0.0136		51	0.0780	0.0133		46	0.0651	0.0126		48	0.1134	0.0414	
38	W, Beds 200+, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	33	0.1492	0.0241	***	33	0.1768	0.0302	***	33	0.1841	0.0322	***	29	0.1294	0.0219	**
39	W, Beds 200+, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	93	0.0295	0.0206		99	0.0374	0.0211		102	0.0823	0.0206		104	0.0399	0.0129	*

MW=Midwest, S=South, NE=Northeast, W=West. Hospitals in Puerto Rico and the Virgin Islands were grouped in the South. Hospitals in Guam and the Marshall Islands were grouped in the West.
Mix = Urban and Rural or For Profit and Nonprofit or Teaching and Nonteaching can be found in the Hospital Group.
P value <0.001=*** <0.01=** <0.05 =* (Group Ratios compared with Overall).

Table 3.6. Leverage (Debt Burden to Total Assets), Group Ratios by Year

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
0	All	4162	0.2768	0.0095		4094	0.2641	0.0104		4087	0.2442	0.0096		4137	0.2573	0.0104	
1	MW, Beds 1-99, Urban-No, Ownership: For Profit, Teaching Status: Mix	24	0.1318	0.1393		22	0.2473	0.1075		22	0.2312	0.0983		19	0.1148	0.1124	
2	MW, Beds 1-99, Urban-No, Ownership: Nonprofit, Teaching Status: Mix	603	0.2895	0.0114		595	0.2787	0.0120		595	0.2953	0.0185	*	619	0.2669	0.0108	
3	MW, Beds 1-99, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	55	0.3843	0.0762		52	0.3721	0.0736		49	0.3669	0.0812		47	0.4314	0.0671	*
4	MW, Beds 1-99, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	208	0.2601	0.0200		197	0.2438	0.0157		199	0.2458	0.0170		204	0.2394	0.0205	
5	MW, Beds 100-199, Urban-No, Ownership: Mix, Teaching Status: Mix	28	0.2027	0.0478		30	0.2024	0.0609		26	0.2632	0.0755		25	0.3133	0.0521	
6	MW, Beds 100-199, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	21	0.2821	0.0713		22	0.2350	0.0701		22	0.2191	0.0948		20	-0.0183	0.1169	*
7	MW, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	74	0.2714	0.0188		73	0.2384	0.0171		68	0.2367	0.0087		69	0.2367	0.0086	
8	MW, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	89	0.2621	0.0253		91	0.2433	0.0226		93	0.2524	0.0150		93	0.2448	0.0154	
9	MW, Beds 200+, Urban-Mix, Ownership: Mix, Teaching Status: Mix	184	0.2734	0.0130		176	0.2772	0.0266		180	0.2448	0.0139		181	0.2444	0.0127	
10	NE, Beds 1-99, Urban-No, Ownership: Mix, Teaching Status: Mix	106	0.3245	0.0224		101	0.2793	0.0198		103	0.2662	0.0247		100	0.2761	0.0261	
11	NE, Beds 1-99, Urban-Yes, Ownership: Mix, Teaching Status: Mix	107	0.3297	0.0284		107	0.3273	0.0308		112	0.2904	0.0333		105	0.3165	0.0346	

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
12	NE, Beds 100-199, Urban-Mix, Ownership: Mix, Teaching Status: Mix	43	0.1718	0.0923		41	0.1827	0.0920		41	0.2036	0.1139		43	0.2203	0.1195	
13	NE, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	51	0.3630	0.0231	***	49	0.2886	0.0416		45	0.3151	0.0358		44	0.2170	0.0403	
14	NE, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	65	0.4366	0.0423	***	71	0.4548	0.0470	***	69	0.3183	0.0716		76	0.4117	0.0548	**
15	NE, Beds 200+, Urban-Mix, Ownership: Mix, Teaching Status: Mix	174	0.4100	0.0171	***	174	0.3832	0.0162	***	179	0.3279	0.0213	***	177	0.3821	0.0219	***
16	S, Beds 1-99, Urban-No, Ownership: For Profit, Teaching Status: Mix	92	-0.0544	0.1370	*	94	-0.0999	0.1550	*	96	-0.1340	0.1689	*	104	-0.2290	0.1620	**
17	S, Beds 1-99, Urban-No, Ownership: Nonprofit, Teaching Status: Mix	376	0.2677	0.0177		367	0.2615	0.0198		364	0.2684	0.0195		380	0.2514	0.0195	
18	S, Beds 1-99, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	169	0.2620	0.0848		165	0.2147	0.0860		158	0.2383	0.1001		159	0.2767	0.0888	
19	S, Beds 1-99, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	192	0.3206	0.0395		185	0.3207	0.0442		194	0.3075	0.0380		191	0.2629	0.0346	
20	S, Beds 100-199, Urban-No, Ownership: For Profit, Teaching Status: Mix	25	0.1354	0.2093		21	-0.1207	0.1486	**	20	-0.5040	0.5207		20	-0.6785	0.5639	
21	S, Beds 100-199, Urban-No, Ownership: Nonprofit, Teaching Status: Mix	45	0.3083	0.0407		39	0.3059	0.0499		36	0.3062	0.0462		29	0.3321	0.0528	
22	S, Beds 100-199, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	121	0.1038	0.0957		119	0.1071	0.1070		117	0.0463	0.1213		99	-0.1374	0.1453	**
23	S, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	117	0.2790	0.0313		119	0.2862	0.0303		117	0.2625	0.0297		118	0.2647	0.0281	

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
24	S, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	66	0.2136	0.0368		63	0.2128	0.0355		62	0.1792	0.0325		67	0.1781	0.0323	*
25	S, Beds 200+, Urban-No, Ownership: Mix Teaching Status: Mix	17	0.1812	0.0950		18	0.1952	0.0881		15	0.2743	0.0503		17	0.2112	0.0329	
26	S, Beds 200+, Urban-Yes, Ownership: For Profit, Teaching Status: Nonteaching	42	-0.5827	0.2879	**	40	-0.6561	0.2684	***	36	-0.6658	0.2727	***	33	-0.7152	0.2928	***
27	S, Beds 200+, Urban-Yes, Ownership: For Profit, Teaching Status: Teaching	48	-0.9269	0.2993	***	50	-0.8810	0.3024	***	55	-0.9311	0.2998	***	61	-0.9942	0.2781	***
28	S, Beds 200+, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	82	0.3199	0.0320		77	0.3092	0.0356		82	0.2781	0.0373		80	0.2585	0.0356	
29	S, Beds 200+, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	163	0.2190	0.0240	*	166	0.2322	0.0261		168	0.2115	0.0243		173	0.2494	0.0344	
30	W, Beds 1-99, Urban-No, Ownership: Mix, Teaching Status: Mix	246	0.2125	0.0385		243	0.1943	0.0410		241	0.2151	0.0422		258	0.1848	0.0379	
31	W, Beds 1-99, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	54	0.1752	0.0813		53	0.2217	0.0919		48	0.1549	0.0953		50	0.1733	0.1101	
32	W, Beds 1-99, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	126	0.4426	0.0637	*	125	0.4146	0.0715	*	125	0.3895	0.0754		135	0.4318	0.0567	**
33	W, Beds 100-199, Urban-No, Ownership: Mix, Teaching Status: Mix	10	0.2600	0.1574		11	0.2477	0.1357		10	0.3367	0.1977		10	0.4497	0.2084	
34	W, Beds 100-199, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	55	-0.1221	0.1842	*	51	-0.1900	0.2239	*	51	-0.3315	0.2377	*	54	-0.3726	0.2230	**
35	W, Beds 100-199, Urban-Yes, Ownership: Nonprofit,	63	0.3001	0.0344		60	0.3012	0.0288		65	0.2844	0.0280		57	0.2846	0.0298	

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
	Teaching Status: Nonteaching																
36	W, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	47	0.3298	0.0345		49	0.2938	0.0339		49	0.3852	0.0550	*	46	0.3639	0.0566	
37	W, Beds 200+, Urban-Mix, Ownership: Nonprofit, Teaching Status: Nonteaching	51	0.3024	0.0302		50	0.2930	0.0321		45	0.2786	0.0342		46	0.2664	0.0310	
38	W, Beds 200+, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	33	-0.5216	0.2443	**	33	-0.7935	0.2741	***	33	-0.8332	0.2824	***	29	-0.6131	0.3084	**
39	W, Beds 200+, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	90	0.4430	0.0502	**	95	0.3794	0.0527	*	97	0.3937	0.0475	**	99	0.4075	0.0515	**

MW=Midwest, S=South, NE=Northeast, W=West. Hospitals in Puerto Rico and the Virgin Islands were grouped in the South. Hospitals in Guam and the Marshall Islands were grouped in the West.

Mix = Urban and Rural or For Profit and Nonprofit or Teaching and Nonteaching can be found in the Hospital Group.

p value <0.001=*** <0.01=** <0.05 =* (Group Ratios compared with Overall).

Table 3.7. Average Age of Investment, Group Ratios by Year

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
0	All	4561	11.1931	0.2244		4517	11.2073	0.2347		4511	12.3039	0.4052		4456	12.4440	0.3872	
1	MW, Beds 1-99, Urban-No, Ownership: For Profit, Teaching Status: Mix	29	4.5905	0.9882	***	27	5.6362	1.1970	***	26	5.7297	1.1079	***	22	4.7523	1.0597	***
2	MW, Beds 1-99, Urban-No, Ownership: Nonprofit, Teaching Status: Mix	655	11.1974	0.3763		653	11.5417	0.4006		653	12.2669	0.4959		654	12.3374	0.3977	
3	MW, Beds 1-99, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	60	6.7291	0.5377	***	59	6.6365	1.0786	***	55	7.9658	0.7590	***	52	7.5316	0.6525	***
4	MW, Beds 1-99, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	227	14.4656	3.1488		221	14.1360	3.0824		223	18.0975	6.6099		222	17.7577	5.8887	
5	MW, Beds 100-199, Urban-No, Ownership: Mix, Teaching Status: Mix	28	9.3538	2.0999		30	11.3366	1.1180		26	11.7212	1.2958		25	9.5605	1.9239	
6	MW, Beds 100-199, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	23	5.5183	1.1098	***	24	6.0738	0.9097	***	25	6.1581	0.8509	***	21	5.9473	0.9542	***

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
7	MW, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	76	14.5949	3.9529		76	14.6121	3.7687		72	27.9065	10.0460		69	22.4812	8.5959	
8	MW, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	94	12.3112	1.8454		95	12.3393	1.8497		98	17.1586	4.5055		95	17.6652	4.4889	
9	MW, Beds 200+, Urban-Mix, Ownership: Mix, Teaching Status: Mix	185	13.3776	0.8870	*	180	13.7204	0.9579	*	184	17.1023	1.9470	*	182	17.2628	1.9074	*
10	NE, Beds 1-99, Urban-No, Ownership: Mix, Teaching Status: Mix	111	14.8879	1.3453	**	104	15.5790	1.3893	**	107	14.3361	1.2205		106	15.0013	1.3144	
11	NE, Beds 1-99, Urban-Yes, Ownership: Mix, Teaching Status: Mix	111	10.6518	1.0149		112	10.2564	0.9663		116	11.2319	0.9734		109	11.3168	0.8253	
12	NE, Beds 100-199, Urban-Mix, Ownership: Mix, Teaching Status: Mix	45	9.5958	1.3600		43	10.5650	1.5630		41	10.7608	1.7229		42	10.4039	1.3864	
13	NE, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	52	15.5338	2.8772		50	14.2271	2.3611		47	11.8523	1.0317		45	19.8511	5.3438	

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
14	NE, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	66	11.5636	0.8130		70	10.6770	1.0734		67	11.5486	1.1129		75	12.2498	0.8345	
15	NE, Beds 200+, Urban-Mix, Ownership: Mix, Teaching Status: Mix	178	11.2312	0.5932		172	10.4104	0.5590		177	10.3086	0.6444	**	175	11.7538	0.7617	
16	S, Beds 1-99, Urban-No, Ownership: For Profit, Teaching Status: Mix	121	8.0755	0.6480	***	121	9.4238	0.7061	*	116	9.8440	0.8267	**	113	7.6814	0.9254	***
17	S, Beds 1-99, Urban-No, Ownership: Nonprofit, Teaching Status: Mix	470	10.7254	0.5624		467	11.6808	0.5966		469	11.9623	0.6049		471	12.5750	0.6392	
18	S, Beds 1-99, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	190	6.8938	0.4827	***	184	7.4558	0.5589	***	181	8.2691	0.5696	***	180	7.8967	0.5840	***
19	S, Beds 1-99, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	234	9.0207	0.6865	**	234	9.4313	0.6862	*	240	9.7240	0.7183	**	231	10.1283	0.7515	**
20	S, Beds 100-199, Urban-No, Ownership: For Profit, Teaching Status: Mix	27	9.1550	0.9623	*	24	8.4677	1.3372	*	21	9.6763	2.1636		20	6.4709	1.6068	***

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
21	S, Beds 100-199, Urban-No, Ownership: Nonprofit, Teaching Status: Mix	47	10.7762	0.9054		40	11.8676	1.1938		38	12.2026	1.2241		34	13.9184	1.4206	
22	S, Beds 100-199, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	127	7.6121	0.4943	***	125	7.6751	0.5323	***	121	7.8981	0.5499	***	103	7.9559	0.7591	***
23	S, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	126	10.1986	0.8413		126	10.2721	0.7322		122	10.6196	0.8541		123	9.8301	0.8134	**
24	S, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	73	11.3596	1.3831		70	10.1042	1.3290		66	10.8001	1.2623		70	11.2412	1.2364	
25	S, Beds 200+, Urban-No, Ownership: Mix Teaching Status: Mix	18	11.8159	1.1026		20	14.0433	1.4310		16	12.5557	1.0849		17	10.9199	1.2466	
26	S, Beds 200+, Urban-Yes, Ownership: For Profit, Teaching Status: Nonteaching	44	8.9065	1.2099		43	9.6732	1.3469		38	8.7508	0.7581	***	33	9.4659	0.6752	***
27	S, Beds 200+, Urban-Yes, Ownership: For Profit, Teaching Status: Teaching	48	9.5464	0.5834	**	50	9.7849	0.7455		55	10.4719	1.0341		61	9.5219	1.0885	*

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
28	S, Beds 200+, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	84	10.9653	0.6949		80	11.1368	0.6854		86	11.4204	0.8312		86	11.7499	0.8548	
29	S, Beds 200+, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	168	10.2449	0.5148		174	10.2955	0.5884		178	10.6784	0.4886	*	179	10.9837	0.5070	*
30	W, Beds 1-99, Urban-No, Ownership: Mix, Teaching Status: Mix	286	9.3751	0.5169	**	287	10.1931	0.4476	*	290	10.7863	0.4870	*	291	10.9227	0.5309	*
31	W, Beds 1-99, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	58	5.8091	0.6397	***	60	6.1553	0.6230	***	54	7.0372	0.7274	***	53	7.1669	0.7766	***
32	W, Beds 1-99, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	142	11.3312	1.6105		138	10.4899	0.7808		143	11.0934	0.8692		146	9.2376	0.8450	***
33	W, Beds 100-199, Urban-No, Ownership: Mix, Teaching Status: Mix	13	7.8285	2.3639		13	8.2446	2.1679		10	9.3259	2.9578		10	9.1191	3.1551	
34	W, Beds 100-199, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	58	7.5497	0.7831	***	53	7.6855	0.7975	***	54	7.7768	0.7964	***	58	8.2711	0.6738	***

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
35	W, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	62	13.4619	1.2543		60	12.0989	1.1292		66	12.2950	0.9897		57	11.5234	1.1270	
36	W, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	50	13.1369	1.7190		52	13.5222	1.5793		54	13.2537	1.5621		52	12.2611	1.3866	
37	W, Beds 200+, Urban-Mix, Ownership: Nonprofit, Teaching Status: Nonteaching	50	12.5561	0.7650		49	13.4249	0.9279	*	44	13.2023	0.8667		46	12.4129	0.9444	
38	W, Beds 200+, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	33	7.1648	1.0102	***	33	6.3982	1.0813	***	33	7.7077	0.7876	***	29	8.2654	0.9055	***
39	W, Beds 200+, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	92	11.4752	0.7553		98	11.6868	0.7745		99	12.0616	0.7601		99	11.1980	0.7915	

MW=Midwest, S=South, NE=Northeast, W=West. Hospitals in Puerto Rico and the Virgin Islands were grouped in the South. Hospitals in Guam and the Marshall Islands were grouped in the West.
Mix = Urban and Rural or For Profit and Nonprofit or Teaching and Nonteaching can be found in the Hospital Group.
P value <0.001=*** <0.01=** <0.05 =* (Group Ratios compared with Overall).

Table 3.8. Current Ratio (Current Assets to Liabilities), Group Ratios by Year

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
0	All	4600	2.1595	0.0859		4558	2.3908	0.0956		4554	2.0918	0.1103		4496	2.0090	0.1007	
1	MW, Beds 1-99, Urban-No, Ownership: For Profit, Teaching Status: Mix	29	-0.9891	0.9664	**	27	-0.8536	0.7678	***	26	-0.4953	0.3652	***	22	-0.3959	0.3016	***
2	MW, Beds 1-99, Urban-No, Ownership: Nonprofit, Teaching Status: Mix	657	2.5788	0.1330	**	655	2.5687	0.1367		657	2.5960	0.2492		656	1.9922	0.1331	
3	MW, Beds 1-99, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	61	6.4690	15.8022		60	-22.8992	196.9758		56	53.1302	1123.5190		54	6.9064	19.0331	
4	MW, Beds 1-99, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	228	2.0435	0.4600		221	1.9142	0.3377		224	1.8410	0.3557		224	1.8047	0.3761	
5	MW, Beds 100-199, Urban-No, Ownership: Mix, Teaching Status: Mix	28	2.3852	0.5277		30	2.3414	0.6131		26	2.4882	0.6557		25	2.6383	0.6948	
6	MW, Beds 100-199, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	23	2.9021	0.6204		24	2.5473	0.5791		25	4.0583	1.4206		21	2.4074	1.1127	

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
7	MW, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	76	1.6698	0.4355		77	1.6580	0.3221	*	72	1.4647	0.1614	**	69	1.4377	0.2381	*
8	MW, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	96	1.8395	0.3004		97	1.8865	0.2486		99	1.7768	0.2734		96	1.6019	0.2597	
9	MW, Beds 200+, Urban-Mix, Ownership: Mix, Teaching Status: Mix	188	1.9188	0.2165		182	2.1886	0.2826		186	1.9194	0.2106		185	1.7424	0.1868	
10	NE, Beds 1-99, Urban-No, Ownership: Mix, Teaching Status: Mix	111	1.5021	0.0903	***	104	1.5688	0.1075	***	108	1.4518	0.0971	***	106	1.3328	0.0833	***
11	NE, Beds 1-99, Urban-Yes, Ownership: Mix, Teaching Status: Mix	112	1.4259	0.1679	***	112	1.4406	0.1285	***	116	1.5487	0.1574	**	108	1.5275	0.1908	*
12	NE, Beds 100-199, Urban-Mix, Ownership: Mix, Teaching Status: Mix	45	1.1115	0.3772	**	43	1.0811	0.2294	***	42	1.1455	0.2950	**	43	1.3481	0.3808	
13	NE, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	52	2.1059	0.2259		50	1.7865	0.1727	**	47	2.0269	0.2900		45	1.3798	0.1480	***

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
14	NE, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	68	1.3588	0.2018	***	71	1.8136	0.1561	**	69	1.5497	0.2006	*	76	1.7890	0.2913	
15	NE, Beds 200+, Urban-Mix, Ownership: Mix, Teaching Status: Mix	181	2.0183	0.1343		174	2.3972	0.1559		180	1.9512	0.1717		178	2.3877	0.2461	
16	S, Beds 1-99, Urban-No, Ownership: For Profit, Teaching Status: Mix	122	0.7340	0.1959	***	124	0.7461	0.2190	***	118	0.7086	0.2400	***	115	1.1757	0.6056	
17	S, Beds 1-99, Urban-No, Ownership: Nonprofit, Teaching Status: Mix	476	1.9109	0.1660		475	1.8185	0.1673	**	477	2.0750	0.1979		475	1.8573	0.1542	
18	S, Beds 1-99, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	193	2.6459	1.1312		187	1.8290	0.4644		185	1.8105	0.5588		184	1.6682	0.4649	
19	S, Beds 1-99, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	237	1.3753	0.2162	***	237	1.6477	0.3888		243	1.6080	0.6064		233	1.4020	0.4305	
20	S, Beds 100-199, Urban-No, Ownership: For Profit, Teaching Status: Mix	27	2.6502	2.1760		24	4.3327	8.9655		21	-20.1413	246.7115		20	-28.0822	629.8369	

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
21	S, Beds 100-199, Urban-No, Ownership: Nonprofit, Teaching Status: Mix	47	2.4728	0.5784		40	2.8912	0.8655		38	4.6177	2.1306		34	4.0662	2.2462	
22	S, Beds 100-199, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	127	1.1514	0.1853	***	126	1.1840	0.1689	***	121	1.5338	0.2966		103	1.1928	0.2038	***
23	S, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	126	3.5609	1.0325		126	4.7892	1.9841		122	3.9027	1.3278		123	2.9191	0.7743	
24	S, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	71	3.6213	1.1982		68	3.5223	0.9736		65	2.2857	1.0193		69	2.2969	1.0194	
25	S, Beds 200+, Urban-No, Ownership: Mix Teaching Status: Mix	18	2.7964	0.5301		20	2.3778	0.3194		17	3.0527	0.8724		18	2.8945	0.4249	*
26	S, Beds 200+, Urban-Yes, Ownership: For Profit, Teaching Status: Nonteaching	44	1.0336	0.1966	***	43	1.3420	0.3576	**	38	1.2567	0.2809	**	33	1.4141	0.2403	*
27	S, Beds 200+, Urban-Yes, Ownership: For Profit, Teaching Status: Teaching	48	1.8220	0.4376		50	1.8762	0.3975		55	2.6194	0.9131		61	1.4318	0.2808	

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
28	S, Beds 200+, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	88	4.2444	1.8466		84	4.1491	1.7648		87	3.0298	1.7628		87	2.5445	1.2713	
29	S, Beds 200+, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	172	2.3168	0.3716		178	2.7807	0.3491		182	1.9982	0.4466		182	1.9642	0.4107	
30	W, Beds 1-99, Urban-No, Ownership: Mix, Teaching Status: Mix	286	4.4856	1.2226		287	4.1629	1.0893		290	5.1098	1.6805		291	3.8065	0.8171	*
31	W, Beds 1-99, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	60	3.7218	3.4126		62	4.1288	4.9192		55	5.3927	8.9352		54	3.8857	5.4173	
32	W, Beds 1-99, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	142	1.7227	0.2854		139	1.7149	0.2727	*	144	1.4348	0.2330	*	150	1.2853	0.1810	***
33	W, Beds 100-199, Urban-No, Ownership: Mix, Teaching Status: Mix	13	-10.6005	64.4090		13	-4.0395	10.2977		10	-2.8710	5.9959		10	-3.0982	7.7993	
34	W, Beds 100-199, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	58	3.6057	1.8488		53	4.2253	3.4552		54	5.7606	7.3327		58	4.5399	5.7055	

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
35	W, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	64	2.2844	0.3241		61	2.2062	0.2716		67	2.2433	0.2792		58	2.3170	0.1997	
36	W, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	50	3.4338	1.1873		53	3.0861	1.0137		54	3.1896	1.2719		53	2.5656	0.9414	
37	W, Beds 200+, Urban-Mix, Ownership: Nonprofit, Teaching Status: Nonteaching	51	2.0444	0.3836		50	2.4161	0.5375		45	2.8084	0.6767		47	2.4513	0.6211	
38	W, Beds 200+, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	33	2.5798	0.5754		33	3.0884	0.7036		33	2.7113	0.4764		29	2.8337	0.5869	
39	W, Beds 200+, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	92	2.2355	0.2798		98	2.6048	0.4483		100	2.3046	0.3832		101	2.1537	0.2660	

MW=Midwest, S=South, NE=Northeast, W=West. Hospitals in Puerto Rico and the Virgin Islands were grouped in the South. Hospitals in Guam and the Marshall Islands were grouped in the West.
Mix = Urban and Rural or For Profit and Nonprofit or Teaching and Nonteaching can be found in the Hospital Group.
P value <0.001=*** <0.01=** <0.05 =* (Group Ratios compared with Overall).

Table 3.9. Quick Ratio (Current Assets less Inventory to Liabilities less Deferred Income), Group Ratios by Year

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
0	All	4600	2.0948	0.0839		4558	2.3348	0.0950		4554	2.0372	0.1088		4496	1.9818	0.1022	
1	MW, Beds 1-99, Urban-No, Ownership: For Profit, Teaching Status: Mix	29	-0.9122	0.9036	***	27	-0.7904	0.7221	***	26	-0.4411	0.3232	***	22	-0.3442	0.2595	***
2	MW, Beds 1-99, Urban-No, Ownership: Nonprofit, Teaching Status: Mix	657	2.4961	0.1316	*	655	2.4758	0.1353		657	2.4864	0.2441		656	2.0099	0.1404	
3	MW, Beds 1-99, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	61	6.0213	14.8204		60	-21.0114	177.0131		56	54.6884	1265.5849		54	6.5872	18.4195	
4	MW, Beds 1-99, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	228	2.0065	0.4576		221	1.8515	0.3227		224	1.7879	0.3360		224	1.6663	0.4056	
5	MW, Beds 100-199, Urban-No, Ownership: Mix, Teaching Status: Mix	28	2.2574	0.5086		30	2.2211	0.5933		26	2.3922	0.6421		25	2.6351	0.7237	
6	MW, Beds 100-199, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	23	2.7836	0.6034		24	2.4324	0.5485		25	3.9698	1.4000		21	2.2327	1.0350	

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
7	MW, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	76	1.6089	0.4106		77	1.5998	0.3016	*	72	1.4349	0.1491	**	69	1.4047	0.2230	*
8	MW, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	96	1.7681	0.2883		97	1.8354	0.2435		99	1.7373	0.2633		96	1.5778	0.2561	
9	MW, Beds 200+, Urban-Mix, Ownership: Mix, Teaching Status: Mix	188	1.8668	0.2133		182	2.1365	0.2781		186	1.8905	0.2090		185	1.7283	0.1889	
10	NE, Beds 1-99, Urban-No, Ownership: Mix, Teaching Status: Mix	111	1.4221	0.0897	***	104	1.4944	0.1081	***	108	1.3792	0.0971	***	106	1.2833	0.0843	***
11	NE, Beds 1-99, Urban-Yes, Ownership: Mix, Teaching Status: Mix	112	1.3597	0.1635	***	112	1.3689	0.1265	***	116	1.4682	0.1500	**	108	1.4507	0.1845	*
12	NE, Beds 100-199, Urban-Mix, Ownership: Mix, Teaching Status: Mix	45	1.0353	0.3532	**	43	1.0152	0.2224	***	42	1.0867	0.2821	**	43	1.3067	0.3770	
13	NE, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	52	2.0248	0.2215		50	1.6974	0.1707	**	47	1.9496	0.2872		45	1.3313	0.1524	***

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
14	NE, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	68	1.3209	0.1961	***	71	1.7588	0.1561	**	69	1.5110	0.1994	*	76	1.7804	0.3047	
15	NE, Beds 200+, Urban-Mix, Ownership: Mix, Teaching Status: Mix	181	1.9829	0.1338		174	2.3753	0.1588		180	1.9103	0.1700		178	2.3463	0.2476	
16	S, Beds 1-99, Urban-No, Ownership: For Profit, Teaching Status: Mix	122	0.6479	0.1732	***	124	0.6618	0.1951	***	118	0.6238	0.2112	***	115	1.0337	0.5334	
17	S, Beds 1-99, Urban-No, Ownership: Nonprofit, Teaching Status: Mix	476	1.8241	0.1595		475	1.7600	0.1661	**	477	1.9866	0.1930		475	1.8673	0.1612	
18	S, Beds 1-99, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	193	2.4347	1.0535		187	1.7360	0.4487		185	1.6416	0.5156		184	1.5333	0.4331	
19	S, Beds 1-99, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	237	1.3277	0.2095	***	237	1.5956	0.3777		243	1.5578	0.5989		233	1.3876	0.4396	
20	S, Beds 100-199, Urban-No, Ownership: For Profit, Teaching Status: Mix	27	2.3039	1.9033		24	3.7025	7.6757		21	-17.1419	209.9442		20	-24.0775	539.9477	

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
21	S, Beds 100-199, Urban-No, Ownership: Nonprofit, Teaching Status: Mix	47	2.3542	0.5589		40	2.7413	0.8274		38	4.4308	2.0742		34	3.9265	2.2150	
22	S, Beds 100-199, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	127	1.0167	0.1615	***	126	1.0125	0.1481	***	121	1.3243	0.2721	*	103	1.0074	0.1764	***
23	S, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	126	3.4717	1.0188		126	4.6520	1.9666		122	3.7782	1.3070		123	2.8838	0.7868	
24	S, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	71	3.5519	1.1857		68	3.5336	0.9973		65	2.2324	1.0118		69	2.2861	1.0415	
25	S, Beds 200+, Urban-No, Ownership: Mix Teaching Status: Mix	18	2.7351	0.5256		20	2.2776	0.2987		17	2.9209	0.8661		18	2.8523	0.4690	
26	S, Beds 200+, Urban-Yes, Ownership: For Profit, Teaching Status: Nonteaching	44	0.8777	0.1721	***	43	1.1472	0.3109	***	38	1.0440	0.2502	***	33	1.1656	0.1947	***
27	S, Beds 200+, Urban-Yes, Ownership: For Profit, Teaching Status: Teaching	48	1.5272	0.3717		50	1.5617	0.3388	*	55	2.1780	0.7683		61	1.1845	0.2390	**

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
28	S, Beds 200+, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	88	4.0609	1.7735		84	4.0580	1.7551		87	2.9485	1.7482		87	2.5077	1.2886	
29	S, Beds 200+, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	172	2.2676	0.3655		178	2.7339	0.3512		182	1.9393	0.4409		182	1.9803	0.4300	
30	W, Beds 1-99, Urban-No, Ownership: Mix, Teaching Status: Mix	286	4.2978	1.1856		287	4.0389	1.0813		290	4.9320	1.6453		291	3.9237	0.9037	*
31	W, Beds 1-99, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	60	3.4262	3.1345		62	3.9104	4.8025		55	5.5051	9.9775		54	4.0272	6.1524	
32	W, Beds 1-99, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	142	1.7012	0.2761		139	1.7278	0.2549	*	144	1.4176	0.2320	*	150	1.2482	0.1806	***
33	W, Beds 100-199, Urban-No, Ownership: Mix, Teaching Status: Mix	13	-9.0332	49.3061		13	-3.7915	9.6663		10	-2.7213	5.6820		10	-2.9192	7.3492	
34	W, Beds 100-199, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	58	3.4391	1.8127		53	4.0156	3.3953		54	5.5601	7.4431		58	4.4182	5.8933	

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
35	W, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	64	2.2081	0.3181		61	2.1726	0.2792		67	2.2235	0.2821		58	2.2574	0.1972	
36	W, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	50	3.3771	1.1869		53	3.1477	1.0899		54	3.2150	1.3507		53	2.5978	1.0090	
37	W, Beds 200+, Urban-Mix, Ownership: Nonprofit, Teaching Status: Nonteaching	51	2.0132	0.3816		50	2.4149	0.5556		45	2.7736	0.6860		47	2.4825	0.6593	
38	W, Beds 200+, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	33	2.4226	0.5687		33	3.0654	0.7874		33	2.6907	0.5298		29	2.6355	0.5687	
39	W, Beds 200+, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	92	2.1951	0.2794		98	2.5898	0.4539		100	2.2897	0.3888		101	2.1488	0.2717	

MW=Midwest, S=South, NE=Northeast, W=West. Hospitals in Puerto Rico and the Virgin Islands were grouped in the South. Hospitals in Guam and the Marshall Islands were grouped in the West.
Mix = Urban and Rural or For Profit and Nonprofit or Teaching and Nonteaching can be found in the Hospital Group.
P value <0.001=*** <0.01=** <0.05 =* (Group Ratios compared with Overall).

Table 3.10. Cost of Uncompensated Care to Total Cost, Group Ratios by Year

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
0	All	4554	0.0643	0.0097		4527	0.0544	0.0027		4509	0.0507	0.0016		4463	0.0500	0.0015	
1	MW, Beds 1-99, Urban-No, Ownership: For Profit, Teaching Status: Mix	29	0.0340	0.0048	**	27	0.0333	0.0037	***	25	0.0435	0.0064		22	0.0342	0.0052	**
2	MW, Beds 1-99, Urban-No, Ownership: Nonprofit, Teaching Status: Mix	656	0.0436	0.0015	*	655	0.0453	0.0016	**	655	0.0427	0.0016	***	657	0.0429	0.0013	***
3	MW, Beds 1-99, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	60	0.0352	0.0058	**	60	0.0417	0.0121		56	0.0430	0.0156		53	0.0340	0.0051	**
4	MW, Beds 1-99, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	222	0.6439	0.6010		219	0.0460	0.0035		219	0.0447	0.0041		220	0.0455	0.0035	
5	MW, Beds 100-199, Urban-No, Ownership: Mix, Teaching Status: Mix	28	0.0666	0.0163		30	0.0440	0.0035	*	26	0.0316	0.0031	***	25	0.0333	0.0038	***
6	MW, Beds 100-199, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	22	0.0415	0.0064	*	22	0.0476	0.0058		24	0.0456	0.0067		20	0.0448	0.0087	

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
7	MW, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	76	0.0441	0.0037		77	0.0439	0.0029	**	72	0.0467	0.0034		69	0.0468	0.0041	
8	MW, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	91	0.0432	0.0067		92	0.0418	0.0051	*	93	0.0412	0.0049		90	0.0440	0.0053	
9	MW, Beds 200+, Urban-Mix, Ownership: Mix, Teaching Status: Mix	184	0.0394	0.0051	*	179	0.0356	0.0031	***	181	0.0387	0.0049	*	182	0.0378	0.0026	***
10	NE, Beds 1-99, Urban-No, Ownership: Mix, Teaching Status: Mix	112	0.0399	0.0026	*	105	0.0388	0.0026	***	108	0.0362	0.0028	***	106	0.0353	0.0021	***
11	NE, Beds 1-99, Urban-Yes, Ownership: Mix, Teaching Status: Mix	107	0.0325	0.0044	**	108	0.0328	0.0043	***	111	0.0348	0.0065	*	104	0.0307	0.0033	***
12	NE, Beds 100-199, Urban-Mix, Ownership: Mix, Teaching Status: Mix	44	0.0354	0.0042	**	42	0.0354	0.0046	***	41	0.0308	0.0037	***	41	0.0316	0.0034	***
13	NE, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	50	0.0299	0.0031	***	49	0.0253	0.0023	***	46	0.0292	0.0035	***	44	0.0393	0.0109	

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
14	NE, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	67	0.0496	0.0089		70	0.0502	0.0093		67	0.0488	0.0085		74	0.0421	0.0072	
15	NE, Beds 200+, Urban-Mix, Ownership: Mix, Teaching Status: Mix	177	0.0379	0.0039	*	170	0.0343	0.0037	***	176	0.0319	0.0031	***	175	0.0293	0.0026	***
16	S, Beds 1-99, Urban-No, Ownership: For Profit, Teaching Status: Mix	120	0.0768	0.0050		122	0.0800	0.0047	***	118	0.0831	0.0055	***	116	0.0875	0.0051	***
17	S, Beds 1-99, Urban-No, Ownership: Nonprofit, Teaching Status: Mix	476	0.0939	0.0030	**	477	0.0948	0.0028	***	477	0.0976	0.0038	***	475	0.0933	0.0032	***
18	S, Beds 1-99, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	188	0.0696	0.0084		180	0.0647	0.0076		180	0.0666	0.0116		175	0.0613	0.0063	
19	S, Beds 1-99, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	229	0.1000	0.0059	**	230	0.1008	0.0058	***	231	0.0935	0.0045	***	223	0.0943	0.0061	***
20	S, Beds 100-199, Urban-No, Ownership: For Profit, Teaching Status: Mix	27	0.0736	0.0103		24	0.0711	0.0075	*	21	0.0683	0.0089		20	0.0681	0.0103	

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
21	S, Beds 100-199, Urban-No, Ownership: Nonprofit, Teaching Status: Mix	47	0.0804	0.0072		40	0.0778	0.0075	**	38	0.0719	0.0082	*	34	0.0694	0.0083	*
22	S, Beds 100-199, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	126	0.0787	0.0069		126	0.0766	0.0037	***	121	0.0767	0.0035	***	103	0.0808	0.0043	***
23	S, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	124	0.0760	0.0042		125	0.0787	0.0041	***	122	0.0769	0.0040	***	123	0.0802	0.0040	***
24	S, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	60	0.0824	0.0119		58	0.0758	0.0109		55	0.0732	0.0120		58	0.0707	0.0109	
25	S, Beds 200+, Urban-No, Ownership: Mix Teaching Status: Mix	18	0.0661	0.0087		20	0.0715	0.0088		17	0.0816	0.0121	*	18	0.0763	0.0076	***
26	S, Beds 200+, Urban-Yes, Ownership: For Profit, Teaching Status: Nonteaching	44	0.0775	0.0062		43	0.0808	0.0072	***	39	0.0803	0.0066	***	33	0.0802	0.0079	***
27	S, Beds 200+, Urban-Yes, Ownership: For Profit, Teaching Status: Teaching	48	0.0826	0.0054		50	0.0875	0.0048	***	55	0.0934	0.0052	***	61	0.0939	0.0051	***

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
28	S, Beds 200+, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	89	0.0777	0.0045		84	0.0722	0.0031	***	87	0.0732	0.0033	***	87	0.0692	0.0032	***
29	S, Beds 200+, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	168	0.0897	0.0086		171	0.0887	0.0086	***	175	0.0841	0.0073	***	176	0.0841	0.0073	***
30	W, Beds 1-99, Urban-No, Ownership: Mix, Teaching Status: Mix	285	0.0440	0.0019	*	288	0.0443	0.0017	**	287	0.0434	0.0024	*	290	0.0460	0.0031	
31	W, Beds 1-99, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	59	0.0274	0.0030	***	61	0.0292	0.0035	***	55	0.0379	0.0116		53	0.0286	0.0036	***
32	W, Beds 1-99, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	142	0.0324	0.0018	**	139	0.0336	0.0020	***	146	0.0329	0.0021	***	154	0.0368	0.0034	***
33	W, Beds 100-199, Urban-No, Ownership: Mix, Teaching Status: Mix	12	0.0451	0.0112		13	0.0328	0.0047	***	10	0.0339	0.0077	*	10	0.0328	0.0074	*
34	W, Beds 100-199, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	57	0.0295	0.0030	***	53	0.0330	0.0025	***	54	0.0309	0.0022	***	58	0.0319	0.0023	***

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
35	W, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	63	0.0308	0.0022	***	61	0.0323	0.0017	***	67	0.0308	0.0024	***	60	0.0304	0.0020	***
36	W, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	61	0.0480	0.0187		65	0.0527	0.0243		66	0.0300	0.0036	***	63	0.0314	0.0046	***
37	W, Beds 200+, Urban-Mix, Ownership: Nonprofit, Teaching Status: Nonteaching	51	0.0245	0.0026	***	50	0.0248	0.0013	***	46	0.0248	0.0012	***	48	0.0260	0.0012	***
38	W, Beds 200+, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	33	0.0253	0.0030	***	33	0.0298	0.0030	***	33	0.0292	0.0030	***	29	0.0324	0.0035	***
39	W, Beds 200+, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	102	0.0479	0.0191		109	0.0524	0.0212		109	0.0275	0.0022	***	114	0.0277	0.0023	***

MW=Midwest, S=South, NE=Northeast, W=West. Hospitals in Puerto Rico and the Virgin Islands were grouped in the South. Hospitals in Guam and the Marshall Islands were grouped in the West.
Mix = Urban and Rural or For Profit and Nonprofit or Teaching and Nonteaching can be found in the Hospital Group.
P value <0.001=*** <0.01=** <0.05 =* (Group Ratios compared with Overall).

Table 3.11. Cost of Unreimbursed and Uncompensated Care to Total Cost, Group Ratios by Year

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
0	All	4562	0.1093	0.0137		4540	0.1012	0.0111		4525	0.0840	0.0021		4474	0.0858	0.0021	
1	MW, Beds 1-99, Urban-No, Ownership: For Profit, Teaching Status: Mix	29	0.0696	0.0092	*	27	0.0716	0.0110		26	0.0806	0.0126		22	0.0678	0.0066	**
2	MW, Beds 1-99, Urban-No, Ownership: Nonprofit, Teaching Status: Mix	656	0.0818	0.0022	*	657	0.0843	0.0024		656	0.0823	0.0025		657	0.0849	0.0021	
3	MW, Beds 1-99, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	60	0.0549	0.0058	***	61	0.0663	0.0109	*	57	0.0639	0.0144		54	0.0606	0.0092	**
4	MW, Beds 1-99, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	222	0.6860	0.6014		219	0.0859	0.0045		219	0.0869	0.0051		220	0.0919	0.0050	
5	MW, Beds 100-199, Urban-No, Ownership: Mix, Teaching Status: Mix	28	0.1040	0.0209		30	0.0915	0.0105		26	0.0844	0.0102		25	0.0775	0.0123	
6	MW, Beds 100-199, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	22	0.0660	0.0084	**	22	0.0784	0.0092		24	0.0731	0.0079		20	0.0717	0.0117	

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
7	MW, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	76	0.0842	0.0049		77	0.0864	0.0044		72	0.0872	0.0053		69	0.0928	0.0063	
8	MW, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	91	0.0831	0.0090		92	0.0773	0.0053		93	0.0769	0.0051		90	0.0780	0.0050	
9	MW, Beds 200+, Urban-Mix, Ownership: Mix, Teaching Status: Mix	184	0.0661	0.0066	**	179	0.0619	0.0045	**	181	0.0636	0.0062	**	182	0.0652	0.0041	***
10	NE, Beds 1-99, Urban-No, Ownership: Mix, Teaching Status: Mix	112	0.0825	0.0042		105	0.0824	0.0039		108	0.0754	0.0037	*	106	0.0798	0.0035	
11	NE, Beds 1-99, Urban-Yes, Ownership: Mix, Teaching Status: Mix	107	0.0765	0.0126		108	0.0820	0.0152		112	0.0740	0.0101		104	0.0715	0.0077	
12	NE, Beds 100-199, Urban-Mix, Ownership: Mix, Teaching Status: Mix	44	0.0701	0.0066	**	42	0.0714	0.0070	*	41	0.0664	0.0062	**	41	0.0696	0.0080	
13	NE, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	51	0.0616	0.0069	**	49	0.0563	0.0048	***	46	0.0581	0.0046	***	44	0.0726	0.0119	

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
14	NE, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	67	0.1049	0.0184		70	0.1030	0.0229		68	0.0982	0.0170		74	0.0998	0.0170	
15	NE, Beds 200+, Urban-Mix, Ownership: Mix, Teaching Status: Mix	177	0.0779	0.0076	*	170	0.0751	0.0082		176	0.0723	0.0065		175	0.0759	0.0068	
16	S, Beds 1-99, Urban-No, Ownership: For Profit, Teaching Status: Mix	121	0.1052	0.0059		123	0.1093	0.0057		118	0.1112	0.0066	***	116	0.1213	0.0062	***
17	S, Beds 1-99, Urban-No, Ownership: Nonprofit, Teaching Status: Mix	476	0.1188	0.0038		477	0.1179	0.0037		478	0.1210	0.0045	***	475	0.1144	0.0041	***
18	S, Beds 1-99, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	190	0.0876	0.0082		184	0.0856	0.0083		183	0.0859	0.0115		179	0.0759	0.0067	
19	S, Beds 1-99, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	230	0.1281	0.0101		231	0.1256	0.0093		233	0.1198	0.0064	***	224	0.1224	0.0093	***
20	S, Beds 100-199, Urban-No, Ownership: For Profit, Teaching Status: Mix	27	0.0952	0.0108		24	0.0931	0.0070		21	0.0837	0.0105		20	0.0827	0.0119	

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
21	S, Beds 100-199, Urban-No, Ownership: Nonprofit, Teaching Status: Mix	47	0.0981	0.0067		40	0.0933	0.0068		38	0.0871	0.0067		34	0.0797	0.0084	
22	S, Beds 100-199, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	127	0.1027	0.0073		126	0.1036	0.0048		121	0.1013	0.0048	***	103	0.1157	0.0181	
23	S, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	124	0.0948	0.0050		125	0.0965	0.0044		122	0.0968	0.0049	*	123	0.0972	0.0046	*
24	S, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	60	0.1033	0.0132		59	0.0968	0.0123		56	0.0894	0.0128		60	0.0865	0.0116	
25	S, Beds 200+, Urban-No, Ownership: Mix Teaching Status: Mix	18	0.0802	0.0080		20	0.0828	0.0074		17	0.0921	0.0106		18	0.0890	0.0069	
26	S, Beds 200+, Urban-Yes, Ownership: For Profit, Teaching Status: Nonteaching	44	0.0991	0.0072		43	0.0994	0.0080		39	0.1008	0.0081	*	33	0.1038	0.0101	
27	S, Beds 200+, Urban-Yes, Ownership: For Profit, Teaching Status: Teaching	48	0.1073	0.0060		50	0.1105	0.0073		55	0.1192	0.0081	***	61	0.1215	0.0074	***

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
28	S, Beds 200+, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	89	0.0932	0.0051		84	0.0891	0.0043		87	0.0928	0.0051		87	0.0890	0.0049	
29	S, Beds 200+, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	168	0.1048	0.0091		171	0.1048	0.0088		175	0.0984	0.0080		176	0.1019	0.0082	
30	W, Beds 1-99, Urban-No, Ownership: Mix, Teaching Status: Mix	286	0.0858	0.0034		290	0.0834	0.0043		290	0.0811	0.0045		291	0.0786	0.0057	
31	W, Beds 1-99, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	59	0.0834	0.0103		61	0.0836	0.0122		55	0.0873	0.0145		54	0.0692	0.0101	
32	W, Beds 1-99, Urban-Yes, Ownership: Nonprofit, Teaching Status: Mix	142	0.1026	0.0072		139	0.0920	0.0071		147	0.0915	0.0071		155	0.0990	0.0090	
33	W, Beds 100-199, Urban-No, Ownership: Mix, Teaching Status: Mix	12	0.0634	0.0153	*	13	0.0651	0.0089	*	10	0.0747	0.0081		10	0.0722	0.0144	
34	W, Beds 100-199, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	57	0.0865	0.0080		53	0.0835	0.0093		54	0.0799	0.0074		58	0.0855	0.0073	

Hospital Group	Hospital Group Type	2016				2017				2018				2019			
		N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig	N	Ratio	SE	Sig
35	W, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Nonteaching	63	0.0978	0.0086		61	0.0936	0.0074		67	0.0914	0.0077		60	0.0851	0.0088	
36	W, Beds 100-199, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	61	0.1715	0.0811		65	0.1692	0.0856		66	0.0892	0.0135		63	0.0869	0.0127	
37	W, Beds 200+, Urban-Mix, Ownership: Nonprofit, Teaching Status: Nonteaching	52	0.0843	0.0065		51	0.0721	0.0051	*	46	0.0794	0.0056		48	0.0737	0.0053	*
38	W, Beds 200+, Urban-Yes, Ownership: For Profit, Teaching Status: Mix	33	0.0796	0.0090		33	0.0806	0.0094		33	0.0736	0.0104		29	0.0784	0.0111	
39	W, Beds 200+, Urban-Yes, Ownership: Nonprofit, Teaching Status: Teaching	102	0.1974	0.1053		109	0.2201	0.1104		109	0.0775	0.0077		114	0.0827	0.0075	

MW=Midwest, S=South, NE=Northeast, W=West. Hospitals in Puerto Rico and the Virgin Islands were grouped in the South. Hospitals in Guam and the Marshall Islands were grouped in the West.

Mix = Urban and Rural or For Profit and Nonprofit or Teaching and Nonteaching can be found in the Hospital Group.

P value <0.001=*** <0.01=** <0.05 =* (Group Ratios compared with Overall).

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APPENDIX A. KEY VARIABLES USED TO GENERATE THE FINANCIAL PERFORMANCE MEASURES

Variable	Definition
Buildings	Cost of all buildings and subsequent additions used in hospital operations, including purchase price, closing costs (attorney fees, title insurance, etc.), and real estate broker commission. Included are all architectural, consulting, and legal fees related to the acquisition or construction of buildings and interest paid for construction financing.
Deferred income	Income received or accrued that is applicable to services to be rendered within the next accounting period.
Depreciation cost	Depreciation cost.
Fixed equipment	Includes the cost of building equipment that has the following general characteristics: (1) Affixed to the building, not subject to transfer or removal; (2) A life of more than 1 year but less than that of the building to which it is affixed; and (3) Used in hospital operations. Fixed equipment includes such items as boilers, generators, engines, pumps, and refrigeration machinery, as well as wiring, electrical fixtures, plumbing, elevators, heating system, air conditioning system, etc.
General fund balance	The difference between the total of General Fund Assets and General Fund Liabilities.
Health information technology designated assets	Acquisition costs of health information technology acquired assets in accordance with the American Recovery and Reinvestment Act 2009, §4102. Public Law 111–5—Feb. 17, 2009 123 Stat. 477-486. https://www.congress.gov/111/plaws/publ5/PLAW-111publ5.pdf.
Inpatient revenue	Inpatient portion of the sum of Total Inpatient Routine Care Services, Ancillary Services, Outpatient Services, Home Health Agency, Ambulance Services, Outpatient Rehabilitation Providers, Ambulatory Surgical Center(s), Hospice, and other revenues reported on the Statement of Patient Revenues and Operating Expenses.
Inventory	Costs of unused hospital supplies.
Land	Cost of land used in hospital operations. Included here is the cost of offsite sewer and water lines, public utility, charges for servicing the land, governmental assessments for street paving and sewers, and cost of permanent roadways and grading of a nondepreciable nature.
Land improvements	Include structural additions made to land, such as driveways, parking lots, and sidewalks, as well as the cost of shrubbery, fences and walls, landscaping, onsite sewer and water lines, and underground sprinklers. The cost of land improvements includes all expenditures needed to make the improvements ready for their intended use.
Leasehold improvements	All expenditures for the improvement of a leasehold used in hospital operations.
Major movable equipment	Costs of equipment including the following general characteristics: (1) Ability to be moved, as distinguished from fixed equipment (but not automobiles or trucks); (2) A more or less fixed location in the building; (3) A unit cost large enough to justify the expense incident to control by means of an equipment ledger and greater than or equal to $5,000; (4) Sufficient individuality and size to make control feasible by means of identification tags; (5) A minimum life of usually 3 years or more; and (6) Used in hospital operations.

Variable	Definition
Minor equipment depreciable	Costs of equipment including the following general characteristics: (1) Ability to be moved, as distinguished from fixed equipment; (2) A more or less fixed location in the building; (3) A unit cost large enough to justify the expense incident to control by means of an equipment ledger but less than $5,000; (4) Sufficient individuality and size to make control feasible by means of identification tags; (5) A minimum life of usually 3 years or more; and (6) Used in hospital operations.
Net income	Calculated by subtracting Total Other Expenses from Total Income reported on the Statement of Revenues and Expenses.
Total assets	Sum of all assets reported on the Balance Sheet. The figure is arrived at by adding Total Current Assets, Total Fixed Assets, and Total Other Assets.
Total costs	Total hospital costs.
Total fixed assets	Sum of all fixed assets as represented on the Balance Sheet.
Total liabilities	Sum of Total Current Liabilities on the Balance Sheet.
Total long-term liabilities	Sum of all Long-Term Liabilities reported on the Balance Sheet.
Total uncompensated care	Total cost of non-Medicare uncompensated care.
Total unreimbursed and uncompensated care	Total unreimbursed and uncompensated care.

Source: Medicare Hospital Cost Report, Public Use Files, Data Dictionary.

APPENDIX B. REGRESSION RESULTS

Approach

Weighted regression serves as a remedy for heteroscedasticity, with greater importance assigned to observations exhibiting lower variance due to their more dependable contribution to the regression function compared with high-variance observations. We used the following approach proposed by Neter, et al. (1996)[ii] for estimating regression coefficients in the presence of heteroscedasticity:

1. Initiate the regression model using unweighted least squares and assess the residuals (ϵ).
2. Determine the variance function by regressing squared residuals (ϵ^2) on appropriate predictors (e.g., log-transformed actual bed size and reporting days).
3. Use the fitted values from the derived variance function to establish weights ($w_i = 1/\sigma^2$).
4. Estimate regression coefficients using these weights.

Sixty regression models were evaluated for each of the 12 financial measures and years (2016, 2017, 2018, 2019, and all years). The multiple linear regression equation of the least stage follows:

$$y_{i,t} = \beta_{0,i,t} + \beta_{1,i,t}x_{1,i,t} + \beta_{2,i,t}x_{2,i,t} + \beta_{3,i,t}x_{3,i,t} + \beta_{4,i,t,h}x_{4,i,t} + \beta_{5,i,t}x_{5,i,t} + \beta_{6,i,t}x_{6,i,t} + \beta_{7,i,t}x_{7,i,t}$$

with weights $w_{i,t,h} = \dfrac{1}{\sigma^2_{i,t,h}}$

where i is the financial measure, t is the year, and h is the hospital. y is the predicted or expected value of the dependent variable, x_1 through x_7 are 7 distinct independent or predictor variables, β_0 is the value of y when all the independent variables (x_1 through x_6) are equal to zero, and β_1 through β_7 are the estimated regression coefficients.

The independent effects of specific hospital characteristics were evaluated in the regression models, including:

1. Ownership (for-profit, nonprofit/government),
2. Region (South, West, Northeast, Midwest, Other),
3. Teaching status (teaching, nonteaching),
4. Location (urban, rural),
5. Bed turnaround rate (total discharges/bed size), and
6. Bed size (small, medium, large). For bed size, two dummy variables (small and medium) were created.

Results

The final regression models were evaluated based on the performance of the fits R^2. Table B.1 shows the R^2. Table B.2 summarizes the significant variables from selected models, and Table B.3 shows all results.

The examination reveals that the attributes region, ownership, and teaching status consistently exhibited noteworthy independent effects across most years and financial measures.

[ii] Neter J, Kutner MH, Nachtsheim CJ, Wasserman W. Applied Linear Statistical Models, 4th ed. New York, NY: WCB McGraw-Hill; 1996.

Intriguingly, certain years display considerable deviations from this trend. In contrast, characteristics of bed size and location show infrequent significant effects.

In addition, several other metrics (e.g., bed turnover rate) showcase notable explainable variation. The use of high-performing years and financial measures' data resulted in fitted models exhibiting an average R^2 value of 0.48.

Table B.1. R^2 of regression models

	Net Income to Total Revenue From All Sources	Average Age of Fixed Assets	Net Revenue Margin to Patient Revenue	Net Revenue Margin to Total Cost	Net Income to Total Fixed Assets	Net Income to General Fund Balance or Equity	Debt Burdens to Total Assets (Leverage)	Current Ratio	Quick Ratio	Burden of Uncompensated Care Cost	Burden of Unreimbursed and Uncompensated Care Cost
All Years	0.000	0.018	0.000	0.126	0.000	0.000	0.191	0.000	0.000	0.528	0.916
2016	0.986	0.333	0.000	0.080	0.001	0.002	0.065	0.001	0.001	0.106	0.058
2017	0.378	0.894	0.017	0.054	0.572	0.001	0.041	0.002	0.002	0.236	0.146
2018	0.112	0.028	0.881	0.171	0.117	0.149	0.045	0.015	0.024	0.211	0.066
2019	0.001	0.059	0.255	0.139	0.000	0.048	0.061	0.065	0.067	0.313	0.080

* Shaded models are selected to inform significance of independent variables.

** Average R^2 of selected models: 0.48.

Table B.2. Significant independent variables of selected regression models

Variables	Net Income to Total Revenue From All Sources	Average Age of Fixed Assets	Net Revenue Margin to Patient Revenue	Net Revenue Margin to Total Cost	Net Income to General Fund Balance or Equity	Net Income to Total Fixed Assets	Debt Burdens to Total Assets (Leverage)	Current Ratio	Quick Ratio	Burden of Uncompensated Care Cost	Burden of Unreimbursed and Uncompensated Care Cost	Score
Location	X		X		X	X	X	X	X	X	X	9
Ownership	X	X	X	X	X	X	X	X	X	X	X	11
Teaching Status	X	X	X	X	X		X			X	X	8
Region	X	X	X	X			X			X	X	7
Bed Turnover Rate	X	X	X	X	X	X	X	X	X		X	10
Hospital Size		X	X								X	3
Ownership*Teaching status	X	X	X				X			X		5
Year							X				X	2

Table B.3. Regression results

	Net Income to Total Revenue From All Sources (2016)			Average Age of Fixed Assets (2019)			Net Revenue Margin to Patient Revenue (2017)			Net Revenue Margin to Total Cost (2018)			Net Income to Total Fixed Assets (2017)		
	Estimate	Std. Error	Pr(>|t|)	Estimate	Std. Error	Pr(>|t|)	Estimate	Std. Error	Pr(>|t|)	Estimate	Std. Error	Pr(>|t|)	Estimate	Std. Error	Pr(>|t|)
Intercept	-0.585	0.027	0.000	53.517	68.532	0.435	1.731	0.256	0	0.09	0.201	0.654	-0.697	7.425	0.925
Location: Urban	0.014	0.004	0.000	-100.047	68.725	0.146	0.48	0.254	0.058	0.007	0.197	0.97	0.757	0.022	0.000
Ownership: For Profit	0.016	0.004	0.000	-72.389	19.325	0.000	-0.531	0.012	0	0.363	0.094	0.0001	1.094	0.022	0.000
Teaching Status: Teaching	-0.020	0.004	0.000	-139.892	8.943	0.000	-0.208	0.009	0	-0.49	0.013	0	0.709	1.670	0.671
Region: Northeast	-0.063	0.004	0.000	-13.979	6.388	0.029	-0.368	0.005	0	-0.129	0.015	0	-0.044	1.670	0.979
Region: Other	-0.148	0.003	0.000	28.660	85.306	0.737	-0.817	0.062	0.096	-0.503	0.369	0.173	-1.135	15.488	0.942
Region: South	-0.015	0.002	0.000	10.677	6.640	0.108	-0.301	0.003	0	-0.122	0.018	0	0.070	1.670	0.967
Region: West	-0.026	0.003	0.000	34.909	9.514	0.000	-0.203	0.009	0	-0.971	0.015	0	0.497	1.670	0.766
Bed Turnover Rate	0.166	0.007	0.000	2.655	0.192	0.000	-0.002	0	0	0.011	0.001	0	0.002	0.000	0.000
Bed Size: Small	0.054	0.038	0.148	-134.819	21.191	0.000	-0.552	0.048	0.084	-0.134	0.179	0.453	0.037	7.164	0.996
Ownership*Teaching Status	0.029	0.008	0.001	87.834	22.135	0.000	0.889	0.041	0	-0.076	0.123	0.535	-1.856	6.783	0.784
Year: 2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Year: 2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Year: 2019	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Pr= Probability, NA = not applicable, Region: Other = Hospitals in Puerto Rico, Guam, Marshall Islands, and Virgin Islands.

Table B.3. Regression results (cont'd.)

	Net Income to General Fund Balance or Equity (2018)			Debt Burdens to Total Assets (Leverage) (All Years)			Current Ratio (2019)			Quick Ratio (2019)			Burden of Uncompensated Care Cost (All Years)		
	Estimate	Std. Error	Pr(>|t|)	Estimate	Std. Error	Pr(>|t|)	Estimate	Std. Error	Pr(>|t|)	Estimate	Std. Error	Pr(>|t|)	Estimate	Std. Error	Pr(>|t|)
Intercept	0.081	0.599	0.892	0.271	0.324	0.403	3.006	6.779	0.657	4.191	2.512	0.095	0.389	0.012	0.000
Location: Urban	-0.772	0.040	0.000	0.044	0.025	0.084	-1.491	0.168	0.000	-1.748	0.164	0.000	0.017	0.009	0.061
Ownership: For Profit	1.903	0.155	0.000	0.956	0.033	0.000	1.923	0.172	0.000	2.329	0.197	0.000	-0.077	0.007	0.000
Teaching Status: Teaching	1.246	0.461	0.007	-0.600	0.075	0.000	-0.532	0.570	0.351	0.631	0.552	0.253	0.006	0.006	0.299
Region: Northeast	0.243	0.350	0.488	1.539	0.053	0.000	-0.231	0.378	0.541	-0.331	0.338	0.328	0.038	0.007	0.000
Region: Other	-0.421	2.757	0.879	-0.121	0.525	0.818	-2.237	27.768	0.936	-1.685	10.345	0.871	-0.157	0.013	0.000
Region: South	0.044	0.061	0.478	-0.521	0.030	0.000	-0.395	0.179	0.027	0.405	0.185	0.029	0.026	0.005	0.000
Region: West	0.554	0.036	0.000	0.233	0.030	0.000	0.906	0.237	0.000	0.123	0.208	0.556	0.027	0.007	0.000
Bed Turnover Rate	-0.007	0.001	0.000	0.002	0.000	0.001	0.025	0.003	0.000	-0.007	0.004	0.064	-0.005	0.000	0.000
Bed Size: Small	-0.175	0.598	0.769	-0.200	0.322	0.534	-0.092	6.778	0.989	-0.818	2.506	0.744	-0.254	0.016	0.000
Ownership*Teaching Status	-0.688	0.693	0.321	-5.002	0.157	0.000	-2.553	7.496	0.733	-3.436	2.567	0.181	0.059	0.009	0.000
Year: 2017	NA	NA	NA	0.172	0.032	0.000	NA	NA	NA	NA	NA	NA	-0.012	0.005	0.035
Year: 2018	NA	NA	NA	0.282	0.030	0.000	NA	NA	NA	NA	NA	NA	-0.049	0.005	0.000
Year: 2019	NA	NA	NA	0.264	0.031	0.000	NA	NA	NA	NA	NA	NA	-0.117	0.001	0.000

Pr= Probability, NA = not applicable, Region : Other = Hospitals in Puerto Rico, Guam, Marshall Islands, and Virgin Islands.

APPENDIX C. HIERARCHICAL GROUPINGS

Table C.1. 2016 hierarchical grouping

Region	Bed size	Location	Ownership	Teaching status	N	Hospital Group
Midwest	1-99	Rural	For Profit	Nonteaching	28	1
Midwest	1-99	Rural	For Profit	Teaching	1	1
Midwest	1-99	Rural	Nonprofit	Nonteaching	646	2
Midwest	1-99	Rural	Nonprofit	Teaching	11	2
Midwest	1-99	Urban	For Profit	Nonteaching	51	3
Midwest	1-99	Urban	For Profit	Teaching	11	3
Midwest	1-99	Urban	Nonprofit	Nonteaching	204	4
Midwest	1-99	Urban	Nonprofit	Teaching	25	4
Midwest	100-199	Rural	For Profit	Nonteaching	1	5
Midwest	100-199	Rural	Nonprofit	Nonteaching	18	5
Midwest	100-199	Rural	Nonprofit	Teaching	9	5
Midwest	100-199	Urban	For Profit	Nonteaching	12	6
Midwest	100-199	Urban	For Profit	Teaching	11	6
Midwest	100-199	Urban	Nonprofit	Nonteaching	76	7
Midwest	100-199	Urban	Nonprofit	Teaching	96	8
Midwest	200+	Rural	For Profit	Teaching	1	9
Midwest	200+	Rural	Nonprofit	Nonteaching	1	9
Midwest	200+	Rural	Nonprofit	Teaching	3	9
Midwest	200+	Urban	For Profit	Nonteaching	3	9
Midwest	200+	Urban	For Profit	Teaching	5	9
Midwest	200+	Urban	Nonprofit	Nonteaching	34	9
Midwest	200+	Urban	Nonprofit	Teaching	141	9
Northeast	1-99	Rural	For Profit	Nonteaching	5	10
Northeast	1-99	Rural	Nonprofit	Nonteaching	103	10
Northeast	1-99	Rural	Nonprofit	Teaching	4	10
Northeast	1-99	Urban	For Profit	Nonteaching	20	11
Northeast	1-99	Urban	For Profit	Teaching	6	11
Northeast	1-99	Urban	Nonprofit	Nonteaching	71	11
Northeast	1-99	Urban	Nonprofit	Teaching	17	11
Northeast	100-199	Rural	Nonprofit	Nonteaching	7	12
Northeast	100-199	Rural	Nonprofit	Teaching	6	12
Northeast	100-199	Urban	For Profit	Nonteaching	13	12
Northeast	100-199	Urban	For Profit	Teaching	19	12
Northeast	100-199	Urban	Nonprofit	Nonteaching	52	13
Northeast	100-199	Urban	Nonprofit	Teaching	68	14
Northeast	200+	Rural	Nonprofit	Teaching	3	15
Northeast	200+	Urban	For Profit	Nonteaching	1	15
Northeast	200+	Urban	For Profit	Teaching	8	15
Northeast	200+	Urban	Nonprofit	Nonteaching	28	15
Northeast	200+	Urban	Nonprofit	Teaching	141	15
South	1-99	Rural	For Profit	Nonteaching	120	16
South	1-99	Rural	For Profit	Teaching	2	16

Region	Bed size	Location	Ownership	Teaching status	N	Hospital Group
South	1-99	Rural	Nonprofit	Nonteaching	463	17
South	1-99	Rural	Nonprofit	Teaching	13	17
South	1-99	Urban	For Profit	Nonteaching	187	18
South	1-99	Urban	For Profit	Teaching	8	18
South	1-99	Urban	Nonprofit	Nonteaching	213	19
South	1-99	Urban	Nonprofit	Teaching	25	19
South	100-199	Rural	For Profit	Nonteaching	24	20
South	100-199	Rural	For Profit	Teaching	3	20
South	100-199	Rural	Nonprofit	Nonteaching	36	21
South	100-199	Rural	Nonprofit	Teaching	11	21
South	100-199	Urban	For Profit	Nonteaching	103	22
South	100-199	Urban	For Profit	Teaching	24	22
South	100-199	Urban	Nonprofit	Nonteaching	126	23
South	100-199	Urban	Nonprofit	Teaching	74	24
South	200+	Rural	For Profit	Nonteaching	3	25
South	200+	Rural	For Profit	Teaching	1	25
South	200+	Rural	Nonprofit	Nonteaching	9	25
South	200+	Rural	Nonprofit	Teaching	5	25
South	200+	Urban	For Profit	Nonteaching	44	26
South	200+	Urban	For Profit	Teaching	48	27
South	200+	Urban	Nonprofit	Nonteaching	89	28
South	200+	Urban	Nonprofit	Teaching	172	29
West	1-99	Rural	For Profit	Nonteaching	16	30
West	1-99	Rural	Nonprofit	Nonteaching	269	30
West	1-99	Rural	Nonprofit	Teaching	8	30
West	1-99	Urban	For Profit	Nonteaching	53	31
West	1-99	Urban	For Profit	Teaching	7	31
West	1-99	Urban	Nonprofit	Nonteaching	129	32
West	1-99	Urban	Nonprofit	Teaching	19	32
West	100-199	Rural	For Profit	Nonteaching	3	33
West	100-199	Rural	Nonprofit	Nonteaching	7	33
West	100-199	Rural	Nonprofit	Teaching	3	33
West	100-199	Urban	For Profit	Nonteaching	42	34
West	100-199	Urban	For Profit	Teaching	16	34
West	100-199	Urban	Nonprofit	Nonteaching	65	35
West	100-199	Urban	Nonprofit	Teaching	67	36
West	200+	Rural	Nonprofit	Nonteaching	1	37
West	200+	Urban	For Profit	Nonteaching	17	38
West	200+	Urban	For Profit	Teaching	16	38
West	200+	Urban	Nonprofit	Nonteaching	51	37
West	200+	Urban	Nonprofit	Teaching	109	39

Hospitals in Puerto Rico and the Virgin Islands are grouped in the South. Hospitals in Guam and the Marshall Islands are grouped in the West.

Table C.2. 2017 hierarchical grouping

Region	Bed size	Location	Ownership	Teaching status	N	Hospital Group
Midwest	1-99	Rural	For Profit	Nonteaching	26	1
Midwest	1-99	Rural	For Profit	Teaching	1	1
Midwest	1-99	Rural	Nonprofit	Nonteaching	646	2
Midwest	1-99	Rural	Nonprofit	Teaching	11	2
Midwest	1-99	Urban	For Profit	Nonteaching	52	3
Midwest	1-99	Urban	For Profit	Teaching	9	3
Midwest	1-99	Urban	Nonprofit	Nonteaching	199	4
Midwest	1-99	Urban	Nonprofit	Teaching	26	4
Midwest	100-199	Rural	For Profit	Nonteaching	2	5
Midwest	100-199	Rural	Nonprofit	Nonteaching	18	5
Midwest	100-199	Rural	Nonprofit	Teaching	10	5
Midwest	100-199	Urban	For Profit	Nonteaching	12	6
Midwest	100-199	Urban	For Profit	Teaching	12	6
Midwest	100-199	Urban	Nonprofit	Nonteaching	77	7
Midwest	100-199	Urban	Nonprofit	Teaching	98	8
Midwest	200+	Rural	For Profit	Teaching	1	9
Midwest	200+	Rural	Nonprofit	Nonteaching	1	9
Midwest	200+	Rural	Nonprofit	Teaching	2	9
Midwest	200+	Urban	For Profit	Nonteaching	2	9
Midwest	200+	Urban	For Profit	Teaching	5	9
Midwest	200+	Urban	Nonprofit	Nonteaching	32	9
Midwest	200+	Urban	Nonprofit	Teaching	140	9
Northeast	1-99	Rural	For Profit	Nonteaching	1	10
Northeast	1-99	Rural	Nonprofit	Nonteaching	100	10
Northeast	1-99	Rural	Nonprofit	Teaching	4	10
Northeast	1-99	Urban	For Profit	Nonteaching	19	11
Northeast	1-99	Urban	For Profit	Teaching	3	11
Northeast	1-99	Urban	Nonprofit	Nonteaching	73	11
Northeast	1-99	Urban	Nonprofit	Teaching	19	11
Northeast	100-199	Rural	Nonprofit	Nonteaching	6	12
Northeast	100-199	Rural	Nonprofit	Teaching	9	12
Northeast	100-199	Urban	For Profit	Nonteaching	10	12
Northeast	100-199	Urban	For Profit	Teaching	18	12
Northeast	100-199	Urban	Nonprofit	Nonteaching	50	13
Northeast	100-199	Urban	Nonprofit	Teaching	71	14
Northeast	200+	Rural	Nonprofit	Teaching	3	15
Northeast	200+	Urban	For Profit	Nonteaching	1	15
Northeast	200+	Urban	For Profit	Teaching	9	15
Northeast	200+	Urban	Nonprofit	Nonteaching	22	15
Northeast	200+	Urban	Nonprofit	Teaching	139	15
South	1-99	Rural	For Profit	Nonteaching	121	16
South	1-99	Rural	For Profit	Teaching	3	16
South	1-99	Rural	Nonprofit	Nonteaching	464	17
South	1-99	Rural	Nonprofit	Teaching	13	17

Region	Bed size	Location	Ownership	Teaching status	N	Hospital Group
South	1-99	Urban	For Profit	Nonteaching	182	18
South	1-99	Urban	For Profit	Teaching	8	18
South	1-99	Urban	Nonprofit	Nonteaching	216	19
South	1-99	Urban	Nonprofit	Teaching	22	19
South	100-199	Rural	For Profit	Nonteaching	22	20
South	100-199	Rural	For Profit	Teaching	2	20
South	100-199	Rural	Nonprofit	Nonteaching	29	21
South	100-199	Rural	Nonprofit	Teaching	11	21
South	100-199	Urban	For Profit	Nonteaching	97	22
South	100-199	Urban	For Profit	Teaching	29	22
South	100-199	Urban	Nonprofit	Nonteaching	126	23
South	100-199	Urban	Nonprofit	Teaching	70	24
South	200+	Rural	For Profit	Nonteaching	2	25
South	200+	Rural	For Profit	Teaching	2	25
South	200+	Rural	Nonprofit	Nonteaching	8	25
South	200+	Rural	Nonprofit	Teaching	8	25
South	200+	Urban	For Profit	Nonteaching	43	26
South	200+	Urban	For Profit	Teaching	50	27
South	200+	Urban	Nonprofit	Nonteaching	84	28
South	200+	Urban	Nonprofit	Teaching	179	29
West	1-99	Rural	For Profit	Nonteaching	16	30
West	1-99	Rural	Nonprofit	Nonteaching	275	30
West	1-99	Rural	Nonprofit	Teaching	5	30
West	1-99	Urban	For Profit	Nonteaching	56	31
West	1-99	Urban	For Profit	Teaching	6	31
West	1-99	Urban	Nonprofit	Nonteaching	126	32
West	1-99	Urban	Nonprofit	Teaching	19	32
West	100-199	Rural	For Profit	Nonteaching	3	33
West	100-199	Rural	Nonprofit	Nonteaching	5	33
West	100-199	Rural	Nonprofit	Teaching	5	33
West	100-199	Urban	For Profit	Nonteaching	37	34
West	100-199	Urban	For Profit	Teaching	16	34
West	100-199	Urban	Nonprofit	Nonteaching	63	35
West	100-199	Urban	Nonprofit	Teaching	70	36
West	200+	Urban	For Profit	Nonteaching	18	38
West	200+	Urban	For Profit	Teaching	15	38
West	200+	Urban	Nonprofit	Nonteaching	51	37
West	200+	Urban	Nonprofit	Teaching	115	39

Hospitals in Puerto Rico and the Virgin Islands were grouped in the South. Hospitals in Guam and the Marshall Islands were grouped in the West.

Table C.3. 2018 hierarchical grouping

Region	Bed size	Location	Ownership	Teaching status	N	Hospital Group
Midwest	1-99	Rural	For Profit	Nonteaching	25	1
Midwest	1-99	Rural	For Profit	Teaching	1	1
Midwest	1-99	Rural	Nonprofit	Nonteaching	644	2
Midwest	1-99	Rural	Nonprofit	Teaching	13	2
Midwest	1-99	Urban	For Profit	Nonteaching	50	3
Midwest	1-99	Urban	For Profit	Teaching	8	3
Midwest	1-99	Urban	Nonprofit	Nonteaching	201	4
Midwest	1-99	Urban	Nonprofit	Teaching	24	4
Midwest	100-199	Rural	Nonprofit	Nonteaching	16	5
Midwest	100-199	Rural	Nonprofit	Teaching	10	5
Midwest	100-199	Urban	For Profit	Nonteaching	11	6
Midwest	100-199	Urban	For Profit	Teaching	14	6
Midwest	100-199	Urban	Nonprofit	Nonteaching	72	7
Midwest	100-199	Urban	Nonprofit	Teaching	99	8
Midwest	200+	Rural	For Profit	Nonteaching	1	9
Midwest	200+	Rural	For Profit	Teaching	1	9
Midwest	200+	Rural	Nonprofit	Nonteaching	1	9
Midwest	200+	Rural	Nonprofit	Teaching	3	9
Midwest	200+	Urban	For Profit	Nonteaching	2	9
Midwest	200+	Urban	For Profit	Teaching	4	9
Midwest	200+	Urban	Nonprofit	Nonteaching	30	9
Midwest	200+	Urban	Nonprofit	Teaching	144	9
Northeast	1-99	Rural	For Profit	Nonteaching	4	10
Northeast	1-99	Rural	Nonprofit	Nonteaching	99	10
Northeast	1-99	Rural	Nonprofit	Teaching	5	10
Northeast	1-99	Urban	For Profit	Nonteaching	19	11
Northeast	1-99	Urban	For Profit	Teaching	3	11
Northeast	1-99	Urban	Nonprofit	Nonteaching	78	11
Northeast	1-99	Urban	Nonprofit	Teaching	17	11
Northeast	100-199	Rural	Nonprofit	Nonteaching	4	12
Northeast	100-199	Rural	Nonprofit	Teaching	8	12
Northeast	100-199	Urban	For Profit	Nonteaching	10	12
Northeast	100-199	Urban	For Profit	Teaching	20	12
Northeast	100-199	Urban	Nonprofit	Nonteaching	47	13
Northeast	100-199	Urban	Nonprofit	Teaching	69	14
Northeast	200+	Rural	Nonprofit	Nonteaching	2	15
Northeast	200+	Rural	Nonprofit	Teaching	2	15
Northeast	200+	Urban	For Profit	Nonteaching	2	15
Northeast	200+	Urban	For Profit	Teaching	7	15
Northeast	200+	Urban	Nonprofit	Nonteaching	21	15
Northeast	200+	Urban	Nonprofit	Teaching	146	15
South	1-99	Rural	For Profit	Nonteaching	114	16
South	1-99	Rural	For Profit	Teaching	5	16
South	1-99	Rural	Nonprofit	Nonteaching	468	17
South	1-99	Rural	Nonprofit	Teaching	11	17
South	1-99	Urban	For Profit	Nonteaching	177	18
South	1-99	Urban	For Profit	Teaching	10	18
South	1-99	Urban	Nonprofit	Nonteaching	220	19
South	1-99	Urban	Nonprofit	Teaching	24	19
South	100-199	Rural	For Profit	Nonteaching	17	20
South	100-199	Rural	For Profit	Teaching	4	20
South	100-199	Rural	Nonprofit	Nonteaching	25	21
South	100-199	Rural	Nonprofit	Teaching	13	21

Region	Bed size	Location	Ownership	Teaching status	N	Hospital Group
South	100-199	Urban	For Profit	Nonteaching	95	22
South	100-199	Urban	For Profit	Teaching	26	22
South	100-199	Urban	Nonprofit	Nonteaching	123	23
South	100-199	Urban	Nonprofit	Teaching	67	24
South	200+	Rural	For Profit	Nonteaching	2	25
South	200+	Rural	For Profit	Teaching	1	25
South	200+	Rural	Nonprofit	Nonteaching	9	25
South	200+	Rural	Nonprofit	Teaching	5	25
South	200+	Urban	For Profit	Nonteaching	39	26
South	200+	Urban	For Profit	Teaching	55	27
South	200+	Urban	Nonprofit	Nonteaching	87	28
South	200+	Urban	Nonprofit	Teaching	183	29
West	1-99	Rural	For Profit	Nonteaching	18	30
West	1-99	Rural	Nonprofit	Nonteaching	272	30
West	1-99	Rural	Nonprofit	Teaching	6	30
West	1-99	Urban	For Profit	Nonteaching	49	31
West	1-99	Urban	For Profit	Teaching	7	31
West	1-99	Urban	Nonprofit	Nonteaching	131	32
West	1-99	Urban	Nonprofit	Teaching	19	32
West	100-199	Rural	For Profit	Nonteaching	2	33
West	100-199	Rural	Nonprofit	Nonteaching	3	33
West	100-199	Rural	Nonprofit	Teaching	5	33
West	100-199	Urban	For Profit	Nonteaching	39	34
West	100-199	Urban	For Profit	Teaching	15	34
West	100-199	Urban	Nonprofit	Nonteaching	68	35
West	100-199	Urban	Nonprofit	Teaching	71	36
West	200+	Urban	For Profit	Nonteaching	15	38
West	200+	Urban	For Profit	Teaching	18	38
West	200+	Urban	Nonprofit	Nonteaching	46	37
West	200+	Urban	Nonprofit	Teaching	116	39

Hospitals in Puerto Rico and the Virgin Islands were grouped in the South. Hospitals in Guam and the Marshall Islands were grouped in the West.

Table C.4. 2019 hierarchical grouping

Region	Bed size	Location	Ownership	Teaching status	N	Hospital Group
Midwest	1-99	Rural	For Profit	Nonteaching	21	1
Midwest	1-99	Rural	For Profit	Teaching	1	1
Midwest	1-99	Rural	Nonprofit	Nonteaching	640	2
Midwest	1-99	Rural	Nonprofit	Teaching	17	2
Midwest	1-99	Urban	For Profit	Nonteaching	48	3
Midwest	1-99	Urban	For Profit	Teaching	7	3
Midwest	1-99	Urban	Nonprofit	Nonteaching	201	4
Midwest	1-99	Urban	Nonprofit	Teaching	26	4
Midwest	100-199	Rural	For Profit	Teaching	1	5
Midwest	100-199	Rural	Nonprofit	Nonteaching	14	5
Midwest	100-199	Rural	Nonprofit	Teaching	10	5
Midwest	100-199	Urban	For Profit	Nonteaching	8	6
Midwest	100-199	Urban	For Profit	Teaching	13	6
Midwest	100-199	Urban	Nonprofit	Nonteaching	69	7
Midwest	100-199	Urban	Nonprofit	Teaching	97	8
Midwest	200+	Rural	For Profit	Nonteaching	1	9
Midwest	200+	Rural	Nonprofit	Nonteaching	1	9
Midwest	200+	Rural	Nonprofit	Teaching	3	9
Midwest	200+	Urban	For Profit	Nonteaching	2	9
Midwest	200+	Urban	For Profit	Teaching	5	9
Midwest	200+	Urban	Nonprofit	Nonteaching	31	9
Midwest	200+	Urban	Nonprofit	Teaching	143	9
Northeast	1-99	Rural	For Profit	Nonteaching	1	10
Northeast	1-99	Rural	Nonprofit	Nonteaching	101	10
Northeast	1-99	Rural	Nonprofit	Teaching	4	10
Northeast	1-99	Urban	For Profit	Nonteaching	21	11
Northeast	1-99	Urban	For Profit	Teaching	1	11
Northeast	1-99	Urban	Nonprofit	Nonteaching	72	11
Northeast	1-99	Urban	Nonprofit	Teaching	16	11
Northeast	100-199	Rural	Nonprofit	Nonteaching	5	12
Northeast	100-199	Rural	Nonprofit	Teaching	9	12
Northeast	100-199	Urban	For Profit	Nonteaching	7	12
Northeast	100-199	Urban	For Profit	Teaching	22	12
Northeast	100-199	Urban	Nonprofit	Nonteaching	45	13
Northeast	100-199	Urban	Nonprofit	Teaching	76	14
Northeast	200+	Rural	Nonprofit	Teaching	4	15
Northeast	200+	Urban	For Profit	Nonteaching	1	15
Northeast	200+	Urban	For Profit	Teaching	10	15
Northeast	200+	Urban	Nonprofit	Nonteaching	21	15
Northeast	200+	Urban	Nonprofit	Teaching	142	15
South	1-99	Rural	For Profit	Nonteaching	112	16
South	1-99	Rural	For Profit	Teaching	5	16
South	1-99	Rural	Nonprofit	Nonteaching	462	17
South	1-99	Rural	Nonprofit	Teaching	13	17
South	1-99	Urban	For Profit	Nonteaching	174	18
South	1-99	Urban	For Profit	Teaching	12	18
South	1-99	Urban	Nonprofit	Nonteaching	216	19
South	1-99	Urban	Nonprofit	Teaching	19	19

Region	Bed size	Location	Ownership	Teaching status	N	Hospital Group
South	100-199	Rural	For Profit	Nonteaching	17	20
South	100-199	Rural	For Profit	Teaching	3	20
South	100-199	Rural	Nonprofit	Nonteaching	23	21
South	100-199	Rural	Nonprofit	Teaching	11	21
South	100-199	Urban	For Profit	Nonteaching	80	22
South	100-199	Urban	For Profit	Teaching	23	22
South	100-199	Urban	Nonprofit	Nonteaching	123	23
South	100-199	Urban	Nonprofit	Teaching	72	24
South	200+	Rural	For Profit	Nonteaching	2	25
South	200+	Rural	For Profit	Teaching	1	25
South	200+	Rural	Nonprofit	Nonteaching	8	25
South	200+	Rural	Nonprofit	Teaching	7	25
South	200+	Urban	For Profit	Nonteaching	33	26
South	200+	Urban	For Profit	Teaching	61	27
South	200+	Urban	Nonprofit	Nonteaching	87	28
South	200+	Urban	Nonprofit	Teaching	182	29
West	1-99	Rural	For Profit	Nonteaching	18	30
West	1-99	Rural	Nonprofit	Nonteaching	272	30
West	1-99	Rural	Nonprofit	Teaching	8	30
West	1-99	Urban	For Profit	Nonteaching	49	31
West	1-99	Urban	For Profit	Teaching	6	31
West	1-99	Urban	Nonprofit	Nonteaching	137	32
West	1-99	Urban	Nonprofit	Teaching	22	32
West	100-199	Rural	For Profit	Nonteaching	2	33
West	100-199	Rural	Nonprofit	Nonteaching	2	33
West	100-199	Rural	Nonprofit	Teaching	6	33
West	100-199	Urban	For Profit	Nonteaching	38	34
West	100-199	Urban	For Profit	Teaching	20	34
West	100-199	Urban	Nonprofit	Nonteaching	61	35
West	100-199	Urban	Nonprofit	Teaching	68	36
West	200+	Urban	For Profit	Nonteaching	10	38
West	200+	Urban	For Profit	Teaching	19	38
West	200+	Urban	Nonprofit	Nonteaching	48	37
West	200+	Urban	Nonprofit	Teaching	120	39

Hospitals in Puerto Rico and the Virgin Islands were grouped in the South. Hospitals in Guam and the Marshall Islands were grouped in the West.

APPENDIX D. FINANCIAL MEASURES

Table D.1. Net Income from Patient Care to Total Cost, Group Ratio by single hospital characteristic (non-mutually exclusive)

	2016				2017				2018				2019			
	N	Ratio	SE	sig	N	Ratio	SE	Sig	N	Ratio	SE	sig	N	Ratio	SE	sig
All	4661	0.2095	0.0076		4631	0.2098	0.0081		4617	0.2236	0.0084		4569	0.1965	0.0087	
1-99	2735	0.2001	0.0106		2721	0.1929	0.0109		2722	0.1982	0.0102		2702	0.1832	0.0101	
100-199	992	0.1986	0.0150		978	0.1953	0.0150		953	0.1885	0.0142	*	925	0.1656	0.0164	
200+	934	0.2157	0.0106		932	0.2190	0.0115		942	0.2414	0.0120		942	0.2096	0.0122	
Nonteaching	3444	0.2209	0.0076		3393	0.2142	0.0072		3358	0.2177	0.0070		3284	0.2101	0.0081	
Teaching	1217	0.2034	0.0110		1238	0.2076	0.0117		1259	0.2265	0.0120		1285	0.1903	0.0122	
For Profit	933	0.2737	0.0152	***	911	0.2626	0.0114	***	890	0.2774	0.0110	***	855	0.2796	0.0104	***
Nonprofit	3728	0.2006	0.0084		3720	0.2029	0.0091		3727	0.2168	0.0094		3714	0.1862	0.0097	
Urban	2817	0.2074	0.0083		2796	0.2095	0.0089		2798	0.2245	0.0092		2764	0.1957	0.0095	
Rural	1844	0.2289	0.0147		1835	0.2128	0.0117		1819	0.2155	0.0120		1805	0.2044	0.0148	
Midwest	1388	0.2984	0.0140	***	1382	0.2843	0.0144	***	1374	0.2947	0.0143	***	1359	0.2670	0.0156	***
Northeast	572	0.1923	0.0084		557	0.1920	0.0112		563	0.1972	0.0124		558	0.1592	0.0104	**
South	1803	0.2253	0.0114		1791	0.2231	0.0113		1780	0.2301	0.0111		1746	0.2226	0.0132	
West	898	0.1094	0.0228	***	901	0.1299	0.0251	**	900	0.1657	0.0272	*	906	0.1219	0.0263	**

Hospitals in Puerto Rico and the Virgin Islands were grouped in the South. Hospitals in Guam and the Marshall Islands were grouped in the West.
Each hospital characteristic adds up to All.
p value <0.001=*** <0.01=** <0.05 =* (Group Ratios compared with Overall).

Table D.2. Net Income from Patient Care to Patient Revenue, Group Ratio by single hospital characteristic (non-mutually exclusive)

	2016				2017				2018				2019			
	N	Ratio	SE	sig	N	Ratio	SE	sig	N	Ratio	SE	sig	N	Ratio	SE	sig
All	4613	0.1913	0.0040		4572	0.1932	0.0043		4567	0.2004	0.0045		4514	0.1854	0.0047	
1-99	2721	0.1783	0.0062		2698	0.1760	0.0064	*	2706	0.1771	0.0059	**	2682	0.1683	0.0060	*
100-199	975	0.1937	0.0073		960	0.1936	0.0068		934	0.1896	0.0061		908	0.1746	0.0083	
200+	917	0.1936	0.0057		914	0.1971	0.0061		927	0.2091	0.0064		924	0.1926	0.0066	
Nonteaching	3432	0.1856	0.0047		3371	0.1831	0.0044		3342	0.1844	0.0043	**	3266	0.1794	0.0052	
Teaching	1181	0.1944	0.0056		1201	0.1984	0.0060		1225	0.2081	0.0063		1248	0.1882	0.0065	
For Profit	928	0.2221	0.0085	**	905	0.2158	0.0060	**	884	0.2254	0.0056	***	849	0.2250	0.0055	***
Nonprofit	3685	0.1868	0.0044		3667	0.1901	0.0048		3683	0.1971	0.0051		3665	0.1801	0.0053	
Urban	2774	0.1915	0.0043		2746	0.1947	0.0047		2753	0.2026	0.0049		2716	0.1866	0.0051	
Rural	1839	0.1899	0.0095		1826	0.1799	0.0077		1814	0.1796	0.0080	*	1798	0.1744	0.0099	
Midwest	1387	0.2311	0.0082	***	1374	0.2258	0.0084	***	1372	0.2290	0.0084	**	1353	0.2150	0.0093	**
Northeast	569	0.1628	0.0058	***	555	0.1619	0.0079	***	561	0.1655	0.0086	***	555	0.1385	0.0077	***
South	1799	0.1857	0.0075		1784	0.1850	0.0074		1774	0.1890	0.0072		1741	0.1832	0.0088	
West	858	0.1799	0.0085		859	0.1977	0.0099		860	0.2184	0.0112		865	0.1987	0.0100	

Hospitals in Puerto Rico and the Virgin Islands were grouped in the South. Hospitals in Guam and the Marshall Islands were grouped in the West.
Each hospital characteristic adds up to All.
p value <0.001=*** <0.01=** <0.05 =* (Group Ratios compared with Overall).

Table D.3. Net Income to Total Fixed Assets, Group Ratio by single hospital characteristic (non-mutually exclusive)

	2016				2017				2018				2019			
	N	Ratio	SE	sig	N	Ratio	SE	sig	N	Ratio	SE	sig	N	Ratio	SE	sig
All	4587	0.1428	0.0073		4542	0.1495	0.0075		4534	0.1286	0.0080		4477	0.1325	0.0090	
1-99	2704	0.1227	0.0103		2680	0.1185	0.0126	*	2686	0.0962	0.0105	*	2659	0.1208	0.0125	
100-199	971	0.1500	0.0158		953	0.1423	0.0124		930	0.0954	0.0141	*	901	0.0991	0.0131	*
200+	912	0.1450	0.0100		909	0.1596	0.0107		918	0.1491	0.0113		917	0.1473	0.0130	
Nonteaching	3414	0.1456	0.0094		3349	0.1306	0.0090		3319	0.1098	0.0099		3238	0.1241	0.0130	
Teaching	1173	0.1411	0.0102		1193	0.1601	0.0105		1215	0.1394	0.0111		1239	0.1371	0.0118	
For Profit	924	0.3013	0.0279	***	899	0.2841	0.0213	***	874	0.3275	0.0228	***	837	0.3144	0.0206	***
Nonprofit	3663	0.1260	0.0074		3643	0.1362	0.0079		3660	0.1115	0.0081		3640	0.1168	0.0093	
Urban	2754	0.1453	0.0078		2726	0.1553	0.0083		2731	0.1332	0.0088		2689	0.1333	0.0098	
Rural	1833	0.1196	0.0192		1816	0.0954	0.0084	***	1803	0.0809	0.0096	***	1788	0.1241	0.0091	
Midwest	1382	0.1483	0.0144		1370	0.1474	0.0136		1368	0.0847	0.0135	**	1348	0.1109	0.0152	
Northeast	567	0.0926	0.0086	***	554	0.1115	0.0134	*	559	0.1053	0.0165		554	0.0656	0.0151	***
South	1789	0.1750	0.0130	*	1769	0.1736	0.0115		1756	0.1664	0.0109	**	1725	0.1922	0.0172	**
West	849	0.1318	0.0202		849	0.1507	0.0225		851	0.1663	0.0207		850	0.1428	0.0204	

Hospitals in Puerto Rico and the Virgin Islands were grouped in the South. Hospitals in Guam and the Marshall Islands were grouped in the West.
Each hospital characteristic adds up to All.
p value <0.001=*** <0.01=** <0.05 =* (Group Ratios compared with Overall).

Table D.4. Net Income to General Fund Balance, Group Ratio by single hospital characteristic (non-mutually exclusive)

	2016				2017				2018				2019			
	N	Ratio	SE	sig	N	Ratio	SE	sig	N	Ratio	SE	sig	N	Ratio	SE	sig
All	4599	0.0986	0.0048		4558	0.0988	0.0046		4552	0.0822	0.0051		4493	0.0849	0.0056	
1-99	2712	0.0963	0.0080		2691	0.0890	0.0097		2698	0.0712	0.0086		2670	0.0875	0.0107	
100-199	973	0.0968	0.0101		957	0.0915	0.0079		932	0.0598	0.0087	*	903	0.0621	0.0085	*
200+	914	0.0998	0.0064		910	0.1036	0.0063		922	0.0932	0.0069		920	0.0926	0.0077	
Nonteaching	3422	0.1014	0.0065		3362	0.0873	0.0061		3331	0.0701	0.0070		3251	0.0775	0.0088	
Teaching	1177	0.0969	0.0066		1196	0.1051	0.0063		1221	0.0891	0.0066		1242	0.0891	0.0070	
For Profit	928	0.1508	0.0136	***	904	0.1325	0.0077	***	881	0.1412	0.0071	***	846	0.1341	0.0076	***
Nonprofit	3671	0.0906	0.0051		3654	0.0939	0.0052		3671	0.0744	0.0055		3647	0.0783	0.0061	
Urban	2763	0.1005	0.0052		2737	0.1026	0.0051		2743	0.0852	0.0056		2699	0.0857	0.0061	
Rural	1836	0.0809	0.0126		1821	0.0629	0.0047	***	1809	0.0516	0.0054	***	1794	0.0759	0.0048	
Midwest	1386	0.0923	0.0091		1374	0.0886	0.0082		1371	0.0506	0.0080	***	1351	0.0633	0.0088	*
Northeast	568	0.0906	0.0079		554	0.1009	0.0108		562	0.0903	0.0138		557	0.0551	0.0131	*
South	1795	0.1092	0.0078		1781	0.1044	0.0061		1767	0.0976	0.0062		1735	0.1093	0.0089	*
West	850	0.0944	0.0126		849	0.1025	0.0139		852	0.1100	0.0112	*	850	0.1074	0.0116	

Hospitals in Puerto Rico and the Virgin Islands were grouped in the South. Hospitals in Guam and the Marshall Islands were grouped in the West.
Each hospital characteristic adds up to All.
p value <0.001=*** <0.01=** <0.05 =* (Group Ratios compared with Overall).

Table D.5. Net Income to Total Revenue from all Sources, Group Ratio by single hospital characteristic (non-mutually exclusive)

	2016				2017				2018				2019			
	N	Ratio	SE	sig	N	Ratio	SE	sig	N	Ratio	SE	sig	N	Ratio	SE	sig
All	4611	0.0673	0.0032		4571	0.0707	0.0032		4567	0.0664	0.0036		4515	0.0677	0.0038	
1-99	2720	0.0585	0.0042		2698	0.0572	0.0054	*	2706	0.0484	0.0036	***	2682	0.0622	0.0040	
100-199	974	0.0740	0.0068		959	0.0708	0.0053		933	0.0572	0.0064		908	0.0570	0.0055	
200+	917	0.0671	0.0044		914	0.0737	0.0046		928	0.0734	0.0050		925	0.0722	0.0055	
Nonteaching	3431	0.0746	0.0040		3370	0.0678	0.0038		3341	0.0631	0.0034		3265	0.0747	0.0048	
Teaching	1180	0.0634	0.0045		1201	0.0721	0.0045		1226	0.0680	0.0050		1250	0.0647	0.0051	
For Profit	928	0.1128	0.0093	***	904	0.1058	0.0073	***	883	0.1188	0.0076	***	848	0.1168	0.0070	***
Nonprofit	3683	0.0611	0.0034		3667	0.0662	0.0035		3684	0.0599	0.0039		3667	0.0617	0.0042	
Urban	2772	0.0687	0.0035		2745	0.0734	0.0036		2753	0.0696	0.0039		2717	0.0689	0.0042	
Rural	1839	0.0546	0.0082		1826	0.0460	0.0037	***	1814	0.0373	0.0040	***	1798	0.0570	0.0037	*
Midwest	1386	0.0771	0.0064		1374	0.0766	0.0056		1372	0.0589	0.0070		1353	0.0752	0.0062	
Northeast	569	0.0421	0.0041	***	555	0.0516	0.0060	**	561	0.0456	0.0074	*	555	0.0311	0.0071	***
South	1798	0.0794	0.0053		1784	0.0800	0.0047		1773	0.0761	0.0049		1741	0.0866	0.0073	*
West	858	0.0604	0.0092		858	0.0671	0.0100		861	0.0796	0.0101		866	0.0640	0.0089	

Hospitals in Puerto Rico and the Virgin Islands were grouped in the South. Hospitals in Guam and the Marshall Islands were grouped in the West.
Each hospital characteristic adds up to All.
p value <0.001=*** <0.01=** <0.05 =* (Group Ratios compared with Overall).

Table D.6. Leverage (Debt Burden to Total Assets), Group Ratio by single hospital characteristic (non-mutually exclusive)

	2016				2017				2018				2019			
	N	Ratio	SE	sig	N	Ratio	SE	sig	N	Ratio	SE	sig	N	Ratio	SE	sig
All	4162	0.2768	0.0095		4094	0.2641	0.0104		4087	0.2442	0.0096		4137	0.2573	0.0104	
1-99	2358	0.2911	0.0110		2306	0.2783	0.0111		2306	0.2747	0.0116	*	2371	0.2636	0.0111	
100-199	920	0.2640	0.0127		909	0.2514	0.0127		891	0.2422	0.0128		870	0.2347	0.0131	
200+	884	0.2785	0.0139		879	0.2657	0.0153		890	0.2392	0.0141		896	0.2635	0.0149	
Nonteaching	3048	0.2624	0.0107		2955	0.2479	0.0106		2928	0.2430	0.0088		2943	0.2278	0.0084	*
Teaching	1114	0.2844	0.0133		1139	0.2719	0.0145		1159	0.2449	0.0138		1194	0.2717	0.0148	
For Profit	830	-0.1574	0.0674	***	805	-0.2293	0.0751	***	793	-0.2989	0.0819	***	782	-0.3109	0.0840	***
Nonprofit	3332	0.3113	0.0084	**	3289	0.2998	0.0094	*	3294	0.2785	0.0085	**	3355	0.2914	0.0097	*
Urban	2568	0.2784	0.0103		2531	0.2657	0.0113		2537	0.2427	0.0104		2533	0.2581	0.0112	
Rural	1594	0.2603	0.0122		1563	0.2474	0.0130		1550	0.2620	0.0148		1604	0.2466	0.0137	
Midwest	1286	0.2712	0.0085		1258	0.2648	0.0155		1254	0.2493	0.0083		1277	0.2456	0.0081	
Northeast	546	0.3947	0.0135	***	543	0.3720	0.0136	***	549	0.3193	0.0179	***	545	0.3633	0.0183	***
South	1555	0.1845	0.0183	***	1523	0.1823	0.0198	***	1520	0.1615	0.0194	***	1531	0.1680	0.0241	***
West	775	0.3134	0.0293		770	0.2783	0.0308		764	0.2897	0.0318		784	0.3081	0.0328	

Hospitals in Puerto Rico and the Virgin Islands were grouped in the South. Hospitals in Guam and the Marshall Islands were grouped in the West.
Each hospital characteristic adds up to All.
p value <0.001=*** <0.01=** <0.05 =* (Group Ratios compared with Overall).

Table D.7. Average Age of Investment, Group Ratio by single hospital characteristic (non-mutually exclusive)

	2016				2017				2018				2019			
	N	Ratio	SE	sig	N	Ratio	SE	sig	N	Ratio	SE	sig	N	Ratio	SE	sig
All	4561	11.1931	0.2244		4517	11.2073	0.2347		4511	12.3039	0.4052		4456	12.4440	0.3872	
1-99	2694	10.4796	0.4076		2667	10.8298	0.4100		2673	11.7541	0.7677		2650	11.6285	0.7095	
100-199	967	11.2929	0.5204		951	11.1856	0.5169		928	13.2491	1.1504		899	12.9463	1.0205	
200+	900	11.3434	0.2944		899	11.3118	0.3142		910	12.1080	0.4675		907	12.4743	0.4768	
Nonteaching	3400	11.1488	0.3763		3333	11.3625	0.3848		3305	13.1832	0.8635		3227	13.4150	0.8511	
Teaching	1161	11.2191	0.2795		1184	11.1214	0.2950		1206	11.8476	0.4173		1229	11.9751	0.3953	
For Profit	921	7.5367	0.2576	***	895	7.8023	0.2843	***	871	8.2698	0.2873	***	836	8.0266	0.3064	***
Nonprofit	3640	11.6782	0.2542		3622	11.6328	0.2634		3640	12.7836	0.4538		3620	12.9822	0.4346	
Urban	2734	11.2629	0.2509		2709	11.1657	0.2608		2717	12.3444	0.4517		2670	12.5088	0.4310	
Rural	1827	10.6448	0.2783		1808	11.5518	0.2632		1794	11.9580	0.2784		1786	11.8830	0.2996	
Midwest	1377	12.6415	0.6396	*	1365	12.9434	0.6672	*	1362	16.7787	1.4875	**	1342	16.4400	1.3787	**
Northeast	563	11.5003	0.4760		551	10.7601	0.4522		555	10.6826	0.5109	*	552	12.1433	0.6303	
South	1777	10.0341	0.2628	***	1758	10.2091	0.2971	**	1747	10.5479	0.2702	***	1721	10.6791	0.2823	***
West	844	11.1330	0.3879		843	11.2885	0.3936		847	11.6423	0.3869		841	10.9437	0.4009	**

Hospitals in Puerto Rico and the Virgin Islands were grouped in the South. Hospitals in Guam and the Marshall Islands were grouped in the West.
Each hospital characteristic adds up to All.
p value <0.001=*** <0.01=** <0.05 =* (Group Ratios compared with Overall).

Table D.8. Current Ratio (Current Assets to Liabilities), Group Ratio by single hospital characteristic (non-mutually exclusive)

	2016				2017				2018				2019			
	N	Ratio	SE	sig	N	Ratio	SE	sig	N	Ratio	SE	sig	N	Ratio	SE	sig
All	4600	2.1595	0.0859		4558	2.3908	0.0956		4554	2.0918	0.1103		4496	2.0090	0.1007	
1-99	2714	2.0310	0.1304		2690	2.0533	0.1365	*	2699	2.0482	0.1737		2672	1.8446	0.1360	
100-199	971	2.2925	0.1833		956	2.3209	0.1739		932	2.1660	0.1985		903	1.9937	0.1849	
200+	915	2.1476	0.1163		912	2.5002	0.1385		923	2.0782	0.1510		921	2.0510	0.1422	
Nonteaching	3424	2.2046	0.1240		3362	2.2639	0.1308		3334	2.1010	0.1517		3253	1.8544	0.1263	
Teaching	1176	2.1372	0.1122		1196	2.4540	0.1284		1220	2.0875	0.1455		1243	2.0896	0.1397	
For Profit	928	2.1569	0.2984		905	2.2816	0.3408		882	2.6320	0.5087		847	2.2950	0.4316	
Nonprofit	3672	2.1597	0.0897		3653	2.3994	0.0995		3672	2.0626	0.1127		3649	1.9935	0.1035	
Urban	2764	2.1314	0.0912		2737	2.3802	0.1028		2744	2.0469	0.1149		2701	1.9800	0.1068	
Rural	1836	2.4849	0.1670		1821	2.5051	0.1824		1810	2.7330	0.2318	*	1795	2.3640	0.1642	
Midwest	1386	2.0224	0.1558		1373	2.1731	0.1779		1371	1.9432	0.1447		1352	1.7683	0.1311	
Northeast	569	1.8695	0.1026	*	554	2.1567	0.1147		562	1.8521	0.1314		556	2.1077	0.1656	
South	1796	2.3143	0.2090		1782	2.5811	0.2016		1769	2.1494	0.2949		1737	2.0075	0.2501	
West	849	2.4372	0.1928		849	2.6736	0.2672		852	2.5419	0.2708		851	2.3097	0.2027	

Hospitals in Puerto Rico and the Virgin Islands were grouped in the South. Hospitals in Guam and the Marshall Islands were grouped in the West.
Each hospital characteristic adds up to All.
p value <0.001=*** <0.01=** <0.05 =* (Group Ratios compared with Overall).

Table D.9. Quick Ratio (Current Assets less Inventory to Liabilities less Deferred Income), Group Ratio by single hospital characteristic (non-mutually exclusive)

	2016				2017				2018				2019			
	N	**Ratio**	**SE**	**sig**	**N**	**Ratio**	**SE**	**sig**	**N**	**Ratio**	**SE**	**sig**	**N**	**Ratio**	**SE**	**sig**
All	4600	2.0948	0.0839		4558	2.3348	0.0950		4554	2.0372	0.1088		4496	1.9818	0.1022	
1-99	2714	1.9515	0.1254		2690	1.9836	0.1316	*	2699	1.9695	0.1675		2672	1.7969	0.1434	
100-199	971	2.2096	0.1789		956	2.2458	0.1723		932	2.1017	0.1941		903	1.9504	0.1849	
200+	915	2.0921	0.1140		912	2.4546	0.1383		923	2.0316	0.1497		921	2.0334	0.1445	
Nonteaching	3424	2.1147	0.1193		3362	2.1873	0.1279		3334	2.0285	0.1467		3253	1.8025	0.1262	
Teaching	1176	2.0849	0.1104		1196	2.4084	0.1283		1220	2.0413	0.1444		1243	2.0763	0.1427	
For Profit	928	1.9583	0.2739		905	2.0726	0.3142		882	2.4028	0.4698		847	2.0861	0.3913	
Nonprofit	3672	2.1061	0.0880		3653	2.3556	0.0994		3672	2.0175	0.1116		3649	1.9761	0.1056	
Urban	2764	2.0707	0.0892		2737	2.3288	0.1023		2744	1.9969	0.1135		2701	1.9519	0.1081	
Rural	1836	2.3730	0.1611		1821	2.3987	0.1772		1810	2.6103	0.2242	*	1795	2.3570	0.1707	
Midwest	1386	1.9605	0.1522		1373	2.1108	0.1736		1371	1.9018	0.1414		1352	1.7403	0.1327	
Northeast	569	1.8265	0.1019	*	554	2.1195	0.1167		562	1.8070	0.1302		556	2.0672	0.1673	
South	1796	2.2280	0.2011		1782	2.4949	0.1989		1769	2.0604	0.2874		1737	1.9815	0.2549	
West	849	2.3807	0.1912		849	2.6599	0.2732		852	2.5191	0.2760		851	2.2980	0.2082	

Hospitals in Puerto Rico and the Virgin Islands were grouped in the South. Hospitals in Guam and the Marshall Islands were grouped in the West.
Each hospital characteristic adds up to All.
p value <0.001=*** <0.01=** <0.05 =* (Group Ratios compared with Overall).

Table D.10. Cost of Uncompensated Care to Total Cost, Group Ratio by single hospital characteristic (non-mutually exclusive)

	2016				2017				2018				2019			
	N	Ratio	SE	sig	N	Ratio	SE	sig	N	Ratio	SE	sig	N	Ratio	SE	sig
All	4554	0.0643	0.0097		4527	0.0544	0.0027		4509	0.0507	0.0016		4463	0.0500	0.0015	
1-99	2685	0.1167	0.0617		2671	0.0559	0.0013		2668	0.0557	0.0016	*	2648	0.0543	0.0012	*
100-199	955	0.0538	0.0029		947	0.0530	0.0034		923	0.0486	0.0017		892	0.0495	0.0018	
200+	914	0.0554	0.0038		909	0.0546	0.0041		918	0.0502	0.0024		923	0.0492	0.0022	
Nonteaching	3393	0.0789	0.0258		3344	0.0528	0.0010		3308	0.0532	0.0011		3235	0.0538	0.0010	*
Teaching	1161	0.0561	0.0039		1183	0.0553	0.0041		1201	0.0494	0.0024		1228	0.0481	0.0022	
For Profit	915	0.0576	0.0023		893	0.0599	0.0021		875	0.0616	0.0024	***	834	0.0606	0.0024	***
Nonprofit	3639	0.0653	0.0111		3634	0.0537	0.0031		3634	0.0492	0.0018		3629	0.0486	0.0017	
Urban	2722	0.0651	0.0108		2704	0.0542	0.0030		2705	0.0501	0.0018		2667	0.0494	0.0017	
Rural	1832	0.0574	0.0017		1823	0.0564	0.0014		1804	0.0556	0.0016	*	1796	0.0548	0.0014	*
Midwest	1368	0.0814	0.0400		1361	0.0393	0.0019	***	1351	0.0404	0.0029	**	1338	0.0400	0.0017	***
Northeast	557	0.0383	0.0030	**	544	0.0356	0.0028	***	549	0.0336	0.0025	***	544	0.0314	0.0022	***
South	1764	0.0846	0.0038		1750	0.0840	0.0039	***	1736	0.0822	0.0034	***	1702	0.0818	0.0034	***
West	865	0.0394	0.0080	*	872	0.0429	0.0094		873	0.0296	0.0012	***	879	0.0304	0.0012	***

Hospitals in Puerto Rico and the Virgin Islands were grouped in the South. Hospitals in Guam and the Marshall Islands were grouped in the West.
Each hospital characteristic adds up to All.
p value <0.001=*** <0.01=** <0.05 =* (Group Ratios compared with Overall).

Table D.11. Cost of Unreimbursed and Uncompensated Care to Total Cost, Group Ratio by single hospital characteristic (non-mutually exclusive)

	2016				2017				2018				2019			
	N	Ratio	SE	sig	N	Ratio	SE	sig	N	Ratio	SE	sig	N	Ratio	SE	sig
All	4562	0.1093	0.0137		4540	0.1012	0.0111		4525	0.0840	0.0021		4474	0.0858	0.0021	
1-99	2690	0.1552	0.0617		2682	0.0931	0.0020		2682	0.0918	0.0019	**	2657	0.0915	0.0019	*
100-199	957	0.1003	0.0097		948	0.0989	0.0108		925	0.0870	0.0029		894	0.0884	0.0032	
200+	915	0.1014	0.0154		910	0.1038	0.0171		918	0.0812	0.0031		923	0.0837	0.0030	
Nonteaching	3401	0.1146	0.0258		3356	0.0864	0.0013		3321	0.0868	0.0013		3244	0.0880	0.0016	
Teaching	1161	0.1063	0.0156		1184	0.1091	0.0170		1204	0.0825	0.0031		1230	0.0848	0.0030	
For Profit	919	0.0876	0.0025		899	0.0895	0.0026		881	0.0905	0.0029		840	0.0918	0.0037	
Nonprofit	3643	0.1124	0.0156		3641	0.1028	0.0126		3644	0.0831	0.0023		3634	0.0850	0.0023	
Urban	2728	0.1114	0.0152		2712	0.1025	0.0123		2715	0.0834	0.0023		2677	0.0856	0.0023	
Rural	1834	0.0909	0.0020		1828	0.0899	0.0016		1810	0.0889	0.0018		1797	0.0878	0.0018	
Midwest	1368	0.1131	0.0402		1364	0.0709	0.0028	**	1354	0.0712	0.0037	**	1339	0.0728	0.0026	***
Northeast	558	0.0795	0.0058	*	544	0.0775	0.0064		551	0.0740	0.0050		544	0.0778	0.0053	
South	1769	0.1030	0.0041		1757	0.1026	0.0040		1743	0.1004	0.0038	***	1709	0.1018	0.0040	***
West	867	0.1417	0.0434		875	0.1509	0.0477		877	0.0815	0.0039		882	0.0827	0.0039	

Hospitals in Puerto Rico and the Virgin Islands were grouped in the South. Hospitals in Guam and the Marshall Islands were grouped in the West.
Each hospital characteristic adds up to All.
p value <0.001=*** <0.01=** <0.05 =* (Group Ratios compared with Overall).