Administration and Policy in Mental Health
Vol. 24, No. 3, January 1997

FOR-PROFIT VERSUS NON-PROFIT FREESTANDING PSYCHIATRIC INPATIENT FACILITIES: AN UPDATE

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ABSTRACT: Although several studies have examined the trend toward the decreasing differentiation of non-profit from for-profit general hospitals, few have focused on freestanding psychiatric hospitals. This study updates previous research that used psychiatric hospital data from calendar year 1986 with data from 1990. In addition, a preliminary examination of the influence of market competition on the behavior of non-profit psychiatric facilities was conducted. Results confirm a converging trend between for-profit and non-profit facilities that is related, in part, to competition.

The privatization and "proprietization" of hospital systems (Dorwart & Schlesinger, 1988) initiated much debate several years ago about the merits of non-profit versus for-profit medical care (Culhane & Hadley, 1992). That debate has become even more heated as health care reform has moved to the fore. In today's competitive health care environment, the distinction between for-profit and non-profit organizations can become blurred as non-profit facilities experience increasing pressure to adopt for-profit business practices (Judge & Zeithaml, 1992). It may actually be necessary for some non-profit hospitals to earn a "profit" in order to remain fiscally solvent (Fallon, 1991). Concerns that non-profits are not providing enough "societal benefit" to justify their special tax status, and indeed are just for-profit agencies in non-profit "clothing," has caused local authorities across the country to challenge that status in the courts and through

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legislative action. This, in turn, has brought about caution from some researchers against the hasty dismissal of the important roles that non-profits play in today's continuum of mental health care (Frank & Salkever, 1991) as well as a number of "guides" outlining how to maintain non-profit status in such a difficult environment (Pelfrey & Theisen, 1993; Theisen & Pelfrey, 1993).

Three years ago, Culhane and Hadley (1992) examined the distinguishing characteristics of for-profit and non-profit freestanding psychiatric inpatient facilities, and found that these hospital types significantly differed on a number of service and organizational variables (e.g., service mix, client mix, payer mix, accessibility, and hospital capacities). These findings have subsequently been supported by a study using a different data source (McCue & Clement, 1993). However, Culhane and Hadley also found that the classification test produced by a discriminant analysis model misclassified a considerable number (25.6%) of non-profits as for-profit. The authors concluded that the non-profits were potentially responding to competitive pressures to behave in a for-profit manner.

Although there have been several studies examining the trend towards decreasing distinguishability of non-profit and for-profit general hospitals (Arrington & Haddock, 1990; Herzlinger & Krasker, 1987), few have focused on freestanding psychiatric hospitals. The objective of this study is to re-examine this trend in freestanding psychiatric hospitals and update our previous study (Culhane & Hadley, 1992). That study used hospital data from the 1986 calendar year, whereas the present one uses data from the 1990 calendar year. In addition, because the literature suggests that increased competition is having a great effect on the behavior of non-profit hospitals (Woolley, 1990), we conduct a preliminary examination of the influence of market competition on the behavior of non-profit psychiatric facilities. Based upon our previous study and the literature, our working hypotheses are:

- There will continue to be significant differences between for-profit facilities and non-profit hospitals across a wide array of variables, with the pattern of relationships being similar to previous findings;
- Because of increasing competition, resulting primarily from private hospital growth between 1986 and 1990, more non-profit hospitals will be misclassified as for-profit hospitals (i.e., have similar characteristics as for-profits) in 1990 than in 1986 using a discriminant procedure;
- Non-profit hospitals that are misclassified using the discriminant procedure will be located in more competitive psychiatric inpatient markets.

METHOD

Data Sources

Data from the Inventory of Mental Health Organizations (IMHO) were used for this study. The IMHO survey was conducted by the Survey and Reports Branch of the National Institute of Mental Health (National Institute of Mental Health, 1991). Collected in 1991, the data reflect information from calendar year 1990 for each of the facilities. The IMHO survey has a 97% completion rate (R. Mandersheid, Personal Communication, March 1991) and is thus the best approximation of the known universe of mental health organizations and facilities in the United States. Both clerical analysis and computer routines were used to subject the IMHO data to a number of quality checks, and respondents were contacted by telephone for follow-up until each organization passed the error checks.

Only private mental health organizations that reported in the IMHO providing inpatient services in a hospital setting were included in the analysis, for a total population of 494 cases (psychiatric units in general hospitals were not included). Eight cases were then excluded from the analysis of missing values, leaving a final population of 486 cases. Over two thirds were "for-profit" ($N=336$) and under one third were "not-for-profit" ($N=150$). The data represent an approximation of the entire population of private, psychiatric inpatient facilities in the United States in 1990.

County level population data from the 1990 United States decennial census were also used in this study. Although there has been a reported undercount for persons of color relative to whites, post-enumeration survey estimates based on repeat interviews of a probability sample of about 165,000 housing units provide only national, state, and some regional level adjustment factors. Thus, as smaller geographic population units were used in this study (for localized estimates of market competition), no adjustment factors were used and original population estimates from the 1990 census were employed.

Hospital Constructs

The hospital characteristics used in this study were service mix, client mix, payer mix, accessibility, expenditures, facility capacities, university affiliation, and length of stay. As in our previous study (Culhane & Hadley, 1992), several of the operational definitions of these characteristics were based on the work of Arrington and Haddock (1990) and others were constructed from the available data. The characteristics were operationalized as follows:

1. *Service mix.* An additive index of non-inpatient services (outpatient care, residential treatment, residential supportive care, partial care, and emergency services) provided at the facility, coded by presence/absence (maximum value = 5);
2. *Client mix.* Proportions of patients with primary diagnoses of mental illness, mental retardation, and substance abuse (total = 1.00); proportions of patients by age group (child/adolescent, adult, elderly) (total = 1.00);
3. *Payer mix.* Proportion of reported revenues from Medicare, Medicaid, state (exclusive of Medicaid), client fees/insurance, and other (other government contract funds, foundation support, and other sources not classified) (total = 1.00);
4. *Accessibility.* Annual number of emergency visits as a proportion of each facilities bed capacity;
5. *Investment in future resources.* Capital expenditures per bed;
6. *Facility capacities.* Three capacity measures were used, including number of inpatient beds, occupancy rate (average daily census/bed capacity), and turnover rate (total patients/bed capacity);
7. *University affiliation.* Used as a proxy for professional training (coded by presence or absence);
8. *Length of stay.* The mean annual length of stay at the facility (total patient days/total patients).

Analyses

A similar methodology to our previous study (Culhane & Hadley, 1992) was employed to analyze the data in the present study. Discriminant analysis is a technique used to distinguish between two or more mutually exclusive groups on the basis of several independent variables on which the groups are expected to differ (Klecka, 1980). The technique was used in the present study to develop a linear model of the constructed variables such that the resulting prediction equation minimized the chance of misclassification between not-for-profit and for-profit facilities. The procedure provides results similar to those obtained when using multiple regression (Klecka, 1980); however, we selected discriminant analysis because it is more appropriate for examining differences among mutually exclusive groups measured at the nominal level.

As the IMHO data available for this study reflect an approximation of the total United States universe of private psychiatric inpatient facilities, classification of facilities based on a discriminant function using the entire population would produce an inflated estimate of the model's effectiveness. Therefore, the function was derived from a sample of cases selected

from the population and then tested for misclassification using the unselected cases to obtain a more accurate estimate of the model's effectiveness. A step-wise procedure was used to select variables for inclusion in the model.

The results of the discriminant function classification of private non-profit psychiatric hospitals were further evaluated by examining the effect of competition on hospital characteristics (i.e., comparing misclassified non-profit hospitals—those that share more of the model characteristics of for-profit facilities—with correctly classified hospitals). County boundaries were selected as the closest approximation of market areas from the data available in the IMHO. Three competition indices were calculated, using both the IMHO and the U.S. Census, for each county: (1) the number of inpatient psychiatric beds (from all sources including general hospitals, state facilities, multi-service organizations, and free-standing psychiatric facilities) per capita; (2) the number of inpatient beds in for-profit hospitals per capita; and (3) the number of full-time equivalent psychiatric per capita. Although other indices of competition have been proffered (White & Chirikos, 1988), we chose to create our own indices based on the assumption that the greater the supply (beds and staff), the greater the competition. Thus, the higher the value in each of these indices, the greater the competition in the county. Using these competition indices, simple comparisons were made among misclassified and correctly classified not-for-profit hospitals. Finally, we examined the effect of the "chain status" on the characteristic profile of non-profits (i.e., whether non-profits have more characteristics of for-profit facilities in areas that have more for-profit facilities that are part of a chain and whether non-profits that are part of a chain have more characteristics of for-profit hospitals).

RESULTS

As presented in Table 1, six variables were entered into a prediction equation by the discriminant analysis in the following order: service mix, client fees/insurance (payer mix), other payer (payer mix), Medicare (payer mix), proportion elderly (client mix), and number of inpatient beds. The equation successfully classified the ownership status of the facilities 84.21% of the time for selected cases and 81.08% of the time for unselected cases (Table 2). However, as the discriminant equation misclassified 45.8% of the unselected not-for-profit hospitals (compared to misclassification of 6.3% of the for-profit hospitals), it is much better at classifying the for-profit hospitals than the not-for-profit facilities, suggesting that a great number of the not-for-profit hospitals (almost half) share

TABLE 1
Results from Discriminant Analysis Using the Stepwise Method for Variable Inclusion

Variable	*F*	*Wilks' Lambda*	*Standardized Canonical Discriminant Function Coefficients*
Service Mix	32.7733	0.6680	−0.57827
Payer Mix			
Client fees/Insurance	31.5825	0.6648	0.74079
Other Payer	12.5333	0.6147	0.47920
Medicare	11.4702	0.6119	0.39920
Client Mix			
Proportion - Elderly	9.4011	0.6064	−0.35964
Facility Capacity			
Inpatient Beds	6.6765	0.5993	0.27730

Equivalent $F = 26.487$
$(df = 6, 221)$
$p < .0001$

the same discriminating characteristics as the for-profit hospitals. As only 25% were misclassified using 1986, the relative numbers of non-profits that "look like" for-profits has almost doubled between 1986 and 1990.

Standardized discriminant function coefficients (which are similar to standardized coefficients or beta weights produced in a regression procedure) are also presented in Table 1. Absolute values of these coefficients have been interpreted as reflecting the relative importance of the variables in the prediction model. Nevertheless, it is the combined predictability of the selected variables that comprises the model, and it is that combination

TABLE 2
Classification Results for Cases Not Selected for Use in the Discriminant Procedure

		Predicted Group Membership	
Ownership Type	*N*	*For-Profit*	*Not-For-Profit*
For-Profit	176	165 (93.8%)	11 (6.3%)
Not-For-Profit	83	38 (45.8%)	45 (54.2%)
Total	259	203	56

Cases Correctly Classified = 81.08%

that has been evaluated here. Therefore, separating out individual variable effects based only upon the coefficients can be misleading and should be further qualified. Moreover, because the discriminant procedure only includes variables when they contribute uniquely to the model, other variables with shared variation may not enter the equation even though for-profit and non-profit hospitals may differ significantly on those variables. Thus, we should also look at the function-variable correlations to assess the strength of the relationship between individual construct variables and the discriminant function (Table 3). In addition, by examining the variable means and univariate *F*-tests (Table 4), we can

TABLE 3
Pooled With-In Groups Correlations Between Discriminating Variables and Canonical Discriminant Functions

Variable	*r*
Service Mix[a]	−0.69190
Client Mix	
Age	
Children/Adolescents	0.23435
Adults	−0.22054
Elderly[a]	−0.08173
Diagnosis	
Mental Illness	0.04827
Mental Retardation	−0.11304
Substance Abuse	0.02126
Payer Mix	
Medicare[a]	0.27553
Medicaid	−0.19137
State	−0.67815
Client fees/Insurance[a]	0.57045
Other Payer[a]	−0.10415
Accessibility	−0.33352
Investment in Future	
Capital Expenditures/Bed	−0.00705
Facility Capacities	
Inpatient Beds[a]	0.31673
Occupancy Rate	−0.10398
Turnover Rate	−0.24723
University Affiliation	−0.00962
Average Length of Stay	0.07300

[a]Entered Discriminant Function

TABLE 4
Mean Values of Construct Variables by Ownership Type and Univariate *F*-ratios, Selected and Unselected Cases ($N = 486$)

	1986 IMHO Survey[b]		*1990 IMHO Survey*		
	For-Profit	*Non-Profit*	*For-Profit*	*Non-Profit*	
Variables	*Mean (St Dev)*	*Mean (St Dev)*	*Mean (St Dev)*	*Mean (St Dev)*	*p*
Service Mix[a]	0.66 (0.95)	3.06 (1.51)	1.16 (0.855)	2.46 (1.45)	.0001
Client Mix					
Age	0.41 (0.25)	0.23 (0.26)	0.39 (0.22)	0.29 (0.25)	.0001
Children/Adolescents					
Adults	0.51 (0.68)	0.68 (0.26)	0.53 (0.20)	0.61 (0.24)	.0003
Elderly[a]	0.07 (0.08)	0.09 (0.12)	0.08 (0.08)	0.10 (0.09)	.0180
Diagnosis					
Mental Illness	0.87 (0.16)	0.91 (0.21)	0.90 (0.16)	0.91 (0.15)	.3575
Mental Retardation	0.00 (0.02)	0.01 (0.04)	0.00 (0.06)	0.01 (0.04)	.1711
Substance Abuse	0.13 (0.14)	0.08 (0.15)	0.09 (0.14)	0.06 (0.14)	.0722

Payer Mix					
Medicare[a]	0.08 (0.08)	0.05 (0.06)	0.11 (0.08)	0.09 (0.08)	.0009
Medicaid	0.05 (0.09)	0.08 (0.11)	0.08 (0.08)	0.13 (0.14)	.0001
State	0.05 (0.10)	0.29 (0.28)	0.04 (0.07)	0.21 (0.27)	.0001
Client fees/insurance[a]	0.66 (0.20)	0.36 (0.29)	0.62 (0.17)	0.40 (0.27)	.0001
Other Payer[a]	0.15 (0.15)	0.22 (0.20)	0.15 (0.13)	0.18 (0.16)	.0500
Accessibility					
Ann. Emergency Visits	1.02 (5.88)	73.08 (185.84)	0.50 (3.28)	12.20 (31.39)	.0001
Future Investment					
Capital Expend./Bed	7140.66 (11942)	6995.15 (9354)	14193.3 (37286)	15023.0 (35250)	.8168
Facility Capacities					
Inpatient Beds[a]	92.25 (52.81)	60.43 (69.79)	88.37 (56.46)	71.81 (65.64)	.0045
Occupancy Rate	0.69 (0.20)	0.76 (0.21)	0.59 (0.21)	0.69 (0.20)	.0001
Turnover Rate	9.11 (6.40)	15.42 (13.64)	11.09 (9.89)	15.53 (10.08)	.0001
University Affiliation	0.22 (0.42)	0.43 (0.50)	0.35 (0.48)	0.53 (0.50)	.0002
Average Length of Stay	52.93 (71.43)	44.03 (61.39)	32.29 (49.21)	32.84 (50.15)	.9092

[a]Entered discriminant function equation using 1990 data. [b]Culhane & Hadley, 1992.

more directly assess the direction and significance of each of the variables by their ownership type.

Examining the function-variable correlations in Table 3, it is apparent that service mix and variables for payer mix show the strongest relationships to the discriminant function. However, client age, accessibility and facility capacities are also moderately correlated with the discriminant procedure. The results of the univariate tests of significance presented in Table 4 show significant differences ($p < .05$) between for-profits and not-for-profits for service mix, all three categories of client age mix, all five categories of payer mix, accessibility, all three categories of facility capacities, and finally, university affiliation. Significant differences ($p < .05$) between for-profit and non-profit facilities were found in 14 construct variables out of a total of 19 included in the analysis. The pattern of differences in 1990 is similar to that obtained using 1986 data (Culhane & Hadley, 1992).

To evaluate the finding that more not-for-profit hospitals are sharing characteristics with for-profit hospitals (i.e., more are "looking" like for-profits), the 64 not-for-profit hospitals (selected *and* unselected) that were misclassified as for-profit by the model and the 86 not-for-profit hospitals that were correctly classified as not-for-profit by the model were further examined. To determine if misclassified not-for-profits were clustered in states that promote greater competition, the misclassified facilities were sorted by state. The 64 facilities were spread out over 25 states suggesting that statewide policies are not a major factor in influencing not-for-profits to behave like for-profit facilities. Moreover, being part of a chain of hospitals also did not appear to influence not-for-profits to look more like for-profits as of the 64 misclassified not-for-profits, only five were part of a chain. Whether competing for-profit hospitals in a particular area were part of a hospital chain also appeared to not influence the characteristic profile of non-profits (i.e., non-profits did not "look more like" for-profits in areas where there were more non-profit chain facilities).

Finally, the simple comparisons using the three competition indices are presented in Table 5. Although the not-for-profit facilities misclassified as for-profit facilities by the discriminant procedure seem to be consistently in areas with higher competition, only one index (psychiatrist/1000) showed a significantly higher value for the misclassified hospitals ($p < .05$).

DISCUSSION

It was hypothesized that although non-profit and for-profit psychiatric facilities would significantly differ across a number of characteristics, the trend for non-profits to look more like for-profits would be verified and

TABLE 5
Mean Values of Competition Indices by Classification Result and *t*-Scores, Selected and Unselected Not-For-Profit Hospitals ($N = 150$)

Competition Index	*Misclassified Mean (Std. Dev.)*	*Correctly Classified Mean (Std. Dev.)*	*t-score*	*p*
Total Inpatient Beds per 1000 population	1.53 (1.59)	1.15 (1.05)	1.77	.078
Total Inpatient Beds in for-profit hospitals per 1000 population	0.25 (0.28)	0.23 (0.25)	0.21	.832
Number of Psychiatrists per 1000 population	0.13 (0.12)	0.09 (0.05)	2.34	.022

shown to be related, in part, to market competition. However, before beginning a discussion of the results, several caveats about the limitations of this study are in order. First, the IMHO data did not allow a more specific categorization (other than inpatient, outpatient, partial care, and residential care) of the treatment modalities used at each facility. Thus, the service mix construct variable was necessarily broad. A more clinically detailed service mix indicator may produce different results. Second, standard deviations reported in Table 4 reveal that considerable variation is present for both for-profit and non-profit hospitals on virtually every construct variable. This should be carefully considered when interpreting the results of the discriminant procedure and particularly applying the classification equation. Third, this study did not include general hospital psychiatric units or public psychiatric hospitals. Future studies may wish to examine these provider types and their attributes. Finally, use of county location as the definition of market boundaries is primitive and may not reflect true market areas. However, county designation was the closest approximation to true market areas available in the data set. Nevertheless, even given these caveats, important insights into the current trends and behaviors of non-profit psychiatric facilities were apparent.

The significant differences, based upon ownership type, found in our previous study using 1986 data are largely replicated using 1990 data. Non-profit hospitals offer a broader array of services, to proportionately more adults/elderly and fewer children, in smaller facilities with greater turnover and occupancy rates. Non-profits also rely more on state funding and less on client fees or insurance to support their operations than do for-profit facilities. As was noted previously (Culhane & Hadley, 1992), these differences would be expected given the high economic motivation in for-

profit hospitals (e.g., children are typically better insured than adults/elderly, and inpatient services are usually more lucrative, which promotes higher bed capacity and fewer other services) and the obligation of non-profit agencies to "give something back" to the community or society at large for their preferred tax status (thus more services offered to less "lucrative" clients).

However, although significant differences between ownership types were maintained in both 1986 and 1990, the mean values for the examined variables appear to be converging (see Table 4). For example, in 1986, the mean values for service mix were 0.66 for for-profits and 3.06 for non-profits. In 1990, those values were 1.16 and 2.46 respectively. Similarly, in 1986 the mean number of inpatient beds per facility was 92.25 for for-profits and 60.43 for non-profits. In 1990, means were 88.37 and 71.81 respectively. Therefore, although they still differ in several important respects, from a simple visual comparison of results, it appears that non-profits and for-profits are becoming more similar.

This visual examination is supported by the results of the discriminant analysis. Although 25% of non-profit hospitals were misclassified as for-profit by the discriminant function in 1986, 45% of non-profits were misclassified in 1990. This result could be an artifact of the analysis—perhaps for-profit hospitals have become more homogeneous (less variability) and non-profits more heterogeneous (more variability). However, the standard deviations for the variable means have not changed substantially, and indeed have decreased for a number of variables for non-profits from 1986 to 1990. Perhaps because of factors such as decreased access to public support and less philanthropy (Ginzberg, 1991; Shore, 1992), non-profit hospitals must seek financial support from other sources, and in the process have adopted a number of practices used successfully by for-profit organizations.

Our preliminary examination of the effects of competition on non-profit hospital characteristics supports the claim that non-profits in markets with greater competition tend to possess characteristics similar to for-profit facilities. Although only one index (Psychiatrists/1000 population) showed significant differences suggesting that misclassified non-profit facilities are located in areas of higher competition, the other two indices indicate trends in that direction and indeed one of them (total inpatient beds per 1000 population) revealed that on average there are 33% more beds per capita in areas where non-profits are possessing the characteristics of for-profit facilities (Table 5). Given this trend, perhaps the competition received from private hospital beds is not as important as the total number of beds (as reflected by total beds from all sources and number of psychiatrists per capita). Competition clearly appears to be influencing the be-

havior and characteristics of non-profit psychiatric hospitals and deserves further investigation.

In conclusion, our hypotheses are supported by the results of the data analyses. Although non-profit and for-profit psychiatric facilities continue to significantly differ across a number of characteristics, the trend for non-profits to look more like for-profits is increasing and seems to be related, in part, to market competition. Future research should continue to monitor and evaluate the apparently ongoing convergence of the characteristics of for-profit and non-profit psychiatric hospitals. Policymakers in local communities should carefully consider the changing characteristics of non-profit facilities when reassessing or evaluating the "community benefit" provided in exchange for special tax status. The current competitive economic climate is a challenge for both for-profit and non-profit hospitals today. However, non-profits need to carefully focus on and be more responsive to the concerns and expectations of the public and policymakers that they serve to support and maintain their non-profit status (Gray, 1993), and policymakers may need to better weigh the effects of competition on the performance of non-profit facilities when formulating new societal priorities.

REFERENCES

Arrington, B., & Haddock, C. (1990). Who really profits from not-for-profits? *Health Services Research, 25,* 291–304.

Culhane, D.P., & Hadley, T.R. (1992). The discriminating characteristics of for-profit versus not-for-profit freestanding psychiatric inpatient facilities. *Health Services Research, 27,* 177–194.

Dorwart, R., & Schlesinger, M. (1988). Privatization of psychiatric services. *American Journal of Psychiatry, 145,* 543–553.

Fallon, R. (1991). Not-for-profit not equal to no profit: Profitability planning in not-for-profit organizations. *Health Care Management Review, 16,* 47–61.

Frank, R.G., & Salkever, D.S. (1991). Non-profit providers of mental health care: Privileges and responsibilities. *Administration and Policy in Mental Health, 18,* 195–198.

Ginzberg, E. (1991). Philanthropy and nonprofit organizations in U.S. health care: A personal retrospective. *Inquiry, 28,* 179–186.

Gray, B. (1993). Ownership matters: Health reform and the future of nonprofit health care. *Inquiry, 30,* 352–361.

Herzlinger, R., & Krasker, W. (1987). Who profits from non-profits? *Harvard Business Review, 65,* 93–106.

Judge, W., & Zeithaml, C. (1992). An empirical comparison between the board's strategic role in nonprofit hospitals and in for-profit industrial firms. *Health Services Research, 27,* 47–64.

Klecka, W. (1980). *Discriminant analysis.* Beverly Hills, CA: Sage Publications.

McCue, M., & Clement, J. (1993). Relative performance of for-profit psychiatric hospitals in investor-owned systems and nonprofit psychiatric hospitals. *American Journal of Psychiatry, 150,* 77–82.

National Institute of Mental Health. (1991). *The inventory of mental health organizations (IMHO) for 1990.* Rockville, MD: NIMH Survey and Reports Branch.

Pelfrey, S., & Theisen, B. (1993). Valuing the community benefits provided by nonprofit hospitals. *Journal of Nursing Administration, 23,* 16–21.

Shore, M. (1992). The crumbling services infrastructure: The decline of the nonprofit agency. *American Journal of Orthopsychiatry, 62,* 327.

Theisen, B., & Pelfrey, S. (1993). The advantages and risks of being a tax-exempt, nonprofit organization. *Journal of Nursing Administration, 23,* 36–41.
White, S., & Chirikos, T. (1988). Measuring hospital competition. *Medical Care, 26,* 256–262.
Woolley, J. (1990). Hospital behavior in a competitive market. *Journal of Health Politics, Policy, and Law, 15,* 656–664.