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Hospital Conversions

Is the Purchase Price Too Low?

Frank A. Sloan, Donald H. Taylor, Jr.,
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1.1 Introduction

Conceptually, the appropriate decision as to assignment of ownership rights is that arrangement that minimizes transactions costs between the firm and its various contractors. For various reasons, including asymmetric information between buyers (patients) and sellers (hospitals and others), the dominance of third-party payment, and consumption externalities, it is widely believed among experts in the health field and many in the public that the for-profit organizational form does not minimize transactions cost in the hospital sector (e.g., Relman 1980; Gray 1991).

The for-profit (FP) hospital is in the minority numerically in all industrialized countries. In the United States presently, only 10 percent of hospital beds are in FP hospitals, with 70 percent being in private not-for-profit (NFP) and 20 percent in public institutions (Claxton et al. 1997). For-profit hospitals fall into two groups—small, independent, privately held hospitals, often physician owned, and hospitals that are part of publicly

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owned corporations. Although the for-profit share has been quite stable historically, for-profit chain hospitals have grown both numerically and in influence in many communities since they first appeared in the late 1960s. The growth of these hospital companies has not been steady, but rather has been characterized by cycles of growth (Gray and Schlesinger 1997). Most of the 1990s have been a growth period for the hospital companies, with many NFP and government hospitals being acquired by these firms (Kuttner 1996a, 1996b; Needleman, Chollet, and Lamphere 1997). The remaining for-profit hospitals that are independent free-standing organizations command much less interest because they are small in terms of bed capacity and are a vanishing breed.

The growth of for-profit chains in particular has elicited substantial concern, especially among some health care leaders. They have argued that consolidation of hospitals under the aegis of publicly owned corporations will mean higher priced and lower quality care, lower rates of production of outputs that—although unprofitable to hospitals—have high marginal social benefit, and less accessible care to those with low ability to pay (see, e.g., Relman 1980). As Gray and Schlesinger explained, the reasons for eschewing the for-profit ownership form for hospitals comes down to two issues: trust and community benefits. Others see much potential for market-driven health care to deliver personal health care services efficiently (Herzlinger 1997).

Conversions from public to NFP hospital status are also manifestations of a trend of assigning the responsibility of public goals to private organizations. A similar trend is occurring in primary and secondary education and to a lesser extent in corrections and in certain municipal services (Kuttner 1997, 356–61).

A related development is the increased commercialization of some large public hospital systems, perhaps reflecting reduced public subsidies. As large public hospital systems seek to improve their competitiveness through acquisition of smaller public, quasi-public, or even NFP facilities, local communities are faced with reduced control and potential loss of a public asset and/or the benefit flows from this asset (Bell et al. 1997; Gray 1997).

Buying and selling of hospitals is receiving a considerable amount of public interest and scrutiny, both in the media and by public regulatory agencies (Horwitz 1998). Aside from antitrust scrutiny to gauge the effect on competition, the vast majority of mergers and acquisitions are not subject to public scrutiny because both buyer and seller are believed to be reasonably empowered to conduct the transaction in their own self-interests.

In this context, however, sellers—the communities in the case of public and NFP hospitals—may not be sufficiently empowered or knowledgeable to act in their own self-interests. One reason is that the sellers may not

have the requisite expertise. Such transactions occur very infrequently. The process of determining fair value is made difficult because of the multidimensional attributes of the transactions and the heterogeneous preferences of various stakeholders in the communities. Various rules of thumb exist for establishing a “fair” price for hospitals, such as a multiple of earnings before interest, taxes, depreciation, and amortization (EBITDA); but these rules must in fact be quite imprecise. Also, various stakeholders at the hospital being sold may have self-interests—such as job preservation and/or acquiring an equity interest in the enterprise—that may not coincide with the broader public interest.

Differential bargaining power is commonplace and does not necessarily provide a rationale for public oversight or even intervention since such intervention also inevitably has unintended adverse side effects. But the merit want nature of hospital care strengthens the argument for some type of public scrutiny. Some states require assessment of such transactions by the state attorney general or another regulatory body, and the proportion of states imposing such scrutiny is rapidly increasing, as is the activity of attorneys general in this field (Matzke 1997; Shactman and Fishman 1996; Horwitz 1998).

Hospital ownership conversions take several forms. In this study, we consider a “conversion” to be any change in ownership type, either FP, NFP, or government.

In the most straightforward case, one hospital or parent company purchases a NFP or public community hospital outright. In some, a hospital’s assets and liabilities are transferred to another organization at a zero purchase price. Alternatively, a facility may be leased by another organization, through which control of the hospital assets is ceded to the lessor for long time periods—often for several decades. Sometimes, ownership conversion is coincident with a horizontal merger. Such mergers represent full integration of two or more hospital entities. Joint ventures involve less complete integration than full mergers. Joint ventures may be broad or limited in scope, such as for the provision of a single service.

The objective of this article is to investigate whether communities have received a fair price for the hospitals they have sold or leased. To answer this question, we analyzed 10 recent transactions involving hospitals in North Carolina and South Carolina in depth. The case studies provided critical information that cannot be obtained from secondary sources. Most important were the financial and nonfinancial terms of the transactions. Among the financial terms were (1) purchase and lease prices, (2) recipient organizations of funds, which may be foundations, (3) various commitments made about provision of services, and (4) the time path of outlays and commitments. Among the nonfinancial terms were organizational changes, such as in board membership and composition. Statements by various community members about reasons for the conversion

and community benefits involved have helped to guide and provide a cross-check on our own empirical analysis.

To gauge whether the transactions prices were fair, we computed private rates of return under alternative assumptions about future cash flows that reflect both revenue accruing to the facility post transaction and possible efficiency gains. Normally, the price is fair if the cash flows yield a rate of return equal to the cost of capital. Since the net value to the community includes a range of social benefits, some of which are intangible, comparisons of private rates of return with cost of capital provide an inadequate indication of value of the transaction to the seller. Therefore, we have also assessed community benefits that may not be reflected in the transaction price.

Rate of return analyses were conducted by some, or perhaps all, of the parties prior to the transactions, but undoubtedly not using a consistent methodology. Also, assumptions may have been made to support a particular view about the attractiveness of the transactions. However, the parties' calculations may have been more accurate than ours because of insider knowledge or more access to detailed information about local market conditions. In any event, these calculations have not been made available to us or, more generally, to the public at large.

There is very little empirical evidence on changes that occur in hospital behavior postconversion or on the process of selection into a hospital conversion. Relevant behavioral responses include changes in pricing practices; efficiency gains, which in turn affect hospital profitability; and the provision of uncompensated care and services judged essential or highly beneficial to the communities. Thus, as part of this study, we provide new empirical evidence on how ownership conversion affects these behaviors.

In section 1.2, we describe our methodology. Section 1.3 presents evidence from the 10 case studies. In section 1.4, we present empirical evidence on the effects of conversions on profitability, and on provision of uncompensated care and particular hospital services. Data on uncompensated care were not collected for North Carolina. For this reason, and because a larger number of conversions occurred in Tennessee than in the Carolinas, our empirical analysis of conversions based on secondary data includes Tennessee as well as North Carolina and South Carolina. Some parts of the analysis were limited to Tennessee due in part to data availability. Section 1.5 presents our analysis of rates of return on the investments that the buyers made as well as of the cost of capital prevailing at the time of the transactions in the 10 case-study hospitals; this discussion is followed by a more general assessment of benefit in section 1.6. Finally, section 1.7 discusses conclusions and implications.

1.2 Methods

1.2.1 Case Study Sample and Site Visits: North Carolina and South Carolina

We identified all ownership changes that occurred in North Carolina and South Carolina between 1985 and 1996 using public use tapes from the American Hospital Association's *Annual Survey of Hospitals*, information supplied by the two state hospital associations, and, finally, telephone calls to hospitals when we found inconsistencies between the first two sources. This process yielded 29 changes.

We prepared a table that compared past with present ownership status. This table was presented to our study's board of advisors. The board was highly knowledgeable about the hospital industry in the two states and was representative of the various community interests there.

In consultation with the board, we selected 10 cases for in-depth study (table 1.1). Selection was guided by these criteria: inclusion of all major types of ownership conversions that occurred; representation of hospitals in both states; year of conversion (pre- versus post-1990), and type of transaction (acquisition, lease, joint venture). Many conversions occurred after 1994, limiting the amount of information we were able to obtain on these hospitals postconversion. Conversions taking place during the earlier period ("older conversions") afforded more time to measure cash flows postconversion and other impacts on the community that the conversion may have had. More recent conversions made it more likely that we could clearly capture the details of each conversion. Among the details were motives for converting, the process itself, and terms of charitable foundations related to hospital conversions. Foundations were only created as part of the recent conversions.

These 10 hospitals ranged in size from 64 acute care beds (Hilton Head Hospital) to 725 beds (Wake Medical Center), with half having fewer than

Table 1.1 Ten Hospitals Studied in North and South Carolina

Original Status	Final Status		
	Private Not-for-Profit	Government	For-Profit
Private not-for-profit		Cleveland Regional Medical Center 1994 Roanoke/Chowan 1997	Hilton Head 1995 Byerly 1995 Providence 1995 Cape Fear 1996 Mary Black 1996
Government	Wake County 1997		Piedmont 1981 Upstate 1984

150 beds and four having between 200 and 300 beds. Four facilities are located in metropolitan statistical areas (MSAs) with more than 500,000 population, one is in an MSA with roughly 250,000, and the remainder are located outside of MSAs entirely. Although some facilities have teaching residents, none is considered a major teaching hospital. For each of the 10 hospitals selected, we conducted a two-day site visit. During the site visit we spoke with various stakeholders representing the hospital, the broader medical community, public health/social services officials, employers, churches, and community advocates.

1.2.2 Analysis of Secondary Data

Overview

To supplement the case-study data, we used information for North Carolina, South Carolina, and Tennessee from the American Hospital Association's (AHA's) Annual Hospital Survey (1987–1995), Medicare Cost Reports (1983–1995), and Tennessee Joint Annual Reports of Hospitals (1990–96). The AHA surveys provided information on hospital outputs, concentration of output at the market level, and provision of particular services by the nonfederal short-term general hospitals in the three states. From the Medicare cost reports, we obtained prices, cost, cash flows, and balance-sheet information. The Tennessee joint annual reports (JARs) provided more detailed financial data than was available from either of the two other sources, including information on provision of uncompensated care and on taxes paid by the for-profits. We also attempted to collect financial statements from the 10 case-study hospitals. Only two facilities, however, were willing to release such information. Fortunately, most pertinent information from income statements and balance sheets was available from the Medicare cost reports.

Analysis Based on Joint Annual Report Data: Tennessee

We analyzed pricing, changes in average cost, profitability, and provision of uncompensated care pre- and postownership change in Tennessee using data from Tennessee JARs. Dependent variables were net patient revenue and total expense per adjusted patient day; profit as a fraction of total hospital revenue, including and, alternatively, excluding interest, depreciation, and taxes; and uncompensated care charges as a fraction of total charges and, alternatively, of net patient revenue. In the analysis of pricing and cost, the dependent variables were expressed in natural logarithm form.

The key explanatory variables were binary variables for ownership in the base year (1990); for government and NFP ownership, with for-profit the omitted reference group; and for specific types of ownership conversions (government or NFP to FP and FP to NFP or government); and for

other conversions. We had to combine the other types of conversions (e.g., government to NFP) into a single variable because the number of observations was insufficient to permit a more detailed specification. To measure the effects of conversions, we specified separate variables for the pre- and postconversion years. The effect of conversion was measured as the difference between two coefficients, postconversion minus preconversion. This differencing eliminated time-invariant, otherwise unspecified hospital effects of the hospitals that converted. To determine whether or not there was a trend in profitability postconversion, we substituted trend variables as an alternative to the binary variables for postconversion in the analysis of profitability.

In addition, we included explanatory variables for hospital output concentration, a Herfindahl-Hirschman Index (HHI) for adjusted patient days in the hospital's market area, real per capita income, the fraction of the population over age 65, the fraction of the population enrolled in health maintenance organizations, the fraction of hospital admissions in the market covered by Medicaid, the unemployment rate, population density, and a time trend. In the uncompensated care analysis, if the observation was for an NFP or FP facility, we included a binary variable to indicate whether or not there was a government hospital in the county. To account for implementation of Medicaid managed care in Tennessee—TennCare—in 1994, we included a second Medicaid variable to indicate the Medicaid share during the years TennCare was in effect (1994 onward); otherwise, this variable was set equal to zero. We split the time trend into two variables—one for 1990–93 and the other for 1994–96. For hospitals located in metropolitan areas, we considered the Standard Metropolitan Statistical Area (SMSA) to be the market area. For other hospitals, we specified the county as the market area. All monetarily expressed variables were converted to 1995 dollars using the Consumer Price Index for all items.

*Analysis Based on American Hospital Association Surveys:
Tennessee, North Carolina, and South Carolina*

With AHA data, we assessed the impacts of conversions on emergency room visits, on births, and on the availability of selected services. We classified services into three categories: (1) “unprofitable, essential” community services: HIV/AIDS treatment, community health and education, emergency room, and labor/delivery; (2) elderly oriented services that may be adopted in response to Medicare Prospective Payment System: home health, rehabilitation, and skilled nursing facility; and (3) services likely to be profitable: sports medicine, magnetic resonance imaging (MRI), and open heart surgery (Waters 1992). The dependent variables in the analysis of emergency room and labor/delivery output were the log of emergency room visits and births. We used logit to estimate the service availability

equations. Finally, we estimated equations for the share of admissions covered by (1) Medicaid and (2) Medicare to further assess impacts of ownership conversions on case mix.

1.2.3 Analysis of Rates of Return

Measurement of Investment

From the interviews, we obtained information on purchase prices and lease payments, terminal values when specified (one case), and commitments to invest in the community or hospital facility (e.g., taking over indigent care obligations or debt payments previously financed by the county). These were specified as negative cash flows in the year such expenditures occurred or were expected to occur, expressed in 1995 dollars.

Time Horizon

For leases, we took the time horizon to be the term of the lease. Otherwise, we based the rates of return on, alternatively, a 20- and a 30-year period, with the terminal value being 25 percent of the 1995 value of the facility as reported in the Medicare cost reports. Alternative calculations assumed different terminal values.

Measurement of Returns

For two hospitals, we could measure returns for some years postconversion. For the eight others, we observed no postconversion years. However, in all cases, we had to project returns for at least some years. For our projections, we used the parameter estimates from the regression for total margin based on Tennessee data to project future cash flows. To link the projection with historical cash flows, we formed an index with the projected 1995 margin as the base value. We multiplied this index by the mean cash flow for the hospital for years 1993–95. We used a three-year average because of the volatility of cash flows and because the 1995 year was the year immediately preconversion for several hospitals. Alternative calculations used two- and five-year averages.

For future values of HHI and unemployment, we took values for 1995 and assumed a constant value throughout. We projected population, population over age 65, HMO and Medicaid patient shares, and real per capita income in the hospital's market area based on annual growth rates actually observed between 1987 and 1995. We capped the area HMO share at 75 percent and limited the Medicaid share to be within ± 25 percent of the 1995 value. When the HMO share was zero in 1995 (which occurred in four cases), we assumed a 1 percent per year growth in share starting in 1996, with a maximum set at a 25 percent share. For the time trend, we took the midpoint of the two coefficients for the 1990–93 and 1994–96

periods, respectively. In the base case, we used the trend coefficient after 15 years postconversion. Thereafter the trend was assumed to stop. Alternative calculations capped the trend at 10 years and 20 years. We used the coefficients from the relevant pre- and postconversion binary variables when the conversion occurred after 1995. For example, if a conversion occurred on July 1, 1996, we used the preconversion value for a half a year and the postconversion value for the other half.

For depreciation, we computed a rate of depreciation based on the hospital's fixed assets for 1995. We used straight-line depreciation until the terminal value was reached. For interest, we computed an interest rate for 1995 by dividing each hospital's interest payments by its long-term debt obligations. That interest rate was assumed to be constant in the future. Liabilities were decreased over time as the loan was paid back. For taxes paid by for-profit hospitals, we applied the federal and state statutory rates for corporate income taxes to annual net earnings (after interest and depreciation). We obtained property tax rates from the county in which the for-profit hospital was located for 1996 tax year and used these rates for all years to estimate property taxes based on the value of total assets. The rate for all other taxes (2.4 percent) was calculated from Tennessee JARs data and was applied to annual net earnings.

Cost of Capital to Hospitals

Estimates of the weighted cost of capital were computed using a method reported in Sloan et al. (1988). For for-profit organizations, we used an estimate of beta from the capital asset pricing model of 1.41. To estimate the real cost of equity capital, we added the risk premium to the nominal risk-free interest rate for the year in which the transaction occurred (from Sloan et al. 1988). The sum was the nominal cost of equity capital, which we converted to real terms using the inflation rate for all items. The nominal interest rate was taken to be the rate on 30-year U.S. Treasury bonds, again expressed in real terms using the inflation rate. The weighted cost of capital estimate used the hospital's debt-to-assets ratio in the year before the conversion occurred as weights. In Sloan et al. (1988), the estimated cost of capital for the hospital sector was slightly higher when an estimate based on arbitrage pricing theory was used.

For the nonprofit sector, the first task was to adjust the beta used for for-profit hospitals. This beta took account of the leverage in the NFP versus the FP hospital companies. The adjusted beta was 1.46. With this beta and the same risk-free interest rate information used above, we estimated the real cost of equity capital. We used a 30-year municipal bond for the cost of debt. Again, we used information on the debt-to-assets ratio to obtain a weighted real cost of capital. The NFP cost of capital was also used for government facilities. Another benchmark used for comparison

was the ratio of the purchase price to average earnings before interest, taxes, depreciation, and amortization (EBITDA) in the three years prior to conversion.

Sensitivity Analysis

In addition to testing alternative values to use for the terminal value of the facility, when to make the trend factor constant, and which base years to use in projecting earnings, we examined the impact on rate of returns of assuming that hospitals were able to achieve an additional 5 or 20 percent reduction in hospital expenses. That is, because our model was designed to project the average increase in earnings resulting from a particular type of conversion, it is conceivable that for any given facility, this projection failed to fully account for either cost-cutting opportunities or revenue-enhancing possibilities that would provide better earnings. The prospect of increasing earnings plausibly would come from cost reductions beyond that reflected in the historical data postconversion. Previous cost analysis based on data from a much earlier period indicated that FP companies achieve cost reductions several years after the conversion occurs (Becker and Sloan 1985). Studies of hospital efficiency have found substantial slack (e.g., 15 percent in Zuckerman et al. 1994). Several nonacademic accounts have maintained that FP companies achieve sizable margins (Japsen 1996; Moore 1997). In our calculations, we assumed the cost reductions began in the third post-conversion year and were fully realized by the end of the seventh year.

1.2.4 Assessing Community Benefit

In addition to the empirical analysis described above, we obtained perceived benefits from various stakeholders in the communities. We assessed these benefits in qualitative terms.

1.3 Evidence from Case Studies of Converting Hospitals

The case studies from the 10 North Carolina and South Carolina hospitals that converted provided information not available from various secondary sources, including the rationale for converting; details about the terms of the conversions; disposition of proceeds from the sale or lease of the facility; changes in the hospital, such as renovation and expansion or deletion of services; plans for provision of uncompensated care; and views about the advantages and disadvantages of the conversion. This section summarizes this descriptive material.

1.3.1 Reasons for the Conversion

In every case, the stated rationale for the conversion was to preserve the financial viability of the hospital for the benefit of the health care of local

citizens and to preserve local jobs. Both benefits were viewed as particularly important for hospitals in rural areas. The alternative to the conversion was seen as either increased public subsidy, mainly in the form of investment in plant or equipment, or closure of the facility.

One mechanism stated for improving financial viability was to increase bargaining power with managed care organizations by affiliating with a network of facilities. The desire to build hospital networks and referrals to existing hospitals also applied to the acquiring organizations. Another motive was to improve hospital efficiency, either by assigning property rights to profits to investors or, in the case of public to private, not-for-profit conversions, to give hospitals additional flexibility in input use than is possible in a government-run organization.

The motive of forestalling investment in hospitals by converting is more complex. Conceptually, hospital and community leaders might be stating that the cost of capital funds to the communities exceeded that of others—either hospital companies or hospitals in other locations. It is not clear, however, that the communities viewed the issue in such terms. Rather, some seem to have thought of capital supplied by these external sources as essentially “free” instead of being included in the price of hospital care paid by the local citizenry. In the case of government facilities, some public officials viewed running a hospital and/or the cost of raising funds through bond referenda or in some other way as a political liability, one that conversion would alleviate.

1.3.2 Terms of Conversions

We studied two conversions of government (county) to FP facilities; one from government to NFP; five from NFP to FP status, with for-profit companies the acquiring organization; and two acquisitions of NFP hospitals by larger public hospitals/systems, one a hospital authority in the largest city in the Carolinas (Charlotte), and the other a teaching hospital serving a rural population in eastern North Carolina (table 1.2). For the last two transactions, the major negative consideration to the community was loss of community control. For the others, potential efficiency gains in marketing and in operations and the benefit of not having to infuse capital funds into the facility were balanced against concern about loss of community control, as well as a possible change in mission. In two of the NFP to FP conversions, survey respondents said the community did not accept the most favorable financial offer, opting instead to sell to organizations providing greater long-term stability. We did not obtain specific information on the multiple offers or on the efforts communities made to secure and scrutinize multiple offers.

The earliest conversion we studied first occurred in 1981, with a resale occurring in 1988. In our rate-of-return analysis, we considered the transaction year to be 1981 and then did backward extrapolation of relevant

Table 1.2 Description of Conversion Arrangements

Hospital and Terms of Conversion	Year	Financial Terms	Investment/Expansion Plans	Other Terms
<i>Government to For-Profit</i>				
Purchase of Piedmont Memorial Hospital by Tenet	Jan. 1981	\$10 million	Built new \$32.2 million hospital in 1983; \$20 million expansion from 1995–98	County had buyback options in 1988 and 1995; now 50-year-term, at which time the contract must be renegotiated
Purchase of Cherokee Memorial Hospital (Upstate Carolina Medical Center) by National Medical Enterprises	Feb. 1984	\$1.2 million + \$5 million in lease payments over 3 years	Built a new hospital for \$18 million	Must maintain hospital emergency room, ambulance service, and indigent care
<i>Not-for-Profit to For-Profit</i>				
Purchase of Byerly Hospital by Health Management Associates	Aug. 1995	\$31 million	Currently building new hospital for \$45 million	
50/50 joint venture between Sisters of Charity of St. Augustine (Providence Hospital) and Columbia/HCA	Nov. 1995	\$80 million	\$7.9 million investment	Must maintain hospital and religious mission

Purchase of Hilton Head Hospital by Tenet (then AMI)	May 1995	\$26 million	Current \$7 million expansions in services	Foundation
Purchase of Cape Fear Memorial Hospital by Columbia/HCA	May 1996	\$55 million	\$4.8 million expansion	Foundation
Purchase of Mary Black Hospital by Quorum	July 1996	\$58.5 million	\$7.6 million expansion in 1996–97	Foundation
<i>Governmental to Private Not-for-Profit</i> Transfer of assets from Wake County to Wake County Hospital System, Inc.	April 1997	Assumption of \$100 to \$118 million debt		County appoints majority of board
<i>Private Not-for-Profit to Government</i> Lease of Cleveland Regional Medical Center by Charlotte/Mecklenburg Health Authority	July 1994	Lease of \$1.7 million per year; term is 11 years		Affiliation with and contract management by lessor in July 1994; lease began Oct. 1997; \$1.4 million of lease proceeds into county general fund
Lease of Roanoke/Chowan Hospital by Pitt County Memorial Hospital	Feb. 1997	\$1 million + assumption of long-term debt; term is 23 years	\$1 million per year in unspecified capital foundations	Foundation; Pitt can buy outright for \$100,000 in 2021

variables to recover the stream of cash flows prior to 1987. The most recent conversion occurred in 1997.

The only leases were for the two NFP hospitals that were acquired by public hospital systems. The term of one lease was 23 years; the other was 11 years. In one case, the buyer committed to an annual lease payment plus assumption of the hospital's long-term debt. In the other, the acquiring organization just paid a fixed lease payment. The ownership conversions involved some form of purchase; in one case, this was organized as a joint venture to preserve the hospital's religious mission. In one of the NFP to FP conversions, the foundation that was created as a result of the transactions acquired a 20 percent equity position in the hospital. This gave the community some continued input into hospital decision making. Subsequently, the foundation sold its equity to the hospital company that had purchased the hospital. Foundation directors said that they felt comfortable with the progress the new owners had made and believed that the foundation could earn a higher return on its equity if its funds were invested elsewhere. In one of the public-to-FP conversions, the terms of the contract must be renegotiated in 50 years.

Eight of the 10 transactions included an explicit commitment to invest in the hospital. In some, the buyer committed to build a new facility. In others, commitments were made to expand specific services, such as rehabilitation and obstetrics. In fact, with the exception of one hospital, every facility had either undertaken investment or had explicit plans to do so at the time the interviews were conducted. Two new hospitals, both resulting from public to for-profit conversions, had been built, and at one of the other hospitals recently converted to for-profit status, plans had been developed for constructing a new hospital and medical office complex. Other facilities had expanded existing services or had entered into new services.

A key issue in most of the conversions was some form of guarantee of continued provision of uncompensated care. Nine agreements specified a minimum dollar amount or a catchment area for which the hospital was to accept patients irrespective of ability to pay. In the tenth case (Cape Fear), the agreement specified that uncompensated care was to be provided at the level of comparable hospitals.

1.3.3 Disposition of Proceeds from Sale or Lease

Six foundations, organized to allocate the proceeds, were created from these 10 transactions. These included all of the NFP to FP cases and one of the two leases. The majority of these foundations stipulated that the funds be used not only for health-related initiatives but also for community-oriented activities. However, several charters limited the types of community-oriented activities the foundation could support. An exception to this broader community focus was the one with the lowest level

of funding (Roanoke/Chowan), which stipulated that all monies generated from lease payments be allocated to capital improvements in the hospital, hospital-owned physician practices, or other hospital-based programs, such as hospice care. Funds were not to be used to fund uncompensated care. A second foundation containing cash reserves of the old NFP hospital (\$14 million) may be created in the future, but its focus in terms of giving is undetermined.

One of the foundations conducted a needs assessment and strategic planning jointly with the city in which it was located to determine education and economic development issues that were the highest priority to the community as a whole.

1.3.4 Satisfaction after the Sale or Lease

We did not interview individuals in the parent organization that purchased or leased the facilities (although some of the hospital CEOs or others were employed by these companies). However, for those conversions for which we could compare pre- versus postconversion profitability, profits rose in each case. The vast majority of persons we interviewed in the communities affected by the conversions were generally satisfied with the transaction. Hospital viability had been maintained, and purchasers had invested in local facilities. However, a persistent concern was loss of local control to an organization controlled by outsiders.

1.4 Empirical Evidence on Effects of Conversions

1.4.1 Profitability and Uncompensated Care: Tennessee Hospitals

We analyzed profitability without and with interest and depreciation using JAR data on Tennessee hospitals (table 1.3). The first regression was used in our analysis of the rates of return to the 10 case-study conversions that occurred in North Carolina and South Carolina. Both regressions revealed essentially the same result. Our discussion focuses on the second regression.

On average, NFP and government hospitals in Tennessee were less profitable than those under for-profit ownership. Margins of NFP and government hospitals were, respectively, 3.0 percent and 5.9 percent below those of for-profit hospitals. Those NFP hospitals that converted were less profitable on average than their counterparts that did not convert (8.7 percent less). Those NFP facilities that converted to for-profit experienced an increase in their profit rate (5.6 percent). Those hospitals that converted from for-profit to either NFP or government status also experienced an increase in profitability (4.6 percent). For all other conversions, there was a small pre- versus postconversion difference (0.6 percent decrease)

Table 1.3 **Effects of Conversion on Profit and Uncompensated Care: Tennessee Hospitals, 1990–1996**

Explanatory Variables	Profit Rate Excluding Interest and Depreciation	Profit Rate with Interest and Depreciation	Uncompensated Care
Intercept	0.182 (0.047)	0.158 (0.051)	0.124 (0.031)
Private, not-for-profit	-0.036 (0.007)	-0.026 (0.008)	0.030 (0.005)
Government	-0.071 (0.008)	-0.053 (0.009)	0.041 (0.006)
Other government hospitals in county	— —	— —	-0.018 (0.005)
NFP to FP (pre)	-0.042 (0.015)	-0.078 (0.016)	-0.019 (0.010)
NFP to FP (post)	-0.019 (0.019)	-0.024 (0.021)	-0.008 (0.0013)
NFP to FP, diff	0.023	0.054	0.011
F-value (Prob > F)	0.877 (0.349)	4.054 (0.044)	0.521 (0.471)
FP to NFP or G (pre)	-0.036 (0.020)	-0.028 (0.022)	0.030 (0.013)
FP to NFP or G (post)	-0.015 (0.020)	-0.018 (0.021)	0.004 (0.013)
FP to NFP or G, diff	0.021	0.010	-0.026
F-value (Prob > F)	0.569 (0.451)	0.108 (0.743)	2.025 (0.155)
Other conversion (pre)	-0.003 (0.022)	0.018 (0.024)	-0.040 (0.015)
Other conversion (post)	0.010 (0.032)	0.024 (0.035)	-0.002 (0.021)
Other conversion, diff	0.013	0.006	0.038
F-value (Prob > F)	0.116 (0.734)	0.021 (0.885)	2.219 (0.137)
HMO share	-0.066 (0.039)	-0.090 (0.043)	-0.021 (0.025)
HHI	-0.027 (0.009)	-0.025 (0.010)	0.020 (0.006)
Medicaid share	0.051 (0.111)	-0.006 (0.122)	-0.115 (0.073)
Medicaid share 1994–96 (TN)	0.112 (0.153)	0.165 (0.167)	0.101 (0.100)
Per capita income (‘0000)	0.096 (0.024)	0.079 (0.026)	0.007 (0.016)
Unemployment rate	0.008 (0.002)	0.008 (0.002)	0.002 (0.001)
Population over 65 (%)	0.691 (0.184)	0.386 (0.201)	-0.513 (0.120)
Population density (‘000)	0.087 (0.041)	0.099 (0.045)	0.015 (0.027)
Time	-0.007 (0.004)	0.001 (0.005)	-0.002 (0.003)
Time * 94–96 (TN)	-0.001 (0.005)	0.004 (0.005)	-0.005 (0.003)
	$R^2 = 0.25$	$R^2 = 0.23$	$R^2 = 0.14$
	$\bar{R}^2 = 0.23$	$\bar{R}^2 = 0.22$	$\bar{R}^2 = 0.12$
	$F(18, 796) = 14.49$	$F(18, 796) = 13.45$	$F(19, 795) = 6.69$

Source: Tennessee Joint Annual Report of Hospitals, 1990–1996.

in margins. In only two instances (NFP to FP hospitals, col. 2, table 1.3; and FP to NFP, col. 1, table 1.3) were the pre- versus postconversion changes in margins statistically significant at conventional levels (F -test).

We tested for trends in profitability after conversion, and we could not detect any. However, the length of postconversion period in the Tennessee hospital sample was often quite short (one to three years). The coefficient on the time-trend variable indicates that provision of uncompensated care increased over time (significant at the 10 percent level).

Several other factors contributed to profitability. In particular, increased HMO share decreased profitability. Higher real per capita income increased margins, as did population density. Surprisingly, judging from the HHI parameter estimate, profits were lower in markets with less output concentration. Comparing net patient revenue with the cost results (not shown), the lower margin appears to be attributable to lower per hospital demand.

Both NFP and government hospitals in Tennessee provided more uncompensated care than did for-profit hospitals. Uncompensated care as a percentage of net patient revenue (the variant of the uncompensated care equation presented in table 1.3) was 3.1 percent higher for FP and 3.9 percent higher for government facilities. NFP or FP hospitals located in Tennessee counties with a government hospital provided less uncompensated care on average. Hospitals that converted from NFP to FP status increased uncompensated care by 0.9 percent. By contrast, hospitals converting from FP to either NFP or government facilities decreased their provision of uncompensated care, and the marginal effect was over twice as large (2.2 percent versus 0.9 percent) as that for conversions in the other direction. There was also an increase in uncompensated care among the other hospitals that changed ownership status (1.8 percent). None of these changes, however, were statistically significant. Most noteworthy, conversions to for-profit status did not result in reduced uncompensated care; in fact, in such situations, provision of such care may have increased, albeit slightly.

1.4.2 Effects of Conversions on Availability of Services: Hospitals in North Carolina, South Carolina, and Tennessee

Both NFP and government hospitals in the three states were more likely to provide AIDS, community health, and patient education services, *ceteris paribus* (table 1.4). (To conserve space, only the results for the ownership and the conversion variables are shown.) Conversion from NFP to FP status decreased the probability of having an AIDS program by 0.10 and community health by 0.04, but it did not change the probability of having a patient education program. However, none of these changes were statistically significant at conventional levels (chi-square test). Interestingly, those hospitals that converted from FP to NFP or government status

Table 1.4 Logit Analysis of Effects of Conversion on Availability of Services: North Carolina, South Carolina, and Tennessee Hospitals 1987–1995

Explanatory Variables	AIDS	Community Health	Patient Education	Home Health	Rehabilitation	Skilled Nurse Facility	Sports Medicine	Open Heart Surgery	MRI
Private, not-for-profit	0.65 (0.12) [0.16]	0.40 (0.12) [0.08]	0.76 (0.13) [0.11]	1.53 (0.15) [0.30]	0.50 (0.12) [0.12]	0.56 (0.16) [0.08]	0.16 (0.16) [0.02]	-0.66 -0.29 [-0.02]	-0.59 (0.17) [0.09]
Government	0.48 (0.14) [0.11]	0.16 (0.14) [0.03]	0.74 (0.15) [0.11]	1.27 (0.16) [0.25]	0.30 (0.14) [0.07]	0.25 (0.18) [0.04]	-0.22 (0.20) [-0.03]	-0.13 -0.37 [-0.00]	-0.30 (0.20) [0.04]
G or NFP to FP (pre)	0.20 (0.21) [0.05]	0.06 (0.23) [0.01]	0.16 (0.26) [0.02]	0.00 (0.22) [0.00]	0.71 (0.20) [0.18]	0.01 (0.25) [0.00]	-0.25 (0.28) [-0.03]	1.70 (0.44) [0.04]	0.46 (0.30) [0.07]
G or NFP to FP (post)	-0.22 (0.31) [-0.05]	-0.15 (0.31) [-0.03]	0.13 (0.32) [0.02]	0.56 (0.33) [0.11]	0.26 (0.29) [0.06]	-2.42 (0.73) [-0.34]	0.89 (0.31) [0.10]	-0.96 -0.82 [-0.02]	0.63 (0.34) [0.09]
G or NFP to FP, diff	-0.10	-0.04	-0.00	0.11	-0.12	-0.34	0.13	-0.06	0.02
χ^2	1.31	0.33	0.00	2.12	1.73	9.86	7.57	8.41	0.15
(P-value)	(0.25)	(0.57)	(0.94)	(0.15)	(0.19)	(0.00)	(0.01)	(0.00)	(0.70)
FP to G or NFP (pre)	0.37 (0.36) [0.09]	-0.09 (0.35) [-0.02]	0.01 (0.34) [0.00]	0.86 (0.39) [0.17]	-1.33 (0.62) [-0.33]	—	—	—	-1.06 (1.04) [-0.15]
FP to G or NFP (post)	-0.64 (0.84) [-0.15]	-0.01 (0.62) [-0.00]	1.04 (0.59) [0.15]	1.59 (0.55) [0.31]	-0.58 (0.59) [-0.14]	—	—	—	-1.80 (1.06) [-0.26]
FP to G or NFP, diff	-0.24	0.02	0.15	0.14	0.19	—	—	—	-0.11
χ^2	1.25	0.01	2.31	1.28	0.80	—	—	—	0.25 (0.62)
(P-value)	(0.26)	(0.91)	(0.13)	(0.26)	(0.37)	—	—	—	

Source: American Hospital Association, Annual Hospital Survey, 1987–1995.

Note: Standard errors are in parentheses unless otherwise indicated. Marginal effects are in brackets. Only ownership and conversion results are shown in table.

also dropped AIDS programs, but they added patient care programs. Again, however, these changes were not statistically significant.

Among services oriented toward the elderly, conversions from NFP or government to FP facilities increased the probability of offering home health by 0.11 but decreased the probability of having rehabilitation by 0.12 and of having a skilled nursing unit by 0.34. The third change was statistically significant at the 1 percent level.

For the conversions to government or NFP from for-profit status, there were increases in the probability of offering home health by 0.14 and of rehabilitation by 0.19. However, neither difference was statistically significant. We could not estimate the effects of this type of ownership conversion on provision of a skilled nursing facility because of an inadequate number of observations.

The final category included services that are likely to be profitable and oriented to a more general population. Among these, for those facilities converting to for-profit status, the probability of offering sports medicine increased by 0.13 and the probability of having MRI increased by 0.02 after the conversion, but the probability of doing open heart surgery decreased by 0.06. The first and third changes in probability were statistically significant at the 1 percent level.

1.4.3 Effects of Conversions on Emergency Room Visits, Deliveries, and Medicare and Medicaid Shares: Hospitals in North Carolina, South Carolina, and Tennessee

Conversion from NFP or government to for-profit status resulted in a 12 percent increase in emergency room visits and a 20 percent increase in the fraction of admissions covered by Medicaid (table 1.5). There were much more substantial decreases in the volume of deliveries (27 percent on average) but a slight decrease in the fraction of patients on Medicare (3 percent). Only the change in the Medicaid share was statistically significant at conventional levels. However, conversions from FP to NFP or government status resulted in larger percentage increases in numbers of visits to emergency rooms. Following such conversions, the volume of deliveries increased. Only in the case of the Medicaid patient share were decreases observed. But none of these changes were statistically significant at conventional levels.

In sum, conversions resulted in a mixed pattern of adoption of services. Judging from the empirical evidence, it would be inappropriate to attribute much of the change in service offerings or volume to a particular type of change in ownership status.

Table 1.5 **Effects of Conversion on Emergency Room Visits, Deliveries, and Medicare and Medicaid Shares: North Carolina and South Carolina Hospitals, 1987–1995**

Explanatory Variables	Log _e (ER Visits)	Log _e (Deliveries)	Log _e (Medicaid Share)	Log _e (Medicare Share)
Private, not-for-profit	-0.08 (0.03)	-0.30 (0.07)	0.07 (0.03)	0.07 (0.02)
Government	-0.03 (0.04)	-0.46 (0.08)	0.12 (0.04)	0.06 (0.02)
G or NFP to FP (pre)	-0.03 (0.05)	-0.33 (0.12)	-0.22 (0.05)	0.06 (0.02)
G or NFP to FP (post)	0.08 (0.07)	-0.64 (0.16)	-0.04 (0.07)	0.03 (0.04)
G or NFP to FP, diff	0.11	-0.31	0.18	-0.03
F-value	1.38	2.48	4.16	0.69
(Prob > F)	(0.24)	(0.12)	(0.04)	(0.41)
FP to G or NFP (pre)	-0.36 (0.21)	-0.36 (0.21)	-0.14 (0.10)	0.01 (0.05)
FP to G or NFP (post)	-0.16 (0.37)	-0.16 (0.37)	-0.19 (0.15)	0.12 (0.07)
FP to G or NFP, diff	0.20	0.20	-0.05	0.11
F-value	2.97	0.24	0.07	1.53
(Prob > F)	(0.09)	(0.63)	(0.79)	(0.22)
	$R^2 = 0.18$	$R^2 = 0.16$	$R^2 = 0.42$	$R^2 = 0.24$
	$\bar{R}^2 = 0.17$	$\bar{R}^2 = 0.15$	$\bar{R}^2 = 0.41$	$\bar{R}^2 = 0.23$
	$F(21, 2699) = 27.49$	$F(21, 2066) = 18.37$	$F(21, 2728) = 93.16$	$F(21, 2734) = 41.12$

Source: American Hospital Association, Annual Hospital Survey, 1987–1995.

Note: Standard errors are in parentheses unless otherwise noted. Only ownership and conversion results are shown in table.

1.5 Rates of Return and Cost of Capital: 10 Hospital Conversions in North Carolina and South Carolina

1.5.1 Base Case

Real rates of return were computed under alternative assumptions described above (table 1.6). With some notable exceptions, the rates of return, especially those involving a for-profit purchaser, generally were low. Unless otherwise stated, we discuss the base case rate with a 30-year time horizon or the lease, whichever applied. Results were fairly insensitive to variations in key assumptions—term and terminal value.

The two cases with the most postconversion experience were Piedmont (1981) and Upstate (1984). For these, much of the postconversion experience was actually observed. For Piedmont and Upstate, respectively, the rates of return were 9.4 percent and 6.7 percent. This was above the estimated real cost of capital to Piedmont (6.3 percent) at the time these transactions occurred, but it was lower than that to Upstate (7.6 percent). Piedmont was able to earn this return despite a buyback provision that was highly favorable to the seller. We learned from our case studies that such buyback arrangements are now uncommon. Upstate is located in a highly competitive market marked by other recent for-profit acquisitions and merger activities. Moreover, the purchase terms were established through a bidding process involving at least six other firms, including Hospital Corporation of America, which had previously managed the hospital under contract. The original purchaser, National Medical Enterprises (NME), sold the hospital shortly after building a new facility due to a strategic change in company focus. NME either may have been willing to forgo some profitability in order to gain access to a new market or may have miscalculated the difficulty of turning this hospital around (the somewhat low returns are in spite of considerable efficiency improvements, expansion of facilities, and success in attracting new physicians to the community).

Among the NFP to FP conversions, the most favorable rate of return was for Providence Hospital, which was a joint venture between the Sisters of Charity of St. Augustine and Columbia/HCA. In this case, the rate of return of 9.4 percent was above the estimated cost of capital to Columbia/HCA of 7.7 percent. In all other cases in this category, the real rate of return was appreciably below the real cost of capital.

For example, in the Cape Fear case, the hospital was slightly profitable. But prior to conversion, it lost some key managed care contracts to a crosstown rival. Since Columbia/HCA acquired the hospital, the hospital has regained some of the lost business. However, none of these special considerations were considered in our rate-of-return calculations. The area has been growing; we accounted for population growth in our calculations.

Table 1.6 Rates of Return and Cost of Capital (Base Case): 10 North Carolina and South Carolina Transactions

	Conversion Date	Base Case Real Rate of Return (IRR) % Calculated Over			Weighted Real Cost of Capital	Ratio of Purchase Price to Preconversion EBITDA ^a	
		30 Years	20 Years	Lease Period		Cash Price ^b	Full Price ^c
Public to for-profit							
Piedmont	1/1/81	9.41	9.20	—	6.27	—	—
Upstate	2/1/84	6.73	6.15	—	8.18	—	—
Not-for-profit to for-profit							
Byerly	8/1/95	1.83	0.71	—	7.15	4.4	8.9
Cape Fear	5/1/96	0.63	(1.02)	—	5.89	8.6	10.2
Hilton Head	5/1/95	(1.76)	(3.01)	—	6.77	8.4	10.9
Mary Black	7/1/96	(0.53)	(1.85)	—	6.30	8.6	10.0
Providence	8/1/95	9.42	9.20	—	7.65	4.8	5.5
Public to not-for-profit							
Wake County	4/1/97	253.03	253.03	—	4.71	Transfer	2.6
Not-for-profit to quasi-public							
Cleveland	10/1/97	Lease	—	196.03	5.02	Lease	1.3
Roanoke/Chowan	2/1/97	Lease	(4.86)	(4.19)	4.62	Lease	5.6

Note: Base case measures internal rate of return (IRR) of all cash flow, including purchase price, lease payments, and any new obligations taken on by the purchaser (i.e., taking over indigent care payments or debt obligations previously financed by county) in the lease arrangements; rate of return is calculated over lease period only. In base case, trend variable (= 1 in 1990) is assumed to be constant after 15 years (that is, this variable reduces the IRR by the same amount in year 30 as in year 15).

^aEBITDA = earnings before interest, taxes, depreciation, and amortization. Preconversion EBITDA is the actual average annual amount for the three years prior to the year of conversion (not adjusted for inflation). Note that in the case of Cleveland Hospital, the lease arrangement did not begin until 1997, but the boards merged in 1994. Therefore, the preconversion EBITDA period is 1991–1993.

^bCash price equals the total amount paid by purchaser to acquire the hospital, exclusive of other obligations financed over time out of hospital operations.

^cTotal price equals cash price plus all other new obligations financed over time out of hospital operations, including lease payments, service, indigent care, or debt obligations not previously financed by the hospital itself (i.e., formerly subsidized by county).

The lowest rate of return for the NFP to FP conversions was for Hilton Head (-1.8 percent). In this case, the purchaser (Tenet) may have reasoned that it would benefit from construction of a retirement community across the river that eventually would house 40,000 persons, a development not reflected in our calculations.

Much more favorable to the buyer or acquirer were the county government to NFP transaction in Wake County (NC) and the NFP (Cleveland) to the hospital district authority transaction in Charlotte (NC). In Wake, for which the rate of return was 253 percent, compared to a cost of capital of 4.7 percent, the county was highly interested in finding a way to ensure the provision of indigent care without having to use tax funds to pay for those services, but it wanted to avoid selling or leasing to a for-profit organization. Roughly \$400 million was transferred to a new NFP organization on apparently highly favorable terms to the new organization. In exchange, this organization guaranteed payment of \$159 million in county debt obligations (which it already had been paying off prior to the conversion) and is committed to providing indigent care without the traditional county subsidy (several million annually), but the cost of fulfilling these obligations is considerably below the hospital's net earnings.

In the Cleveland Regional Medical Center situation, a period of leadership instability led to a request for assistance from the Charlotte/Mecklenburg Health Authority; an affiliation agreement and contract management by the Health Authority began in 1994. This interaction led to a leasing arrangement whereby the lessor pays \$1.7 million per year for 11 years (starting October 1997) in return for a cash flow that is much larger than this. We estimated a 196 percent rate of return to the lessor on this transaction, compared to a cost of capital of 5.0 percent.

By contrast, in the case of Roanoke/Chowan, for which the rate of return over the lease period was -4.2 percent, the lessor, Pitt County Memorial Hospital—which is the teaching hospital for East Carolina University's medical school—assumed the hospital's debt payments of \$25 million over the 23-year life of the lease. In the Cleveland case, the lessor assumed no debt.

Another way to view the purchase price is to compare it to EBITDA—the stream of earnings that the purchaser could be expected to enjoy absent large shifts in the market. If we look only at the cash amount paid (i.e., direct payments paid by the buyer at closing or through lease payments), the ratio to EBITDA was between 4.4 and 8.6. If we use the full price—that is, inclusive of long-term obligations such as covering previously subsidized indigent care—the ratios are much higher. In contrast, the ratios for not-for-profit and quasi-public acquisitions were much lower, and two of these, Wake County at 2.6 and Cleveland at 1.3, were much below the standard EBITDA multiples (typically 4–8) used in hospital acquisitions or those in other private markets.

1.5.2 Sensitivity Analysis

To test the robustness of our findings, we performed several sensitivity analyses. Our findings generally were robust with respect to assumptions about the terminal value of the hospital in the final year of the rate-of-return calculation. In more than half of the cases, rates of return varied by less than one-half of a percentage point. Hilton Head showed a much larger swing in returns, which reflects its relatively low projected stream of net earnings compared to the value of the facility itself. Likewise, it made almost no difference whether the trend factor flattened in year 10 or year 20. Not surprisingly, the base period used to project earnings made more of a difference, reflecting the volatility of hospital earnings in recent years. Nevertheless, changes in this assumption do not alter the overall flavor of our conclusions: For-profits continue to have rates of return at or below their cost of capital, while those for not-for-profit facilities were substantially higher. One final excursion was to see what happened if we assumed that our method somehow had been insufficient to account for the cost savings said to be achieved by for-profit companies. With an assumed cost reduction of 20 percent from the hospital's 1995 base, the Mary Black transactions rate of return equaled the cost of capital (compare the 6.2 percent return in table 1.7 with the 6.3 percent cost of capital in table 1.6). The largest discrepancy was for Hilton Head, with a rate of return of 4.6 percent with a 20 percent expense reduction compared to a cost of capital of 6.8 percent. It may be appropriate to infer equality of returns and costs in this case too because we did not specifically account for relative demand growth in this market.

Overall, with the caveat that we only investigated 10 cases in two states and used parameter estimates from a third, the pattern of the rates of return offers two important implications. First, the communities typically received more than a fair financial return on their assets when they transacted with a for-profit organization (in five out of seven such cases, the for-profit purchaser had returns below their own cost of capital). Despite the limitations of our sample, our findings are consistent with a recent U.S. General Accounting Office analysis of 14 not-for-profit hospital conversions to for-profit status in which it was found that most of the buyers had overpaid for the facilities (Weissenstein 1997). Second, the very high returns occurred when the communities dealt with NFP or quasi-governmental organizations. The lesson is that even private nonprofit and governmental organizations may take advantage of a highly profitable opportunity when they can.

Table 1.7 Rate of Return Sensitivity Analysis: 10 North Carolina and South Carolina Transactions

	If Terminal Value as % of 1995 Value =		If Trend Factor Constant after		If Projected Earnings Based on		If Hospital Expenses Cut an Additional	
	0%	100%	10 Years	20 Years	1994-95	1991-95	5%	20%
Public to for-profit								
Piedmont	9.41	9.42	9.40	9.42	9.52	9.27	NA ^a	NA ^a
Upstate	6.72	6.77	6.69	6.75	6.63	6.58	NA ^a	NA ^a
Not-for-profit to for-profit								
Byerly	1.80	1.96	1.71	1.91	1.28	2.51	3.00	5.15
Cape Fear	0.00	1.69	0.56	0.68	0.64	0.23	2.37	5.40
Hilton Head	(3.72)	(0.22)	(1.79)	(1.74)	(3.25)	(0.23)	0.78	4.56
Mary Black	(1.02)	0.16	(0.61)	(0.46)	(1.13)	0.81	2.18	6.22
Providence	9.41	9.37	9.27	9.47	10.01	8.13	10.56	12.19
Public to not-for-profit								
Wake County	NA ^b		253.03	253.03	227.83	340.54	— ^c	— ^c
Not-for-profit to quasi-public								
Cleveland	NA ^d		196.03	196.03	341.82	244.84	— ^c	— ^c
Roanoke/Chowan	NA ^d		(4.39)	(4.02)	(2.56)	(3.10)	— ^c	— ^c

Note: All rates-of-return calculations based on 30 years, except for lease arrangements, in which case lease period is used. NA = Not applicable.

^aEfficiency savings not calculated since there is ample actual data on revenues, expenses, and margins in the postconversion period.

^bTransfer with restrictions on sale. Purchaser presumed not able to sell facility in terminal year.

^cEfficiency savings only calculated for conversions to for-profit status.

^dDue to lease arrangement, purchaser not able to sell facility in terminal year.

1.6 Nonfinancial Returns: 10 Hospital Conversions in North Carolina and South Carolina

The above analysis of conversion effects did not reveal that a systematic reduction in services occurs when a government or NFP hospital converts to for-profit status or the converse. Lack of statistical significance may reflect lack of statistical power. However, in many cases, magnitudes of change were not great either.

An alternative approach is to gauge responses of stakeholders in 10 communities (table 1.8). Six of the 10 cases seemed to have been threatened with closure (“had effect” in the table). A paramount issue to community leaders was to keep a hospital in their communities. For both of the government (county) to FP conversions, this was a primary motive for selling the hospitals. In one case, a referendum to allow authorization to issue bonds was rejected by the voters. In the other, county officials were unwilling to raise the capital funds. In the NFP to FP conversion category, three of the five hospitals appeared to have been threatened with closure, the other two having had a fairly strong financial position. Of the remaining three hospitals, one (Roanoke/Chowan) had experienced a declining occupancy rate and had difficulty in recruiting and retaining physicians and desired a link to a larger hospital system.

Foundations were formed in six cases, all recent conversions; five were products of conversions to for-profit facilities. The sixth (Roanoke/Chowan) was limited because of the small size of the lease payments that fund the foundation and the stipulation that this money must be used for unspecified improvements to the hospital or its affiliated enterprises. In this case, another foundation with an unspecified focus may be created in the near future using cash reserves on hand at the time of the lease. Of the six, two charters limited foundation outlays to health (Cape Fear and Mary Black), although even in the case of Mary Black, health is broadly defined and the emphasis will be on health promotion and wellness rather than on traditional medical services. In the remaining agreements, the foundation may fund both health and other activities—mainly education, the arts, and local economic development. Several foundations are among the largest in the state. As another measure of magnitude of giving, one foundation’s annual outlays match the level of charitable giving by United Way (Cape Fear), and in two other cases (Mary Black and Providence) outlays will considerably exceed those of United Way.

Hospitals also introduced or expanded cardiac catheterization, rehabilitation, obstetrics/delivery, skilled nursing facility beds, home health services, and/or renovation of emergency room facilities with new 24-hour capabilities. Of course, some of this construction may have occurred absent conversion, but community leaders often attributed this investment to these transactions or, at minimum, believed that conversion resulted

Table 1.8 Nonfinancial Benefits from Key Informant Interviews: 10 North Carolina and South Carolina Transactions

Hospital	Effect on Avoiding Closure	Foundation	Service Expansions	Uncompensated Care
Government to for-profit				
Piedmont	Had effect; county rejected bond referendum in 1979 and new hospital was needed	None	Built new hospital, outpatient facility, neurosurgery, open heart surgery, cardiac catheterization, inpatient psychiatry, and ER	Minimum guarantee for residents of York County (SC) of \$475,000/year; hospital pays county Medicaid tax
Upstate	Had effect; county unwilling to invest capital necessary for upkeep and expansion	None	Built new hospital, expanded ER, and guaranteed continuation of ambulance service previously subsidized by county	Guarantee for residents of Cherokee county
Private not-for-profit to government				
Byerly	Had effect; needed capital and improved purchasing power	Foundation created \$30 million; funds for health, education, and local economic development	Building a new hospital	Guarantee to continue present indigent level
Providence	No effect; conversion was effort to obtain capital to finance needed expansions	Foundation created \$80 million; supports hospital's religious mission, including health	Laser eye surgery, upgraded cardiac catheterization, 18 skilled nurse facility beds, MRI, plans for satellite facility	Guarantee continuation of religious mission, including indigent care, no abortions, etc.
Hilton Head	Had effect; hospital had falling occupancy and defaulted bonds in past that hurt future prospects	Foundation created \$21 million in funds for health, education, and the arts	Rehabilitation, cardiac catheterization, 15 skilled nurse facility beds, and obstetrics; future plans to build satellite facility	Guarantee to continue preconversion levels

(continued)

Table 1.8 (continued)

Hospital	Effect on Avoiding Closure	Foundation	Service Expansions	Uncompensated Care
Cape Fear	Had effect; loss of managed care contracts to rival hospital increased need for an outside partner	Foundation created \$40 million with focus on health and prevention	Rehabilitation, obstetrics, cardiac catheterization, senior center	No guarantee
Mary Black	No effect; felt that long-term survival enhanced by having better purchasing power	Foundation created \$62 million; focuses on wellness and prevention	MRI and cardiac catheterization now fixed, geriatric psych unit, skilled nurse facility, and birthing center	Guarantee at prior levels
Government to private not-for-profit				
Wake County	No effect; primary motivation was to reduce county responsibility and expense of running hospital	None	No guarantee but transfer enables joint ventures outside of county which were previously prohibited	Guarantee at \$53 million
Private not-for-profit to government				
Roanoke/Chowan	Had effect; capital needed; falling occupancy and difficulty recruiting physicians; needed partner	Foundation created; \$1 million per year in unspecified capital improvements	Total value of lease payment used for unspecified capital improvements each year	Guarantee for residents of 4-county area
Cleveland	No effect; believed, however, that a larger partner with subspecialty services needed for long-term survival	None		\$300,000/year from lease to a community indigent care network plus hospital guarantee of historical levels

in such facility improvements occurring more quickly than would have happened otherwise. Further, some services, such as rehabilitation, were likely to be profitable to the facility. In general, the services that were expanded were likely to be profitable.

Provision of uncompensated care is another community benefit. In some contracts, the guarantee was stated as a dollar minimum or as set levels provided prior to the transaction. In others, the buyer guaranteed that residents of specified areas would have access to the facility. One contract specified a guarantee of provision of uncompensated care to a four-county area, the area it served historically, but in general, the areas coincided with the hospital's county. Even in the one case without a guarantee, respondents maintained that uncompensated care had been maintained at prior levels since the conversion. Our findings are consistent with a recent California study showing that of 17 for-profit acquisitions between 1980 and 1991, the conversions did not result in a statistically significant change in the level of uncompensated care or preexisting trends (Young et al. 1997). Likewise, Project HOPE conducted 10 case studies similar to ours, including 8 for-profit acquisitions, and concluded that charity and uncompensated care typically continued at the same or higher levels following conversion (Mark et al. 1997).

Valuing the benefits of foundation activities and expanded hospital services would be difficult at best and was not undertaken here. Such computations would be more important if the financial returns from these transactions had been advantageous to the buyers. Determining the benefits of these foundations is made even more difficult by the large range of projects they could fund.

1.7 Conclusions, Implications, and an Agenda for Future Research

For many conversions, especially those in which a for-profit organization was the purchaser, the purchase price seems to have been right, or perhaps even too high, but not too low. The conversions for which the purchase price was too low involved other types of purchasers. In these cases, the seller desired to sell or lease but did not want to deal with a for-profit organization.

One reason for eschewing a for-profit hospital company might have been a fear that community benefits would be unduly sacrificed. But we did not find that the for-profit hospital companies reduced such benefits after they acquired the facilities. Many of the conversions were recent, and we cannot exclude the possibility of substantial cuts downstream.

One view might be that providing excess returns to a governmental or NFP organization does no harm since the excess return will ultimately be returned to the community, the seller or lessor, in some form. However, such funds need not be allocated in this way, but rather in the form of

emoluments to management or to other “insider” stakeholders. Also, when the buyer is an organization in another community, the recipients of any dividend are likely to be citizens of other communities. Finally, acquisition by a not-for-profit purchaser may only be an intermediate step to ultimate conversion to for-profit status.

Our results imply that if there is a case for public scrutiny of these transactions, such scrutiny should not be limited to those cases in which the buyer is a for-profit hospital company. In general, the benefits of such scrutiny should be weighed against the costs. It is not clear that such scrutiny would protect the public any better, and it would probably not protect as well as competitive bidding and/or an open discussion that invites community input into the pros and cons of various alternatives.

Our findings raise at least two important questions. First, do these results generalize? Second, why should publicly held corporations undertake investments for which the rate of return falls far short of the cost of capital?

The results may not generalize. Further research on conversions in other states should be undertaken. It is worth noting, however, that the same companies were involved in conversions in other states during the same time period. Consultants that assisted the parties with these transactions would have been available to similarly situated parties in other states. Tennessee has had among the highest for-profit hospital shares in the United States historically. By contrast, North Carolina and South Carolina have had much lower for-profit shares.

The issue of why some hospital companies may have undertaken unprofitable investments is more difficult to answer. A glib answer would be that we only analyzed a small number of transactions. More likely, the companies may have included returns not included in our calculations, such as network building or establishing new footholds in new markets. But even so, if the communities had been “exploited,” one would have expected to observe much higher rates of return. Also, our analysis of changes in profitability of hospitals that converted to for-profit status in Tennessee showed that, on average, the profit rate only increased slightly after the conversions occurred. Perhaps the buyers’ intentions were not fully realized. Clearly, observed patterns of returns reflect the relative bargaining strength of the parties. It would be useful to model bargaining explicitly. Of course, to obtain useful quantitative results, it would be necessary to have a much larger sample.

The hospital industry is contracting due to growth of managed care, among other reasons. Running a hospital in a “business as usual” fashion will almost surely be a money-losing proposition, as our regression results indicate.

Finally, both the decision-making process and the decisions of foundations created as a consequence of sale or lease of hospitals have not been

documented. Whether or not these foundations truly yield a community benefit is an open question, one worthy of further study.

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