Library of Congress Cataloging in Publication Data

Bloom, Barbara
Utilization patterns and financial characteristics of nursing homes in the United States, 1977.

(Vital and health statistics: Series 13, Data from the National Health Survey; no. 53) (DHHS publication; no. (PHS) 81-1714)
Bibliography: p.
Supt. of Docs. no.: HE 20.6209:13/53
1. Nursing homes—United States—Utilization—Statistics. 2. Nursing homes—United States—Finance—Statistics. I. United States. National Center for Health Statistics. II. Title. III. Series: United States. National Center for Health Statistics. Vital and health statistics: Series 13, Data from the National Health Survey, Data on health resources utilization; no. 53. IV. Series: United States. Dept. of Health and Human Services. DHHS publication; no. (PHS) 81-1714. [DNLM: 1. Nursing homes—Economics—United States. 2. Nursing homes—Utilization—United States. W2 A N148vm no. 53]

RA407.3.A349 no. 53 [RA997] 80-606876
ISBN 0-8406-0215-4 362.1'1'0973s [362.1'6'0973]

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402

Utilization Patterns and Financial Characteristics of Nursing Homes in the United States:

1977 National Nursing Home Survey

Utilization patterns and financial data collected in the 1977 National Nursing Home Survey (NNHS) are presented according to standard sets of descriptive variables. Data are presented that measure utilization, staffing patterns, cost of providing care, and profitability. National information on revenues are available for the first time from this survey. The 1977 NNHS covered all types of nursing homes in the coterminous United States.

Data From the National Health Survey
Series 13, No. 53

DHHS Publication No. (PHS) 81-1714

U.S. Department of Health and Human Services
Public Health Service
Office of Health Research, Statistics, and Technology
National Center for Health Statistics
Hyattsville, Md.
August 1981

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Library of Congress Catalog Card Number 80-606876

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Symbols

- - -	Data not available
. . .	Category not applicable
-	Quantity zero
0.0	Quantity more than zero but less than 0.05
Z	Quantity more than zero but less than 500
*	Figure does not meet standards of reliability or precision
#	Figure suppressed to comply with confidentiality requirements

Utilization Patterns and Financial Characteristics of Nursing Homes in the United States: 1977 National Nursing Home Survey

by Barbara Bloom, Division of Health Care Statistics

Introduction

Scope of report

This report based on the 1977 National Nursing Home Survey conducted by the National Center for Health Statistics will analyze selected measures of utilization and financial data by facility characteristics for nursing homes in the contiguous United States.

The utilization measures to be discussed are number of nursing homes, beds, residents, admissions, resident days of care, annual occupancy rate, median duration of stay, turnover rate, full-time equivalent staff per 100 beds, and vacant staff positions.

The financial measures to be discussed are total cost and revenue, cost and revenue per resident day, net income, cash flow, and profitability categories.

The facility characteristics to be examined are as follows:

Ownership.—A facility can operate under one of three types of ownership—proprietary, voluntary nonprofit, or government. A proprietary or for-profit facility is operated under private commercial ownership. A voluntary nonprofit facility is operated under voluntary or nonprofit auspices including both church- and nonchurch-related facilities. A government facility is operated under Federal, State, or local government auspices.

Certification.—A facility or distinct part of a facility may be certified under one or more Government reimbursement programs (Medicare, Medicaid) or may operate without certification status. In 1965, Medicare legislation (Title XVIII of the Social Security Act) enacted a Federal program to provide up to 100 days of inpatient skilled nursing care and related services following a hospital stay to enrollees who were either over 65 years of age or disabled. The Medicaid legislation (Title XIX of the Social Security Act), enacted in the same year, provided an unlimited number of inpatient days of care on either the skilled nursing or intermediate care level to those categorically needy recipients as specified by individual State plans. A facility or distinct part of a facility may be certified to operate under the Medicare program as a skilled nursing facility (SNF), the Medicaid program as an SNF, the Medicaid program as an intermediate care facility (ICF), or may be not certified, or any combination of the above.

The SNF services are ordered by and under the direction of a physician for individuals who need skilled nursing care (i.e., services provided directly by or requiring the supervision of skilled nursing personnel) or other skilled rehabilitative services on a daily basis which as a practical matter can only be provided to an inpatient in an SNF. The SNF services may be provided under either the Medicare or Medicaid program.[1]

The ICF services are health-related care and services provided on a regular basis to individuals who do not require the degree of care and treatment that a hospital or SNF is designed to provide, but who, because of their mental or physical condition, do require care and services above the level of room and board that can be made available to them only through institutional facilities.[1]

In this report nursing homes have been grouped into four hierarchical categories according to intensity of services based on certification: SNF only, SNF and ICF, ICF only, and not certified. The SNF's only provide the most intensive level of care required by law and, therefore, represent the highest level of certification in this hierarchy. Facilities that have dual certification as SNF's and ICF's provide both the most intensive and the intermediate levels of care. Thus SNF's and ICF's represent the second highest level of certification in this hierarchy. The ICF's only provide *only* intermediate levels of care and, therefore, rank below the SNF and ICF category in this hierarchy. Noncertified facilities that were not required to meet Medicare or Medicaid standards were ranked as the lowest level in this hierarchy.

(Note that noncertified facilities are a heterogeneous group. These homes can provide a full range of services from the most intensive to the least intensive levels of care. Noncertified facilities simply choose not to participate in either the Medicare or Medicaid program.)

Bed size.—For this report, nursing homes in the 1977 National Nursing Home Survey (NNHS) have been categorized into five bed-size groups—less than 20 beds, 20-49 beds, 50-99 beds, 100-199 beds, and 200 beds or more. Data within the categories of less than 20 beds and 20-49 beds can be collapsed into the category of less than 50 beds for comparability to utilization and cost reports from earlier surveys. For analytical purposes, data in this report are presented for the combined category of less than 50 beds when numbers for the category of less than 20 beds were not reliable.

Location.—In the 1977 NNHS, facility location was divided into two categories: nursing homes were classified by the U.S. Bureau of the Census geographic regions (Northeast, North Central, South, and West) as in previous years and, for the first time, were also classified by the Federal Government's Standard Federal Administrative (SFA) Regions I-X. The 10 SFA Regions do not collapse into the 4 Census Bureau geographic regions.

Affiliation.—For this report nursing homes in the 1977 NNHS have been categorized into three affiliation groups—chains, independents, and government. Chain facilities are proprietary or voluntary nonprofit homes that operate as members of a group of facilities under one general authority or ownership. Independent facilities are proprietary or voluntary nonprofit homes that do not operate as members of a group of facilities under one general authority or ownership. Government facilities are homes operated under Federal, State, or local government authority.

Background and qualifications of data

The 1977 NNHS, designed and developed by the Division of Health Resources Utilization Statistics, is the second survey in the ongoing NNHS system. This national sample survey of nursing homes—their residents, discharges, and staff—was conducted by the National Center for Health Statistics (NCHS) from May through December 1977.

The sample design for the 1977 NNHS was a stratified two-stage probability sample. The first stage was a selection of facilities. Facilities were selected from the universe of nursing homes classified by the 1973 Master Facility Inventory (MFI) as nursing homes, personal care homes with nursing, personal care homes without nursing, and domiciliary care homes. For the 1977 NNHS, the MFI universe listing or sampling frame had been supplemented by a listing of all nursing homes that opened for business between the time the 1973 MFI was conducted and December 1976 when the universe was frozen. The second stage was a selection of each of the following: residents, discharges, and staff from the sample facilities. The second-stage sampling of residents, discharges, and staff was carried out by interviewers according to specific instructions for each type of sample facility.

Data were collected according to several procedures. Data on the characteristics of the facility were collected by interviewing the administrator. Data for a sample of residents on the facility's roster during the survey were collected by interviewing the nurse who was most familiar with the care provided to the resident. When responding, the nurse referred to the patient's medical record. Data for a sample of discharges occurring in 1976 were collected by interviewing the nurse most familiar with the relevant medical records. Data on a sample of employees who provided direct or health-related services were collected by leaving a questionnaire for the sampled person to complete and return by mail. Data on facility costs of providing care in 1976 were obtained from the facility's accountant or administrator who either completed the questionnaire and returned it by mail or submitted the appropriate financial statements.

The previously mentioned differences in design, coverage, and reference periods produced data from two viewpoints. Estimates of the number and characteristics of facilities, residents, and employees reflect the situation on any day during the survey period May-December 1977. Estimates of the number and characteristics of discharges, measures of utilization (resident days, admissions, occupancy rates), and costs and other financial variables provide data for the full calendar year of 1976. For cost and resident days, however, fiscal year data were allowable.

When comparing data from the 1977 NNHS with data from the 1973-74 NNHS, the first survey in the ongoing system, the reader should be aware of the following:

1. The 1977 NNHS included *all* types of nursing homes. This represents a broadening of the scope of coverage over that of the 1973-74 NNHS. The earlier survey excluded facilities providing only personal or domiciliary care. Because the impact of including these facilities in the 1977 NNHS is expected to be small (they comprised only about 2 percent of all nursing homes in the 1973 MFI and housed only about 1 percent of the beds and residents), no special adjustments were made in this report when comparing data from the 1977 NNHS with the data from the 1973-74 NNHS.

2. The procedures used to estimate the number of full-time equivalent (FTE) employees differed slightly from those used in the previous NNHS

because the 1977 estimates are based on a sample of employees providing direct or health-related services from each sample facility and the 1973-74 estimates are based on *all* staff in each sample facility.

3. In the 1977 NNHS, estimates of the number of discharges and their characteristics were made from a *sample* of the patients formally discharged from the nursing home during 1976. In the 1973-74 NNHS, the number of discharges in 1972 was determined by directly asking the administrator for this information. Caution is also recommended when comparing estimates of discharges with estimates of admissions from the 1977 NNHS. Estimates of admission for 1976 and 1972 were collected by asking the administrator for this information.

4. The procedures for collecting the cost data in the 1977 NNHS differed from those used in the 1973-74 NNHS. In the earlier survey the Expense Questionnaire was only given to those facilities in business for 2 years or more; in the current survey all facilities received the Expense Questionnaire. The effect of this change on the cost per resident day estimates is minimal. In the 1977 NNHS, no significant difference was found between the total cost per resident day for all facilities ($23.91) and the total cost per resident day for facilities in business for 2 years or more ($23.99). Therefore, little problem exists with direct comparisons between the estimates for 1972 and 1976.

5. The 1977 NNHS includes several new items not available in the 1973-74 NNHS such as characteristics of discharges (not merely number of discharges as in 1973-74), revenue data, data by SFA Regions I-X, and certified days of care.

Two methods of hypothesis testing are used in this report. The *z*-test is used to determine whether differences between two statistics (means, ratios, percents, etc.) are statistically significant. Where data are presented by continuous intervals of a variable, a weighted least squares linear regression approach is used to test for overall patterns of association. For example, this report presents selected characteristics by the facility total cost per resident day intervals of less than $10.00, $10.00-$14.99, $15.00-$19.99, $20.00-$24.99, $25.00-$29.99, $30.00-$34.99, and $35.00 or more. A significant positive or negative association can be present although some intervals do not show a significant difference when compared with adjacent intervals for the characteristics of interest. Unless otherwise qualified, all statements of statistical comparison mentioned in this report have been tested by using a confidence interval of 95 percent, that is, the probability that a difference noted here as being statistically significant would be confirmed by a complete census of all facilities in at least 19 out of 20 chances. Not all variables presented in the tables were tested; therefore, if a particular item is not mentioned, it does *not* mean that the item was tested and found to be insignificant.

Because all the estimates are based on a sample of nursing homes rather than on a census or complete enumeration, the data are subject to sampling errors. For further details on sampling error, sample design, methods of data collection, and hypothesis testing refer to the appendixes. Appendix I presents information on survey design, data collection, and estimation procedures. Appendix II presents definitions of key terms used in this report, appendix III presents a reproduction of the principal survey instruments, and appendix IV lists criteria for classifying nursing homes according to level of nursing care.

Previous publications based on data collected in the 1977 NNHS included a general summary;[2] a report on nursing home utilization in California, Illinois, Massachusetts, New York, and Texas—the five States with the largest portions of nursing home beds;[3] and a report on the health status of residents.[4] A future report will provide an indepth analysis of discharge data.

Highlights

For the survey period May-December 1977, an estimated 18,900 nursing homes contained 1,402,400 beds and served 1,303,100 residents in the coterminous United States.

Of these facilities, 76.8 percent were proprietary and 75.0 percent were certified by Government reimbursement programs (Medicare or Medicaid or both). Approximately three-quarters of the nursing homes contained less than 100 beds, and 20 percent contained less than 20 beds per facility. Twenty-eight percent were members of a group of facilities operating as a chain.

During 1976, nursing homes provided 451,522,500 resident days of care, a 30-percent increase over 1972. The number of admissions increased by 23 percent from 1,110,800 in 1972 to 1,367,400 in 1976.

In 1976, the annual occupancy rate of all nursing homes was 88.8 percent. In this year, all nursing homes discharged 1,117,500 persons of whom three-quarters (73.9 percent) were alive and one-quarter (25.9 percent) were dead. The median duration of stay (DOS) for discharges was 75 days.

In 1977, an average of 46.2 FTE employees per

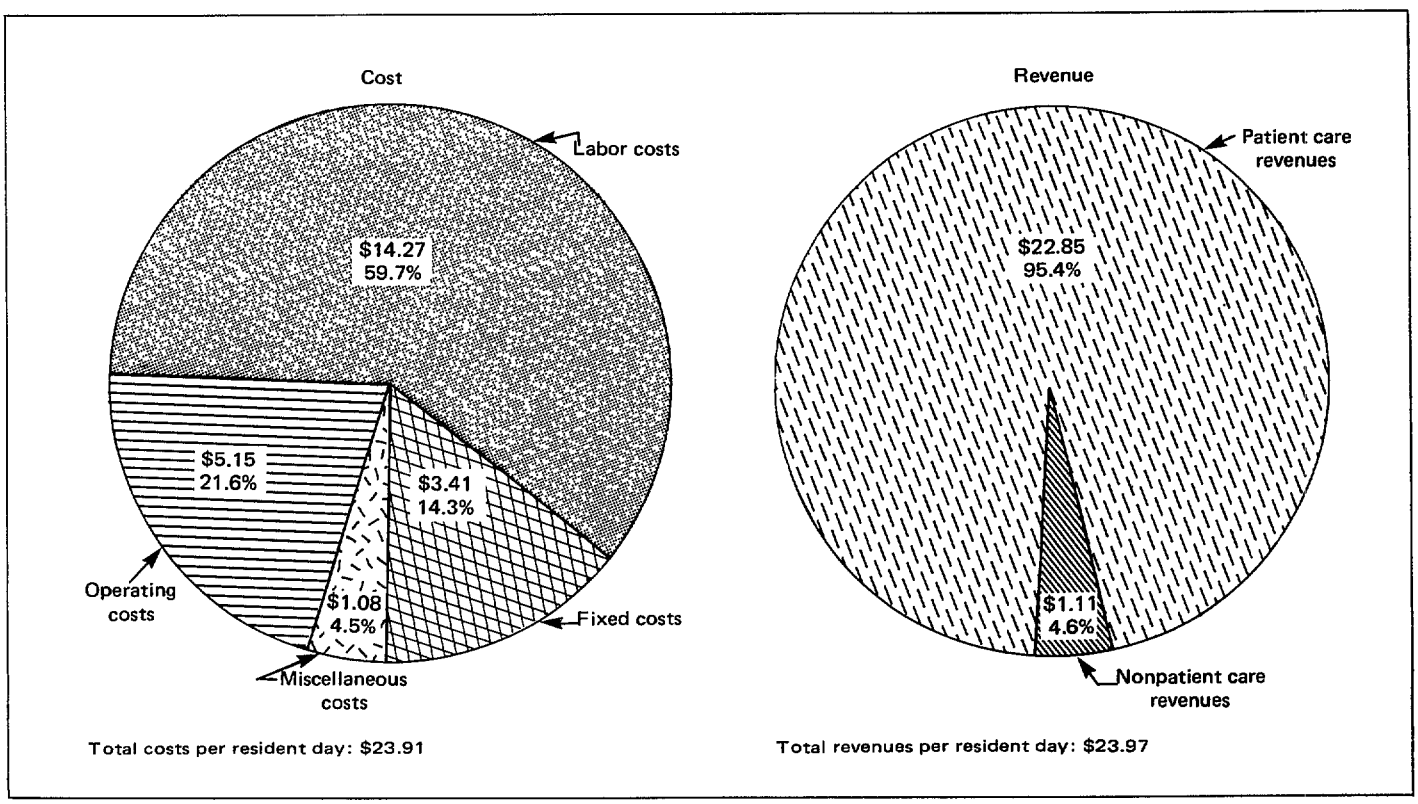

Figure 1. Amount and percent distribution of total costs and total revenues per resident day for nursing homes by major components: United States, 1976

100 beds provided direct, health-related services to residents. Of these, 41.1 FTE employees per 100 beds were nursing staff including registered nurses (4.8 employees per 100 beds), licensed practical nurses (6.1 employees per 100 beds), and nurse's aides (30.3 employees per 100 beds). Five FTE employees per 100 beds were administrative, medical, and therapeutic staff.

During the calendar year 1976 all nursing home care in the United States cost $10,796 million or $23.91 per resident day. This cost of care was 45.5 percent higher than the cost in 1972 ($16.43 per resident day).

The major components of nursing home costs were labor, operating, and fixed expenses. There was a residual category of miscellaneous expenses. In 1976, 60 percent of the costs of providing care in nursing homes were labor expenses ($14.27 per resident day), 22 percent were operating expenses ($5.15 per resident day), 14 percent were fixed costs ($3.41 per resident day), and 5 percent were miscellaneous costs ($1.08 per resident day) (figure 1).

Approximately 85 percent of all nursing homes in the United States had a total cost per resident day of less than $30.00 (figure 2). Approximately one-third of all facilities had a total cost per resident day of less than $15.00. Nursing home costs were influenced by many factors including facility characteristics, patient mix, and staffing.

Nursing home revenues were available for the first time in the 1977 NNHS. Total nursing home revenues in 1976 were $10,821 million ($23.97 per resident day), resulting in a total net income of $25 million ($0.06 per resident day). Ninety-five percent of nursing home revenues were payments received for patient care and 5 percent were nonpatient care revenues.

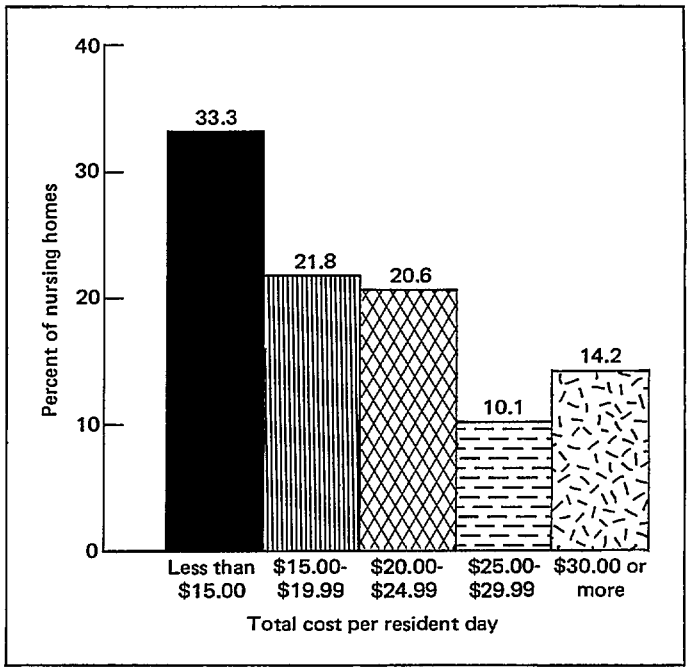

Figure 2. Percent distribution of nursing homes by total cost per resident day: United States, 1976

Utilization

Facility characteristics

In 1977, about three-quarters (77 percent) of all nursing homes were operated on a for-profit basis, 18 percent were operated on a voluntary nonprofit basis, and 6 percent were government operated (table 1). Proprietary homes contained 69 percent of all beds and served 68 percent of all residents. Proprietary homes had a significantly smaller average number of beds per home (67) than nonprofit facilities (88) or government facilities (131) (table A).

Seventy-five percent or 14,200 of all nursing homes in the continental United States were certified to operate under either Medicare or Medicaid or both. Approximately one-fifth (19.2 percent) of all nursing homes were certified as SNF's only, which met the regulatory standards for the most intensive level of care under Medicare or Medicaid legislation or both. These facilities, which contained 21.0 percent of all nursing home beds, provided the most intensive level of care to 20.7 percent of the residents in 1977. However, only 3.7 percent of the facilities, caring for only 1.4 percent of nursing home residents, participated in the Medicare SNF reimbursement program alone. Why so few facilities choose to participate exclusively in Medicare can be explained partly by the more stringent reimbursement policies (for example, the 100-day limit on payment). The typical SNF only (Medicare or Medicaid or both) contained 81 beds. Nearly one-quarter (24.2 percent) of all nursing homes were certified as both SNF's and ICF's under Medicare or Medicaid or both. The SNF's and ICF's contained the largest proportion of beds (39.2 percent) and provided services to the largest proportion of residents (40.5 percent). The typical facility certified for skilled nursing and intermediate care also had the largest average bed size of 120 beds per home. The 6,000 facilities certified as ICF only under the Medicaid program represent the largest proportion of nursing homes (31.6 percent). These facilities contain about one-quarter (27.9 percent) of available

Table A. Average number of beds per nursing home by selected nursing home characteristics: United States, 1977

Nursing home characteristic	*Average number of beds*
All nursing homes	74
Ownership	
Proprietary	67
Voluntary nonprofit	88
Government	131
Certification	
Skilled nursing facility only	81
Skilled nursing facility and intermediate care facility	120
Intermediate care facility only	65
Not certified	35
Bed size	
Less than 20 beds	11
20-49 beds	35
50-99 beds	72
100-199 beds	130
200 beds or more	296
Location	
Geographic region:	
Northeast	81
North Central	82
South	79
West	53
Standard Federal Administrative Region:	
Region I	58
Region II	99
Region III	83
Region IV	73
Region V	88
Region VI	88
Region VII	71
Region VIII	78
Region IX	42
Region X	88
Affiliation	
Chain	94
Independent	61
Government	131

nursing home beds and serve about one-quarter (28.3 percent) of nursing home residents. The category of ICF only, with an average size of 65 beds per home, is the smallest of the certified homes.

The remaining 25.0 percent of all nursing homes are not certified under either the Medicare or Medicaid reimbursement program. Therefore, these facilities are not required to comply with the Medicare or Medicaid nursing home regulations and reporting systems. Although they constitute one-quarter of all homes, noncertified facilities contain only 11.9 percent of all beds and provide care to only 10.6 percent of all residents. The average noncertified facility has a smaller bed size (35 beds per facility) than a certified facility.

Approximately 75 percent of all nursing homes contained less than 100 beds. The number of facilities in the United States was relatively evenly distributed among the bed-size categories of less than 20 beds (20.6 percent), 20-49 beds (21.7 percent), 50-99 beds (30.8 percent), and 100-199 beds (22.3 percent). The largest facilities of 200 beds or more, however, represented a significantly smaller proportion of all nursing homes (4.6 percent), but contained 18.2 percent of available beds, and served 17.9 percent of all residents. The largest proportion of beds (39.0 percent) and residents (38.8 percent) was located in facilities within the category of 100-199 beds. The smallest proportion of beds (3.0 percent) and residents (2.8 percent) was located in facilities containing less than 20 beds.

Although small homes (those with less than 20 beds) contained only 3.0 percent of the available beds and served only 2.8 percent of all residents, these facilities represented one out of every five nursing homes in the United States in 1977. The typical small nursing home was run on a for-profit basis. With 90.6 percent of small facilities in the proprietary-ownership category, these facilities were more likely to be proprietary than a facility in any other bed-size group (table 2). Small facilities were predominantly not certified. Although one-quarter of all nursing homes in the United States were not certified, 63.4 percent of the facilities with less than 20 beds fell into this category. Small facilities tended to be located in the West, particularly in SFA Region IX (42.0 percent).

At the other end of the spectrum the large facilities, those with 200 beds or more, which served almost one-fifth of nursing home residents, only represented 4.6 percent of all nursing homes. The large-facilities category had a significantly smaller proportion of proprietary homes (52.3 percent) than the other bed-size categories. Large facilities tended to be certified at the highest levels with 25.5 percent certified as SNF only and 54.8 percent certified as SNF and ICF. In fact, as bed size increases the proportion of facilities that are highly certified (i.e., SNF only and SNF and ICF) also increases. Large facilities usually were located in the Northeast (36.0 percent) or North Central (37.0 percent) geographic regions.

When examined by geographic location, the 1977 NNHS showed that of the four census regions, the North Central Region had the highest proportion of nursing homes (31.1 percent), beds (34.5 percent), and residents (34.5 percent). The South Region ranked second with significantly larger percents of homes, beds, and residents than the Northeast or the West Regions. As expected, SFA Region V including Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin had significantly more nursing homes (20.9 percent), beds (24.7 percent), and residents (24.4 percent) than any other SFA Region.

Proprietary and voluntary nonprofit nursing homes can be operated either independently or as members of a group of facilities operating under one general authority or general ownership, that is, chains. These categories do not apply to facilities operated by Federal, State, or local governments. In 1977, 5,300 nursing homes operated as chains under one general ownership or general authority. The percent of chain facilities remained the same as in 1973-1974 (table B).

The typical chain facility was operated on a for-profit basis in 1977. Chain homes were more likely to be proprietary (84.5 percent) than all nursing homes in the United States (76.8 percent) were. Chain homes were also more likely to be certified under Medicare or Medicaid (88.7 percent) than the independents (68.3 percent), and less likely to be not certified (11.3 percent) than the independents (31.6 percent). Chain homes were more likely to be certified as SNF's and ICF's (29.3 percent) or as ICF's only (38.7 percent) than the independents were (21.8 and 28.1 percent, respectively). No significant difference was found between the proportion of chain SNF's (20.7 percent) and independent SNF's (18.4 percent) (table 3).

On the average, chain facilities were larger (94 beds per home) than the independents (61 beds per home), but smaller than government facilities (131 beds per home). Only 2.0 percent of the chains and 5.2 percent of government facilities had less than 20 beds; 30.1 percent of independents fell into this bed-size category. (Although the percent of chains in this category (2.0 percent) had a very small base and, therefore, a very large standard error, a significant difference was found between the chain and independent categories.) Moreover, very few chains (4.8 percent) or independents (3.4 percent) had 200 beds or more as compared with government homes that had 17.8 percent of the facilities in this category.

Nursing home chains were predominantly located in the North Central (34.7 percent) and South (35.0 percent) geographic regions where 27.7 percent and

Table B. Number of nursing homes and number and percent of nursing home chain facilities, by selected nursing home characteristics: United States, 1973-74 and 1977

Nursing home characteristic	1973-74[1]			1977		
	Number of nursing homes	Chain facility		Number of nursing homes	Chain facility	
		Number	Percent		Number	Percent
Total	15,700	4,800	30.2	18,900	5,300	28.1
Ownership						
Proprietary	11,900	4,000	33.9	14,500	4,500	30.9
Voluntary nonprofit	2,700	700	27.3	3,400	800	24.6
Government	1,200	-	-	1,000	-	-
Certification						
Skilled nursing facility only	5,300	2,000	38.1	3,600	1,100	30.3
Skilled nursing facility and intermediate care facility	2,400	900	38.8	4,600	1,600	34.1
Intermediate care facility only	4,400	1,200	27.8	6,000	2,100	34.3
Not certified	3,600	600	16.0	4,700	600	12.6
Bed size						
Less than 20 beds	1,800	*100	*6.0	3,900	*100	*2.7
20-49 beds	4,600	1,100	23.5	4,100	900	22.3
50-99 beds	5,500	2,000	35.4	5,800	2,100	36.0
100-199 beds	3,200	1,400	44.6	4,200	1,900	46.2
200 beds or more	600	200	27.5	900	300	29.2
Location						
Geographic region:						
Northeast	3,100	700	23.2	3,900	700	18.2
North Central	5,600	1,500	26.0	5,900	1,800	31.4
South	4,100	1,400	33.3	4,900	1,900	37.8
West	2,900	1,200	41.6	4,200	900	21.2
Standard Federal Administrative Region:						
Region I	---	---	---	1,700	400	22.9
Region II	---	---	---	1,500	200	14.3
Region III	---	---	---	1,400	300	18.8
Region IV	---	---	---	2,400	800	33.0
Region V	---	---	---	4,000	1,300	31.8
Region VI	---	---	---	1,800	900	48.9
Region VII	---	---	---	1,700	600	31.8
Region VIII	---	---	---	700	300	36.3
Region IX	---	---	---	3,200	500	15.3
Region X	---	---	---	500	200	38.9

[1]Figures exclude personal care homes.

NOTE: Figures may not add to totals because of rounding.

22.1 percent of the independents were located. For all nursing homes in the United States, chain facilities were most likely to be located in SFA Region V, which includes Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin (23.6 percent) as compared with other SFA Regions.

Resident days, certified resident days, and admissions

Several traditional measures of nursing home utilization are important in assessing the status of this rapid growth sector of the Nation's health care delivery system. They are number of resident days, certified resident days, number of admissions, annual occupancy rate, number and status of discharges, rate of patient flow or turnover rate, and median DOS.

During calendar year 1976, nursing homes in the United States provided 451,522,500 resident days of care to 1,367,400 persons admitted to those facilities. These numbers represent significant increases over the 1972 figures (table C).

Of the total number of resident days of care provided in 1976, 2.9 percent were Medicare SNF-

Table C. Percent change in resident days, admissions, and annual occupancy rate from 1972 to 1976: United States

Resident days, admissions, and annual occupancy rate	1972[1]	1976[2]	Percent change
Resident days	347,913,000	451,522,500	+30
Admissions	1,110,800	1,367,400	+23
Annual occupancy rate	86.5%	88.8%	+ 2

[1]Figures exclude personal care homes.
[2]Estimates for resident days, occupancy rate, and cost or revenue per resident day differ slightly from estimates presented in reference 2 because of a data processing error. See "Data Processing" in appendix I for details.

certified days (i.e., resident days of care paid for under the Medicare program); 25.4 percent were Medicaid SNF-certified days (i.e., resident days of care paid for under the Medicaid SNF program); and 34.5 percent were Medicaid ICF-certified days (i.e., resident days of care paid for under the Medicaid ICF program). The remaining resident days, 37.3 percent, were not certified (i.e., not paid for under either the Medicare or the Medicaid program) (table 4).

No significant differences were found in the proportion of Medicare SNF-certified days for proprietary, voluntary nonprofit, or government facilities. However, the proportion of all Medicare SNF's only that were proprietary (89.4 percent) exceeded the national percent for all proprietary homes (76.8 percent). Refer to table 5 for further details on the classification of nursing homes by ownership according to certification.

Voluntary nonprofit facilities provided significantly fewer Medicaid ICF-certified days (28.4 percent) than either proprietary (36.0 percent) or government facilities (36.6 percent). The nonprofit homes did provide significantly more days of care that were not reimbursed under Title XVIII or Title XIX (44.4 percent) than other homes. One theory is that nonprofit facilities are more apt to have philanthropic motives; therefore, they are more likely to provide care to residents with less stable sources of payment than Federal or State government programs.

Bed size also had a significant effect on the proportion of certified days. As the bed size of the facility increased, the likelihood of providing certified as opposed to noncertified resident days of care also increased. Therefore, the larger the facility, the more likely it was to rely on Government reimbursements.

Occupancy rate

Another measure of the utilization of nursing homes is the occupancy rate of the beds in the home. This rate was computed by using the following formula:

$$\frac{\sum \text{Aggregate number of days of care provided to residents in 1976} \times 100}{\sum \text{Estimated number of beds in 1976} \times 366}$$

The number of beds in 1976 was estimated by adjusting the number of beds in 1977 to reflect any change in beds in 1976. An annualized occupancy rate based on resident days of care was used because it gives a more stable measure than a rate based on the number of beds occupied the night prior to the survey.

The annual occupancy rate for all nursing homes in the United States was 88.8 percent in 1976. Although the occupancy rate by certification ranged from 87 percent for ICF's only to 91 percent for SNF's only, no significant differences were found. Moreover, no significant differences were found in the occupancy rate by type of ownership, size, or geographic region (table 6).

Discharges

In 1976, 1,117,500 patients were discharged from nursing homes in the United States largely from facilities certified by Medicare or Medicaid or both (92.9 percent). Seventy-four percent of all discharges were alive. No significant differences were found in the percent of live discharges when examined either by type of ownership or bed size. However, facilities that were certified for the most intensive level of care, SNF only, and facilities that were not certified under Medicare or Medicaid had significantly higher percents of live discharges (77.5 percent and 79.2 percent, respectively) than facilities certified as SNF's and ICF's (71.6 percent) and ICF only (70.2 percent) (table D). These data do not necessarily indicate that the care provided in the former facilities is better; they can indicate that a different patient population is served.

Turnover rate

The turnover rate is a relative measure of patient flow through the nursing home system. In this report on the 1977 NNHS, turnover rate or rate of patient flow was calculated as the number of discharges per 100 beds. (Note: In previous reports from the 1973-74 NNHS, turnover rate was defined as the number of admissions per 100 beds. Because of methodological differences in collecting data on admissions and discharges discussed in the section "Qualifications of Data," it was determined that discharges per 100 beds provided a better measure than admissions per 100 beds.)

In 1976 no differences existed in patient turnover among proprietary, voluntary nonprofit, and government facilities. When examining the data by bed-size category, it was found that facilities with less than 20 beds had a turnover rate of 48.9 per 100 beds, which was significantly less than that for any other size facility, except for facilities of 200 beds or more. No difference was found in the turnover rate between the smallest size facilities (48.9 per 100 beds) and the largest size facilities (64.9 per 100 beds).

As noted in a previous report, nursing home utilization patterns are particularly influenced by certification status.[5] The regulations distinguishing SNF and ICF care followed different models. The SNF care is oriented to rehabilitation (the medical model adapted to a less intensive need for services than is present in hospitals). The ICF care is oriented to maintenance (the health-care related services model with emphasis on personal rather than medical

Table D. Number of discharges and percent discharged alive from nursing homes, by selected nursing home characteristics: United States, 1976

Nursing home characteristic	*Number of discharges*	*Percent discharged alive*
All nursing homes	1,117,500	73.9
Ownership		
Proprietary	803,100	74.8
Voluntary nonprofit	225,100	71.1
Government	89,200	72.4
Certification		
Skilled nursing facility only	379,000	77.5
Skilled nursing facility and intermediate care facility	448,400	71.6
Intermediate care facility only	210,400	70.2
Not certified	79,600	79.2
Bed size		
Less than 20 beds	20,400	85.1
20-49 beds	129,600	78.2
50-99 beds	323,800	71.2
100-199 beds	479,500	74.2
200 beds or more	164,200	73.4
Location		
Geographic region:		
Northeast	247,100	71.1
North Central	336,600	71.8
South	270,900	73.0
West	262,800	80.0
Standard Federal Administrative Region:		
Region I	54,200	67.6
Region II	113,900	74.1
Region III	102,600	68.3
Region IV	131,000	70.3
Region V	273,600	73.1
Region VI	119,800	78.2
Region VII	58,200	65.8
Region VIII	31,800	73.6
Region IX	188,300	82.3
Region X	44,200	72.5

NOTE: Figures may not add to totals because of rounding.

care). Because of this difference in emphasis, the turnover rate is expected to be higher for SNF and lower for ICF care.

Facilities certified as SNF's only had the most rapid patient flow; for 1976, 129.8 persons were discharged for every 100 beds. The SNF's and ICF's, providing both rehabilitative and maintenance care, had the second highest turnover rate of 82.5 per 100 beds. The ICF's only, providing maintenance care, had a significantly lower patient flow of 54.4 per 100 beds. The noncertified facilities rate (47.4 per 100 beds) did not differ from ICF's only.

Median duration of stay

The difference in the SNF rehabilitation model and the ICF maintenance model has a significant effect on the median duration of stay (DOS) also. An inverse relationship is found between median DOS and the turnover rate among certification statuses: the higher the certification level (i.e., the more intensive the services provided), the shorter the DOS. The median DOS for SNF's only was 38 days; for SNF's and ICF's, the median DOS was 82 days; for ICF's only the median DOS was 176 days.

Voluntary nonprofit facilities had a significantly shorter median DOS (50 days) than either proprietary homes (80 days) or government homes (84 days) although no significant difference by type of ownership was found in the rate of patient flow. Moreover, nursing homes that were located in the West Region had the shortest DOS of 39 days.

Examination of facilities according to bed-size category revealed that facilities with less than 20 beds and with 200 beds or more had a significantly longer median DOS (107 days and 103 days, respectively) than any other size facility. Homes within the 20-49 bed-size category had the shortest DOS (39 days).

Staff

Utilization of nursing homes is partly a function of the demand for nursing home services as evidenced by such measures as the occupancy and turnover rates. Utilization is also a function of the supply of nursing home services available as evidenced by the number of facilities, beds, and staff.

The FTE employees are the best measure of examining staffing patterns of nursing homes because the variation between the facilities in the proportion of part-time staff is held constant. Thirty-five hours of part-time employees' work are equivalent to one full-time employee. Part-time employees were converted to FTE employees by dividing the number of hours worked by 35.

In 1977, a total of 647,700 FTE employees provided direct or health-related services to residents in nursing homes in the United States, or approximately one employee for every two nursing home beds. Of these employees, 577,000 were nursing staff and 70,600 were administrative, medical, or therapeutic staff (table 7).

Proprietary nursing homes employed significantly less total FTE staff (43.4 per 100 beds) than voluntary nonprofit facilities (53.7 per 100 beds). The rate of FTE staff in for-profit homes (43.4 per 100 beds) did not differ significantly from the government homes' rate (49.7 per 100 beds). The same pattern held true for FTE nursing staff. Proprietary homes had fewer FTE nursing staff (38.8 per 100 beds) than the nonprofit facilities (47.2 per 100 beds), but the same as government facilities (44.6 per 100 beds). The rate of FTE registered nurses (RN's) in the for-profit homes (4.2 per 100 beds) was significantly lower than the rate for either nonprofit (6.4

per 100 beds) or government (5.8 per 100 beds) homes.

Facilities that were certified at the highest levels (i.e., SNF only and SNF and ICF), had significantly higher rates of both total FTE staff (52.7 and 51.8 per 100 beds, respectively) and FTE nursing staff (46.8 and 46.9 per 100 beds, respectively) than facilities that were either certified at a lower level (ICF only) or were not certified. Moreover, ICF's only employed significantly more total FTE staff (40.7 per 100 beds) than noncertified homes (29.2 per 100 beds) and more FTE nursing staff (36.0 per 100 beds) than noncertified homes (24.1 per 100 beds). For FTE RN's, the pattern was similar. As the level of intensity of care decreased from SNF only to SNF and ICF to ICF only, the rate of FTE RN's per 100 beds decreased significantly from 7.1 to 5.9 to 2.9 as expected because of Medicare and Medicaid regulations. No significant differences were found in the rates of RN's per 100 beds between ICF's only (2.4) and noncertified homes (2.8).

Small nursing homes in the category of less than 20 beds employed fewer FTE nursing staff (23.4 per 100 beds) and fewer FTE RN's (2.8 per 100 beds) than any other size facilities. On the other hand, the smaller the facility, the larger the rate of FTE administrative, medical, and therapeutic staff, from 10.1 per 100 beds for the category of less than 20 beds to 3.9 per 100 beds for the category of 200 beds or more. The impression was that the small facilities, which were largely proprietary and not certified, were a "mom and pop" operation where the owner was reported to be an administrator and also performed the nursing functions.

The 1977 NNHS reported 24,900 budgeted vacant staff positions in nursing homes throughout the United States (table E). Thirty-five percent of all nursing homes reported unfilled staff positions in their facilities, the majority of which were nursing staff vacancies (15,900) (table F). Nursing shortages similar to shortages of physicians and other highly trained health personnel are partly problems of distribution. For example, the rate of FTE nursing staff ranges from 28.0 per 100 beds in SFA Region VI to 49.4 per 100 beds in SFA Region III.

Table E. Number of budgeted vacant staff positions in nursing homes, by staff category: United States, 1977

Staff category	*Number of vacant staff positions*
All types of staff	24,900
Administrative and medical	1,200
Therapeutic	1,900
Nursing	15,900
Other	5,900

Table F. Number of nursing homes with budgeted vacancies and number of nursing staff vacancies, by geographic region and type of staff: United States, 1977

Nursing staff	*Geographic region*				
	All regions	*Northeast*	*North Central*	*South*	*West*
	Number of nursing homes with vacancies				
Total	6,600	1,100	2,500	1,600	1,400
	Number of nursing staff vacancies				
All nursing staff vacancies	15,900	3,300	6,200	3,300	3,100
Registered nurses	4,300	1,100	1,400	1,200	700
Licensed practical nurses	4,700	800	2,000	1,200	600
Nurses' aides	6,900	1,400	2,700	1,000	1,800

NOTE: Figures may not add to totals because of rounding.

Financial data

Cost and revenue components

In 1976, nursing home costs were $10,796 million (table G). Nursing home costs consisted of three major components—labor, operating, and fixed costs. Miscellaneous costs were included in a residual category. In 1976, as in 1972, the major nursing home expense was labor, representing 60 percent of the total cost per resident day (figure 3). The labor component of $14.27 per resident day included wages and salaries of $12.74 per resident day and payroll taxes and fringe benefits of $1.53 per resident day. Wages and salaries were subdivided into three categories. The nursing staff payroll expense of $7.80 per resident day represented 61 percent of all wages and salaries and about one-third of total facility costs. Salaries of RN's, LPN's, practical nurses, nurse's aides, orderlies, and student nurses were included in this category. The professional payroll expense was the smallest portion of labor costs. Physician and other health professional payroll expenses (excluding contracted services) of $0.40 per resident day represented only 3 percent of all wages and salaries, and barely 2 percent of total facility costs. The remaining 36 percent of wages and salaries were for other staff payroll including administrative, clerical, food service, housekeeping, and maintenance personnel. Payroll taxes and fringe benefits, the second part of the labor expense, included expenses incurred by the facility for the current and future benefit of facility employees such as group health insurance and the employer's portion of the Federal Insurance Contributions Act.

Labor and operating expenses are variable costs, that is, costs that the facility incurs, which are dependent on the volume of output or services provided. In 1976, operating expenses representing 22 percent of total cost per resident day were the second largest nursing home expense. This cost component included food and other dietary items; drugs; supplies and equipment; purchased mainte-

Table G. Total revenue and cost for nursing homes, by selected nursing home characteristics: United States, 1976

Nursing home characteristic	*Revenue*	*Cost*
	Amount in millions	
All nursing homes	$10,821	$10,796
Ownership		
Proprietary	7,165	6,954
Voluntary nonprofit	2,513	2,574
Government	1,144	1,268
Certification		
Skilled nursing facility only	2,978	2,921
Skilled nursing facility and intermediate care facility	4,643	4,677
Intermediate care facility only	2,285	2,269
Not certified	915	929
Bed size		
Less than 20 beds	184	183
20-49 beds	952	932
50-99 beds	3,112	3,095
100-199 beds	4,190	4,129
200 beds or more	2,382	2,456
Location		
Geographic region:		
Northeast	3,535	3,570
North Central	3,405	3,407
South	2,313	2,271
West	1,567	1,547
Standard Federal Administrative Region:		
Region I	839	843
Region II	2,041	2,058
Region III	1,004	1,010
Region IV	1,119	1,117
Region V	2,594	2,598
Region VI	869	837
Region VII	720	718
Region VIII	274	275
Region IX	1,099	1,084
Region X	261	255
Affiliation		
Chain	3,629	3,538
Independent	6,048	5,991
Government	1,144	1,267

NOTE: Figures may not add to totals because of rounding.

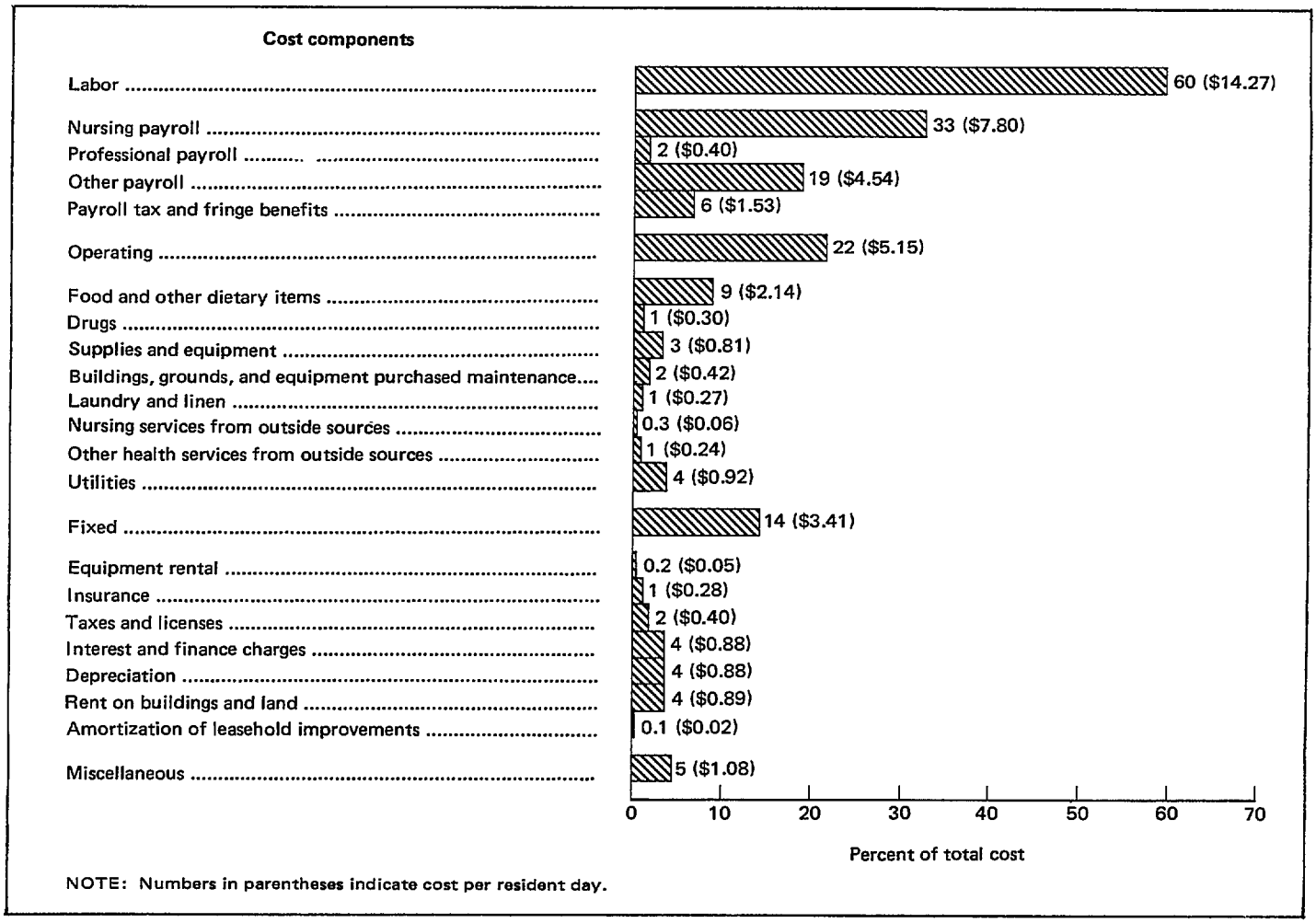

Figure 3. Cost per resident day for nursing homes and percent of total cost by components: United States, 1976

nance of buildings, grounds, and equipment; laundry and linen; and nursing and other health care services purchased from outside sources. Of these expenses, the food and dietary expense of $2.14 per resident day was the largest amount, accounting for 42 percent of the operating cost or 9 percent of the total cost. Of the operating expenses, 18 percent were utilities costs ($0.92 per resident day) and 16 percent were the costs of supplies and equipment ($0.81 per resident day). The remaining operating expense items ranged from $0.06 to $0.42 per resident day.

The fixed-cost component ($3.41 per resident day) reflects those costs that the facility would incur at some set level regardless of the volume of output or of services provided during 1976. Fixed costs included equipment rental, insurance, taxes and licenses, interest and finance charges, depreciation, rent on buildings and land, and amortization of leasehold improvements. About three-quarters of fixed costs were attributed to interest and finance charges ($0.88 per resident day), depreciation ($0.88 per resident day), and rent on buildings and land ($0.89 per resident day). The remaining fixed-cost items ranged from $0.02 to $0.40 per resident day.

The residual category, miscellaneous expense, amounted to $1.08 per resident day or 5 percent of the total cost. This catch-all grouping recorded all other costs not previously classified, for example, advertising, travel costs, and audit fees.

Revenues per resident day were divided into two categories: patient care revenues, which included payments received from all sources for routine or ancillary health care services and represented 95 percent of all revenues, and nonpatient care revenues, which included payments received from all sources that were not directly related to patient health care such as financial contributions or donations, vending machine concessions, dividends, or capital gains. Nonpatient revenues of $1.11 per resident day accounted for the remaining 5 percent of all nursing home revenues.

Cost per resident day intervals

Nursing home characteristics of type of ownership, certification, size, location, and affiliation are important factors in the variations in nursing home costs. The percent distribution of nursing homes by these facility characteristics within seven total cost

per resident day intervals is presented in table 8. Twenty-one percent of all nursing homes had costs in the median range of $20.00-$24.99 per resident day.

The lowest cost facilities tended to operate under proprietary ownership. Relatively more for-profit homes (38.5 percent) had a total cost per resident day of less than $15.00 than either nonprofit (13.3 percent) or government (22.9 percent) homes. Similarly, fewer proprietary nursing homes (9.9 percent) had a high total cost of $30.00 or more per resident day than nonprofit (30.7 percent) or government (24.2 percent) facilities. No significant difference was found between the proportion of high-cost voluntary nonprofit homes and government homes.

Noncertified facilities (64.4 percent) were more likely to have low costs of less than $15.00 per resident day than facilities certified under any program. (Refer to table 5, which shows that 83 percent of noncertified homes are operated under proprietary ownership.) Homes certified to provide the intermediate level of care, ICF only, were more likely (36.6 percent) to be low cost than the higher certification level homes. It is expected that homes providing more intensive levels of care would fall into the higher cost categories. Similarly, more high-level certification homes, SNF's only (25.2 percent) and SNF's and ICF's (18.2 percent), had high costs of $30.00 or more per resident day than ICF's only (7.2 percent) or noncertified (10.0 percent) homes.

Small bed size of less than 20 beds was also a good predictor of low cost. About three-quarters of the homes in this bed-size category had costs of less than $15.00 per resident day compared with one-third of the homes in the 20-49 bed-size group and one-tenth of the homes in the 200 beds or more category. Furthermore, a large bed size was a good predictor of high cost. The category of 200 beds or more was more likely (36.2 percent) to experience high costs of $30.00 or more per resident day as compared with any other bed-size group—100-199 beds (17.0 percent), 50-99 beds (14.4 percent), 20-49 beds (14.8 percent), or less than 20 beds (5.6 percent). These higher costs may be partly related to the high percent of homes with 200 beds or more providing the most intensive level of care, SNF only (25.5 percent).

Examination of facility costs by geographic region showed that a greater proportion of homes in the West Region (44.4 percent in the less than $15.00 per resident day interval) were operating at a lower cost than in any other geographic location. Homes located in the Northeast Region, however, were most likely (29.1 percent) to be high-cost facilities with costs of $30.00 or more per resident day as compared with homes in the North Central (11.7 percent), the West (11.2 percent), or the South Regions (6.7 percent).

Facilities of independent affiliation (37.5 percent) were more likely to have low costs of less than $15.00 per resident day than homes that were either part of a chain operation (24.2 percent) or that were run under government auspices (22.9 percent). At the upper end of the cost intervals, no statistically significant differences were found in the proportion of homes by affiliation, although 24.2 percent of government homes had costs of $30.00 or more per resident day compared with 13.8 percent of the independents and 13.2 percent of the chain facilities.

Cost per resident day analysis

Ownership.—In 1976 proprietary nursing homes provided 315,225,700 resident days of care at a total cost of $6.9 billion or $22.06 per resident day. These facilities, which are assumed to provide services in a manner that will maximize profits, had significantly lower total costs per resident day than either voluntary nonprofit homes ($27.56 per resident day) or government facilities ($29.54 per resident day). Generally, this trend was also observed on examination of the major components of the total cost (table 9).

Proprietary homes had significantly lower total labor costs ($12.52 per resident day) than either nonprofit ($16.93 per resident day) or government homes ($21.33 per resident day). (Note that as discussed in a previous section entitled "Staff," proprietary nursing homes employed *fewer* FTE staff per 100 beds than nonprofit homes.) Government homes spent significantly more on labor costs than voluntary nonprofit homes. This finding is not surprising in view of the Government's standardized national salary schedules and the greater amount spent on fringe benefits.

As a group, operating costs were also significantly lower for proprietary facilities ($4.67 per resident day) than for nonprofit ($6.49 per resident day) or government homes ($5.80 per resident day). The difference between nonprofit and government operating costs was not significant.

For the fixed-cost category, however, proprietary homes reported higher costs ($3.78 per resident day) than nonprofit ($3.03 per resident day) or government homes ($1.49 per resident day). This finding was expected because of the preferential tax treatment and the availability of subsidy funds through loans and grants for nonprofit and government facilities as discussed in an analysis of 1972 NNHS data.[6]

Certification.—A nursing home's certification directly affects the costs that a facility will incur. For example, certification as an SNF entails meeting certain standards of staffing, construction, equipment, and provision of services that certification as an ICF or noncertification does not require. Nursing home data for 1976 showed that certification level was an excellent forecaster of nursing home costs.

In all cases, for total cost and for each component—labor, operating, fixed, and miscellaneous

costs—a significant association existed between certification level and cost. As level of intensity of care decreased from SNF only to SNF and ICF to ICF only to not certified, the cost per resident day decreased. For example, the total labor cost was $18.07 per resident day for SNF only, $16.03 per resident day for SNF and ICF, $10.66 per resident day for ICF only, and $9.99 per resident day for noncertified homes. Note that significant differences were found between the categories of SNF only, SNF and ICF, and ICF only. However, no significant difference existed between the categories of ICF only and noncertified, although an overall significant trend or pattern of association as determined by the regression test discussed in the section entitled "Background and Qualifications of Data" did exist.

As previously discussed, facility ownership and certification level are major factors affecting nursing home costs. The interrelationship between ownership and certification also impacts on nursing home costs. Examination of this cost impact reinforces the importance of these two factors as predictors of nursing home costs. For each type of ownership an overall significant pattern of association between certification type and total cost per resident day was found. As the level of intensity of care decreased, total cost per resident day decreased, except in government noncertified facilities. For example, proprietary SNF's only spent $27.89 per resident day, proprietary SNF's and ICF's spent $24.25 per resident day, proprietary ICF's only spent $17.60 per resident day, and proprietary noncertified homes spent $14.79 per resident day (table 10). Moreover, some impact on costs within certification type was found. For SNF's only, proprietary facilities had a significantly lower total cost per resident day ($27.89) and total labor cost per resident day ($16.20) than nonprofit facilities ($37.95 total cost per resident day and $23.13 total labor cost per resident day).

Bed size.—In 1976, a positive relationship existed between nursing home costs per resident day and bed size. Total cost per resident day increased as bed size increased from less than 20 beds ($12.82 per resident day) to 20-49 beds ($19.99 per resident day) to 50-99 beds ($22.56 per resident day) to 100-199 beds ($23.92 per resident day) to 200 beds or more ($30.41 per resident day) (table 11). Facilities in the smallest bed-size category (less than 20 beds) had significantly lower total costs ($12.82 per resident day) than facilities of any other size. Small homes also had significantly lower labor ($6.58 per resident day) and fixed costs ($1.60 per resident day) than homes in other bed-size categories. Large facilities (200 beds or more) also had different cost patterns than homes in other bed-size categories. Large homes had significantly higher total ($30.41 per resident day), labor ($19.42 per resident day), and operating costs ($6.22 per resident day) than homes in other bed-size categories.

Bed size, similar to other nursing home characteristics that have an impact on costs, cannot be viewed in a vacuum. Traditional economic theory postulates that the data would reflect a basic U-shaped curve in the presence of economies and diseconomies of scale. Theoretically, as a facility provides increasingly more resident days of care, certain economies (e.g., quantity discounts and full use of labor and equipment) are realized that result in decreasing average costs of providing that care. After some point, however, diseconomies associated with the management of large-scale operations are thought to predominate, resulting in increasing average costs (p. 9[6]). However, the data did not support the theory. The interrelationship between bed size and certification as shown in table H reflected the overall positive bed size-cost relationship presented in table 11 while leveling off within the middle bed-size categories.

Location.—Nursing homes, similar to most other firms, showed regional variations in their costs as presented in table 12. Region II, which included New York and New Jersey, had a significantly higher total ($41.76 per resident day), labor ($25.59 per resident day), operating ($8.90 per resident day), and fixed cost ($5.98 per resident day) than any other SFA Region. These differences were because of cost-of-living fluctuations and marketplace variations in the supply and demand of labor and other factors of production.

Affiliation.—Chain operations as compared with the independently run facilities offer the advantages of (1) greater efficiency, (2) expected lower costs, and (3) shared financial burden.

1. When a home office manages several facilities, greater efficiency results from the sharing of management expertise—a limited resource. Facilities with centralized administrative procedures can more readily shift personnel such as highly skilled nursing staff if the need arises. Centralized purchasing of supplies and equipment is also more efficient than individual purchasing.
2. Cost savings would be expected for chain facilities as a result of the economies-of-scale of purchasing larger quantities of goods and services than independently operated homes purchase.
3. A centrally operated group of facilities is better able to share the burden of temporary losses in one of its homes than the independent entrepreneur. Overall corporate profits can support or balance the losses of an existing facility with particular problems, whereas an individual owner faced with such losses might be forced into bankruptcy. The company headquarters with profits from existing members would also be

Table H. Number of resident days and total cost and total revenue per resident day for nursing homes, by certification and bed size: United States, 1976

Certification and bed size	*Number of resident days*	*Total cost per resident day*	*Total revenue per resident day*
Skilled nursing facility only			
Less than 20 beds	*1,546,200	*$15.71	*$17.12
20-49 beds	9,712,200	30.77	31.91
50-99 beds	30,006,600	27.12	27.52
100-199 beds	34,916,500	29.53	30.52
200 beds or more	20,785,500	36.22	36.09
Skilled nursing facility and intermediate care facility			
Less than 20 beds	*545,100	*22.57	*11.60
20-49 beds	4,385,700	24.75	25.22
50-99 beds	41,607,500	24.70	24.67
100-199 beds	84,668,300	25.41	25.66
200 beds or more	45,079,300	30.54	29.45
Intermediate care facility only			
Less than 20 beds	3,452,700	12.34	12.49
20-49 beds	20,903,700	17.48	17.84
50-99 beds	49,168,500	18.92	19.09
100-199 beds	42,921,900	17.75	17.96
200 beds or more	7,076,200	23.81	22.55
Not certified			
Less than 20 beds	8,732,000	11.88	12.38
20-49 beds	11,643,500	13.71	13.64
50-99 beds	16,404,200	19.69	19.60
100-199 beds	10,142,800	18.23	17.82
200 beds or more	7,824,100	20.21	18.57

NOTE: Estimates for resident days, occupancy rate, and cost or revenue per resident day differ slightly from estimates presented in reference 2 because of a data processing error. See "Data Processing" in appendix I for details.

better able to bear the heavy start-up costs of a new chain facility and to carry the fixed costs of the new facility until the break-even point is reached.

Examination of cost data by facility affiliation showed that chain costs were apparently lower than independent costs, but that no significant difference existed in the total cost per resident day between chain facilities ($22.22 per resident day) and independent facilities ($24.02 per resident day). This finding remains the same regardless of ownership, certification, size, or geographic location. Generally, government facility costs were higher than either chain- or independent-facility costs. When components of cost were examined, no significant differences were found between chain and independent homes regarding operating cost ($4.75 and $5.30 per resident day, respectively) or fixed costs ($3.57 and $3.63 per resident day, respectively). For labor expenses, however, chain homes did have significantly lower costs ($12.59 per resident day) than independent homes ($14.12 per resident day) (table 13).

The overall finding that chain facilities did not have significantly lower costs than independent facilities did not support the hypothesis of expected lower costs for chains. One possible explanation based on certification and bed-size differences was suggested by the previous findings. It was shown that homes providing more intensive levels of care were more likely to be the highest cost facilities. Significantly more chain (88.7 percent) than independent homes (68.4 percent) were certified by Medicare or Medicaid. It was also shown that larger homes were more likely to be the highest cost facilities. On the average, chain facilities were significantly larger (94 beds per home) than independent facilities (61 beds per home). The chain cost data, however, did not support this explanation because no differences were found between chain and independent homes within the same certification or bed-size categories. Other explanations may be suggested by examining the impact on costs by the varying number of facility chain members.

Patient mix and cost

The cost of providing care in nursing homes is partly a function of the type of patient served. Patient type determines the services to be required as well as the staff and equipment to meet these requirements. Thus variations in the proportion of patient types or patient mix result in variations in nursing home costs.

One method of categorizing patient type, the index of dependency in the Activities of Daily Living (ADL), was developed by Dr. Sidney Katz.[7,8] Dr.

Katz used information on the level of assistance needed in performing each of the six ADL tasks—bathing, dressing, going to the toilet, transferring, continence, and eating—to determine whether a person should be considered dependent or independent in that activity. Then this information was used to develop an index that permits the ranking of individuals according to their performance in all six ADL tasks. The ADL index has seven levels of independence (A through G) and each successive level indicates greater dependency. The general form of the ADL index is:

A—No ADL dependencies

B—Dependent in only one ADL

C—Dependent in bathing and one additional ADL

D—Dependent in bathing, dressing, and one additional ADL

E—Dependent in bathing, dressing, going to toilet, and one additional ADL

F—Dependent in bathing, dressing, going to toilet, transferring, and one additional ADL

G—Dependent in all six ADL's

An "other" category is included for those individuals dependent in at least two functions, but not classifiable as "C," "D," "E," or "F." For this report, the ADL index was condensed into three dependency levels of care:

- Level 1 included A (no ADL dependencies) and B (dependent in only one ADL).
- Level 2 included C (dependent in bathing and one additional ADL), D (dependent in bathing, dressing, and one additional ADL), and E (dependent in bathing, dressing, going to toilet, and one additional ADL).
- Level 3 included F (dependent in bathing, dressing, going to toilet, transferring, and one additional ADL) and G (dependent in all six ADL's).[9]

For analysis, the "other" category representing less than 9 percent of all residents was eliminated from the dependency categorization, but was included in the total number of residents. Table 14 presents the number and percent of nursing home residents by dependency levels for selected nursing home characteristics within four cost intervals.

Of the 1,303,100 nursing home residents in 1977, 21.9 percent were classified within the level 1 dependency status (i.e., having a low level of dependency); 30.3 percent were classified within the level 2 dependency status (i.e., having a moderate level of dependency); and 38.9 percent were classified within the level 3 dependency status (i.e., having a severe level of dependency in the activities of daily living). For the total number of residents in the United States a significantly greater proportion of the low-level dependents (39.3 percent) were found in nursing homes within the lowest cost interval (less than $15.00 per resident day) when compared with the national total (21.9 percent). Low-level dependents also represented a significantly smaller proportion of residents (17.7 percent) than the national total (21.9 percent) in the highest cost facilities ($25.00 or more per resident day). For severe-level dependents, the opposite was true. A significantly greater proportion of severe-level dependents (43.0 percent) than the national total (38.9 percent) was found in the highest cost homes and a significantly smaller proportion of severe-level dependents (25.4 percent) than the national total (38.9 percent) was found in the lowest cost facilities.

Proprietary nursing homes provided care for significantly more severely dependent residents (39.8 percent) than nonprofit homes (35.6 percent), although, as detailed earlier, the for-profit homes had significantly lower total costs per resident day. Among all proprietary homes, however, costs did increase as the proportion of severely dependent residents increased. For-profit homes within the lowest cost interval provided care for significantly more low-level dependents (37.8 percent) than the total for all proprietary homes (20.9 percent) and for significantly fewer severely dependent residents (26.7 percent) than the total for all proprietary homes (39.8 percent). Similarly, for-profit homes in the highest cost interval provided care for significantly more severely dependent residents (46.3 percent) than the total for all proprietary homes (39.8 percent) and for significantly fewer low-level dependents (14.3 percent) than the total for all proprietary homes (20.9 percent).

As expected, nursing home certification predicted patient mix. As level of intensity of care decreased, the proportion of low-level dependents increased significantly from 12.9 percent for SNF only to 17.7 percent for SNF and ICF to 24.9 percent for ICF only to 48.0 percent for noncertified homes. Moreover, as level of intensity of care decreased, the proportion of severely dependent residents decreased significantly from 49.0 percent for SNF only to 41.8 percent for SNF and ICF to 34.4 percent for ICF only to 20.3 percent for noncertified homes.

Within the lowest cost SNF's only, there were significantly more low-level dependents (32.3 percent) than the total for all SNF's only (12.9 percent) and significantly fewer severely dependent residents (34.3 percent) than the total for all SNF's only (49.0 percent). Moreover, within the highest cost SNF's only there were significantly more severely dependent residents (54.2 percent) than the total for all SNF's only (49.0 percent) and significantly fewer low-level dependents (8.0 percent) than the total for all SNF's only (12.9 percent).

In summary, as a facility provides care for greater numbers of severely dependent residents, the cost of providing that care increases. Also, one of the factors contributing to lower costs in the least expensive homes is the greater number of residents with a low level of dependency. Thus patient mix does indeed influence the cost of care.

Staffing and cost

The nursing home industry, as other service industries, is highly dependent on labor. In 1976, labor expense was the largest component (60 percent) of nursing home cost, and nursing staff expense represented 61 percent of wages and salaries. Therefore, variations in staffing patterns for nursing staff, including RN's, LPN's, and nurse's aides, would be expected to have a significant impact on nursing home cost.

In 1977, 41.1 FTE nursing staff per 100 beds were found in all nursing homes in the United States. A positive significant pattern of association was found between FTE nursing staff per 100 beds and nursing home cost. The FTE nursing staff increased from 24.9 per 100 beds in homes within the less than $15.00 cost per resident day interval to 40.5 per 100 beds in homes within the $15.00-$19.99 cost per resident day interval to 48.5 per 100 beds in homes within the $20.00-$24.99 cost per resident day interval to 49.2 per 100 beds in homes within the $25.00 or more cost per resident day interval. Moreover, significantly fewer FTE nursing staff (24.9 per 100 beds) than the national total (41.1 per 100 beds) were employed in the lowest cost facilities and significantly more FTE nursing staff (49.2 per 100 beds) than the national total (41.1 per 100 beds) were employed in the highest cost facilities (table 15).

Proprietary nursing homes employed significantly fewer FTE nursing staff (38.8 per 100 beds) than nonprofit homes (47.2 per 100 beds) whereas the proprietary homes provided care for a greater proportion of highly dependent residents as noted in a previous section. The lowest cost proprietary homes employed significantly fewer FTE nursing staff (25.0 per 100 beds) than the national total (38.8 per 100 beds), but the highest cost proprietary homes employed significantly more FTE nursing staff (46.4 per 100 beds) than the national total (38.8 per 100 beds). Among the highest cost facilities no significant differences were found in the FTE nursing staff rates for proprietary and voluntary nonprofit homes.

Nursing home certification predicted staffing patterns. Homes that provided the most intensive levels of care employed more FTE nursing staff as detailed in a previous section. For SNF's only, as cost per resident day increased, increasingly more FTE nursing staff was employed. For SNF's only in the less than $15.00 cost per resident day interval, 17.0 FTE nursing staff per 100 beds were employed; in the $15.00-$19.99 cost per resident day interval, 43.1 FTE nursing staff per 100 beds were employed; in the $20.00-$24.99 cost per resident day interval, 52.3 FTE nursing staff per 100 beds were employed; and in the $25.00 or more cost per resident day interval, 54.4 FTE nursing staff per 100 beds were employed.

In summary, the highest cost facilities employed more nursing staff, and the lowest cost homes employed significantly fewer FTE nursing staff per 100 beds. Variations in nursing staff patterns do influence cost.

Revenue per resident day analysis

In 1976 proprietary nursing homes collected $7.2 billion dollars in revenue or $22.73 per resident day. Almost 99 percent of the revenues in proprietary homes were received for patient care. Although patient care revenues represented only 90.6 percent of the revenues for nonprofit homes and 85.1 percent of the revenues for government homes, these differences were not significant.

Proprietary facilities had significantly lower total revenues ($22.73 per resident day) than voluntary nonprofit homes ($26.91 per resident day). There was no difference in total revenues for proprietary homes ($22.73 per resident day) and for government homes ($26.66 per resident day); however, the total revenues for the combined category of voluntary nonprofit and government homes ($26.83 per resident day) were higher than the for-profit homes.

All certified nursing homes received a total of $9.9 billion in revenues in 1976, and noncertified homes received $0.9 billion. Approximately 96 percent of the revenues in certified homes were payments received for patient care. Only 88 percent of the revenues for noncertified homes were included in that category, but the difference was not significant.

In every category, as level of intensity of care decreased, revenues per resident day decreased. The SNF only total revenue per resident day was $30.71, SNF and ICF revenue per resident day was $26.34, ICF only revenue was $18.50 per resident day, and the revenue per resident day for noncertified homes was $16.71. Note that significant differences were found between the categories of SNF only, SNF and ICF, and ICF only. However, no significant difference was found between ICF's only and noncertified homes, although an overall significant pattern of association existed.

The interrelationship between ownership and certification has the same impact on nursing home revenues that it has on costs. For each type of ownership an overall significant pattern of association was found between certification and total revenue per resident day. As the level of intensity of care decreased, total revenue per resident day decreased,

except in government noncertified facilities. For example, revenues per resident day were $28.75 for proprietary SNF's only, $24.89 for proprietary SNF's and ICF's, $18.18 for proprietary ICF's only, and $15.38 for proprietary noncertified homes. In addition, some impact on costs existed within certification type. For SNF's only, proprietary facilities had significantly lower total revenues ($28.75 per resident day) than the nonprofit facilities ($38.52 per resident day).

A positive relationship existed between nursing home revenues per resident day and bed size. Total revenue per resident day increased as bed size increased from less than 20 beds ($12.89 per resident day) to 20-49 beds ($20.42 per resident day) to 50-99 beds ($22.69 per resident day) to 100-199 beds ($24.27 per resident day) to 200 beds or more ($29.50 per resident day). Small homes of less than 20 beds collected significantly less revenue per resident day than any other size homes, and large homes of 200 beds or more collected significantly greater revenues per resident day than other size homes. However, as in the case of nursing home costs, the possible impact of other factors should be considered.

On a regional basis, nursing home revenues ranged from $16.93 per resident day in SFA Region VIII, which includes Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming, to $41.43 per resident day in SFA Region II, which includes New York and New Jersey. The revenues for Region II ($41.43 per resident day) were significantly higher than for any other region, as were the costs. Examination of nursing home revenues by facility affiliation showed that revenues ranged from $22.79 per resident day for chain homes to $24.25 per resident day for independent homes to $26.66 for government homes. None of these differences were significant.

Profit analysis

In 1976, the net income (i.e., revenue minus cost) for all nursing homes in the United States was $0.06 per resident day. Proprietary homes had a positive net income or paper profit of $0.67 per resident day; nonprofit and government homes had a negative net income or loss on paper (−$0.66 and −$2.89 per resident day, respectively). Only government homes, however, had an actual loss or negative cash flow (i.e., net income plus depreciation) of −$1.94 per resident day (table 16).

Net income varied by certification from $0.59 per resident day for SNF's only to −$0.27 per resident day for facilities that were not certified. Cash flow ranged from $1.60 per resident day for SNF's only to $0.30 per resident day for facilities that were not certified.

By bed-size categories, net income was $0.07 per resident day for less than 20 beds, $0.43 per resident day for 20-49 beds, $0.13 per resident day for 50-99 beds, $0.35 per resident day for 100-199 beds, and −$0.92 per resident day for 200 beds or more. All bed-size categories had positive cash flows.

In 1976, 63 percent of all nursing homes in the United States earned a profit (revenues exceeded costs); 35.7 percent sustained a loss (costs exceeded revenues). Of all nursing homes, 18.1 percent were highly profitable (revenues exceeded costs by at least 10.1 percent). On the other hand, 12.2 percent of all nursing homes were highly unprofitable (costs exceeded revenues by at least 10.1 percent). Significantly more highly profitable homes (18.1 percent) than highly unprofitable homes (12.2 percent) were found (table 17).

In 1976, significantly more proprietary homes (71.5 percent) than nonprofit (38.7 percent) or government homes (22.9 percent) were profitable. Moreover, significantly more proprietary homes (20.7 percent) were in the highest profit category as compared with nonprofit (11.0 percent) or government (3.8 percent) homes although the percent of government homes in this category had a very small base and, therefore, a very large standard error. Fewer proprietary homes (9.8 percent) than nonprofit (18.4 percent) or government homes (27.3 percent) sustained large losses.

Roughly equivalent proportions of certified nursing home categories were highly profitable ranging from 12.3 to 16.5 percent. Significantly more homes not certified by Medicare or Medicaid (29.4 percent) were grouped in this highest profit category. About 18 percent of the noncertified homes sustained "large" losses as compared with homes certified as SNF's only (9.5 percent), SNF's and ICF's (10.0 percent), and ICF's only (11.6 percent). However, these differences were not statistically significant.

As in the case of noncertified homes, homes in the smallest bed-size interval seemed to fall into two distinct categories—highly profitable or highly unprofitable. More homes in the less than 20 bed-size category (31.4 percent) were highly profitable than any other bed-size homes. On the other hand, more homes in the smallest bed-size category (23.3 percent) sustained larger losses than any other bed-size homes.

Overall, significantly more chain-affiliated homes (70.5 percent) were profitable in 1976 than independent (63.4 percent) or government homes (22.9 percent). No significant difference was found, however, between the proportion of chain (29.1 percent) and independent homes (35.6 percent) that sustained overall losses. Moreover, no significant differences were found between the proportions of highly profitable and highly unprofitable chain and independent homes.

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Table 1. Number and percent distribution of nursing homes, beds, and residents, by selected nursing home characteristics: United States, 1977

Nursing home characteristic	Nursing homes		Beds		Residents	
	Number	Percent distribution	Number	Percent distribution	Number	Percent distribution
All nursing homes	18,900	100.0	1,402,400	100.0	1,303,100	100.0
Ownership						
Proprietary	14,500	76.8	971,200	69.3	888,800	68.2
Voluntary nonprofit	3,400	17.7	295,600	21.1	281,800	21.6
Government	1,000	5.5	135,700	9.7	132,500	10.2
Certification						
Skilled nursing facility only	3,600	19.2	294,000	21.0	269,600	20.7
Medicare and Medicaid	2,100	11.3	204,500	14.6	190,300	14.6
Medicare	700	3.7	27,000	1.9	17,800	1.4
Medicaid	800	4.2	62,600	4.5	61,500	4.7
Skilled nursing facility and intermediate care facility	4,600	24.2	549,400	39.2	527,800	40.5
Medicare SNF and Medicaid SNF and ICF	2,300	12.3	319,500	22.8	303,700	23.3
Medicaid SNF and ICF	2,100	10.8	218,700	15.6	213,800	16.4
Medicare SNF and Medicaid ICF	200	1.1	11,300	0.8	10,300	0.8
Intermediate care facility only	6,000	31.6	391,600	27.9	368,200	28.3
Not certified	4,700	25.0	167,400	11.9	137,500	10.6
Bed size						
Less than 20 beds	3,900	20.6	41,700	3.0	37,000	2.8
20-49 beds	4,100	21.7	141,200	10.1	130,900	10.1
50-99 beds	5,800	30.8	417,800	29.8	397,000	30.5
100-199 beds	4,200	22.3	546,400	39.0	505,200	38.8
200 beds or more	900	4.6	255,400	18.2	233,000	17.9
Location						
Geographic region:						
Northeast	3,900	20.5	314,900	22.5	292,100	22.4
North Central	5,900	31.1	483,900	34.5	449,400	34.5
South	4,900	26.0	381,500	27.2	354,700	27.2
West	4,200	22.4	222,100	15.8	207,000	15.9
Standard Federal Administrative Region:						
Region I	1,700	9.1	98,900	7.1	85,600	6.6
Region II	1,500	7.8	145,600	10.4	138,300	10.6
Region III	1,400	7.3	115,000	8.2	107,800	8.3
Region IV	2,400	12.9	177.600	12.7	175,300	13.4
Region V	4,000	20.9	345,900	24.7	318,200	24.4
Region VI	1,800	9.7	162,300	11.6	142,700	11.0
Region VII	1,700	9.2	122,800	8.8	115,800	8.9
Region VIII	700	3.7	54,900	3.9	50,900	3.9
Region IX	3,200	16.8	134,900	9.6	124,000	9.5
Region X	500	2.7	44,600	3.2	44,600	3.4
Affiliation						
Chain	5,300	28.1	496,800	35.4	450,900	34.6
Independent	12,600	66.4	769,900	54.9	719,800	55.2
Government	1,000	5.5	135,700	9.7	132,500	10.2

NOTE: Figures may not add to totals because of rounding.

Table 2. Number and percent distribution of nursing homes by selected nursing home characteristics, according to bed size: United States, 1977

Nursing home characteristic	Bed size					
	All sizes	Less than 20 beds	20-49 beds	50-99 beds	100-199 beds	200 beds or more
	Number of nursing homes					
All nursing homes	18,900	3,900	4,100	5,800	4,200	900
Ownership						
Proprietary	14,500	3,600	3,100	4,300	3,100	500
Voluntary nonprofit	3,400	300	800	1,100	900	200
Government	1,000	*100	200	400	200	200
Certification						
Skilled nursing facility only	3,600	500	800	1,200	800	200
Skilled nursing facility and intermediate care facility	4,600	*100	400	1,600	2,000	500
Intermediate care facility only	6,000	800	1,700	2,300	1,100	*100
Not certified	4,700	2,500	1,200	700	300	*100
Location						
Geographic region:						
Northeast	3,900	900	1,000	800	800	300
North Central	5,900	600	1,400	2,200	1,400	300
South	4,900	700	900	1,700	1,500	200
West	4,200	1,800	700	1,200	500	*100
Standard Federal Administrative Region:						
Region I	1,700	500	500	400	300	*
Region II	1,500	300	400	200	300	200
Region III	1,400	400	300	200	400	*100
Region IV	2,400	400	500	800	700	*100
Region V	4,000	400	1,000	1,200	1,000	300
Region VI	1,800	*100	200	800	700	*100
Region VII	1,700	200	300	800	300	*
Region VIII	700	*100	*100	300	200	*
Region IX	3,200	1,700	500	700	300	*
Region X	500	---	*100	200	*100	*
	Percent distribution					
All nursing homes	100.0	100.0	100.0	100.0	100.0	100.0
Ownership						
Proprietary	76.8	90.6	76.0	73.3	74.6	52.3
Voluntary nonprofit	17.7	8.1	19.8	19.6	20.3	26.2
Government	5.5	*1.4	4.2	7.1	5.1	21.4
Certification						
Skilled nursing facility only	19.2	13.8	19.6	21.4	19.6	25.5
Skilled nursing facility and intermediate care facility	24.2	*2.0	9.8	27.6	47.7	54.8
Intermediate care facility only	31.6	20.8	41.4	38.8	26.7	*9.8
Not certified	25.0	63.4	29.3	12.2	6.0	*9.9
Location						
Geographic region:						
Northeast	20.5	23.2	25.7	13.3	19.7	36.0
North Central	31.1	15.1	34.1	37.7	32.8	37.0
South	26.0	17.3	22.8	29.0	34.8	18.7
West	22.4	44.4	17.4	20.0	12.7	*8.4
Standard Federal Administrative Region:						
Region I	9.1	12.0	12.9	6.9	6.4	*
Region II	7.8	8.3	9.4	4.0	7.8	23.4
Region III	7.3	9.0	7.9	4.0	8.8	*12.3
Region IV	12.9	9.3	13.5	13.8	15.5	*8.2
Region V	20.9	9.5	25.7	21.2	23.8	33.2
Region VI	9.7	*1.9	5.4	14.0	15.9	*6.1
Region VII	9.2	5.6	7.4	14.4	8.2	*
Region VIII	3.7	*2.5	*2.6	5.4	4.0	*
Region IX	16.8	42.0	12.2	12.5	6.1	*
Region X	2.7	---	*3.1	3.9	*3.4	*

NOTE: Figures may not add to totals because of rounding.

Table 3. Number and percent distribution of nursing homes by selected nursing home characteristics, according to nursing home affiliation: United States, 1977

Nursing home characteristic	*Affiliation*			
	All affiliations	*Chain*	*Independent*	*Government*
	Number of nursing homes			
All nursing homes	18,900	5,300	12,600	1,000
Ownership				
Proprietary	14,500	4,500	10,100	---
Voluntary nonprofit	3,400	800	2,500	---
Government	1,000	---	---	1,000
Certification				
Skilled nursing facility only	3,600	1,100	2,300	200
Skilled nursing facility and intermediate care facility	4,600	1,600	2,700	300
Intermediate care facility	6,000	2,100	3,500	400
Not certified	4,700	600	4,000	200
Bed size				
Less than 20 beds	3,900	*100	3,800	*100
20-49 beds	4,100	900	3,000	200
50-99 beds	5,800	2,100	3,300	400
100-199 beds	4,200	1,900	2,100	200
200 beds or more	900	300	400	200
Location				
Geographic region:				
Northeast	3,900	700	3,100	*100
North Central	5,900	1,800	3,500	600
South	4,900	1,900	2,800	300
West	4,200	900	3,200	*100
Standard Federal Administrative Region:				
Region I	1,700	400	1,300	*
Region II	1,500	200	1,200	*
Region III	1,400	300	1,100	*100
Region IV	2,400	800	1,500	200
Region V	4,000	1,300	2,400	300
Region VI	1,800	900	900	*100
Region VII	1,700	600	900	300
Region VIII	700	300	400	*
Region IX	3,200	500	2,700	*
Region X	500	200	300	*
	Percent distribution			
All nursing homes	100.0	100.0	100.0	100.0
Ownership				
Proprietary	76.8	84.5	79.9	---
Voluntary nonprofit	17.7	15.5	20.1	---
Government	5.5	---	---	100.0
Certification				
Skilled nursing facility only	19.2	20.7	18.4	20.9
Skilled nursing facility and intermediate care facility	24.2	29.3	21.8	25.8
Intermediate care facility only	31.6	38.7	28.1	37.4
Not certified	25.0	11.3	31.6	15.8
Bed size				
Less than 20 beds	20.8	*2.0	30.1	*5.2
20-49 beds	21.5	17.1	23.7	16.4
50-99 beds	30.8	39.5	26.4	39.9
100-199 beds	22.3	36.6	16.3	20.7
200 beds or more	4.6	4.8	3.4	17.8

NOTE: Figures may not add to totals because of rounding.

Table 3. Number and percent distribution of nursing homes by selected nursing home characteristics, according to nursing home affiliation: United States, 1977—Con.

Nursing home characteristic	*Affiliation*			
	All affiliations	*Chain*	*Independent*	*Government*
Location	Percent distribution			
Geographic region:				
Northeast	20.5	13.3	24.4	*9.9
North Central	31.1	34.7	27.7	53.4
South	26.0	35.0	22.1	27.6
West	22.4	16.9	25.8	*9.1
Standard Federal Administrative Region:				
Region I	9.1	7.4	10.3	*
Region II	7.8	4.0	9.6	*
Region III	7.3	4.9	8.4	*7.0
Region IV	12.9	15.2	11.7	15.6
Region V	20.9	23.6	19.1	28.0
Region VI	9.7	16.9	6.8	*7.5
Region VII	9.2	10.4	7.4	24.4
Region VIII	3.7	4.8	3.3	*
Region IX	16.8	9.1	21.1	*
Region X	2.7	3.7	2.2	*

NOTE: Figures may not add to totals because of rounding.

Table 4. Number and percent distribution of resident days and certified resident days, by selected nursing home characteristics: United States, 1976

Nursing home characteristic	All resident days	Certified			Not certified
		Medicare SNF	Medicaid		
			SNF	ICF	
			Number		
All nursing homes	451,522,500	12,983,200	114,539,200	155,784,600	168,221,800
Ownership					
Proprietary	315,225,700	8,689,600	79,949,600	113,592,300	113,000,600
Voluntary nonprofit	93,391,200	3,283,100	22,198,100	26,490,400	41,419,600
Government	42,905,500	*1,010,600	12,391,400	15,702,000	13,801,600
Certification					
Skilled nursing facility only	96,967,000	6,348,700	53,422,100	2,801,200	34,395,000
Skilled nursing facility and intermediate care facility	176,286,000	6,622,100	60,602,500	63,923,000	45,144,700
Intermediate care facility only	123,523,000	*0	*416,000	87,775,700	35,331,300
Not certified	54,746,500	*12,500	*98,600	*1,284,800	53,350,700
Bed size					
Less than 20 beds	14,275,900	*95,400	*732,700	2,842,800	10,604,900
20-49 beds	46,645,100	*1,186,000	5,969,200	18,723,900	20,766,000
50-99 beds	137,186,800	3,202,600	29,870,000	47,938,200	56,176,000
100-199 beds	172,649,500	5,687,000	47,190,000	61,831,500	57,947,300
200 beds or more	80,765,100	2,812,200	30,777,100	24,448,200	22,727,600
Location					
Geographic region:					
Northeast	102,611,200	4,539,000	35,497,900	29,002,300	33,578,200
North Central	157,793,500	3,377,000	29,429,500	60,174,400	64,812,500
South	120,106,100	2,385,700	22,109,300	55,777,000	39,834,100
West	71,011,700	2,681,500	27,502,500	10,830,900	29,996,900
Standard Federal Administrative Region:					
Region I	32,443,700	*499,300	8,553,100	13,422,900	9,968,500
Region II	49,276,200	3,022,700	20,162,700	11,510,100	14,580,800
Region III	35,565,300	*1,394,900	8,625,200	10,796,400	14,755,100
Region IV	57,540,300	*1,242,300	16,431,300	18,196,500	21,670,200
Region V	113,043,000	3,065,800	26,505,400	42,211,400	41,260,500
Region VI	48,846,800	*769,700	3,839,700	31,532,700	12,704,700
Region VII	39,579,000	*311,200	*1,730,600	16,295,900	21,241,300
Region VIII	16,164,700	*205,300	5,471,200	4,614,800	5,873,400
Region IX	44,794,500	2,232,700	18,594,400	3,020,600	20,946,800
Region X	14,268,900	*239,500	4,625,600	4,183,300	5,220,500
Affiliation					
Chain	159,216,200	4,812,900	39,206,100	61,585,800	53,611,400
Independent	249,400,800	7,159,800	62,941,700	78,496,800	100,808,800
Government	42,905,500	*1,010,600	12,391,400	15,702,000	13,801,600

See footnotes at end of table.

Table 4. Number and percent distribution of resident days and certified resident days, by selected nursing home characteristics: United States, 1976—Con.

Nursing home characteristic	*All resident days*	*Certified*			*Not certified*
		Medicare SNF	*Medicaid*		
			SNF	*ICF*	
		Percent distribution			
All nursing homes	100.0	2.9	25.4	34.5	37.3
Ownership					
Proprietary	100.0	2.8	25.4	36.0	35.8
Voluntary nonprofit	100.0	3.5	23.8	28.4	44.4
Government	100.0	*2.4	28.9	36.6	32.2
Certification					
Skilled nursing facility only	100.0	6.5	55.1	2.9	35.5
Skilled nursing facility and intermediate care facility	100.0	3.8	34.4	36.3	25.6
Intermediate care facility only	100.0	*0.0	*0.3	71.1	28.6
Not certified	100.0	*0.0	*0.2	*2.3	97.5
Bed size					
Less than 20 beds	100.0	*0.7	*5.1	19.9	74.3
20-49 beds	100.0	*2.5	12.8	40.1	44.5
50-99 beds	100.0	2.3	21.8	34.9	40.9
100-199 beds	100.0	3.3	27.3	35.8	33.6
200 beds or more	100.0	3.5	38.1	30.3	28.1
Location					
Geographic region:					
Northeast	100.0	4.4	34.6	28.3	32.7
North Central	100.0	2.1	18.7	38.1	41.1
South	100.0	2.0	18.4	46.4	33.2
West	100.0	3.8	38.7	15.3	42.2
Standard Federal Administrative Region:					
Region I	100.0	*1.5	26.4	41.4	30.7
Region II	100.0	6.1	40.9	23.4	29.6
Region III	100.0	*3.9	24.3	30.4	41.5
Region IV	100.0	*2.2	28.6	31.6	37.7
Region V	100.0	2.7	23.4	37.3	36.5
Region VI	100.0	*1.6	7.9	64.6	26.0
Region VII	100.0	*0.8	*4.4	41.2	53.7
Region VIII	100.0	*1.3	33.8	28.5	36.3
Region IX	100.0	5.0	41.5	6.7	46.8
Region X	100.0	*1.7	32.4	29.3	36.6
Affiliation					
Chain	100.0	3.0	24.6	38.7	33.7
Independent	100.0	2.9	25.2	31.5	40.4
Government	100.0	*2.4	28.9	36.6	32.2

NOTES: Estimates for resident days, occupancy rate, and cost or revenue per resident day differ slightly from estimates presented in reference 2 because of a data processing error. See "Data Processing" in appendix I for details.
Figures may not add to totals because of rounding.

Table 5. Number and percent distribution of nursing homes by ownership, according to certification: United States, 1977

Certification	Ownership			
	All ownerships	*Proprietary*	*Voluntary nonprofit*	*Government*
	Number of nursing homes			
All certifications	18,900	14,500	3,400	1,000
Skilled nursing facility only	3,600	2,800	600	200
Medicare and Medicaid	2,100	1,600	400	200
Medicare	700	600	*100	---
Medicaid	800	600	200	*100
Skilled nursing facility and intermediate care facility	4,600	3,100	1,200	300
Medicare SNF and Medicaid SNF and ICF	2,300	1,700	500	*100
Medicaid SNF and ICF	2,100	1,200	700	*100
Medicare SNF and Medicaid ICF	200	200	*	---
Intermediate care facility only	6,000	4,700	900	400
Not certified	4,700	3,900	600	200
	Percent distribution			
All certifications	100.0	76.8	17.7	5.5
Skilled nursing facility only	100.0	76.4	17.6	6.0
Medicare and Medicaid	100.0	74.3	18.2	7.5
Medicare	100.0	89.4	*10.6	---
Medicaid	100.0	71.0	21.8	*7.2
Skilled nursing facility and intermediate care facility	100.0	67.6	26.5	5.9
Medicare SNF and Medicaid SNF and ICF	100.0	73.1	20.5	*6.4
Medicaid SNF and ICF	100.0	60.1	34.0	*5.9
Medicare SNF and Medicaid ICF	100.0	80.2	*19.8	---
Intermediate care facility only	100.0	79.2	14.3	6.5
Not certified	100.0	83.0	13.5	3.5

NOTE: Figures may not add to totals because of rounding.

Table 6. Selected measures of nursing home utilization, by selected nursing home characteristics: United States, 1976

Nursing home characteristic	Number of resident days	Annual occupancy rate[1]	Median duration of stay in days	Admissions		Discharges					
						Total[2]		Live		Dead	
				Number	Rate per 100 beds	Number	Rate per 100 beds	Number	Rate per 100 beds	Number	Rate per 100 beds
All nursing homes	451,522,500	88.8	75	1,367,400	98.4	1,117,500	80.4	825,500	59.5	289,800	20.9
Ownership											
Proprietary	315,225,700	89.4	80	1,012,000	105.0	803,100	83.3	600,900	62.3	200,300	20.8
Voluntary nonprofit	93,391,200	87.4	50	252,300	86.4	225,100	77.1	160,000	54.8	65,100	22.3
Government	42,905,500	87.4	84	103,000	76.8	89,200	66.5	64,700	48.2	24,300	18.1
Certification											
Skilled nursing facility only	96,967,000	90.8	38	390,300	133.7	379,000	129.8	293,900	100.7	84,300	28.9
Skilled nursing facility and intermediate care facility	176,286,000	88.6	82	639,700	117.6	448,400	82.5	320,900	59.0	126,400	23.2
Intermediate care facility only	123,523,000	87.3	176	222,800	57.6	210,400	54.4	147,800	38.2	62,700	16.2
Not certified	54,746,500	89.1	111	114,600	68.3	79,600	47.4	63,100	37.6	16,400	9.8
Bed size											
Less than 20 beds	14,275,900	93.5	107	19,800	47.4	20,400	48.9	17,400	41.6	*3,000	*7.2
20-49 beds	46,645,100	89.7	39	136,600	96.2	129,600	91.2	101,300	71.3	28,300	19.9
50-99 beds	137,186,800	90.4	81	423,600	102.1	323,800	78.0	230,500	55.6	92,500	22.3
100-199 beds	172,649,500	87.6	66	589,000	109.4	479,500	89.1	355,900	66.1	123,200	22.9
200 beds or more	80,765,100	87.2	103	198,300	78.4	164,200	64.9	120,500	47.6	42,700	16.9
Location											
Geographic region:											
Northeast	102,611,200	90.1	78	283,200	91.0	247,100	79.4	175,700	56.5	70,500	22.7
North Central	157,793,500	89.7	99	366,100	76.2	336,600	70.1	241,700	50.3	93,800	19.5
South	120,106,100	87.3	95	295,200	78.5	270,900	72.1	197,900	52.6	72,900	19.4
West	71,011,700	87.3	39	422,900	190.2	262,800	118.2	210,300	94.6	52,500	23.6
Standard Federal Administrative Region:											
Region I	32,443,700	90.0	107	70,300	71.4	54,200	55.0	36,600	37.2	17,600	17.9
Region II	49,276,200	93.2	123	133,800	92.7	113,900	78.9	84,400	58.4	28,700	19.9
Region III	35,565,300	85.7	36	106,700	94.2	102,600	90.5	70,100	61.8	32,500	28.7
Region IV	57,540,300	91.4	96	142,200	82.7	131,000	76.2	92,000	53.5	38,900	22.6
Region V	113,043,000	90.1	91	295,100	86.1	273,600	79.8	199,900	58.3	72,400	21.1
Region VI	48,846,800	82.5	102	128,100	79.2	119,800	74.0	93,700	57.9	26,000	16.1
Region VII	39,579,000	88.4	144	64,500	52.7	58,200	47.6	38,300	31.3	19,900	16.3
Region VIII	16,164,700	80.3	68	36,500	66.4	31,800	57.8	23,400	42.5	8,400	15.3
Region IX	44,794,500	90.7	35	268,000	198.6	188,300	139.5	155,000	114.8	33,300	24.7
Region X	14,268,900	87.4	58	121,900	273.3	44,200	99.1	32,000	71.7	12,100	27.1

[1] $\frac{\Sigma \text{ Aggregate number of days of care provided to residents in 1976} \times 100}{\Sigma \text{ Estimated number of beds in 1976} \times 366}$

[2] Includes a small number of unknowns.

NOTES: Figures may not add to totals because of rounding.
Nursing home characteristics for 1977.
Estimates for resident days, occupancy rate, and cost or revenue per resident day differ slightly from estimates presented in reference 2 due to a data processing error. See "Data Processing" in appendix I for details.

Table 7. Number and rate per 100 beds of nursing home full-time equivalent employees, by occupational categories and selected nursing home characteristics: United States, 1977

Nursing home characteristic	Occupational category											
	All full-time equivalent employees[1]		Administrative, medical, and therapeutic		Nursing							
					Total		Registered nurse		Licensed practical nurse		Nurse's aide	
	Number	Rate per 100 beds	Number	Rate per 100 beds	Number	Rate per 100 beds	Number	Rate per 100 beds	Number	Rate per 100 beds	Number	Rate per 100 beds
All employees[2]	647,700	46.2	70,600	5.0	577,000	41.1	66,900	4.8	85,100	6.1	424,900	30.3
Ownership												
Proprietary	421,500	43.4	44,500	4.6	376,900	38.8	40,300	4.2	55,300	5.7	281,300	29.0
Voluntary nonprofit	158,700	53.7	19,200	6.5	139,600	47.2	18,800	6.4	19,500	6.6	101,300	34.3
Government	67,500	49.7	6,900	5.1	60,500	44.6	7,800	5.8	10,300	7.6	42,400	31.2
Certification												
Skilled nursing facility only	154,900	52.7	17,200	5.9	137,700	46.8	20,900	7.1	19,500	6.6	97,300	33.1
Skilled nursing facility and intermediate care facility	284,600	51.8	26,700	4.9	257,900	46.9	32,100	5.9	35,800	6.5	190,000	34.6
Intermediate care facility only	159,200	40.7	18,200	4.7	141,000	36.0	9,300	2.4	24,800	6.3	106,800	27.3
Not certified	48,900	29.2	8,500	5.1	40,400	24.1	4,600	2.8	4,900	3.0	30,800	18.4
Bed size												
Less than 20 beds	14,000	33.5	4,200	10.1	9,700	23.4	1,200	2.8	1,800	4.3	6,800	16.2
20-49 beds	69,400	49.2	11,000	7.8	58,500	41.4	6,700	4.8	10,200	7.2	41,600	29.4
50-99 beds	203,400	48.7	22,500	5.4	180,900	43.3	19,900	4.8	25,100	6.0	135,800	32.5
100-199 beds	254,900	46.6	22,900	4.2	232,000	42.5	25,700	4.7	33,400	6.1	172,900	31.6
200 beds or more	106,000	41.5	10,000	3.9	95,900	37.6	13,400	5.3	14,600	5.7	67,900	26.6
Location												
Geographic region:												
Northeast	162,000	51.4	19,400	6.1	142,700	45.3	24,800	7.9	20,300	6.4	97,600	31.0
North Central	226,700	46.8	22,900	4.7	203,800	42.1	20,200	4.2	26,700	5.5	156,900	32.4
South	162,600	42.6	16,000	4.2	146,600	38.4	11,100	2.9	27,000	7.1	108,500	28.4
West	96,300	43.4	12,400	5.6	83,900	37.8	10,800	4.9	11,100	5.0	62,000	27.9
Standard Federal Administrative Region:												
Region I	45,200	45.8	5,100	5.1	40,200	40.6	7,100	7.2	5,200	5.2	27,900	28.2
Region II	73,000	50.2	9,300	6.4	63,700	43.8	11,000	7.6	9,600	6.6	43,100	29.6
Region III	63,600	55.3	6,700	5.8	56,800	49.4	8,800	7.6	8,100	7.1	39,900	34.7
Region IV	92,900	52.3	8,900	5.0	84,000	47.3	6,700	3.8	13,700	7.7	63,600	35.8
Region V	167,800	48.5	16,300	4.7	151,500	43.8	16,100	4.6	19,700	5.7	115,700	33.5
Region VI	50,900	31.4	5,500	3.4	45,400	28.0	2,500	1.5	10,800	6.7	32,100	19.8
Region VII	51,700	42.1	5,600	4.6	46,100	37.6	3,300	2.6	6,500	5.3	36,300	29.6
Region VIII	21,500	39.2	2,800	5.1	18,700	34.1	2,800	5.2	2,000	3.6	13,900	25.3
Region IX	60,800	45.0	8,300	6.1	52,500	38.9	6,500	4.8	7,200	5.3	38,800	28.8
Region X	20,200	45.2	2,100	4.8	18,000	40.4	2,200	4.9	2,300	5.2	13,500	30.3

[1]35 hours of part-time employees' work is considered equivalent to 1 full-time employee. Part-time employees were converted to full-time equivalent employees by dividing the number of hours worked per week by 35.
[2]Includes only employees providing direct health-related services to residents.

NOTE: Figures may not add to totals because of rounding. Only relevant for number of staff and not for rates.

Table 8. Percent distribution of nursing homes within total cost per resident day intervals, by selected nursing home characteristics: United States, 1977

Nursing home characteristic	Cost per resident day interval							
	All intervals	Less than $10.00	$10.00-$14.99	$15.00-$19.99	$20.00-$24.99	$25.00-$29.99	$30.00-$34.99	$35.00 or more
	Percent distribution							
All nursing homes	100.0	14.4	18.9	21.8	20.6	10.1	4.9	9.4
Ownership								
Proprietary	100.0	17.7	20.8	22.6	19.6	9.4	3.8	6.1
Voluntary nonprofit	100.0	*3.6	9.7	20.2	24.4	11.4	9.7	21.0
Government	100.0	*1.0	21.9	*14.6	22.8	*15.5	*5.2	*19.0
Certification								
Skilled nursing facility only	100.0	11.7	11.3	12.1	25.6	14.2	9.3	15.9
Skilled nursing facility and intermediate care facility	100.0	*2.4	*3.9	24.6	35.9	15.0	5.9	12.3
Intermediate care facility only	100.0	8.3	28.3	34.6	16.2	5.5	*2.4	4.8
Not certified	100.0	36.0	28.4	11.0	7.0	7.6	*3.2	6.8
Bed size								
Less than 20 beds	100.0	43.9	29.4	11.1	6.0	*3.9	*0.8	*4.8
20-49 beds	100.0	14.7	16.7	20.9	21.4	11.6	6.8	8.0
50-99 beds	100.0	4.8	21.0	26.5	24.3	8.9	4.9	9.5
100-199 beds	100.0	*1.9	11.0	27.2	28.0	15.0	5.9	11.1
200 beds or more	100.0	*5.5	*5.3	*14.6	*22.0	*16.3	*9.1	27.1
Location								
Geographic region:								
Northeast	100.0	6.5	17.2	9.4	18.3	19.5	9.3	19.8
North Central	100.0	7.0	23.3	26.1	23.1	8.7	5.4	6.3
South	100.0	15.6	19.4	34.2	19.5	4.6	*1.9	4.8
West	100.0	29.9	14.5	15.1	20.8	8.6	*3.1	8.1
Standard Federal Administrative Region:								
Region I	100.0	*6.1	19.4	16.7	21.6	25.4	*6.9	*3.8
Region II	100.0	*10.3	16.0	*2.2	*7.9	14.2	14.6	34.7
Region III	100.0	15.7	*7.3	*10.5	25.6	*12.3	*4.8	23.9
Region IV	100.0	19.5	14.4	30.2	26.0	*5.1	*1.4	*3.5
Region V	100.0	7.1	10.1	22.8	33.9	10.8	7.4	7.9
Region VI	100.0	*2.2	34.1	45.3	*10.3	*1.4	*1.7	*5.0
Region VII	100.0	*7.7	47.8	31.8	*2.0	*5.0	*2.1	*3.7
Region VIII	100.0	*19.7	*12.0	*29.0	*12.7	*4.8	-	*21.7
Region IX	100.0	35.2	14.7	10.8	20.1	10.1	*4.0	*5.1
Region X	100.0	*0.7	*27.7	*29.8	*34.6	*3.3	*0.7	*3.2
Affiliation								
Chain	100.0	7.4	17.4	27.3	24.7	10.0	5.9	7.3
Independent	100.0	18.2	19.3	20.1	18.8	9.7	4.4	9.4
Government	100.0	*1.0	21.9	*14.6	22.8	*15.5	*5.2	*19.0

NOTE: Because percents shown here were estimated using only the subset of cases responding to the Expense Questionnaire, figures differ slightly from those presented in table 1. Homes not responding to the Expense Questionnaire were weighted more heavily than in table 1 because of nonresponse.

Table 9. Revenue and cost per resident day for nursing homes and percent distribution, by ownership and certification: United States, 1976

Revenue and cost components	All nursing homes	Ownership			Certification			
		Proprietary	Voluntary nonprofit	Government	Skilled nursing facility only	Skilled nursing facility and intermediate care facility	Intermediate care facility only	Not certified
	Amount per resident day							
Revenue								
Total	$23.97	$22.73	$26.91	$26.66	$30.71	$26.34	$18.50	$16.71
Patient care	22.85	22.42	24.37	22.68	29.76	25.07	17.86	14.72
Nonpatient care	1.11	0.30	2.53	3.97	0.95	1.27	*0.64	1.98
Cost								
Total	23.91	22.06	27.56	29.54	30.12	26.53	18.37	16.98
Labor	14.27	12.52	16.93	21.33	18.07	16.03	10.66	9.99
Wages and salaries	12.74	11.24	15.15	18.48	15.91	14.28	9.68	9.06
Nursing payroll	7.80	7.14	8.92	10.22	10.18	8.73	5.84	5.02
Professional payroll	0.40	0.24	0.56	1.19	0.54	0.49	*0.15	0.40
Other payroll	4.54	3.86	5.68	7.06	5.19	5.06	3.69	3.64
Payroll taxes and fringe benefits	1.53	1.28	1.78	2.86	2.16	1.75	0.98	0.94
Operating	5.15	4.67	6.49	5.80	6.25	5.55	4.09	4.33
Food and other dietary items	2.14	1.96	2.69	2.23	2.40	2.23	1.89	1.92
Drugs	0.30	0.25	0.40	0.40	0.43	0.34	0.18	0.19
Supplies and equipment	0.81	0.71	1.04	1.07	0.99	0.97	0.56	0.55
Maintenance of buildings, grounds, and equipment purchased from outside sources	0.42	0.39	0.52	0.40	0.48	0.42	0.37	0.40
Laundry and linen	0.27	0.25	0.30	0.34	0.38	0.30	0.17	0.19
Health care services purchased from outside sources	0.30	0.28	0.40	0.22	0.53	0.33	0.12	0.21
Nursing	0.06	0.07	0.05	*0.01	0.10	0.07	0.03	*0.04
Other health care	0.24	0.21	0.34	0.20	0.43	0.26	0.09	0.17
Utilities	0.92	0.83	1.15	1.15	1.04	0.97	0.80	0.87
Fixed	3.41	3.78	3.03	1.49	4.41	3.78	2.72	1.97
Equipment rental	0.05	0.06	*0.02	*0.03	0.08	0.05	0.03	*0.02
Insurance	0.28	0.27	0.35	0.19	0.32	0.29	0.27	0.22
Taxes and licenses	0.40	0.55	0.08	*0.02	0.65	0.40	0.28	0.27
Interest and finance charges	0.88	0.90	1.12	0.26	1.10	1.05	0.69	0.38
Depreciation	0.88	0.72	1.36	0.95	1.01	1.03	0.69	0.57
Rent on building and land	0.89	1.25	0.08	*0.04	1.23	0.94	0.73	0.49
Amortization of leasehold improvements	0.02	0.03	*0.01	*0.01	*0.02	*0.02	*0.02	*0.03
Miscellaneous	1.08	1.09	1.11	0.92	1.39	1.16	0.89	0.69

See footnotes at end of table.

Table 9. Revenue and cost per resident day for nursing homes and percent distribution, by ownership and certification: United States, 1976—Con.

Revenue and cost components	All nursing homes	Ownership			Certification			
		Proprietary	Voluntary nonprofit	Government	Skilled nursing facility only	Skilled nursing facility and intermediate care facility	Intermediate care facility only	Not certified
	Percent distribution							
Revenue								
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Patient care	95.4	98.7	90.6	85.1	96.9	95.2	96.6	88.1
Nonpatient care	4.6	1.3	9.4	14.9	3.1	4.8	3.4	11.9
Cost								
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Labor	59.7	56.7	61.4	72.2	60.0	60.4	58.1	58.9
Wages and salaries	53.3	51.0	55.0	62.5	52.8	53.8	52.7	53.3
Nursing payroll	32.6	32.4	32.3	34.6	33.8	32.9	31.8	29.6
Professional payroll	1.7	1.1	2.0	4.0	1.8	1.9	0.8	*2.3
Other payroll	19.0	17.5	20.6	23.9	17.2	19.1	20.1	21.4
Payroll taxes and fringe benefits	6.4	5.8	6.5	9.7	7.2	6.6	5.4	5.5
Operating	21.6	21.2	23.5	19.6	20.8	20.9	22.3	25.5
Food and other dietary items	8.9	8.9	9.7	7.5	8.0	8.4	10.3	11.3
Drugs	1.2	1.1	1.5	1.4	1.4	1.3	1.0	1.1
Supplies and equipment	3.4	3.2	3.8	3.6	3.3	3.7	3.0	3.2
Maintenance of buildings, grounds, and equipment purchased from outside sources	1.7	1.8	1.9	1.3	1.6	1.6	2.0	2.3
Laundry and linen	1.1	1.1	1.1	1.2	1.3	1.1	0.9	1.1
Health care services purchased from outside sources	1.3	1.3	1.4	0.7	1.8	1.2	0.7	1.2
Nursing	0.3	0.3	0.2	*0.0	0.3	0.3	0.2	*0.2
Other health care	1.0	1.0	1.2	0.7	1.4	1.0	0.5	1.0
Utilities	3.9	3.7	4.2	3.9	3.4	3.6	4.3	5.1
Fixed	14.3	17.1	11.0	5.0	14.6	14.3	14.8	11.6
Equipment rental	0.2	0.3	0.1	*0.1	0.3	0.2	0.2	*0.1
Insurance	1.2	1.2	1.3	0.6	1.0	1.1	1.5	1.3
Taxes and licenses	1.7	2.5	0.3	*0.1	2.1	1.5	1.5	1.6
Interest and finance charges	3.7	4.1	4.1	0.9	3.6	4.0	3.8	2.2
Depreciation	3.7	3.3	4.9	3.2	3.4	3.9	3.8	3.4
Rent on building and land	3.7	5.7	0.3	*0.1	4.1	3.5	4.0	2.9
Amortization of leasehold improvements	0.1	0.1	0.0	*0.0	*0.1	*0.1	*0.1	*0.2
Miscellaneous	4.5	4.9	4.0	3.1	4.6	4.4	4.9	4.0

NOTES: Estimates for resident days, occupancy rate, and cost or revenue per resident day differ slightly from estimates presented in reference 2 because of a data processing error. See "Data Processing" in appendix I for details.
Figures may not add to totals because of rounding.

Table 10. Revenue and cost per resident day by major components for nursing homes, by certification and ownership: United States, 1976

Certification and ownership	Total revenue	Cost component				
		Total	Labor	Operating	Fixed	Miscellaneous
	Amount per resident day					
All facilities						
Proprietary	$22.73	$22.06	$12.52	$4.67	$3.78	$1.09
Voluntary nonprofit	26.91	27.56	16.93	6.49	3.03	1.11
Government	26.66	29.54	21.33	5.80	1.49	0.92
Skilled nursing facility only						
Proprietary	28.75	27.89	16.20	5.70	4.61	1.37
Voluntary nonprofit	38.52	37.95	23.13	8.78	4.60	1.45
Government	33.53	36.04	26.61	6.20	1.68	1.55
Skilled nursing facility and intermediate care facility						
Proprietary	24.89	24.25	13.72	5.02	4.33	1.17
Voluntary nonprofit	28.22	29.16	18.28	6.54	3.20	1.15
Government	30.38	33.68	24.32	6.33	1.93	1.10
Intermediate care facility only						
Proprietary	18.18	17.60	9.88	3.80	2.99	0.94
Voluntary nonprofit	20.75	21.23	12.85	5.22	2.29	0.87
Government	16.93	19.56	13.38	4.52	1.17	0.49
Not certified						
Proprietary	15.38	14.79	8.02	3.71	2.41	0.66
Voluntary nonprofit	16.17	17.80	10.10	5.34	1.45	0.91
Government	24.40	26.91	19.99	5.87	0.60	0.46

NOTE: Estimates for resident days, occupancy rate, and cost or revenue per resident day differ slightly from estimates presented in reference 2 because of a data processing error. See "Data Processing" in appendix I for details.

Table 11. Revenue and cost per resident day for nursing homes and percent distribution, by bed size: United States, 1976

Revenue and cost components	Bed size					
	All bed sizes	Less than 20 beds	20-49 beds	50-99 beds	100-199 beds	200 beds or more
	Amount per resident day					
Revenue						
Total	$23.97	$12.89	$20.42	$22.69	$24.27	$29.50
Patient care	22.85	12.06	19.42	22.02	23.48	26.80
Nonpatient care	1.11	*0.83	*0.99	0.66	0.79	*2.69
Cost						
Total	23.91	12.82	19.99	22.56	23.92	30.41
Labor	14.27	6.58	11.79	13.36	13.89	19.42
Wages and salaries	12.74	6.03	10.67	12.06	12.47	16.83
Nursing payroll	7.80	3.68	6.83	7.40	7.76	9.84
Professional payroll	0.40	*0.11	*0.20	0.33	0.27	0.95
Other payroll	4.54	2.25	3.64	4.34	4.44	6.04
Payroll taxes and fringe benefits	1.53	*0.55	1.12	1.29	1.42	2.58
Operating	5.15	4.08	4.69	4.87	5.09	6.22
Food and other dietary items	2.14	2.10	2.15	2.04	2.08	2.41
Drugs	0.30	*0.11	0.21	0.26	0.29	0.45
Supplies and equipment	0.81	0.48	0.54	0.76	0.83	1.09
Maintenance of buildings, grounds, and equipment purchased from outside sources	0.42	0.30	0.49	0.37	0.42	0.47
Laundry and linen	0.27	*0.09	0.24	0.26	0.28	0.31
Health care services purchased from outside sources	0.30	*0.13	0.25	0.31	0.30	0.35
Nursing	0.06	*0.01	*0.05	0.05	0.07	0.09
Other health care	0.24	*0.13	0.21	0.25	0.23	0.27
Utilities	0.92	0.88	0.81	0.87	0.90	1.13
Fixed	3.41	1.60	2.45	3.29	3.77	3.71
Equipment rental	0.05	*0.00	*0.03	0.04	0.06	0.08
Insurance	0.28	0.23	0.31	0.29	0.29	0.24
Taxes and licenses	0.40	0.26	0.30	0.40	0.43	0.44
Interest and finance charges	0.88	0.25	0.52	0.84	1.08	0.85
Depreciation	0.88	0.51	0.71	0.92	0.86	1.00
Rent on building and land	0.89	0.29	0.55	0.80	1.02	1.08
Amortization of leasehold improvements	0.02	*0.06	*0.03	*0.02	*0.02	*0.02
Miscellaneous	1.08	0.55	1.06	1.04	1.17	1.06
	Percent distribution					
Revenue						
Total	100.0	100.0	100.0	100.0	100.0	100.0
Patient care	95.4	93.6	95.1	97.1	96.7	90.9
Nonpatient care	4.6	*6.4	*4.9	2.9	3.3	*9.1
Cost						
Total	100.0	100.0	100.0	100.0	100.0	100.0
Labor	59.7	51.4	59.0	59.2	58.1	63.8
Wages and salaries	53.3	47.1	53.4	53.5	52.1	55.3
Nursing payroll	32.6	28.7	34.2	32.8	32.5	32.4
Professional payroll	1.7	*0.8	*1.0	1.4	1.1	3.1
Other payroll	19.0	17.5	18.2	19.2	18.5	19.9
Payroll taxes and fringe benefits	6.4	*4.3	5.6	5.7	5.9	8.5
Operating	21.6	31.8	23.5	21.6	21.3	20.5
Food and other dietary items	8.9	16.4	10.8	9.1	8.7	7.9
Drugs	1.2	*0.8	1.0	1.2	1.2	1.5
Supplies and equipment	3.4	3.7	2.7	3.4	3.5	3.6
Maintenance of buildings, grounds, and equipment purchased from outside sources	1.7	2.3	2.5	1.6	1.7	1.5
Laundry and linen	1.1	*0.7	1.2	1.2	1.2	1.0
Health care services purchased from outside sources	1.3	*1.1	1.3	1.4	1.2	1.2
Nursing	0.3	*0.0	*0.2	0.2	0.3	0.3
Other health care	1.0	*1.0	1.0	1.1	1.0	0.9
Utilities	3.9	6.9	4.1	3.9	3.8	3.7
Fixed	14.3	12.5	12.3	14.6	15.7	12.2
Equipment rental	0.2	*0.0	*0.1	0.2	0.2	0.3
Insurance	1.2	1.8	1.6	1.3	1.2	0.8
Taxes and licenses	1.7	2.0	1.5	1.8	1.8	1.5
Interest and finance charges	3.7	1.9	2.6	3.7	4.5	2.8
Depreciation	3.7	4.0	3.5	4.1	3.6	3.3
Rent on building and land	3.7	2.2	2.7	3.5	4.3	3.5
Amortization of leasehold improvements	0.1	*0.4	*0.1	*0.1	*0.1	*0.1
Miscellaneous	4.5	4.3	5.3	4.6	4.9	3.5

NOTE: Estimates for resident days, occupancy rate, and cost or revenue per resident day differ slightly from estimates presented in reference 2 because of a data processing error. See "Data Processing" in appendix I for details.

Table 12. Revenue and cost per resident day for nursing homes and percent distribution, by Standard Federal Administrative Region: United States, 1976
United States, 1976

Revenue and cost components	Standard Federal Administrative Region									
	Region I	Region II	Region III	Region IV	Region V	Region VI	Region VII	Region VIII	Region IX	Region X
	Amount per resident day									
Revenue										
Total	$25.86	$41.43	$28.24	$19.45	$22.95	$17.79	$18.18	$16.93	$24.54	$18.31
Patient care	24.95	39.56	25.83	18.64	21.86	17.13	17.05	16.58	24.05	16.82
Nonpatient care	*0.91	1.87	2.41	*0.82	1.09	*0.66	*1.13	*0.35	*0.49	*1.48
Cost										
Total	26.00	41.76	28.41	19.41	22.98	17.14	18.13	17.04	24.20	17.87
Labor	15.16	25.59	16.78	11.33	14.16	10.03	10.64	10.36	13.47	11.04
Wages and salaries	13.62	22.31	15.02	10.30	12.71	9.14	9.70	9.45	11.79	9.55
Nursing payroll	8.38	13.34	9.14	6.47	7.74	5.46	5.87	5.72	7.69	5.85
Professional payroll	*0.28	1.17	*0.43	*0.26	0.36	*0.38	*0.15	*0.20	0.24	*0.19
Other payroll	4.97	7.79	5.45	3.57	4.60	3.31	3.67	3.53	3.86	3.51
Payroll taxes and fringe benefits	1.54	3.29	1.77	1.03	1.46	0.89	0.94	0.90	1.68	1.50
Operating	5.53	8.90	6.41	4.50	4.71	3.86	4.02	3.46	5.30	3.52
Food and other dietary items	2.43	3.35	2.46	1.85	1.97	1.74	1.82	1.76	2.14	1.61
Drugs	0.20	0.61	0.50	0.32	0.22	0.23	0.15	*0.15	0.32	*0.12
Supplies and equipment	0.68	1.46	1.11	0.82	0.75	0.50	0.60	0.51	0.75	0.72
Maintenance of buildings, grounds, and equipment purchased from outside sources	0.50	0.79	0.55	0.23	0.35	0.39	0.34	0.20	0.48	*0.18
Laundry and linen	0.35	0.52	0.30	0.27	0.25	0.14	0.18	*0.13	0.28	*0.10
Health care services purchased from outside sources	0.29	0.53	0.37	0.25	0.27	0.14	0.11	*0.15	0.55	*0.22
Nursing	*0.07	*0.05	*0.04	*0.06	0.06	*0.04	*0.03	*0.06	0.15	*0.06
Other health care	0.22	0.48	0.33	0.19	0.21	0.10	0.09	*0.09	0.40	*0.16
Utilities	1.08	1.64	1.11	0.75	0.88	0.71	0.82	0.56	0.77	0.57
Fixed	4.14	5.98	3.78	2.55	3.13	2.44	2.52	2.39	4.08	2.41
Equipment rental	*0.03	0.11	*0.07	*0.06	*0.03	*0.04	*0.01	*0.03	*0.07	*0.04
Insurance	0.36	0.37	0.33	0.22	0.29	0.25	0.24	0.20	0.29	*0.13
Taxes and licenseses	0.56	0.79	0.32	0.22	0.38	0.21	0.27	0.24	0.65	0.32
Interest and finance charges	1.20	1.47	1.10	0.67	0.86	0.59	0.86	0.90	0.67	0.35
Depreciation	0.96	1.24	1.36	0.63	0.93	0.63	0.81	0.78	0.71	0.41
Rent on building and land	0.98	1.97	0.56	0.74	0.62	0.70	0.32	0.22	1.65	1.13
Amortization of leasehold improvements	*0.04	*0.02	*0.04	*0.01	*0.01	*0.01	*0.00	*0.01	*0.05	*0.03
Miscellaneous	1.17	1.29	1.44	1.03	0.98	0.81	0.95	0.83	1.35	0.90
	Percent distribution									
Revenue										
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Patient care	96.5	95.5	91.5	95.8	95.2	96.3	93.8	98.0	98.0	91.9
Nonpatient care	*3.5	4.5	8.5	*4.2	4.8	*3.7	*6.2	*2.0	*2.0	*8.1
Cost										
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Labor	58.3	61.3	59.1	58.3	61.6	58.5	58.7	60.8	55.7	61.8
Wages and salaries	52.4	53.4	52.9	53.0	55.3	53.3	53.5	55.5	48.7	53.4
Nursing payroll	32.2	32.0	32.2	33.3	33.7	31.8	32.4	33.6	31.8	32.7
Professional payroll	*1.1	2.8	*1.5	*1.3	1.6	*2.2	*0.9	*1.2	*1.0	1.1
Other payroll	19.1	18.7	19.2	18.4	20.0	19.3	20.3	20.7	15.9	19.6
Payroll taxes and fringe benefits	5.9	7.9	6.2	5.3	6.3	5.2	5.2	*5.3	7.0	*8.4
Operating	21.3	21.3	22.6	23.2	20.5	22.5	22.2	20.3	21.9	19.7
Food and other dietary items	9.3	8.0	8.7	9.6	8.6	10.1	10.0	10.3	8.8	9.0
Drugs	0.8	1.5	1.8	1.6	1.0	1.3	0.8	*0.9	1.3	*0.7
Supplies and equipment	2.6	3.5	3.9	4.2	3.3	2.9	3.3	3.0	3.1	4.0
Maintenance of buildings, grounds, and equipment purchased from outside sources	1.9	1.9	1.9	1.2	1.5	2.3	1.9	1.2	2.0	*1.0
Laundry and linen	1.4	1.3	1.1	1.4	1.1	0.8	1.0	*0.7	1.2	*0.6
Health care services purchased from outside sources	1.1	1.3	1.3	1.3	1.2	0.8	0.6	*0.9	2.3	*1.2
Nursing	*0.3	*0.1	*0.2	*0.3	0.2	*0.2	*0.2	*0.4	0.6	*0.4
Other health care	0.8	1.2	1.2	1.0	0.9	0.6	*0.5	*0.5	1.7	*0.9
Utilities	4.1	3.9	3.9	3.9	3.8	4.1	4.5	3.3	3.2	3.2
Fixed	15.9	14.3	13.3	13.2	13.6	14.2	13.9	14.0	16.9	13.5
Equipment rental	*0.1	0.3	*0.2	*0.3	*0.1	*0.2	*0.1	*0.2	*0.3	*0.2
Insurance	1.4	0.9	1.2	1.1	1.3	1.4	1.3	*1.2	1.2	*0.7
Taxes and licenses	2.2	1.9	1.1	1.1	1.7	1.2	1.5	*1.4	2.7	1.8
Interest and finance charges	4.6	3.5	3.9	3.4	3.7	3.5	4.7	5.3	2.8	2.0
Depreciation	3.7	3.0	4.8	3.3	4.1	3.7	4.5	4.6	2.9	2.3
Rent on building and land	3.8	4.7	2.0	3.8	2.7	4.1	1.8	*1.3	6.8	6.3
Amortization of leasehold improvements	*0.1	*0.0	*0.1	*0.1	*0.0	*0.1	*0.0	*0.1	*0.2	*0.2
Miscellaneous	4.5	3.1	5.1	5.3	4.3	4.7	5.3	4.9	5.6	5.0

NOTE: Estimates for resident days, occupancy rate, and cost or revenue per resident day differ slightly from estimates presented in reference 2 because of a data processing error. See "Data Processing" in appendix I for details.

Table 13. Resident days, revenue per resident day, and amount and percent distribution of major components of cost per resident day, by affiliation and other selected nursing home characteristics: United States, 1976

Affiliation and nursing home characteristic	Number of resident days	Total revenue	Cost component									
			Total	Labor	Operating	Fixed	Miscel-laneous	Total	Labor	Operating	Fixed	Miscel-laneous
			Amount per resident day					Percent distribution				
CHAIN												
Total	159,216,200	$22.79	$22.22	$12.59	$4.75	$3.57	$1.30	100.0	56.7	21.4	16.1	5.8
Ownership												
Proprietary	133,263,300	22.29	21.44	12.01	4.41	3.70	1.32	100.0	56.0	20.6	17.2	6.2
Voluntary nonprofit	25,952,900	25.38	26.24	15.59	6.50	2.95	1.20	100.0	59.4	24.8	11.2	4.6
Certification												
Skilled nursing facility only	36,520,800	28.07	27.26	15.69	5.63	4.41	1.54	100.0	57.5	20.6	16.2	5.6
Skilled nursing facility and intermediate care facility	60,297,400	25.51	25.13	14.18	5.44	4.04	1.46	100.0	56.4	21.7	16.1	5.8
Intermediate care facility only	50,705,700	17.48	16.84	9.40	3.55	2.80	1.09	100.0	55.8	21.1	16.6	6.5
Not certified	11,692,200	15.35	14.84	8.59	3.69	1.92	0.64	100.0	57.9	24.9	12.9	4.3
Bed size												
Less than 20 beds	*413,800	*10.31	*8.98	*3.76	*3.70	*0.99	*0.54	100.0	*41.8	*41.2	*11.0	*6.0
20-49 beds	11,246,400	17.90	17.04	9.88	3.63	2.55	0.98	100.0	58.0	21.3	15.0	5.7
50-99 beds	48,744,700	21.56	21.05	12.01	4.57	3.17	1.29	100.0	57.1	21.7	15.1	6.1
100-199 beds	77,415,200	23.41	22.74	12.66	4.85	3.85	1.39	100.0	55.7	21.3	16.9	6.1
200 beds or more	21,396,100	26.16	25.99	15.26	5.44	4.09	1.19	100.0	58.7	20.9	15.7	4.6
Location												
Geographic region:												
Northeast	24,071,900	33.37	33.29	19.20	7.21	5.24	1.63	100.0	57.7	21.7	15.8	4.9
North Central	54,109,100	21.82	21.13	12.01	4.47	3.41	1.25	100.0	56.8	21.2	16.1	5.9
South	54,520,200	19.42	18.68	10.34	4.14	2.98	1.22	100.0	55.3	22.2	16.0	6.5
West	26,514,900	22.11	21.68	12.43	4.36	3.62	1.28	100.0	57.3	20.1	16.7	5.9
Standard Federal Administrative Region:												
Region I	12,425,400	24.92	25.01	14.19	4.82	4.58	1.41	100.0	56.7	19.3	18.3	5.7
Region II	8,417,900	44.36	44.09	26.12	9.99	6.32	1.65	100.0	59.3	22.7	14.3	3.7
Region III	9,961,500	31.45	30.68	16.90	7.06	4.75	1.98	100.0	55.1	23.0	15.5	6.4
Region IV	22,993,100	19.05	18.65	10.37	4.12	2.82	1.35	100.0	55.6	22.1	15.1	7.2
Region V	37,556,900	22.34	21.81	12.44	4.61	3.52	1.24	100.0	57.1	21.1	16.1	5.7
Region VI	24,794,300	17.25	16.27	8.99	3.65	2.69	0.95	100.0	55.2	22.4	16.5	5.8
Region VII	15,216,000	20.64	19.61	11.05	4.15	3.14	1.27	100.0	56.4	21.2	16.0	6.5
Region VIII	7,393,100	14.25	14.29	8.09	2.97	2.23	0.99	100.0	56.6	20.8	15.6	7.0
Region IX	15,187,700	27.04	26.35	14.77	5.34	4.71	1.54	100.0	56.0	20.3	17.9	5.8
Region X	5,270,300	18.52	18.03	11.29	3.46	2.38	0.90	100.0	62.6	19.2	13.2	5.0

See footnotes at end of table.

Table 13. Resident days, revenue per resident day, and amount and percent distribution of major components of cost per resident day, by affiliation and other selected nursing home characteristics: United States, 1976—Con.

Affiliation and nursing home characteristic	Number of resident days	Total revenue	Cost component									
			Total	Labor	Operating	Fixed	Miscel-laneous	Total	Labor	Operating	Fixed	Miscel-laneous
INDEPENDENT			Amount per resident day					Percent distribution				
Total	249,400,800	$24.25	$24.02	$14.12	$5.30	$3.63	$0.97	100.0	58.8	22.1	15.1	4.0
Ownership												
Proprietary	181,962,500	23.05	22.51	12.89	4.86	3.84	0.92	100.0	57.3	21.6	17.1	4.1
Voluntary nonprofit	67,438,300	27.49	28.07	17.45	6.49	3.06	1.08	100.0	62.2	23.1	10.9	3.8
Certification												
Skilled nursing facility only	53,866,600	$32.16	$31.34	$18.64	$6.68	$4.74	$1.28	100.0	59.5	21.3	15.1	4.1
Skilled nursing facility and intermediate care facility	97,003,900	26.07	26.00	15.56	5.47	3.98	0.98	100.0	59.9	21.0	15.3	3.8
Intermediate care facility only	62,530,200	19.58	19.41	11.24	4.46	2.91	0.80	100.0	57.9	23.0	15.0	4.1
Not certified	36,000,200	15.64	15.72	8.49	4.23	2.26	0.75	100.0	54.0	26.9	14.4	4.7
Bed size												
Less than 20 beds	13,495,600	12.94	12.72	6.47	4.09	1.62	0.54	100.0	50.9	32.1	12.7	4.2
20-49 beds	33,120,500	21.27	20.92	12.35	4.96	2.52	1.09	100.0	59.1	23.7	12.0	5.2
50-99 beds	79,260,600	22.87	22.75	13.39	4.92	3.50	0.94	100.0	58.8	21.6	15.4	4.1
100-199 beds	85,388,700	25.59	25.22	14.80	5.37	4.04	1.00	100.0	58.7	21.3	16.0	4.0
200 beds or more	38,135,400	30.73	30.65	18.38	6.65	4.65	0.98	100.0	60.0	21.7	15.2	3.2
Location												
Geographic region:												
Northeast	67,909,100	34.98	34.93	20.69	7.62	5.42	1.20	100.0	59.2	21.8	15.5	3.4
North Central	81,575,400	21.10	20.74	12.46	4.36	3.07	0.85	100.0	60.1	21.0	14.8	4.1
South	58,710,200	18.28	18.04	10.55	4.34	2.36	0.79	100.0	58.5	24.0	13.1	4.4
West	41,206,100	21.31	21.02	11.68	4.70	3.59	1.05	100.0	55.6	22.4	17.1	5.0
Standard Federal Administrative Region:												
Region I	18,686,100	26.06	26.13	15.18	5.89	4.01	1.05	100.0	58.1	22.6	15.4	4.0
Region II	34,801,900	41.49	41.49	24.83	8.90	6.63	1.12	100.0	59.8	21.5	16.0	2.7
Region III	20,672,300	27.42	27.10	15.75	6.30	3.70	1.35	100.0	58.1	23.3	13.7	5.0
Region IV	31,136,400	19.08	19.12	11.17	4.57	2.52	0.86	100.0	58.4	23.9	13.2	4.5
Region V	59,785,900	22.52	22.16	13.35	4.60	3.31	0.91	100.0	60.2	20.7	14.9	4.1
Region VI	22,053,500	16.85	16.31	9.63	3.75	2.23	0.69	100.0	59.1	23.0	13.7	4.3
Region VII	18,367,100	17.03	16.65	9.70	3.71	2.53	0.72	100.0	58.2	22.3	15.2	4.3
Region VIII	7,425,200	19.62	19.33	11.93	3.97	2.75	0.68	100.0	61.7	20.5	14.2	3.5
Region IX	28,625,900	22.58	22.30	12.13	5.18	3.84	1.15	100.0	54.4	23.2	17.2	5.2
Region X	7,846,600	17.04	16.62	9.80	3.28	2.66	0.89	100.0	59.0	19.7	16.0	5.3

See footnotes at end of table.

Table 13. Resident days, revenue per resident day, and amount and percent distribution of major components of cost per resident day, by affiliation and other selected nursing home characteristics: United States, 1976—Con.

Affiliation and nursing home characteristic	Number of resident days	Total revenue	Cost component									
			Total	Labor	Operating	Fixed	Miscel-laneous	Total	Labor	Operating	Fixed	Miscel-laneous
GOVERNMENT			Amount per resident day					Percent distribution				
Total	42,905,500	$26.66	$29.54	$21.33	$5.80	$1.49	$0.92	100.0	72.2	19.6	5.0	3.1
Ownership												
Government	42,905,500	26.66	29.54	21.33	5.80	1.49	0.92	100.0	72.2	19.6	5.0	3.1
Certification												
Skilled nursing facility only	6,579,600	33.53	36.04	26.61	6.20	1.68	1.55	100.0	73.8	17.2	4.7	4.3
Skilled nursing facility and intermediate care facility	18,984,700	30.38	33.68	24.32	6.33	1.93	1.10	100.0	72.2	18.8	5.7	3.3
Intermediate care facility only	10,287,100	16.93	19.56	13.38	4.52	1.17	0.49	100.0	68.4	23.1	6.0	2.5
Not certified	7,054,100	24.40	26.91	19.99	5.87	0.60	0.46	100.0	74.3	21.8	*2.2	*1.7
Bed size												
Less than 20 beds	*366,600	*13.98	*20.70	*13.92	*4.33	*1.59	*0.86	100.0	*67.3	*20.9	*7.7	*4.1
20-49 beds	2,278,200	*20.52	*21.08	*12.98	6.08	*1.02	*1.00	100.0	61.6	28.9	4.8	4.7
50-99 beds	9,181,600	27.07	28.93	20.24	6.03	2.04	0.62	100.0	70.0	20.9	7.0	2.1
100-199 beds	9,845,600	19.55	21.84	15.67	4.61	0.73	0.83	100.0	71.7	21.1	3.3	3.8
200 beds or more	21,233,600	30.65	34.44	25.46	6.25	1.65	1.07	100.0	73.9	18.1	4.8	3.1
Location												
Geographic region:												
Northeast	10,630,200	33.54	37.31	26.99	6.96	2.10	1.26	100.0	72.3	18.6	5.6	3.4
North Central	22,109,000	22.78	25.87	18.73	5.12	1.31	0.71	100.0	72.4	19.8	5.1	2.7
South	6,875,700	26.28	28.08	20.08	6.22	1.23	0.54	100.0	71.5	22.1	4.4	*1.9
West	3,290,600	31.26	32.21	23.17	5.77	1.27	2.00	100.0	71.9	17.9	*3.9	6.2
Standard Federal Administrative Region:												
Region I	*1,332,300	*31.78	*33.34	*23.91	*6.91	*1.80	*0.72	100.0	71.7	20.7	*5.4	*2.2
Region II	6,056,500	37.00	40.11	29.26	7.38	1.75	1.72	100.0	72.9	18.4	4.4	4.3
Region III	4,931,500	25.21	29.33	20.87	5.54	2.16	0.77	100.0	71.2	18.9	7.3	*2.6
Region IV	3,410,800	25.59	27.28	19.25	6.46	1.11	0.46	100.0	70.6	23.7	*4.1	*1.7
Region V	15,700,200	26.02	28.90	21.40	5.36	1.49	0.64	100.0	74.0	18.6	5.2	2.2
Region VI	*1,998,900	*34.88	*37.11	27.41	7.56	*1.74	*0.40	100.0	73.9	20.4	*4.7	*1.1
Region VII	5,996,000	15.47	18.90	12.51	4.61	0.91	0.88	100.0	66.2	24.4	4.8	4.6
Region VIII	*1,346,300	*16.74	*19.54	*14.09	*3.37	*1.27	*0.82	100.0	72.1	*17.2	*6.5	*4.2
Region IX	*980,900	*43.08	*46.29	*32.43	*8.20	*1.39	*4.27	100.0	70.1	17.7	*3.0	*9.2
Region X	*1,152,000	*25.97	*25.68	*18.42	*5.39	*0.92	*0.95	100.0	71.7	21.0	*3.6	*3.7

NOTES: Estimates for resident days, occupancy rate, and cost or revenue per resident day differ slightly from estimates presented in reference 2 because of a data processing error. See "Data Processing" in appendix I for details.
Figures may not add to totals because of rounding.

Table 14. Number and percent distribution of nursing home residents by dependency status, according to cost per resident day intervals and selected nursing home characteristics: United States, 1977

Cost per resident day interval and nursing home characteristic	*Number of residents*	*Dependency status*[1]			
		All levels[2]	*Level 1*[3]	*Level 2*[4]	*Level 3*[5]
		Percent distribution			
All cost intervals					
Total	1,303,100	100.0	21.9	30.3	38.9
Ownership					
Proprietary	888,800	100.0	20.9	30.6	39.8
Voluntary nonprofit	281,800	100.0	24.2	30.7	35.6
Government	132,500	100.0	23.8	27.2	39.6
Certification					
Skilled nursing facility only	269,600	100.0	12.9	27.0	49.0
Skilled nursing facility and intermediate care facility	527,800	100.0	17.7	31.5	41.8
Intermediate care facility only	368,200	100.0	24.9	32.9	34.4
Not certified	137,500	100.0	48.0	24.8	20.3
Bed size					
Less than 20 beds	37,000	100.0	53.4	25.5	9.8
20-49 beds	130,900	100.0	28.0	29.6	34.2
50-99 beds	397,000	100.0	20.8	31.1	40.7
100-199 beds	505,200	100.0	18.9	30.6	41.3
200 beds or more	233,000	100.0	21.9	29.1	37.8
Location					
Geographic region:					
Northeast	292,100	100.0	21.8	28.9	39.7
North Central	449,400	100.0	21.7	31.5	38.1
South	354,700	100.0	21.6	30.2	40.2
West	207,000	100.0	23.0	29.6	37.3
Standard Federal Administrative Region:					
Region I	85,600	100.0	27.9	26.8	37.4
Region II	138,300	100.0	19.2	27.0	42.1
Region III	107,800	100.0	23.2	31.3	39.0
Region IV	175,300	100.0	19.3	32.1	41.2
Region V	318,200	100.0	19.9	30.0	40.6
Region VI	142,700	100.0	22.2	29.6	38.3
Region VII	115,800	100.0	26.0	34.8	32.4
Region VIII	50,900	100.0	26.7	33.9	34.2
Region IX	124,000	100.0	21.0	28.7	37.8
Region X	44,600	100.0	26.2	29.4	37.0
Less than $15.00					
Total	192,200	100.0	39.3	27.9	25.4
Ownership					
Proprietary	148,300	100.0	37.8	27.7	26.7
Voluntary nonprofit	31,700	100.0	45.0	27.1	21.0
Government	12,200	100.0	42.6	32.9	*21.1
Certification					
Skilled nursing facility only	18,300	100.0	32.3	25.4	34.3
Skilled nursing facility and intermediate care facility	18,000	100.0	36.2	23.5	32.3
Intermediate care facility only	94,800	100.0	31.2	31.8	30.1
Not certified	61,200	100.0	54.8	24.0	13.4
Bed size					
Less than 20 beds	18,800	100.0	57.6	25.6	*5.1
20-49 beds	30,100	100.0	44.9	33.2	15.6
50-99 beds	74,300	100.0	32.0	28.1	33.3
100-199 beds	53,400	100.0	36.6	28.7	27.4
200 beds or more	15,700	100.0	50.0	*17.1	24.0
Location					
Geographic region:					
Northeast	18,500	100.0	68.9	21.4	*8.0
North Central	74,400	100.0	34.4	34.2	25.8
South	68,900	100.0	33.3	25.7	30.9
West	30,400	100.0	46.7	21.6	22.5
Standard Federal Administrative Region:					
Region I	8,800	100.0	73.6	*16.3	*8.6
Region II	7,700	100.0	69.5	*23.6	*4.5
Region III	7,300	100.0	63.8	*23.2	*10.5
Region IV	24,100	100.0	46.6	26.7	15.3
Region V	25,100	100.0	37.7	31.7	23.7
Region VI	39,500	100.0	20.1	25.9	43.6
Region VII	43,200	100.0	29.4	37.7	27.8
Region VIII	14,100	100.0	41.8	*21.5	33.6
Region IX	15,600	100.0	59.4	*16.8	*9.7
Region X	6,700	100.0	*36.7	*31.8	*26.7

See footnotes at end of table.

Table 14. Number and percent distribution of nursing home residents by dependency status, according to cost per resident day intervals and selected nursing home characteristics: United States, 1977—Con.

Cost per resident day interval and nursing home characteristic	*Number of residents*	*Dependency status*[1]			
		All levels[2]	*Level 1*[3]	*Level 2*[4]	*Level 3*[5]
		Percent distribution			
$15.00-$19.99					
Total	266,100	100.0	20.1	31.7	39.7
Ownership					
Proprietary	200,500	100.0	18.4	31.2	42.0
Voluntary nonprofit	53,300	100.0	28.0	33.3	30.5
Government	12,300	100.0	*13.8	31.1	41.3
Certification					
Skilled nursing facility only	36,800	100.0	18.8	25.1	46.1
Skilled nursing facility and intermediate care facility	99,700	100.0	17.1	34.3	39.2
Intermediate care facility only	119,800	100.0	22.7	31.3	38.8
Not certified	9,800	100.0	*23.5	*33.3	*30.5
Bed size					
Less than 20 beds	3,600	100.0	*83.0	*7.5	*3.1
20-49 beds	22,900	100.0	17.9	34.2	42.4
50-99 beds	95,800	100.0	17.5	32.8	42.1
100-199 beds	118,200	100.0	19.9	30.9	39.2
200 beds or more	25,600	100.0	23.9	32.0	35.9
Location					
Geographic region:					
Northeast	12,200	100.0	57.3	*20.9	*18.1
North Central	102,300	100.0	21.2	33.1	37.3
South	108,600	100.0	15.6	32.6	44.0
West	42,900	100.0	18.3	28.8	40.5
Standard Federal Administrative Region:					
Region I	8,800	100.0	61.6	*16.8	*19.4
Region II	*700	100.0	*33.3	*33.3	*33.3
Region III	9,200	100.0	*23.4	*33.4	38.7
Region IV	50,300	100.0	12.7	35.4	44.9
Region V	60,700	100.0	19.7	30.7	38.9
Region VI	51,900	100.0	18.9	29.7	42.3
Region VII	37,400	100.0	24.7	34.6	35.4
Region VIII	15,200	100.0	*16.6	39.7	40.1
Region IX	19,900	100.0	*13.5	25.0	39.4
Region X	12,000	100.0	*26.1	30.4	39.4
$20.00-$24.99					
Total	290,600	100.0	17.2	29.5	44.1
Ownership					
Proprietary	203,200	100.0	15.2	29.3	46.1
Voluntary nonprofit	61,800	100.0	23.2	31.0	36.1
Government	25,700	100.0	18.0	27.8	47.1
Certification					
Skilled nursing facility only	66,700	100.0	12.1	27.5	48.0
Skilled nursing facility and intermediate care facility	157,500	100.0	15.0	30.2	45.8
Intermediate care facility only	50,200	100.0	23.6	32.7	36.5
Not certified	16,300	100.0	39.2	*21.3	34.7
Bed size					
Less than 20 beds	4,300	100.0	*18.2	*30.8	*39.6
20-49 beds	24,300	100.0	19.8	25.3	39.0
50-99 beds	95,300	100.0	16.2	30.3	43.8
100-199 beds	122,800	100.0	16.6	30.5	45.9
200 beds or more	44,000	100.0	19.5	27.3	42.8
Location					
Geographic region:					
Northeast	45,300	100.0	21.7	28.7	41.8
North Central	113,600	100.0	16.2	29.4	44.6
South	65,900	100.0	18.2	27.5	46.5
West	65,700	100.0	14.7	32.4	42.2
Standard Federal Administrative Region:					
Region I	21,400	100.0	18.2	26.5	47.7
Region II	7,300	100.0	*34.3	*22.0	*39.2
Region III	26,600	100.0	25.1	34.3	33.9
Region IV	46,300	100.0	13.4	28.0	50.7
Region V	105,600	100.0	16.1	28.5	45.9
Region VI	11,400	100.0	*26.8	*19.7	40.0
Region VII	5,600	100.0	*26.8	*32.8	*31.2
Region VIII	8,300	100.0	*16.2	*40.9	*34.8
Region IX	46,000	100.0	13.0	32.4	42.2
Region X	12,200	100.0	*14.7	33.2	44.7

See footnotes at end of table.

Table 14. Number and percent distribution of nursing home residents by dependency status, according to cost per resident day intervals and selected nursing home characteristics: United States, 1977—Con.

Cost per resident day interval and nursing home characteristic	*Number of residents*	*Dependency status*[1]			
		All levels[2]	*Level 1*[3]	*Level 2*[4]	*Level 3*[5]
$25.00 or more		Percent distribution			
Total	376,100	100.0	17.7	29.5	43.0
Ownership					
Proprietary	182,300	100.0	14.3	30.5	46.3
Voluntary nonprofit	123,100	100.0	18.3	30.0	41.0
Government	70,700	100.0	25.5	26.4	37.7
Certification					
Skilled nursing facility only	121,000	100.0	8.0	26.8	54.2
Skilled nursing facility and intermediate care facility	185,900	100.0	18.0	31.9	40.5
Intermediate care facility only	44,000	100.0	27.1	32.4	32.2
Not certified	25,200	100.0	45.8	19.6	26.5
Bed size					
Less than 20 beds	*2,600	100.0	*60.0	*28.2	-
20-49 beds	24,600	100.0	19.6	24.4	44.8
50-99 beds	82,600	100.0	17.4	30.4	46.7
100-199 beds	143,100	100.0	15.7	29.0	45.7
200 beds or more	123,200	100.0	18.9	30.6	37.9
Location					
Geographic region:					
Northeast	190,400	100.0	14.5	30.4	44.1
North Central	96,800	100.0	22.7	29.8	37.0
South	47,900	100.0	23.3	22.6	48.5
West	40,900	100.0	14.0	32.9	45.4
Standard Federal Administrative Region:					
Region I	36,500	100.0	16.5	32.0	41.6
Region II	111,100	100.0	12.8	28.0	46.2
Region III	55,600	100.0	17.5	30.7	44.8
Region IV	22,600	100.0	16.2	30.5	49.4
Region V	79,600	100.0	22.0	28.6	38.5
Region VI	13,300	100.0	39.7	*16.3	36.5
Region VII	15,700	100.0	27.6	34.7	29.0
Region VIII	7,100	100.0	*27.6	*40.1	*24.4
Region IX	30,800	100.0	*8.7	33.4	50.6
Region X	3,800	100.0	*28.8	*19.5	*42.0
No cost reported					
Total	178,100	100.0	22.5	33.5	35.3
Ownership					
Proprietary	154,500	100.0	23.2	34.3	33.7
Voluntary nonprofit	11,900	100.0	*18.4	34.7	39.0
Government	11,600	100.0	*17.6	*20.7	52.3
Certification					
Skilled nursing facility only	26,800	100.0	15.4	29.9	41.9
Skilled nursing facility and intermediate care facility	66,700	100.0	18.8	31.4	42.2
Intermediate care facility only	59,400	100.0	18.5	38.5	31.9
Not certified	25,200	100.0	49.0	31.0	17.8
Bed size					
Less than 20 beds	7,700	100.0	46.6	*30.1	*11.1
20-49 beds	29,100	100.0	32.3	30.2	33.9
50-99 beds	49,000	100.0	24.6	35.0	33.1
100-199 beds	67,700	100.0	14.3	35.5	38.7
200 beds or more	24,600	100.0	21.7	29.8	39.1
Location					
Geographic region:					
Northeast	25,600	100.0	25.7	27.0	36.4
North Central	62,200	100.0	16.0	32.0	43.8
South	63,300	100.0	21.1	39.8	30.8
West	27,100	100.0	37.5	28.2	25.0
Standard Federal Administrative Region:					
Region I	10,100	100.0	*20.4	*26.1	41.0
Region II	11,300	100.0	36.9	*22.7	*30.1
Region III	9,000	100.0	*19.7	*30.0	41.5
Region IV	32,100	100.0	19.8	38.3	35.5
Region V	47,200	100.0	15.4	34.1	43.7
Region VI	26,700	100.0	20.8	45.9	22.9
Region VII	14,000	100.0	*17.5	27.2	42.9
Region VIII	6,200	100.0	*29.7	*31.8	*31.1
Region IX	11,800	100.0	45.8	*24.1	*21.8
Region X	9,700	100.0	*32.6	*25.6	*29.4

[1]Unknowns were considered not dependent for the purpose of this index.
[2]Includes residents who were dependent in at least 2 functions but not classifiable into any of these categories.
[3]Not dependent in bathing, dressing, using toilet room, mobility, continence, or eating or dependent in only 1 activity.
[4]Dependent in bathing and 1 additional activity or dependent in bathing, dressing, and 1 additional activity or dependint in bathing, dressing, using toilet room, and 1 additional activity.
[5]Dependent in bathing, dressing, using toilet room, mobility, and 1 additional activity or dependent in all 6 activities.

NOTE: Figures may not add to totals because of rounding.

Table 15. Number of nursing home full-time equivalent employees[1] per 100 beds within cost per resident day intervals, by selected nursing home characteristics: United States, 1977

Nursing home characteristic	*Cost per resident day interval*					
	All intervals[2]	*Less than $15.00*	*$15.00-$19.99*	*$20.00-$24.99*	*$25.00 or more*	*No cost reported*
	Number of full-time equivalent employees per 100 beds					
All nursing homes	41.1	24.9	40.5	48.5	49.2	31.9
Ownership						
Proprietary	38.8	25.0	40.4	47.1	46.4	31.0
Voluntary nonprofit	47.2	26.7	38.6	52.8	54.8	38.2
Government	44.6	*18.5	52.1	49.8	47.3	*38.0
Certification						
Skilled nursing facility only	46.8	17.0	43.1	52.3	54.4	32.6
Skilled nursing facility and intermediate care facility	46.9	33.6	46.1	49.6	50.0	37.6
Intermediate care facility only	36.0	29.0	37.6	45.5	44.3	30.3
Not certified	24.1	18.8	21.4	35.4	30.8	22.2
Bed size						
Less than 20 beds	23.4	*12.1	*21.0	*71.3	*53.0	*18.1
20-49 beds	41.4	25.0	43.8	55.6	54.3	32.7
50-99 beds	43.3	29.6	44.3	50.8	54.5	30.0
100-199 beds	42.5	25.7	39.9	47.0	49.5	37.4
200 beds or more	37.6	17.5	30.2	42.2	43.7	26.0
Location						
Geographic region:						
Northeast	45.3	14.6	*19.8	53.1	51.5	30.0
North Central	42.1	29.1	42.0	47.0	50.7	35.3
South	38.4	25.4	40.0	54.0	43.6	31.1
West	37.8	20.4	44.4	42.8	42.3	28.6
Standard Federal Administrative Region:						
Region I	40.6	*20.0	*20.4	48.9	51.0	29.3
Region II	43.8	*6.2	*10.3	*51.5	48.6	28.4
Region III	49.4	*15.2	*33.5	57.8	55.5	37.2
Region IV	47.3	24.2	51.8	60.5	55.3	34.2
Region V	43.8	24.2	41.0	47.2	54.1	33.9
Region VI	28.0	27.8	30.1	29.3	22.4	26.4
Region VII	37.6	32.3	42.3	*45.2	36.0	40.3
Region VIII	34.1	29.5	45.6	*32.7	24.1	*37.0
Region IX	38.9	*12.3	42.4	43.5	49.3	29.4
Region X	40.4	*33.6	50.6	47.1	*38.0	24.2

[1]35 hours of part-time employees' work is considered equivalent to 1 full-time employee. Part-time employees were converted to full-time equivalent employees by dividing the number of hours worked per week by 35.
[2]Includes only employees by dividing the number of hours worked per week by 35.

Table 16. Revenue, cost, net income, and cash flow per resident day for nursing homes, by selected nursing home characteristics: United States, 1976

Nursing home characteristic	*Revenue*	*Cost*	*Net income*[1] *(paper profit or loss)*	*Cash flow*[2] *(actual profit or loss)*
	Amount per resident day			
All nursing homes	$23.97	$23.91	$0.06	$0.93
Ownership				
Proprietary	22.73	22.06	0.67	1.39
Voluntary nonprofit	26.91	27.56	−0.66	0.70
Government	26.66	29.54	−2.89	−1.94
Certification				
Skilled nursing facility only	30.71	30.12	0.59	1.60
Skilled nursing facility and intermediate care facility	26.34	26.53	−0.19	0.84
Intermediate care facility only	18.50	18.37	0.13	0.82
Not certified	16.71	16.98	−0.27	0.30
Bed size				
Less than 20 beds	12.89	12.82	0.07	0.59
20-49 beds	20.42	19.99	0.43	1.13
50-99 beds	22.69	22.56	0.13	1.05
100-199 beds	24.27	23.92	0.35	1.21
200 beds or more	29.50	30.41	−0.92	0.09
Location				
Geographic region:				
Northeast	34.46	34.79	−0.34	0.93
North Central	21.58	21.59	−0.01	0.88
South	19.26	18.91	0.35	0.99
West	22.07	21.79	0.29	0.94
Standard Federal Administrative Region:				
Region I	25.86	26.00	−0.14	0.82
Region II	41.43	41.76	−0.33	0.91
Region III	28.24	28.41	−0.17	1.20
Region IV	19.45	19.41	0.04	0.67
Region V	22.95	22.98	−0.03	0.90
Region VI	17.79	17.14	0.65	1.28
Region VII	18.18	18.13	0.05	0.86
Region VIII	16.93	17.04	−0.12	0.67
Region IX	24.54	24.20	0.34	1.05
Region X	18.31	17.87	0.43	0.85
Affiliation				
Chain	22.79	22.22	0.57	1.37
Independent	24.25	24.02	0.23	1.15
Government	26.66	29.54	−2.89	−1.94

[1]Revenue minus cost.
[2]Net income plus depreciation.

NOTE: Estimates for resident days, occupancy rate, and cost or revenue per resident day differ slightly from estimates presented in reference 2 because of a data processing error. See "Data Processing" in appendix I for details.

Table 17. Percent of nursing homes within 1976 profit and/or loss categories, by selected nursing home characteristics: United States, 1977

Nursing home characteristic	Total	Cost exceeds revenue by—				Revenue exceeds cost by—			
		0-2.5 percent	2.6-5 percent	5.1-10 percent	10.1 percent or more	0-2.5 percent	2.6-5 percent	5.1-10 percent	10.1 percent or more
		Percent of nursing homes							
All nursing homes	100.0	10.5	6.5	6.5	12.2	11.2	20.6	13.2	18.1
Ownership									
Proprietary	100.0	9.4	3.7	4.7	9.8	12.0	24.8	14.0	20.7
Voluntary nonprofit	100.0	16.9	14.0	11.5	18.4	8.5	6.9	12.3	11.0
Government	100.0	*5.9	21.7	*15.4	27.3	*9.4	*5.4	*4.3	*3.8
Certification									
Skilled nursing facility only	100.0	11.8	6.1	8.7	9.5	7.0	27.2	12.9	16.5
Skilled nursing facility and intermediate care facility	100.0	12.6	8.3	6.9	10.0	18.2	18.2	12.6	12.3
Intermediate care facility only	100.0	10.6	7.7	4.5	11.6	14.0	19.7	16.3	14.6
Not certified	100.0	7.3	*3.4	6.8	17.5	*4.3	18.8	10.1	29.4
Bed size									
Less than 20 beds	100.0	7.1	-	6.3	23.3	*5.1	20.6	6.2	31.4
20-49 beds	100.0	13.2	7.6	*5.4	8.8	12.1	20.6	11.9	17.9
50-99 beds	100.0	10.5	8.8	7.2	9.9	13.2	19.8	17.0	13.0
100-199 beds	100.0	11.3	7.8	5.3	7.8	12.1	24.8	15.6	14.0
200 beds or more	100.0	*10.2	*7.7	*14.2	*15.2	*16.6	*6.1	*12.8	*13.4
Location									
Geographic region:									
Northeast	100.0	15.5	5.5	8.7	8.8	16.3	20.9	8.5	14.4
North Central	100.0	8.6	8.7	4.0	10.9	14.0	18.5	15.5	18.3
South	100.0	8.8	6.4	5.6	13.5	8.4	18.5	15.4	22.1
West	100.0	10.0	*4.7	8.5	15.9	5.8	25.4	12.4	17.1
Standard Federal Administrative Region:									
Region I	100.0	17.1	*4.7	*5.3	11.5	19.0	22.4	*5.9	12.3
Region II	100.0	15.4	*6.2	*10.3	*5.2	*13.2	21.4	*8.3	19.8
Region III	100.0	*10.3	*6.6	*12.5	*13.4	*15.8	*14.5	*13.3	*9.1
Region IV	100.0	8.8	*7.2	*5.5	14.7	*7.4	18.4	14.0	23.2
Region V	100.0	6.6	8.4	*5.1	13.8	14.1	19.6	16.2	14.6
Region VI	100.0	*8.6	*5.0	*5.8	*9.2	*6.4	20.2	19.6	25.1
Region VII	100.0	*8.8	*9.1	*2.4	*5.6	14.2	17.3	14.6	26.7
Region VIII	100.0	*13.2	*3.3	*22.7	*25.2	*5.9	*9.9	*12.5	*7.1
Region IX	100.0	11.7	*3.3	*3.9	15.3	*4.3	30.1	11.3	20.1
Region X	100.0	*7.6	*18.7	*8.8	*2.7	*17.8	*13.1	*19.9	*10.1
Affiliation									
Chain	100.0	8.4	8.1	*4.1	8.5	10.8	22.6	15.5	21.6
Independent	100.0	11.8	4.6	6.7	12.5	11.5	21.1	13.0	17.8
Government	100.0	*5.9	21.7	*15.4	27.3	*9.4	*5.4	*4.3	*3.8

NOTE: An insignificant number of nursing homes had cost equal to revenue (1.2 percent); for this reason the sum of categories will not equal the total.

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Appendix I. Technical notes on methods

Survey design

From May through December 1977, the Division of Health Resources Utilization Statistics (DHRUS) conducted the 1977 National Nursing Home Survey (NNHS)—a sample survey of nursing homes, their residents, discharges, and staff in the conterminous United States. The survey was designed and developed by DHRUS in conjunction with a group of experts in various fields encompassing the broad area of long-term care. The NNHS was the second of a series of surveys designed to satisfy the diverse data needs of those who establish standards for, plan, provide, and assess long-term care services. The first survey was conducted from August 1973 through April 1974.

Sampling frame

The 1977 NNHS covered all types of nursing homes including nursing care homes, personal care homes with nursing, personal care homes, and domiciliary care homes. Places that provided room and board only were excluded. Facilities were either freestanding establishments or nursing care units of hospitals, retirement centers, or similar institutions where the unit maintained financial and resident records separate from those of the larger institutions. Detailed criteria for classifying facilities included in the survey are presented in appendix IV.

The universe for the 1977 NNHS consisted of two groups of homes: those classified as nursing homes in the 1973 Master Facility Inventory (MFI)[10] and nursing homes opening for business since 1973. The major group (92 percent) was composed of all nursing homes classified in the 1973 MFI. The MFI is a census of all inpatient health facilities conducted by mail every 2-3 years by the National Center for Health Statistics. A detailed description of how the MFI was developed, its contents, and procedures for updating and assessing its coverage has been published.[11-13]

So that data collection could begin in May 1977, the sampling frame was "frozen" in December 1976 thus allowing the sample to be selected in ample time to permit the scheduling of national data collection. To obtain as current a sample frame as possible, all nursing homes that opened for business after the 1973 MFI was conducted were also included in the universe. (Nursing homes that opened after December 1976 could not be included because data were not available.) The nursing homes that opened after the 1973 MFI but before December 1976 comprised the second and smaller (8 percent) group of facilities in the universe. Information about this second group of facilities was limited when compared with the first group listed in the 1973 MFI.

Estimates from the 1977 NNHS will not correspond precisely to figures from the 1976 MFI census for several reasons. In addition to the differences in the time period, the surveys used different data collection mechanisms. The MFI is a mail survey, but the NNHS is conducted by personal interview. Thus the NNHS methodology permitted more detailed identification and exclusion of facilities that were out of scope. Because the NNHS is a sample survey, its data are subject to sampling variability; because the MFI is a census, its data are not. Generally, the data from the two sources are compatible.

Sampling design

The sampling was a stratified two-stage probability design. The first stage was a selection of facilities and the second stage was a selection of each of the following: residents, persons discharged in 1976, and employees from the sample facilities. In preparation of the first-stage sample selection, two different procedures were used: one for facilities listed in the

NOTE: A list of references follows the text.

MFI with known bed size and another for newly opened facilities whose bed size and service type were unknown. The procedure for facilities in the MFI with known bed size consisted of sorting these facilities into two types of service strata: (1) nursing care homes and (2) facilities providing all other types of service (including personal care homes with nursing, personal care homes, domiciliary care homes, and facilities with unknown service type). Nursing homes in each of these two service strata were then sorted into bed-size groups, producing the first 16 primary strata shown in table I. Within each primary stratum, nursing homes were ordered by type of ownership, geographic region, State, and county. The sample within the first 16 strata was then selected systematically after a random start within each primary stratum. The procedure for newly opened facilities whose size and service type were unknown was a double-sampling scheme. In the first step, a random subset of one-third of these facilities (587 nursing homes) was selected, and bed-size information was determined for them by telephone contact. By using the newly gathered information on bed size, this subset of facilities was then sorted into bed-size groups producing the last 8 strata shown in table I. Within each of these bed-size strata, nursing homes were ordered by geographic region, State, and ZIP code. (Although the first group of facilities from the MFI was ordered by type of ownership and county, this subset was not arranged the same way because information on these variables was not available.) In the second step, the final sample within the last 8 strata was then selected systematically after a random start within each primary stratum. Table I shows the entire distribution of facilities in the sampling frame and the final disposition of the sample regarding the response and inscope status.

The number of nursing homes estimated by the survey (18,900) is less than the universe figure (23,105), as well as the number of nursing homes in

Table I. Number of facilities in the 1977 National Nursing Home Survey universe and sample, by disposition and sampling strata: Coterminous United States, 1977

Sampling strata	*Universe (sampling frame)*[1]	*Sample*			
		All facilities	*Out of scope or out of business*	*In scope and in business*	
				Non-responding	*Responding*
	Number of facilities				
All types of service	23,105	1,698	166	81	1,451
Nursing care	13,230	1,292	95	68	1,129
Less than 15 beds	676	11	3	0	8
15-24 beds	1,195	30	8	1	21
25-49 beds	3,168	158	25	6	127
50-99 beds	4,775	398	17	17	364
100-199 beds	2,864	477	18	32	427
200-299 beds	402	134	6	6	122
300-599 beds	133	67	12	6	49
600 beds or more	17	17	6	0	11
All other types of service[2]	8,116	318	57	8	253
Less than 15 beds	3,431	35	13	0	22
15-24 beds	1,166	17	5	0	12
25-49 beds	1,108	34	11	0	23
50-99 beds	1,202	60	5	1	54
100-199 beds	913	91	11	3	77
200-299 beds	173	34	4	2	28
300-599 beds	92	31	4	1	26
600 beds or more	31	16	4	1	11
Unknown type of service	1,759	...	...	...	...
Bed size known[3]	587	88	14	5	69
Less than 15 beds	107	3	1	0	2
15-24 beds	96	4	3	1	0
25-49 beds	128	12	6	0	6
50-99 beds	113	16	1	1	14
100-199 beds	122	40	2	2	36
200-299 beds	16	8	0	1	7
300-599 beds	5	5	1	0	4
600 beds	0	0	0	0	0
Bed size unknown	1,172	...	...	...	...

[1]The universe consisted of the nursing homes as classified in the 1973 Master Facility Inventory and facilities opened for business from 1973 to 1976.
[2]Includes personal care homes (with or without nursing), domiciliary care homes, and facilities with unknown service type.
[3]In order to improve estimates of the 1,759 facilities for which both service type and bed size were unknown, bed sizes were determined for a one-third sample (587 facilities). These facilities were then stratified by bed size before sample selection.

the 1976 MFI (20,185), for several reasons. Some facilities went out of business or became ineligible for the scope of the survey between the time that the universe was frozen and the survey was conducted. A facility was considered out of scope if it did not provide nursing, personal, or domiciliary care services (e.g., facilities providing only room and board) or if it was a nursing care unit or wing of a hospital, retirement center, or similar institution without separate financial and resident records for that unit. The NNHS methodology included a thorough procedure for identifying out-of-scope facilities. For these same reasons, the 1973-74 NNHS estimate differed from the universe figure by 1,900.[6] In addition, the large number of newly opened facilities in the sampling frame, for which limited information on services provided was available, resulted in a larger proportion of facilities (10 percent) later identified as out of scope in comparison with the 1973-74 NNHS (7 percent).

The second-stage sampling of residents, discharges in 1976, and employees was carried out by the interviewers at the time of their visits to the facilities according to specific instructions given for each sample facility. The sample frame for residents was the total number of residents on the register of the facility on the evening prior to the day of the survey. Residents who were physically absent from the facility because of overnight leave or a hospital visit but had a bed maintained for them at the facility were included in the sample frame. An average of five residents per facility was in the sample.

The sample frame for discharges was the total number of persons discharged alive or dead during the 1976 calendar year. Persons who were discharged more than once during 1976 were listed for each discharge. It is possible that a current resident was included in the discharge sampling frame if he or she was discharged during 1976. An average of four discharges per facility was in the sample.

The sampling frame for employees was the Staff Sampling List on which the interviewer listed the names of all staff providing direct or health-related services (including contract personnel employed last month) and sampled contract, administrative, medical, therapeutic, and nursing staff. Those generally *not* involved in direct patient care, such as office staff, food service, housekeeping, and maintenance personnel were excluded from the sample. The interviewer used predesignated sampling instructions that appeared at the head of each column of this form. An average of 10 staff per facility was in the sample.

To reduce respondent burden, restrictions were placed on the number of residents, discharges, and staff sampled in each facility. Sampling rates were predesignated by the size classification of the facility, but sampling rates were altered when necessary to ensure that the samples did not exceed the specified maximum of 8 for residents, 8 for discharges, and 23 for employees.

NOTE: A list of references follows the text.

Data collection procedures for the 1977 National Nursing Home Survey

The 1977 NNHS utilized eight questionnaires (see appendix III for facsimiles of the facility, expense, and staff questionnaires; see reference 2 for facsimiles of all questionnaires and worksheets):

Facility Questionnaire

Expense Questionnaire and Definition Booklet

Staff Sampling List

Staff Questionnaire

Current Resident Sampling List

Current Resident Questionnaire

Discharged Resident Sampling List

Discharged Resident Questionnaire

Data were collected according to the following procedures:

1. The letter to the administrator of sample facilities was sent informing him of the survey and that an interviewer would contact him for an appointment. Included with this introductory letter were letters of endorsement from the American Association of Homes for the Aging, the American College of Nursing Home Administrators, the American Health Care Association, and the National Council of Health Care Services urging the administrator to participate in the survey. A summary report from the previous survey in 1973-74 was also enclosed to illustrate the kind and use of data obtained from the survey.
2. Several days to 1 week after the letters had been mailed, the interviewer telephoned the sample facility and made an appointment with the administrator.
3. At the time of the appointment the Facility Questionnaire was completed by the interviewer who questioned the administrator or owner of the nursing home. In some cases, the Facility Worksheet was used to determine days of care. After completing this form the interviewer secured the administrator's authorization for completion of the Expense Questionnaire. Possible respondents to the Expense Questionnaire include accountants, administrators of the facilities, and other knowledgeable staff members. Results from the survey indicate that the respondents were evenly divided into two groups: (1) accountants located

outside the facility and (2) administrators and other staff members, such as bookkeepers, based in the facility. Where data in prepared financial statements were comparable to data requested in the Expense Questionnaire, the respondent provided the facility's financial statement to a specially trained NNHS accountant who abstracted data to complete the Expense Questionnaire. This situation occurred in 40 percent of the cases. The interviewer completed the Staff Sampling List (a list of all currently employed staff who provided direct or health-related services), selected the sample of staff from it, and prepared Staff Questionnaires. These forms were left for each sample staff person to complete, seal in an addressed and franked envelope, and return either to the interviewer or by mail. The interviewer completed the Current Resident Sampling List (a list of all residents currently in the facility), selected the sample of residents from it, and completed a Resident Questionnaire for each sample resident by interviewing the member of the nursing staff most familiar with care provided to that resident. The nurse referred to the resident's medical record when responding. No resident was interviewed directly. The interviewer then completed the Discharged Resident Sampling List (a list of all persons discharged alive or dead in 1976), selected a sample of discharges from it, and completed a Discharged Resident Questionnaire for each sample person by interviewing a member of the nursing staff who referred to medical records. In larger facilities, a team of two or three interviewers conducted the survey to reduce the length of time required in the facility.

Followup on the Staff Questionnaire was initiated 2 weeks after the date of interview. Followup on the Expense Questionnaire was initiated 3 weeks after the date of interview.

Table II presents a summary of the data collection procedures.

Table II. Summary of data collection procedures

Questionnaire	*Respondent*	*Interview situation*
Facility Questionnaire	Interviewer with administrator	Interview
Expense Questionnaire	Administrator, owner, accountant or bookkeeper	Self-enumerated
Staff Sampling List	Interviewer with staff members	Informal interview or copied from records
Staff Questionnaire	Sampled staff members	Self-enumerated
Current Resident Sampling List	Interviewer with staff member who refers to Current Resident Census	Informal interview or copied from records
Current Resident Questionnaire	Interviewer with nurse who refers to medical record	Interview
Discharged Resident Sampling List	Interviewer with staff member who refers to discharge records from 1976	Informal interview or copied from records
Discharged Resident Questionnaire	Interviewer with nurse who refers to medical record	Interview

General qualifications

Nonresponse and imputation of missing data

Response rates differed for each type of questionnaire:

Questionnaire	Response rate (percent)
Facility	95
Expense	85
Current Resident	99
Discharged Resident	97
Staff	81

Generally, response rates were higher for questionnaires administered in a personal interview situation (Facility, Current Resident, and Discharged Resident) as compared with those that were self-enumerated (Expense and Staff). Statistics presented in this report were adjusted for failure of a facility to respond (i.e., to complete the Facility Questionnaire) and for failure to complete any of the other questionnaires (Expense, Current Resident, Discharged Resident, or Staff). Those items left unanswered on a partially completed questionnaire (Facility, Expense, Current Resident, Discharged Resident, Staff) were generally imputed by assigning a value from a responding unit with major characteristics identical to those of the nonresponding unit.

Rounding of numbers

Estimates of facilities, residents, discharges, and employees have been rounded to the nearest hundred. Estimates of total costs and revenues were rounded to the nearest million. For this reason, detailed figures within tables do not always add to totals. Percents were calculated on the original, unrounded figures, and will not necessarily agree precisely with percents that might be calculated from rounded data.

Data processing

A series of checks were performed during the course of the survey. These checks included field followups for missing and inconsistent data, manual editing of the questionnaires, and extensive editing conducted by a computer to ensure that all responses were accurate, consistent, logical, and complete. Once the data base was edited, the computer was used to calculate and assign weights, ratio adjustments, recodes, and other related procedures necessary to produce national estimates from the sample data.

After the publication of "The National Nursing Home Survey: 1977 summary for the United States," Series 13-No. 43,[2] a keypunching error concerning the resident days figure was discovered. Although this involved only one case, it affected all tables presenting resident days, occupancy rate, or average costs or revenues per resident day. After correction, the total resident days decreased by 0.3 percent from 452,878,700 to 451,522,500. Similarly, after correction, the annual occupancy rate decreased by 0.2 percent from 89.0 to 88.8. Because the denominator decreased, the average total cost per resident day increased by 0.3 percent from $23.84 per resident day to $23.91 per resident day.

Estimation procedures

Statistics reported in this publication are derived by a ratio-estimating procedure. The purpose of ratio estimation is to account for all relevant information in the estimation process, thereby reducing the variability of the estimate. The estimation of number of facilities and facility data not related to size is inflated by the reciprocal of the probability of selecting the sample facilities and adjusted for the nonresponding facilities within primary type of service-size strata. Two ratio adjustments, one at each stage of sample selection, were also used in the estimation process. The first-stage ratio adjustment (along with

the preceding inflation factors) was included in the estimation of facility data related to size, and of all resident, discharge, and staff data for all primary types of service-size strata.[a] The numerator was the total beds according to the MFI data for all facilities in the stratum. The denominator was the estimate of the total beds obtained through a simple inflation of the MFI data for the sample facilities in the stratum.

[a]For nursing homes with unknown bed size and service type, the first-stage ratio adjustment was not included in the estimation of facility, resident, discharge, and staff data.

The effect of the first-stage ratio adjustment was to bring the sample in closer agreement with the known universe of beds. The second-stage ratio adjustment was included in the estimation of all resident, discharge, and staff data. It is the product of two fractions: the first is the inverse of the sampling fraction for residents (discharges or staff) on which the selection is based; the second is the ratio of the number of sample residents (discharges or staff) in the facility to the number of residents (discharges or staff) for whom questionnaires were completed within the facility.

Reliability of estimates

As in any survey, the results are subject to both sampling and nonsampling errors. Nonsampling errors include errors because of response bias, questionnaire and item nonresponse, and processing errors. To the extent possible, the latter types of errors were kept to a minimum by methods built into survey procedures such as standardized interviewer training, observation of interviewers and field followups for missing and inconsistent data, manual and computer editing, 100-percent verification of all keypunching, and other quality checks. Because survey results are subject to both sampling and nonsampling errors, the total error is larger than errors due to sampling variability alone.

Because statistics presented in this report are based on a sample, they will differ somewhat from figures that would have been obtained if a complete census had been taken by using the same schedules, instructions, and procedures.

The standard error is primarily a measure of the variability that occurs by chance because only a sample, rather than the entire universe, is surveyed. The standard error also reflects part of the measurement error, but it does not measure any systematic biases in the data. It is inversely proportional to the square root of the number of observations in the sample. Thus as the sample size increases, the standard error generally decreases.

The chances are about 68 out of 100 that an estimate from the sample differs from the value that would be obtained from a complete census by less than the standard error. The chances are about 95 out of 100 that the difference is less than twice the standard error and about 99 out of 100 that it is less than 2½ times as large.

The relative standard error of an estimate is the standard error of the estimate divided by the estimate itself and is expressed as a percent of the estimate. Relative standard errors of estimated number of admissions; discharges; facilities; beds; residents; total staff and nurse's aides; administrative, medical, and therapeutic staff, registered nurses, and licensed practical nurses; and resident days of care are shown in figures I, II, and III. In this report, estimates that have a relative standard error more than 30 percent of the estimate itself are considered "unreliable." For example, curve D of figure I shows the relative standard errors of estimated number of residents. For a relative standard error of 30 percent or less, the minimum number of residents is 3,500. Thus resident estimates smaller than 3,500 are considered "unreliable" and are presented with an asterisk.

Because of the relationship between the relative standard error and the estimate, the standard error of an estimate can be obtained by multiplying the estimate by its relative standard error. Thus for example, in curve B of figure I, an estimate of 5,000 discharges has a relative standard error of 30 percent. Its standard error is 0.30 X 5,000 = 1,500.

The particular figure or table to which one refers to obtain a standard error is contingent on the type of estimate (e.g., residents) and whether the estimate is a level or a percent. Tables III-XIII show the standard errors for percent estimates used in this report for facilities (table III); residents (table IV); discharges (table V); total staff and nurse's aides (table VI); administrative, medical, and therapeutic staff, registered nurses, and licensed practical nurses (table VII); beds (table VIII); admissions (table IX); total costs and revenues (table X); labor costs (table XI); operating, fixed, and miscellaneous costs (table XII); and resident days of care (table XIII). Tables XIV-XVI show the standard errors for average total costs and revenues; average labor costs; and average operating, fixed, and miscellaneous costs per resident day estimates, respectively. Table XVII shows the standard error for occupancy rate.

The illustrations that follow show how to use the tables to find the standard error of an estimate.

Illustration of use of tables III-XIII to find approximate standard errors of percentages of estimates.—Table I shows that 21.6 percent of the 1,303,100 residents in nursing homes reside in volun-

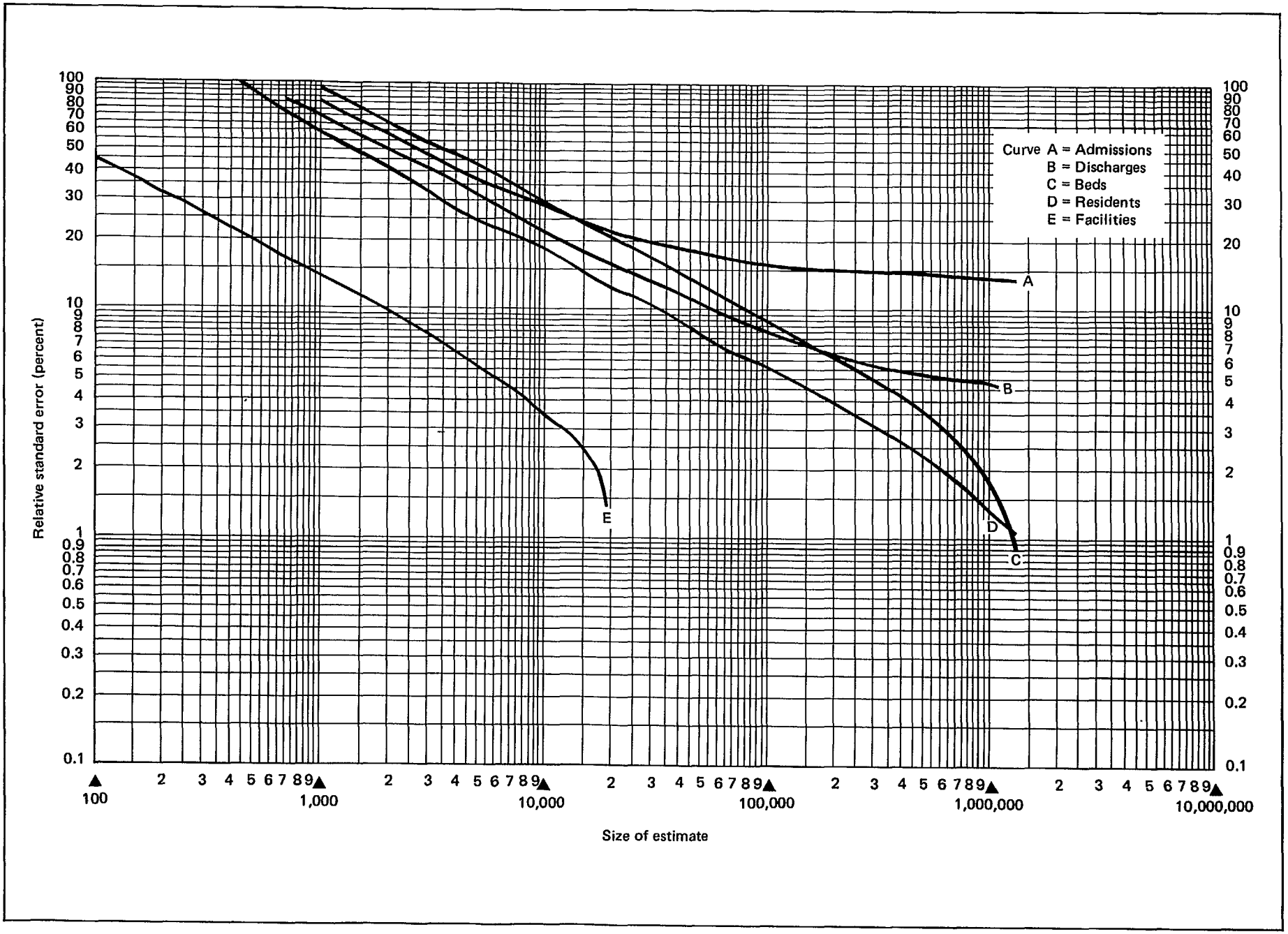


Figure I. Relative standard error curves of estimated admissions, discharges, beds, residents, and facilities

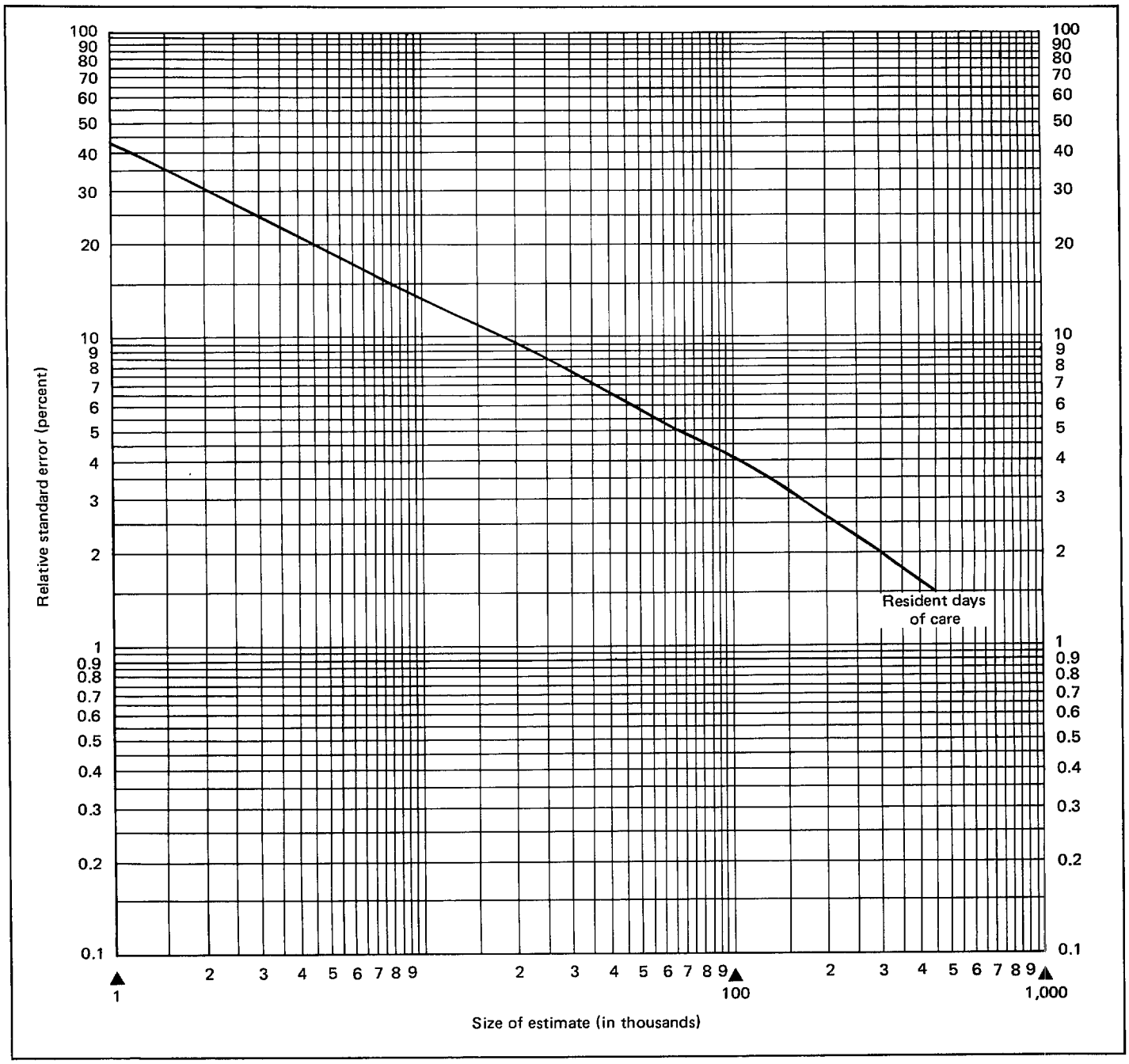


Figure II. Relative standard error curve of estimated resident days of care

tary nonprofit homes. Linear interpolation between values shown in table IV yields an approximate standard error of 0.65 percent for 21.6 percent with a base of 1,303,100.

Illustration of use of tables XIV-XVII to find approximate standard errors of rates.—Table 9 shows that the total revenue per resident day for proprietary facilities in 1976 was $22.73 with a base number of 315,225,700 resident days. Linear interpolation between values shown in table XIV yields an approximate standard error of $0.56 for the estimate of $22.73 with a base of 315,225,700 resident days.

Approximate standard errors of ratios such as full-time equivalent employees per 100 beds can be calculated as in the following sample. Suppose the standard error ($\sigma_{R'}$) for the ratio of total full-time equivalent (FTE) employees per 100 beds is desired for skilled nursing facility (SNF) only nursing homes. In table 7, the total FTE employees per 100 beds for facilities with SNF only certification is 46.8, which is equal to a total of 137,600 FTE employees divided by 294,000 beds (table 1) times 100. The relative standard error of 137,600 total FTE employees is (from figure III, curve A) approximately 1.65 per-

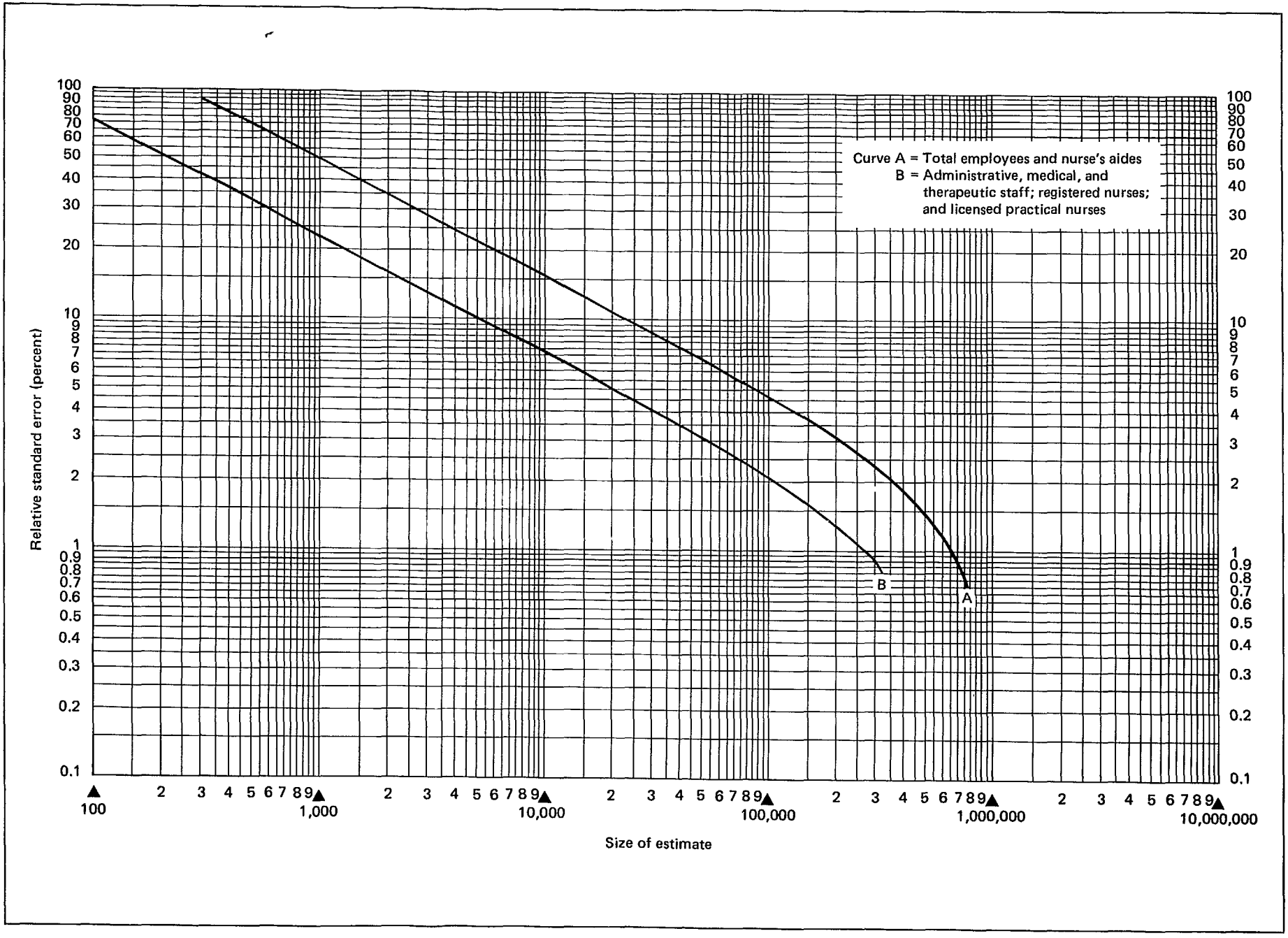


Figure III. Relative standard error curves of estimated employees

Table III. Standard errors of percentages for homes

Base of percent (number of homes)	Estimated percent							
	1 or 99	2 or 98	5 or 95	10 or 90	20 or 80	30 or 70	40 or 60	50
	Standard error in percentage points							
300	2.54	3.58	5.57	7.67	10.23	11.72	12.53	12.79
400	2.20	3.10	4.83	6.65	8.86	10.15	10.85	11.08
500	1.97	2.77	4.32	5.94	7.93	9.08	9.71	9.91
600	1.80	2.53	3.94	5.43	7.23	8.29	8.86	9.04
700	1.67	2.34	3.65	5.02	6.70	7.67	8.20	8.37
800	1.56	2.19	3.41	4.70	6.27	7.18	7.67	7.83
900	1.47	2.07	3.22	4.43	5.91	6.77	7.23	7.38
1,000	1.39	1.96	3.05	4.20	5.60	6.42	6.86	7.00
2,000	0.99	1.39	2.16	2.97	3.96	4.54	4.85	4.95
3,000	0.80	1.13	1.76	2.43	3.24	3.71	3.96	4.04
4,000	0.70	0.98	1.53	2.10	2.80	3.21	3.43	3.50
5,000	0.62	0.88	1.37	1.88	2.51	2.87	3.07	3.13
6,000	0.57	0.80	1.25	1.72	2.29	2.62	2.80	2.86
7,000	0.53	0.74	1.15	1.59	2.12	2.43	2.59	2.65
8,000	0.49	0.69	1.08	1.49	1.98	2.27	2.43	2.48
9,000	0.46	0.65	1.02	1.40	1.87	2.14	2.29	2.33
10,000	0.44	0.62	0.97	1.33	1.77	2.03	2.17	2.22
20,000	0.31	0.44	0.68	0.94	1.25	1.44	1.53	1.57

Table IV. Standard errors of percentages for residents

Base of percent (number of residents)	Estimated percent							
	1 or 99	2 or 98	5 or 95	10 or 90	20 or 80	30 or 70	40 or 60	50
	Standard error in percentage points							
3,500	3.05	4.29	6.68	9.20	12.26	14.05	15.02	15.33
5,000	2.55	3.59	5.59	7.69	10.26	11.75	12.56	12.82
10,000	1.80	2.54	3.95	5.44	7.25	8.31	8.88	9.07
20,000	1.28	1.80	2.79	3.85	5.13	5.88	6.28	6.41
30,000	1.04	1.47	2.28	3.14	4.19	4.80	5.13	5.23
40,000	0.90	1.27	1.98	2.72	3.63	4.16	4.44	4.53
50,000	0.81	1.14	1.77	2.43	3.24	3.72	3.97	4.05
60,000	0.74	1.04	1.61	2.22	2.96	3.39	3.63	3.70
70,000	0.68	0.96	1.49	2.06	2.74	3.14	3.36	3.43
80,000	0.64	0.90	1.40	1.92	2.56	2.94	3.14	3.21
90,000	0.60	0.85	1.32	1.81	2.42	2.77	2.96	3.02
100,000	0.57	0.80	1.25	1.72	2.29	2.63	2.81	2.87
200,000	0.40	0.57	0.88	1.22	1.62	1.86	1.99	2.03
300,000	0.33	0.46	0.72	0.99	1.32	1.52	1.62	1.66
400,000	0.29	0.40	0.62	0.86	1.15	1.31	1.40	1.43
500,000	0.26	0.36	0.56	0.77	1.03	1.18	1.26	1.28
600,000	0.23	0.33	0.51	0.70	0.94	1.07	1.15	1.17
700,000	0.22	0.30	0.47	0.65	0.87	0.99	1.06	1.08
800,000	0.20	0.28	0.44	0.61	0.81	0.93	0.99	1.01
900,000	0.19	0.27	0.42	0.57	0.76	0.88	0.94	0.96
1,000,000	0.18	0.25	0.40	0.54	0.73	0.83	0.89	0.91
1,300,000	0.16	0.22	0.35	0.48	0.64	0.73	0.78	0.80

Table V. Standard errors of percentages for discharges

Base of percent (number of discharges)	Estimated percent							
	1 or 99	2 or 98	5 or 95	10 or 90	20 or 80	30 or 70	40 or 60	50
	Standard error in percentage points							
5,000	3.07	4.32	6.73	9.26	12.35	14.15	15.12	15.44
10,000	2.17	3.06	4.76	6.55	8.73	10.00	10.69	10.91
20,000	1.54	2.16	3.36	4.63	6.17	7.07	7.56	7.72
30,000	1.25	1.76	2.75	3.78	5.04	5.78	6.17	6.30
40,000	1.09	1.53	2.38	3.27	4.37	5.00	5.35	5.46
50,000	0.97	1.37	2.13	2.93	3.91	4.47	4.78	4.88
60,000	0.89	1.25	1.94	2.67	3.56	4.08	4.37	4.46
70,000	0.82	1.16	1.80	2.48	3.30	3.78	4.04	4.13
80,000	0.77	1.08	1.68	2.32	3.09	3.54	3.78	3.86
90,000	0.72	1.02	1.59	2.18	2.91	3.33	3.56	3.64
100,000	0.69	0.97	1.50	2.07	2.76	3.16	3.38	3.45
200,000	0.49	0.68	1.06	1.46	1.95	2.24	2.39	2.44
300,000	0.40	0.56	0.87	1.20	1.59	1.83	1.95	1.99
400,000	0.34	0.48	0.75	1.04	1.38	1.58	1.69	1.73
500,000	0.31	0.43	0.67	0.93	1.23	1.41	1.51	1.54
600,000	0.28	0.39	0.61	0.85	1.13	1.29	1.38	1.41
700,000	0.26	0.37	0.57	0.78	1.04	1.20	1.28	1.30
800,000	0.24	0.34	0.53	0.73	0.98	1.12	1.20	1.22
900,000	0.23	0.32	0.50	0.69	0.92	1.05	1.13	1.15
1,000,000	0.22	0.31	0.48	0.65	0.87	1.00	1.07	1.09
1,100,000	0.21	0.29	0.45	0.62	0.83	0.95	1.02	1.04

Table VI. Standard errors of percentages for total employees and nurse's aides

Base of percent (number of total staff)	Estimated percent							
	1 or 99	2 or 98	5 or 95	10 or 90	20 or 80	30 or 70	40 or 60	50
	Standard error in percentage points							
3,000	2.82	3.97	6.18	8.50	11.34	12.99	13.89	14.17
4,000	2.44	3.44	5.35	7.36	9.82	11.25	12.03	12.27
5,000	2.18	3.07	4.79	6.59	8.78	10.06	10.76	10.98
6,000	1.99	2.81	4.37	6.01	8.02	9.19	9.82	10.02
7,000	1.85	2.60	4.04	5.57	7.42	8.50	9.09	9.28
8,000	1.73	2.43	3.78	5.21	6.94	7.96	8.50	8.68
9,000	1.63	2.29	3.57	4.91	6.55	7.50	8.02	8.18
10,000	1.54	2.17	3.38	4.66	6.21	7.12	7.61	7.76
20,000	1.09	1.54	2.39	3.29	4.39	5.03	5.38	5.49
30,000	0.89	1.26	1.95	2.69	3.59	4.11	4.39	4.48
40,000	0.77	1.09	1.69	2.33	3.11	3.56	3.80	3.88
50,000	0.69	0.97	1.51	2.08	2.78	3.18	3.40	3.47
60,000	0.63	0.89	1.38	1.90	2.54	2.90	3.11	3.17
70,000	0.58	0.82	1.28	1.76	2.35	2.69	2.87	2.93
80,000	0.55	0.77	1.20	1.65	2.20	2.52	2.69	2.74
90,000	0.51	0.72	1.13	1.55	2.07	2.37	2.54	2.59
100,000	0.49	0.69	1.07	1.47	1.96	2.25	2.41	2.45
200,000	0.35	0.49	0.76	1.04	1.39	1.59	1.70	1.74
300,000	0.28	0.40	0.62	0.85	1.13	1.30	1.39	1.42
400,000	0.24	0.34	0.54	0.74	0.98	1.13	1.28	1.23
500,000	0.22	0.31	0.48	0.66	0.88	1.01	1.08	1.10
600,000	0.20	0.28	0.44	0.60	0.80	0.92	0.98	1.00
778,000	0.18	0.25	0.38	0.53	0.70	0.81	0.86	0.88

Table VII. Standard errors of percentages for professional employees

Base of percent (number of professional staff)	Estimated percent							
	1 or 99	2 or 98	5 or 95	10 or 90	20 or 80	30 or 70	40 or 60	50
	Standard error in percentage points							
550	3.05	4.29	6.68	9.20	12.27	14.05	15.02	15.33
800	2.53	3.56	5.54	7.63	10.17	11.65	12.46	12.71
1,000	2.26	3.18	4.96	6.82	9.10	10.42	11.14	11.37
2,000	1.60	2.25	3.51	4.82	6.43	7.37	7.88	8.04
3,000	1.31	1.84	2.86	3.94	5.25	6.02	6.43	6.57
4,000	1.13	1.59	2.48	3.41	4.55	5.21	5.57	5.69
5,000	1.01	1.42	2.22	3.05	4.07	4.66	4.98	5.09
6,000	0.92	1.30	2.02	2.79	3.71	4.25	4.55	4.64
7,000	0.86	1.20	1.87	2.58	3.44	3.94	4.21	4.30
8,000	0.80	1.13	1.75	2.41	3.22	3.68	3.94	4.02
9,000	0.75	1.06	1.65	2.27	3.03	3.47	3.71	3.79
10,000	0.72	1.01	1.57	2.16	2.88	3.30	3.52	3.60
20,000	0.51	0.71	1.11	1.53	2.03	2.33	2.49	2.54
30,000	0.41	0.58	0.81	1.25	1.66	1.90	2.03	2.08
40,000	0.36	0.50	0.78	1.08	1.44	1.65	1.76	1.80
50,000	0.32	0.45	0.70	0.96	1.29	1.47	1.58	1.61
60,000	0.29	0.41	0.64	0.88	1.17	1.35	1.44	1.47
70,000	0.27	0.38	0.59	0.82	1.09	1.25	1.33	1.36
80,000	0.25	0.36	0.55	0.76	1.02	1.17	1.25	1.27
90,000	0.24	0.34	0.52	0.72	0.96	1.10	1.17	1.20
100,000	0.23	0.32	0.50	0.68	0.91	1.04	1.11	1.14
200,000	0.16	0.23	0.35	0.48	0.64	0.74	0.79	0.80
315,000	0.13	0.18	0.28	0.38	0.51	0.59	0.63	0.64

Table VIII. Standard errors of percentages for beds

Base of percent (number of beds)	Estimated percent							
	1 or 99	2 or 98	5 or 95	10 or 90	20 or 80	30 or 70	40 or 60	50
	Standard error in percentage points							
10,000	2.94	4.13	6.43	8.85	11.80	13.52	14.45	14.75
20,000	2.08	2.92	4.55	6.26	8.35	9.56	10.22	10.43
30,000	1.69	2.38	3.71	5.11	6.81	7.81	8.35	8.52
40,000	1.47	2.07	3.22	4.43	5.90	6.76	7.23	7.38
50,000	1.31	1.85	2.88	3.96	5.28	6.05	6.46	6.60
60,000	1.20	1.69	2.63	3.61	4.82	5.52	5.90	6.02
70,000	1.11	1.56	2.43	3.35	4.46	5.11	5.46	5.58
80,000	1.04	1.46	2.27	3.13	4.17	4.78	5.11	5.22
90,000	0.98	1.38	2.14	2.95	3.93	4.51	4.82	4.92
100,000	0.93	1.31	2.03	2.80	3.73	4.28	4.57	4.67
200,000	0.66	0.92	1.44	1.98	2.64	3.02	3.23	3.30
300,000	0.54	0.75	1.17	1.62	2.15	2.47	2.64	2.69
400,000	0.46	0.65	1.02	1.40	1.87	2.14	2.29	2.33
500,000	0.42	0.58	0.91	1.25	1.67	1.91	2.04	2.09
600,000	0.38	0.53	0.83	1.14	1.52	1.75	1.87	1.90
700,000	0.35	0.49	0.77	1.06	1.41	1.62	1.73	1.76
800,000	0.33	0.46	0.72	0.99	1.32	1.51	1.62	1.65
900,000	0.31	0.44	0.68	0.93	1.24	1.43	1.52	1.56
1,000,000	0.29	0.41	0.64	0.89	1.18	1.35	1.45	1.48
1,400,000	0.25	0.35	0.54	0.75	1.00	1.14	1.22	1.25

Table IX. Standard errors of percentages for admissions

Base of percent (number of admissions)	Estimated percent							
	1 or 99	2 or 98	5 or 95	10 or 90	20 or 80	30 or 70	40 or 60	50
	Standard error in percentage points							
8,000	2.78	3.91	6.09	8.38	11.17	12.80	13.69	13.97
9,000	2.62	3.69	5.74	7.90	10.53	12.07	12.90	13.17
10,000	2.49	3.50	5.45	7.50	9.99	11.45	12.24	12.49
20,000	1.76	2.47	3.85	5.30	7.07	8.10	8.66	8.83
30,000	1.44	2.02	3.14	4.33	5.77	6.61	7.07	7.21
40,000	1.24	1.75	2.72	3.75	5.00	5.72	6.12	6.25
50,000	1.11	1.56	2.44	3.35	4.47	5.12	5.47	5.59
60,000	1.01	1.43	2.22	3.06	4.08	4.67	5.00	5.10
70,000	0.94	1.32	2.06	2.83	3.78	4.33	4.63	4.72
80,000	0.88	1.24	1.93	2.65	3.53	4.05	4.33	4.42
90,000	0.83	1.17	1.82	2.50	3.33	3.82	4.08	4.16
100,000	0.79	1.11	1.72	2.37	3.16	3.62	3.87	3.95
200,000	0.56	0.78	1.22	1.68	2.23	2.56	2.74	2.79
300,000	0.45	0.64	0.99	1.37	1.82	2.09	2.23	2.28
400,000	0.39	0.55	0.86	1.19	1.58	1.81	1.94	1.98
500,000	0.35	0.49	0.77	1.06	1.41	1.62	1.73	1.77
600,000	0.32	0.45	0.70	0.97	1.29	1.48	1.58	1.61
700,000	0.30	0.42	0.65	0.90	1.19	1.37	1.46	1.49
800,000	0.28	0.39	0.61	0.84	1.12	1.28	1.37	1.40
900,000	0.26	0.37	0.57	0.79	1.05	1.21	1.29	1.32
1,000,000	0.25	0.35	0.54	0.75	1.00	1.14	1.22	1.25
1,100,000	0.24	0.33	0.52	0.71	0.95	1.09	1.17	1.19

Table X. Standard errors of percentages for total costs and total revenues

Base of percent (total cost and revenue in thousands)	Estimated percent							
	1 or 99	2 or 98	5 or 95	10 or 90	20 or 80	30 or 70	40 or 60	50
	Standard error in percentage points							
85,000	3.07	4.31	6.72	9.24	12.33	14.12	15.10	15.41
100,000	2.83	3.98	6.19	8.52	11.36	13.02	13.92	14.21
200,000	2.00	2.81	4.38	6.03	8.04	9.21	9.84	10.04
300,000	1.63	2.30	3.57	4.92	6.56	7.52	8.04	8.20
400,000	1.41	1.99	3.10	4.26	5.68	6.51	6.96	7.10
500,000	1.26	1.78	2.77	3.81	5.08	5.82	6.22	6.35
600,000	1.15	1.62	2.53	3.48	4.64	5.32	5.68	5.80
700,000	1.07	1.50	2.34	3.22	4.30	4.92	5.26	5.37
800,000	1.00	1.41	2.19	3.01	4.02	4.60	4.92	5.02
900,000	0.94	1.33	2.06	2.84	3.79	4.34	4.64	4.74
1,000,000	0.89	1.26	1.96	2.70	3.59	4.12	4.40	4.49
2,000,000	0.63	0.89	1.38	1.91	2.54	2.91	3.11	3.18
3,000,000	0.52	0.73	1.13	1.56	2.07	2.38	2.54	2.59
4,000,000	0.45	0.63	0.98	1.35	1.80	2.06	2.20	2.25
5,000,000	0.40	0.56	0.88	1.21	1.61	1.84	1.97	2.01
6,000,000	0.36	0.51	0.80	1.10	1.47	1.68	1.80	1.83
7,000,000	0.34	0.48	0.74	1.02	1.36	1.56	1.66	1.70
8,000,000	0.32	0.44	0.69	0.95	1.27	1.46	1.56	1.59
9,000,000	0.30	0.42	0.65	0.90	1.20	1.37	1.47	1.50
10,000,000	0.28	0.40	0.62	0.85	1.14	1.30	1.39	1.42

Table XI. Standard errors of percentages for labor costs

Base of percent (labor cost in thousands)	Estimated percent							
	1 or 99	2 or 98	5 or 95	10 or 90	20 or 80	30 or 70	40 or 60	50
	Standard error in percentage points							
25,000	2.98	4.20	6.54	9.00	12.00	13.75	14.69	15.00
50,000	2.11	2.97	4.62	6.36	8.48	9.72	10.39	10.60
70,000	1.78	2.51	3.91	5.38	7.17	8.21	8.78	8.96
100,000	1.49	2.10	3.27	4.50	6.00	6.87	7.35	7.50
200,000	1.06	1.48	2.31	3.18	4.24	4.86	5.20	5.30
300,000	0.86	1.21	1.89	2.60	3.46	3.97	4.24	4.33
400,000	0.75	1.05	1.63	2.25	3.00	3.44	3.67	3.75
500,000	0.67	0.94	1.46	2.01	2.68	3.07	3.29	3.35
600,000	0.61	0.86	1.33	1.84	2.45	2.81	3.00	3.06
700,000	0.56	0.79	1.24	1.70	2.27	2.60	2.78	2.83
800,000	0.53	0.74	1.16	1.59	2.12	2.43	2.60	2.65
900,000	0.50	0.70	1.09	1.50	2.00	2.29	2.45	2.50
1,000,000	0.47	0.66	1.03	1.42	1.90	2.17	2.32	2.37
2,000,000	0.33	0.47	0.73	1.01	1.34	1.54	1.64	1.68
3,000,000	0.27	0.38	0.60	0.82	1.10	1.25	1.34	1.37
4,000,000	0.24	0.33	0.52	0.71	0.95	1.09	1.16	1.19
5,000,000	0.21	0.30	0.46	0.64	0.85	0.97	1.04	1.06
6,400,000	0.19	0.26	0.41	0.56	0.75	0.86	0.92	0.94

Table XII. Standard errors of percentages for other (operating, fixed, and miscellaneous) costs

Base of percent (other cost in thousands)	Estimated percent							
	1 or 99	2 or 98	5 or 95	10 or 90	20 or 80	30 or 70	40 or 60	50
	Standard error in percentage points							
400	9.41	13.24	20.61	28.37	37.83	43.34	46.33	47.29
600	7.68	10.81	16.83	23.17	30.89	35.39	37.83	38.61
800	6.65	9.36	14.58	20.06	26.75	30.65	32.76	33.44
1,000	5.95	8.37	13.04	17.95	23.93	27.41	29.30	29.91
2,000	4.21	5.92	9.22	12.69	16.92	19.38	20.72	21.15
4,000	2.98	4.19	6.52	8.97	11.96	13.71	14.65	14.95
6,000	2.43	3.42	5.32	7.33	9.77	11.19	11.96	12.21
8,000	2.10	2.96	4.61	6.34	8.46	9.69	10.36	10.57
10,000	1.88	2.65	4.12	5.67	7.57	8.67	9.27	9.46
20,000	1.33	1.87	2.92	4.01	5.35	6.13	6.55	6.69
40,000	0.94	1.32	2.06	2.84	3.78	4.33	4.63	4.73
60,000	0.77	1.08	1.68	2.32	3.09	3.54	3.78	3.86
80,000	0.67	0.94	1.46	2.01	2.68	3.06	3.28	3.34
100,000	0.60	0.84	1.30	1.79	2.39	2.74	2.93	2.99
200,000	0.42	0.59	0.92	1.27	1.69	1.94	2.07	2.11
400,000	0.30	0.42	0.65	0.90	1.20	1.37	1.47	1.50
600,000	0.24	0.34	0.53	0.73	0.98	1.12	1.20	1.22
800,000	0.21	0.30	0.46	0.63	0.85	0.97	1.04	1.06
1,000,000	0.19	0.26	0.41	0.57	0.76	0.87	0.93	0.95
2,300,000	0.12	0.17	0.27	0.37	0.50	0.57	0.61	0.62

Table XIII. Standard errors of percentages for resident days

Base of percent (resident days in thousands)	*Estimated percent*							
	1 or 99	*2 or 98*	*5 or 95*	*10 or 90*	*20 or 80*	*30 or 70*	*40 or 60*	*50*
	Standard error in percentage points							
2,000	3.01	4.24	6.60	9.08	12.11	13.88	14.83	15.14
3,000	2.46	3.46	5.39	7.42	9.89	11.33	12.11	12.36
4,000	2.13	3.00	4.67	6.42	8.56	9.81	10.49	10.71
5,000	1.91	2.68	4.17	5.75	7.66	8.78	9.38	9.58
6,000	1.74	2.45	3.81	5.24	6.99	8.01	8.56	8.74
7,000	1.61	2.27	3.53	4.86	6.47	7.42	7.93	8.09
8,000	1.51	2.12	3.30	4.54	6.06	6.94	7.42	7.57
9,000	1.42	2.00	3.11	4.28	5.71	6.54	6.99	7.14
10,000	1.35	1.90	2.95	4.06	5.42	6.21	6.63	6.77
20,000	0.95	1.34	2.09	2.87	3.83	4.39	4.69	4.79
30,000	0.78	1.09	1.70	2.35	3.13	3.58	3.83	3.91
40,000	0.67	0.95	1.48	2.03	2.71	3.10	3.32	3.39
50,000	0.60	0.85	1.32	1.82	2.42	2.78	2.97	3.03
60,000	0.55	0.77	1.20	1.66	2.21	2.53	2.71	2.76
70,000	0.51	0.72	1.12	1.54	2.05	2.35	2.51	2.56
80,000	0.48	0.67	1.04	1.44	1.92	2.19	2.35	2.39
90,000	0.45	0.63	0.98	1.35	1.81	2.07	2.21	2.26
100,000	0.43	0.60	0.93	1.28	1.71	1.96	2.10	2.14
200,000	0.30	0.42	0.66	0.91	1.21	1.39	1.48	1.51
300,000	0.25	0.35	0.54	0.74	0.99	1.13	1.21	1.24
450,000	0.20	0.28	0.44	0.61	0.81	0.93	0.99	1.01

Table XIV. Standard errors for average total cost per resident day and average revenue per resident day

Base of ratio (resident days in thousands)	*Average total cost or revenue per resident day*												
	$16.00	*$18.00*	*$20.00*	*$22.00*	*$24.00*	*$26.00*	*$28.00*	*$30.00*	*$32.00*	*$34.00*	*$36.00*	*$38.00*	*$40.00*
	Standard error in dollars												
3,000	*5.71	*6.10	*6.47	*6.84	*7.20	7.57	7.93	8.29	8.66	9.02	9.38	9.75	10.11
4,000	*4.95	5.28	5.60	5.92	6.23	6.55	6.86	7.18	7.49	7.80	8.12	8.44	8.75
5,000	4.42	4.72	5.01	5.29	5.57	5.85	6.13	6.41	6.69	6.98	7.26	7.54	7.82
6,000	4.04	4.30	4.57	4.83	5.08	5.34	5.60	5.85	6.11	6.36	6.62	6.88	7.13
7,000	3.73	3.98	4.23	4.47	4.70	4.94	5.18	5.41	5.65	5.89	6.12	6.36	6.60
8,000	3.49	3.72	3.95	4.17	4.40	4.62	4.84	5.06	5.28	5.50	5.72	5.94	6.17
9,000	3.29	3.51	3.72	3.93	4.14	4.35	4.56	4.77	4.97	5.18	5.39	5.60	5.81
10,000	3.12	3.33	3.53	3.73	3.93	4.13	4.32	4.52	4.72	4.91	5.11	5.31	5.51
20,000	2.20	2.34	2.48	2.62	2.76	2.90	3.03	3.17	3.31	3.45	3.58	3.72	3.86
30,000	1.78	1.90	2.01	2.13	2.24	2.35	2.46	2.57	2.68	2.79	2.90	3.01	3.12
40,000	1.54	1.64	1.73	1.83	1.93	2.02	2.11	2.21	2.30	2.40	2.49	2.59	2.68
50,000	1.37	1.46	1.54	1.63	1.71	1.79	1.88	1.96	2.04	2.12	2.21	2.29	2.38
60,000	1.24	1.32	1.40	1.48	1.55	1.63	1.70	1.77	1.85	1.92	2.00	2.07	2.15
70,000	1.15	1.22	1.29	1.36	1.43	1.49	1.56	1.63	1.70	1.76	1.83	1.90	1.97
80,000	1.07	1.13	1.20	1.26	1.32	1.39	1.45	1.51	1.57	1.64	1.70	1.76	1.83
90,000	1.00	1.06	1.12	1.18	1.24	1.30	1.35	1.41	1.47	1.53	1.59	1.65	1.70
100,000	0.94	1.00	1.06	1.11	1.17	1.22	1.27	1.33	1.38	1.44	1.49	1.55	1.60
200,000	0.63	0.67	0.70	0.73	0.76	0.79	0.82	0.85	0.89	0.92	0.95	0.98	1.02
300,000	0.49	0.51	0.53	0.55	0.57	0.58	0.60	0.62	0.64	0.66	0.68	0.71	---
450,000	0.36	0.37	0.37	0.38	0.38	---	---	---	---	---	---	---	---

Table XV. Standard errors for average labor costs plus labor components per resident day

Base of ratio (resident days in thousands)	*Average labor cost per resident day*												
	$0.50	*$1.00*	*$2.00*	*$4.00*	*$6.00*	*$8.00*	*$10.00*	*$12.00*	*$14.00*	*$16.00*	*$18.00*	*$20.00*	*$25.00*
	Standard error in dollars												
2,000	*0.69	*0.95	*1.31	*1.85	*2.31	*2.76	*3.21	*3.66	4.12	4.58	5.05	5.53	6.74
3,000	*0.56	*0.77	*1.07	*1.51	*1.89	2.26	2.62	2.99	3.37	3.74	4.13	4.52	5.50
4,000	*0.49	*0.67	*0.93	*1.31	1.64	1.96	2.27	2.59	2.92	3.25	3.58	3.91	4.77
5,000	*0.43	*0.60	*0.83	1.17	1.47	1.75	2.04	2.32	2.61	2.91	3.20	3.50	4.27
6,000	*0.40	*0.55	*0.76	1.07	1.34	1.60	1.86	2.12	2.39	2.65	2.93	3.20	3.90
7,000	*0.37	*0.51	*0.70	0.99	1.24	1.48	1.72	1.97	2.21	2.46	2.71	2.96	3.61
8,000	*0.34	*0.47	*0.66	0.93	1.16	1.39	1.61	1.84	2.07	2.30	2.54	2.78	3.38
9,000	*0.32	*0.45	*0.62	0.87	1.10	1.31	1.52	1.74	1.95	2.17	2.39	2.62	3.19
10,000	*0.31	*0.42	0.59	0.83	1.04	1.25	1.45	1.65	1.86	2.06	2.27	2.49	3.03
20,000	*0.22	*0.30	0.42	0.59	0.74	0.89	1.03	1.18	1.33	1.47	1.62	1.77	2.15
30,000	*0.18	0.25	0.34	0.49	0.61	0.73	0.85	0.97	1.09	1.22	1.34	1.46	1.77
40,000	*0.15	0.21	0.30	0.42	0.54	0.64	0.75	0.85	0.96	1.06	1.17	1.28	1.55
50,000	0.14	0.19	0.27	0.38	0.48	0.58	0.68	0.77	0.87	0.96	1.06	1.15	1.40
60,000	0.13	0.18	0.25	0.35	0.45	0.53	0.62	0.71	0.80	0.89	0.98	1.06	1.29
70,000	0.12	0.16	0.23	0.33	0.42	0.50	0.58	0.67	0.75	0.83	0.91	1.00	1.20
80,000	0.11	0.15	0.21	0.31	0.39	0.47	0.55	0.63	0.71	0.79	0.86	0.94	1.14
90,000	0.10	0.14	0.20	0.29	0.37	0.45	0.52	0.60	0.67	0.75	0.82	0.90	1.09
100,000	0.10	0.14	0.19	0.28	0.36	0.43	0.50	0.58	0.65	0.72	0.79	0.86	1.04
200,000	0.07	0.10	0.14	0.21	0.27	0.34	0.39	0.45	0.51	0.57	0.63	0.69	0.83
300,000	0.06	0.08	0.12	0.18	0.24	0.30	0.35	0.41	0.46	0.52	0.57	0.63	---
450,000	0.05	0.07	0.11	0.17	0.22	0.28	0.33	0.38	0.44	---	---	---	---

Table XVI. Standard errors for average operating, fixed, and miscellaneous costs per resident day

Base of ratio (resident days in thousands)	*Average cost per resident day*									
	$0.50	*$1.00*	*$2.00*	*$3.00*	*$4.00*	*$5.00*	*$6.00*	*$7.00*	*$8.00*	*$9.00*
	Standard error in dollars									
2,000	*0.26	*0.38	*0.61	0.84	1.08	1.33	1.58	1.84	2.10	2.36
3,000	*0.21	*0.31	0.50	0.69	0.88	1.09	1.29	1.50	1.71	1.92
4,000	*0.18	0.27	0.43	0.60	0.77	0.94	1.12	1.30	1.48	1.67
5,000	*0.17	0.24	0.39	0.54	0.69	0.84	1.00	1.16	1.33	1.49
6,000	*0.15	0.22	0.35	0.49	0.63	0.77	0.92	1.06	1.21	1.36
7,000	0.14	0.21	0.33	0.46	0.58	0.72	0.85	0.99	1.12	1.26
8,000	0.13	0.19	0.31	0.43	0.55	0.67	0.80	0.92	1.05	1.18
9,000	0.12	0.18	0.29	0.40	0.52	0.63	0.75	0.87	0.99	1.11
10,000	0.12	0.17	0.28	0.38	0.49	0.60	0.72	0.83	0.94	1.06
20,000	0.08	0.13	0.20	0.28	0.36	0.44	0.52	0.60	0.68	0.76
30,000	0.07	0.11	0.17	0.24	0.30	0.37	0.43	0.50	0.57	0.64
40,000	0.06	0.09	0.15	0.21	0.27	0.33	0.39	0.45	0.51	0.57
50,000	0.06	0.09	0.14	0.20	0.25	0.30	0.36	0.41	0.47	0.52
60,000	0.05	0.08	0.13	0.18	0.24	0.29	0.34	0.39	0.44	0.49
70,000	0.05	0.08	0.13	0.18	0.23	0.28	0.32	0.37	0.42	0.47
80,000	0.05	0.07	0.12	0.17	0.22	0.27	0.31	0.36	0.41	0.46
90,000	0.04	0.07	0.12	0.16	0.21	0.26	0.31	0.35	0.40	0.45
100,000	0.04	0.07	0.11	0.16	0.21	0.25	0.30	0.35	0.39	0.44
200,000	0.03	0.06	0.10	0.14	0.19	0.23	0.28	0.32	0.36	0.41
300,000	0.03	0.05	0.10	0.14	0.18	0.23	0.27	0.32	0.36	0.40
450,000	0.03	0.05	0.10	0.14	0.19	0.23	0.27	0.32	0.36	0.41

cent, and the relative standard error of 294,000 beds (from figure I, curve C) is approximately 5.0 percent. The square root of the sum of the squares of these two relative standard errors minus their covariance provides an approximation for the relative standard error of the ratio. If V_X, is the relative standard error of the number of total FTE employees, V_Y, the relative standard error of number of beds, r the sample correlation coefficient between total FTE employees and beds (conservatively estimated to be 0.5), and

Table XVII. Standard errors for occupancy rate

Base of ratio (number of beds)	Occupancy rate							
	30	40	50	60	70	80	90	100
	Standard error in percentage points							
10,000	*10.95	*13.12	15.29	17.49	19.71	21.98	24.27	26.59
20,000	7.73	9.26	10.79	12.34	13.91	15.50	17.11	18.75
30,000	6.31	7.55	8.79	10.05	11.33	12.62	13.94	15.27
40,000	5.46	6.53	7.60	8.69	9.79	10.90	12.04	13.18
50,000	4.88	5.83	6.79	7.75	8.73	9.73	10.74	11.76
60,000	4.45	5.32	6.18	7.06	7.95	8.86	9.77	10.70
70,000	4.11	4.91	5.71	6.52	7.34	8.18	9.02	9.88
80,000	3.84	4.59	5.33	6.09	6.85	7.63	8.42	9.22
90,000	3.62	4.32	5.02	5.73	6.45	7.17	7.91	8.66
100,000	3.43	4.09	4.75	5.42	6.10	6.79	7.49	8.19
200,000	2.40	2.85	3.30	3.75	4.21	4.67	5.14	5.62
300,000	1.94	2.29	2.64	2.99	3.34	3.70	4.07	4.44
400,000	1.66	1.95	2.24	2.53	2.82	3.11	3.41	3.72
500,000	1.47	1.72	1.96	2.20	2.45	2.70	2.95	3.21
600,000	1.33	1.55	1.75	1.96	2.17	2.38	2.59	2.81
700,000	1.22	1.41	1.59	1.77	1.95	2.13	2.31	2.50
800,000	1.13	1.30	1.46	1.61	1.76	1.91	2.07	2.23
900,000	1.06	1.21	1.34	1.47	1.60	1.73	1.87	2.00
1,000,000	1.00	1.13	1.25	1.36	1.47	1.58	1.69	1.80
1,400,000	0.84	0.93	1.00	1.05	1.08	1.11	1.14	1.15

$V_{R'}$ the relative standard error of the ratio $R' = X'/Y'$:

then

$$V_{R'}^2 = V_{X'}^2 + V_{Y'}^2 - 2rV_{X'}V_{Y'}$$

$$= (0.0165)^2 + (0.0500)^2 - 1.00\,(0.0165 \times 0.0500)$$

$$= 0.00027 + 0.00250 - 0.00083 = 0.00194$$

$$V_{R'} = \sqrt{0.00194 = 0.04405}$$

The approximate standard error of the ratio of total FTE employees per 100 beds may now be obtained by multiplying the relative standard error by the ratio

$$\sigma_{R'} = R' \times V_{R'}$$

$$= 46.8 \times 0.04405$$

$$= 2.14$$

The sample correlation coefficient (r) for calculating the standard error estimates of the ratios presented in this report is assumed to be zero except in the case of FTE employees per 100 beds, occupancy rate, and cost per resident day ratio estimates where the correlation coefficient used was 0.5.

Hypothesis testing

z-Test.—To test the difference between two statistics (mean, percent, etc.), the standard normal test should be performed to determine whether or not to reject the null hypothesis (for the two means $\overline{X}_1, \overline{X}_2$, the null hypothesis is $H_0: \overline{X}_1 = \overline{X}_2$ with the alternative $H_A: \overline{X}_1 \neq \overline{X}_2$). The standard error of the difference of the two estimates is approximately the square root of the sum of the squares of the standard error of each of the estimates. Thus if $SE(\overline{X}_1)$ is the standard error of $\overline{X}_1$ and $SE(\overline{X}_2)$ is the standard error of $\overline{X}_2$, the standard error of the difference $(\overline{X}_1 - \overline{X}_2)$ is

$$SE(\overline{X}_1 - \overline{X}_2) = \sqrt{SE^2(\overline{X}_1) + SE^2(\overline{X}_2)}$$

(This formula will represent the actual standard error for the difference between separate and uncorrelated characteristics although it is only a rough approximation in most other cases.) The null hypothesis is rejected (i.e., the two means $\overline{X}_1$ and $\overline{X}_2$ are different) if the probability of a type I error is less than 5 percent; that is, if

$$\frac{Z = \overline{X}_1 - \overline{X}_2}{\sqrt{SE^2(\overline{X}_1) + SE^2(\overline{X}_2)}} > 1.96$$

Weighted least squares as a test for trend.—If there exists a strong relationship between two variables (e.g., total cost per resident day and FTE nursing staff per 100 beds), then a useful test for this relationship would be to fit a regression line to the data to determine the slope and then to determine whether or not this slope is significantly greater than zero. That is, a regression line of the form $Y = \alpha + \beta_i X_i + \epsilon_i$ is to be fit to the data where in this case Y = FTE nursing staff per 100 beds; X = total cost per resident day; α = "Y-intercept," that is, value of FTE nursing staff per 100 beds if total cost per resident day equaled zero; β = slope of Y on X, that is, the rate of change in FTE nursing staff per 100 beds per unit change in total cost per resident day; and finally, ϵ = unexplained error.

The data available from the NNHS present certain very basic problems that discourage the use of classical regression procedures. Among these problems are violation of the assumptions of independence of the original observations, violation of homoscedasticity, that is, equal variances of the dependent variable within each category of the independent variable, perhaps violation of the normality assumption, and so forth. Dr. Paul Levy, formerly of NCHS, has devised a "modified regression model which makes no assumptions about the original observations and which makes no stronger assumptions about the sample estimates than are made in testing whether two means are equal when the estimated means and their standard errors are obtained from complex surveys."[b] The proposed model is as follows:

1. Let $\overline{Y}_i$ be the estimated mean and $S_{\overline{y}}$ be its estimated standard error for the ith group.
2. Let X_i be the midpoint of the independent variable for the group.
3. Assume $S_{\overline{y}_i}$ is based on a large enough number of observations that it can be assumed it is equal to $\sigma_{\overline{y}_i}$ and thus has no sampling error.
4. Further assume that

   $$E(\overline{y}_i) = \alpha + \beta X_i$$

   $$V(\overline{y}_i) = S^2_{\overline{y}_i} \qquad \text{for } i = 1, \quad 2, \ldots, \quad K,$$

   where K is the number of groups.
5. Finally, it is assumed that the $\overline{y}_i$'s are normally distributed and are statistically independent of each other.

[b]From an unpublished memorandum by Dr. Levy.

The weighting procedure proposed weights all observations by the reciprocal of the variance. That is

$$W_i = \frac{1}{S^2_{\overline{Y}_i}}$$

and the mean

$$\overline{X} = \frac{\sum w_i X_i}{\sum w_i}$$

and the mean

$$\overline{\overline{Y}} = \frac{\sum w_i Y_i}{\sum w_i}.$$

The slope is computed in a manner similar to the classical least squares regression, by the following formula:

$$b = \frac{\sum w_i (X_i - \overline{X})\overline{Y}_i}{\sum w_i (X_i - \overline{X})^2}$$

This is easily computed by

$$b = \frac{\sum w_i X_i \overline{Y}_i - \left(\sum w_i\right)(\overline{X})(\overline{\overline{Y}})}{\sum w_i X_i^2 - \left(\sum w_i\right)\overline{X}^2}$$

The variance of the slope is

$$\sigma_b^2 = \frac{\sum w_i (X_i - \overline{X})^2 \sigma^2_{\overline{Y}}}{\left[\sum w_i (X_i - \overline{X}^2)\right]^2}$$

Now, because

$$W_i = \frac{1}{\sigma^2_{\overline{Y}_i}},$$

this formula can be simplified to

$$\sigma_b^2 = \frac{\sum w_i (X_i - \overline{X})^2}{\left[\sum w_i (X_i - \overline{X})^2\right]^2} = \frac{1}{\sum w_i (X_i - \overline{X})^2}$$

and computationally

$$S_b = \sqrt{\frac{1}{\sum w_i X_i^2 - \left(\sum w_i\right)\overline{X}^2}}$$

An approximate normal deviate test can now be performed by

$$z = \frac{b}{S_b}.$$

This equation would test the hypothesis that $\beta = 0$ or, alternatively, compute confidence intervals for β.

As an example, FTE nursing staff per 100 beds by total cost per resident day is recorded as shown in table XVIII. Applying this described method to the data shown, we have

$$\sum w_i X_i \overline{Y}_i = 896.36004$$

$$\sum w_i = 1.20304$$

$$\sum w_i X_i = 20.5955$$

$$\sum w_i \overline{Y}_i = 47.12855$$

$$\sum w_i X_i^2 = 414.5045$$

$$\overline{X} = 17.11956$$

$$\overline{\overline{Y}} = 39.17455$$

$$b = 1.44610$$

$$S_b = 0.12708$$

$$z = \frac{b}{S_b} = 11.37945$$

Table XVIII. Worksheet for weighted least squares regression of full-time equivalent (FTE) nursing staff per 100 beds, by total cost per resident day: United States, 1977

Total cost per resident day	*Midpoint of total cost per resident day interval*	*FTE nursing staff per 100 beds*	*Standard error of FTE nursing staff per 100 beds*	$S^2_{\overline{Y}_i}$	$W_i = \frac{1}{S^2_{\overline{Y}_i}}$
Less than $15.00	7.5	24.9	1.6	2.56	0.39063
$15.00-$19.99	17.5	40.5	1.9	3.61	0.27701
$20.00-$24.99	22.5	48.5	2.1	4.41	0.22676
$25.00 or more	25.0	49.2	1.8	3.24	0.30864

Thus because the z-value is quite large, a positive association is demonstrated between FTE nursing staff per 100 beds and total cost per resident day.

A significant positive or negative association can be present despite some intervals that do not show a significant difference when compared with adjacent intervals in the characteristic of interest. For example, the number of FTE nursing staff per 100 beds in the cost interval \$20.00-\$24.99 (48.5) is not significantly different (using the z-test) from the number in the interval \$25.00 or more (49.2) despite an overall significantly positive relationship between admissions per 100 beds and total cost per resident day.

Appendix II. Definitions of certain terms used in this report

Terms relating to facilities

Facility.—Nursing homes included in the 1977 NNHS were those classified by the 1973 MFI as nursing care homes, personal care homes with nursing, personal care homes, and domiciliary homes. Also included are nursing homes that opened for business between the initiation of the 1973 MFI and December 1976. A nursing home must have three beds or more and may be either freestanding or a distinct unit of a larger facility. (See appendix IV for details.)

Bed.—A bed is one that is set up and staffed for use whether or not it was in use by a resident at the time of the survey. Not included are beds used by staff or owners, or beds used exclusively for emergency purposes, or solely day or night care.

Certified bed.—A certified bed is one that is certified: (a) as skilled under the Medicare or the Medicaid program, or both or (b) as intermediate under the Medicaid program. (See definition under "Certification" for details.)

Certification.—Certification refers to the facility certification by the Medicare or Medicaid program(s) or both.

Medicare.—Medicare refers to the medical assistance provided in Title XVIII of the Social Security Act. Medicare is a health insurance program administered by the Social Security Administration to persons aged 65 years and over and to disabled persons who are eligible for benefits.

Medicaid.—Medicaid refers to the medical assistance provided in Title XIX of the Social Security Act. Medicaid is a State-administered program for the medically indigent.

Skilled nursing facility.—Skilled nursing facility refers to certification as a skilled nursing facility under the Medicare or Medicaid program or both.

Intermediate care facility.—Intermediate care facility refers to certification as an intermediate care facility under Medicaid.

Not certified.—Not certified refers to facilities that are not certified as providers of care either by Medicare or Medicaid.

Financial variables.—See Expense Questionnaire Definition Booklet in appendix III for details concerning terms in this section.

Cost, total.—Total cost is the total cost of providing care for residents for the facility's most recently completed fiscal year. Cost data from 1975, 1976, or 1977 were acceptable. For about half the facilities, this corresponded to calendar year 1976. Eighty percent of the facilities reported data covering at least six months of 1976 with the remaining months fairly evenly divided between 1975 and 1977. For those not reporting for the calendar year, July and October were the most prevalent starting dates. Excluded from total costs are any losses sustained in the sale or disposition of fixed assets and other extraordinary losses not related to the current cost of providing care.

Labor costs.—Labor costs consist of wages and salaries, payroll taxes, and fringe benefits.

Operating costs.—Operating costs consist of expenses for food and other dietary items; drugs; supplies and equipment; purchased maintenance of buildings, grounds, and equipment; laundry and linen; health care and other services purchased from outside sources; and utilities.

Fixed costs.—Fixed costs consist of equipment rental, insurance, taxes and licenses, interest and finance charges, rent on building and land, and amortization of leasehold improvement.

Miscellaneous costs.—Miscellaneous costs are for dues, subscriptions, travel, automobile, advertising, other services not included elsewhere, medical and nonmedical fees, and unclassified expenses.

Revenues

Patient care.—Patient care revenues include payments from Medicare, Medicaid, other public assistance or welfare programs, and private sources, as well as other patient revenues for routine or ancillary health care services.

Nonpatient.—Nonpatient revenues include financial contributions, grants and subsidies received from churches, foundations, voluntary agencies, government agencies, and similar groups for general operating purposes. They also include all other sources of revenue not directly related to patient health care (such as beauty-barber services and vending machines) as well as any revenues received in the form of interest, dividend, and capital gains.

Net income.—Net income (paper profit or loss) refers to revenues minus costs.

Cash flow.—Cash flow (actual profit or loss) refers to the net income (i.e., revenues minus costs) plus depreciation.

Loss.—Loss refers to the amount that costs exceed revenues.

Profit.—Profit refers to the amount that revenue exceeds costs.

Location

Geographic region.—Facilities are classified by geographic area by grouping the conterminous States into regions. These regions correspond to those used by the U.S. Bureau of the Census:

Region	States included
Northeast	Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania
North Central	Michigan, Ohio, Indiana, Illinois, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Kansas, Nebraska
South	Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Texas, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma
West	Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Washington, Oregon, California. (Alaska and Hawaii are excluded).

Standard Federal Administrative Regions.—Facilities are classified by Standard Federal Administrative Regions by grouping the conterminous States into 10 regions. These regions correspond to those used throughout the Federal Government:

Region	States included
Region I	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont
Region II	New York, New Jersey. (Puerto Rico and Virgin Islands are excluded.)
Region III	Delaware, Maryland, Pennsylvania, Virginia, West Virginia, District of Columbia
Region IV	Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee
Region V	Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin
Region VI	Arkansas, Louisiana, New Mexico, Oklahoma, Texas
Region VII	Iowa, Kansas, Missouri, Nebraska
Region VIII	Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming
Region IX	Arizona, California, Nevada. (Hawaii, Guam, Trust Territory of Pacific Islands, and American Samoa are excluded.)
Region X	Idaho, Oregon, Washington. (Alaska is excluded.)

Ownership.—Type of ownership refers to the type of organization that controls and operates the nursing home.

Proprietary facility.—A proprietary facility is operated under private commercial ownership.

Nonprofit facility.—A nonprofit facility is operated under voluntary or nonprofit auspices, including both church- and nonchurch-related facilities.

Government facility.—A government facility is operated under Federal, State, or local government auspices.

Terms relating to staff

Employee.—An employee is an individual providing direct or health-related services to the residents of the nursing home. Full-time employees, part-time employees, personnel employed under contract who worked in the facility in the month preceding the survey, and members of religious orders who donated their services are included under this definition. Volunteers who provided enrichment or extra services, contract personnel who did not work in the facility in the last month, and attending physicians who have only private patients in the facility are excluded.

Staff in certain facilities that were units of larger institutions when staff could not specifically be designated as working in the unit are also excluded.

Employment Status

Full-time.—A full-time employee worked 35 hours or more in the week prior to the survey.

Part-time.—A part-time employee worked less than 35 hours in the week prior to the survey.

Full-time equivalent (FTE).—Thirty-five hours of part-time employees' work per week is considered equivalent to that of one full-time employee.

Occupational Categories

Administrative and medical staff.—The administrative and medical staff are those staff members who are administrators, assistant administrators, physicians (M.D. and D.O.), dentists, pharmacists, dietitians or nutritionists, registered medical records administrators, other medical record administrators and technicians, and members of other professional occupations.

Medical director.—The medical director is the professional person or group who coordinates the medical activities of the facility, both internally and regarding Federal and State rules and regulations.

Other professional occupations.—Other professional occupations include the categories of psychologist, X-ray technician, and those professional occupations not included in the administrative and medical staff category.

Therapeutic staff.—The therapeutic staff are those staff members who are registered occupational therapists, registered physical therapists, activities directors, social workers, speech pathologists or audiologists, occupational therapist assistants, physical therapist assistants, or social worker technicians and assistants.

Vacant staff positions.—Vacant staff positions are unfilled staff positions in the budget of the nursing home.

Terms relating to residents

Resident.—A resident is a person on the roster of the nursing home on the night before the survey. All residents for whom beds are maintained although they may be temporarily away on overnight leave or in a hospital are included.

Health Status

Activities of daily living.—The activities of daily living are six everyday activities (bathing, continence, dressing, eating, mobility, and using toilet room) for which the nursing staff respondent reported the resident's current performance in terms of his need for the help of special equipment or another person.

Bathing

Independent.—The resident does not currently require any assistance in bathing. This category also includes those cases in which the information is unknown.

Requires assistance.—The resident bathes with the help of special equipment or another person or both.

Continence

No difficulty controlling bowels or bladder.—The resident does not currently have any difficulty in controlling either bowels or bladder.

Difficulty controlling bowels.—The resident currently has difficulty in controlling his bowels.

Difficulty controlling bladder.—The resident currently has difficulty in controlling his bladder.

Ostomy in either bowels or bladder.—The resident has undergone a surgical procedure that results in the creation of an artificial opening for the elimination of waste.

Dressing

Independent.—The resident does not currently require any assistance in dressing. This category also includes those cases in which the information is unknown.

Requires assistance, includes those who do not dress.—The resident currently dresses with the help of special equipment or another person or both. This category also includes those cases in which the resident remains partially or totally undressed.

Eating

Independent.—The resident does not currently require any assistance in eating. This category also includes those cases in which the information is unknown.

Requires assistance, includes those who are tube or intravenously fed.—The resident currently eats with the help of special equipment or another

person or both. This includes those residents requiring assistance with the cutting of meat and buttering of bread, as well as those who require tube or intravenous feeding.

Mobility

Walks independently.—The resident does not currently require any assistance in walking. This category also includes those cases in which the information is unknown.

Walks with assistance.—The resident currently walks with the help of special equipment or another person or both.

Chairfast.—The resident is currently confined to a chair.

Bedfast.—The resident is currently confined to a bed.

Using toilet room

Independent.—The resident does not currently require any assistance in using the toilet room. This category also includes those cases in which the information is unknown.

Requires assistance.—The resident currently uses the toilet room with the help of special equipment or another person or both.

Does not use toilet room.—The resident does not currently use the toilet room because of an ostomy, being chairfast, or similar reason.

Index of dependency in activities of daily living.—The index of dependency in activities of daily living, based on the work of Dr. Sidney Katz,[7,8] is a measure that permits the overall classification of individuals according to a "hierarchy" based on dependency in performing the six activities of daily living just described. The index has seven levels of dependence with each successive level indicating greater dependency. The index category, "other," includes residents who were dependent in at least two functions but not classifiable into any of the categories of the "hierarchy." The following list of activities is ordered in "hierarchy" sequence and presents the criterion for classifying a resident as *dependent:*

Bathing.—This category refers to those residents who require assistance.

Dressing.—This category refers to those residents who require assistance, including those who do not dress.

Using toilet room.—This category refers to those residents who require assistance or do not use toilet room.

Mobility.—This category refers to those residents who walk with assistance, are chairfast, or are bedfast.

Continence.—This category refers to those residents who have difficulty controlling bowels or bladder, or both; or have an ostomy.

Eating.—This category refers to those residents who require assistance, including those who are tube or intravenously fed.

Terms relating to discharges

Discharge.—A discharge is a person who was formally discharged from a nursing home during 1976. Both live and dead discharges are included. Theoretically, the same person can be counted more than once if he was discharged more than once from a nursing home during 1976.

Discharge status.—The discharge status refers to whether the person was discharged from the nursing home alive or dead.

Duration of stay.—The duration of stay is the period of time between the date of admission and the date of discharge.

NOTE: A list of references follows the text.

Appendix III. Selected survey instruments used in the 1977 National Nursing Home Survey

Letter to administrator

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
HEALTH RESOURCES ADMINISTRATION
ROCKVILLE, MARYLAND 20857

NATIONAL CENTER FOR
HEALTH STATISTICS

Dear Administrator:

As part of its continuing program to provide information on the health of the Nation and the utilization of its health resources, the National Center for Health Statistics (part of the U.S. Public Health Service) is conducting a nationwide survey of nursing homes and similar facilities. The survey, the second in a series, is authorized under Section 306 (42 USC 242K) of the Public Health Service Act. The purpose of this survey is to collect baseline and trend information about nursing facilities, their services, residents, staff and financial characteristics. The resulting published statistics will describe the Nation's nursing facilities and the health status of their residents. These data are used for studying the utilization of nursing facilities, for developing policies which promote efficient allocation of health care resources, and for supporting research directed at finding effective means for treatment of long-term health problems. Thus, the individual resident is the ultimate beneficiary.

Enclosed is a summary report from the previous survey, which is illustrative of the kinds of data to be obtained from this survey. Because the National Center for Health Statistics is committed to providing a factual basis for the planning of programs for improving the health of the American people, basic information about your facility (name, address, size, type of ownership, admission policies, certification, and statistics on admissions and discharges) will be made available upon request. In addition, some of this information is published in a national directory of nursing home facilities.

I want to emphasize that, except for the information specifically mentioned in the above paragraph, the information you supply will be used solely for statistical research and reporting purposes. No information collected under the authority of Section 306 (42 USC 242K) of the Public Health Service Act may be used for any purpose other than the purpose for which it was supplied, and such information may not be published or released in other form if the individual or establishment is identifiable unless the individual or establishment has consented to such release.

This survey includes a small, randomly selected, nationwide sample of nursing facilities, each of which represents a number of similar facilities. Although your participation is voluntary and there are no penalties for refusing to answer any question, it is essential that we obtain data from all sample homes in order to achieve accurate and complete statistics.

The survey will require about 30 minutes of your time to conduct an interview about the facility. Some additional time involving some of your staff will be required to complete documents for a small sample of your employees and current and discharged residents. No resident will be contacted or interviewed at any time.

Within the next few weeks, an interviewer will contact you for an appointment. This person will be with Informatics, Inc., the firm under Federal contract to conduct this survey. I greatly appreciate your cooperation in this survey.

Sincerely yours,

Dorothy P. Rice

Dorothy P. Rice
Director

Enclosures

March 29, 1977

Dear Administrator:

I am writing to urge your participation in the 1977 National Nursing Home Survey to be conducted this summer by the National Center for Health Statistics. The survey, the second in a series, is designed to collect baseline and trend information about nursing facilities, their services, residents, staff and some basic financial characteristics.

The support of our association and of all nursing home administrators is indispensable to the successful inauguration of this research. It has in the past provided invaluable data for the industry, as well as for those drafting health legislation, and setting national policies and priorities.

I believe you will find the survey to be extremely comprehensive, while designed to maximize the utility of the data collected. In addition, strict confidentiality provisions are to be maintained, with only summary data being published and made available to health planners, researchers, health professionals, and the public.

I am confident that the information derived will be worth the investment of your time and effort, as it will ultimately be used in an effort to improve long term care. Furthermore, it is only through your cooperation that we can be sure the information on which public policy will be based has the benefit of our input.

I, therefore, again urge your cooperation with this survey.

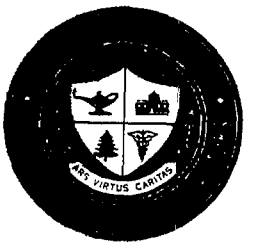
Sincerely,

Jack A. MacDonald
Executive Vice President

Suite 402 ▪ 1200 Fifteenth Street, N.W. ▪ Washington, D. C. 20005 ▪ Tel. (202) 785-4754

AMERICAN COLLEGE OF NURSING HOME ADMINISTRATORS

4850 EAST-WEST HIGHWAY
WASHINGTON, D.C. 20014
(301) 652-8384



J. ALBIN YOKIE
Executive Vice President

Dear Administrator:

I wish to encourage you to participate in the 1977 National Nursing Home Survey conducted by the National Center for Health Statistics of DHEW. The survey, the second in a series, is designed to collect baseline and trend information about long-term care facilities, their services, residents, staff and some basic financial characteristics.

The support of the professional administrator is indispensable to the success of this research which will provide invaluable data for planning and organizing health care of the aged, drafting health legislation, and setting national policies and priorities.

The survey design maximizes the utility of the data collected while it attempts to minimize the amount of staff involvement. Strict confidentiality will be maintained and only summary data will be published and made available to health planners, researchers, health professionals, and the public.

The value of the information derived is well worth the investment of your time and effort. It is only through such cooperation that the information, upon which public policy will be based, has the benefit of your input.

I urge your cooperation in this survey.

Sincerely,

J. A. Yokie

J. Albin Yokie
Executive Vice-President

AMERICAN AAHA ASSOCIATION OF HOMES FOR THE AGING
NATIONAL ORGANIZATION OF NON-PROFIT HOMES

Suite 770
1050 17th Street, N.W.
Washington, D.C. 20036
(202) 296-5960

Monsignor Charles J. Fahey
President
David C. Crowley
Executive Vice President

Dear Administrator:

I am writing to urge your participation in the 1977 National Nursing Home Survey to be conducted this summer by the National Center for Health Statistics. The survey, the second in a series, is designed to collect baseline and trend information about nursing facilities, their services, residents, staff and some basic financial characteristics.

The support of our association members and of all facilities selected to be included in this sample is indispensable to the successful development of invaluable data for planning and organizing health care of the aged, drafting health legislation, and setting national policies and priorities to obtain quality care for all nursing home residents.

I believe you will find the survey design maximizes the utility of the data collected while it attempts to minimize the amount of staff involvement. In addition, strict confidentiality provisions are to be maintained. Only summary data will be published and made available to health planners, researchers, health professionals, and the public.

I am confident that the information derived will be worth the investment of your time and effort as it will ultimately be used in an effort to improve long term care. Furthermore, it is only through your cooperation that we can be sure the information on which public policy will be based has the benefit of our input.

I, therefore, again urge your cooperation with this survey.

Sincerely,

David C. Crowley

David C. Crowley
Executive Vice President

ahca
American Health Care Association 1200 15th Street, Washington, DC 20005 (202) 833-2050

Dear Administrator:

I am writing to urge your participation in the 1977 National Nursing Home Survey to be conducted this summer by the National Center for Health Statistics. The survey, the second in a series, is designed to collect baseline and trend information about nursing facilities, their services, residents, staff and some basic financial characteristics.

The support of our association and of all nursing home administrators is indispensable to the successful inauguration of this research which will provide invaluable data for planning and organizing health care of the aged, drafting health legislation, and setting national policies and priorities to obtain quality care for all nursing home residents.

I believe you will find the survey design maximizes the utility of the data collected while it attempts to minimize the amount of staff involvement. In addition, strict confidentiality provisions are to be maintained. Only summary data will be published and made available to health planners, researchers, health professionals, and the public.

I am confident that the information derived will be worth the investment of your time and effort as it will ultimately be used in an effort to improve long term care. Furthermore, it is only through your cooperation that we can be sure the information on which public policy will be based has the benefit of our input.

I, therefore, again urge your cooperation with this survey.

Sincerely,

Theodore Carcich, Jr.
President

A non-profit organization of proprietary and non-proprietary long term health care facilities dedicated to improving health care of the convalescent and chronically ill of all ages. An equal opportunity employer.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
Health Resources Administration
National Center for Health Statistics
1977 National Nursing Home Survey

FACILITY QUESTIONNAIRE

OMB # 68-S75025 APPROVAL EXPIRES 12-31-77

A. Telephone Number ☐☐ – ☐☐☐☐☐☐☐ (Area Code / Number)	**B. Interviewer Name** _____
C. Date of Interview ☐ Mo. ☐ Day ☐ Year	**D. Start Time** _____ 1 ☐ am 2 ☐ pm

INTERVIEWER NOTE: Please read the Facility Questionnaire Prompt Card BEFORE you begin the interview.

1. ACCORDING TO OUR RECORDS, THE NAME OF THIS FACILITY IS: *(Read name of facility on label.)*

a. IS THERE AN ERROR IN THIS NAME?

1 ☐ Yes 2 ☐ No *(Skip to Q.2)*

b. WHAT IS THE CORRECT NAME OF THIS FACILITY?

2. ACCORDING TO OUR RECORDS, THE MAILING ADDRESS OF THIS FACILITY IS: *(Read address on label.)*

a. IS THERE AN ERROR IN THIS ADDRESS?

1 ☐ Yes 2 ☐ No *(Skip to Q.3)*

b. WHAT IS THE CORRECT MAILING ADDRESS OF THIS FACILITY?

Number	Street	P.O. Box, Route, etc.
City or Town	County	
State		Zip Code

3. HAS THIS NURSING HOME BEEN IN BUSINESS AT THIS ADDRESS FOR TWO YEARS OR LONGER? COUNT FROM THE TIME IT FIRST OPENED AT THIS ADDRESS AS A NURSING HOME, EVEN THOUGH THE OWNERSHIP OR THE SERVICES OFFERED MAY HAVE CHANGED.

1 ☐ Yes 2 ☐ No

HRA-190-1 (3-77)

4. ARE ANY OF THE FOLLOWING SERVICES ROUTINELY PROVIDED TO RESIDENTS IN ADDITION TO ROOM AND BOARD:

a. SUPERVISION OVER MEDICATIONS WHICH MAY BE SELF-ADMINISTERED? . . . . . 1 ☐ Yes 2 ☐ No

b. MEDICATIONS AND TREATMENTS ADMINISTERED IN ACCORDANCE WITH PHYSICIAN'S ORDERS? . . . . . 1 ☐ Yes 2 ☐ No

c. RUB AND MASSAGE? . . . . . 1 ☐ Yes 2 ☐ No

d. HELP WITH TUB BATH OR SHOWER? . . . . . 1 ☐ Yes 2 ☐ No

e. HELP WITH DRESSING? . . . . . 1 ☐ Yes 2 ☐ No

f. HELP WITH CORRESPONDENCE OR SHOPPING? . . . . . 1 ☐ Yes 2 ☐ No

g. HELP WITH WALKING OR GETTING ABOUT? . . . . . 1 ☐ Yes 2 ☐ No

h. HELP WITH EATING? . . . . . 1 ☐ Yes 2 ☐ No

OR

i. NONE OF ABOVE SERVICES ROUTINELY PROVIDED, ONLY ROOM AND BOARD PROVIDED? . 1 ☐ Yes

INTERVIEWER: This facility is out-of-scope of the survey. Please terminate interview.

5a. IS THIS FACILITY A DISTINCT NURSING HOME UNIT OF A HOSPITAL, ANOTHER HEALTH INSTITUTION, OR A RETIREMENT CENTER?

1 ☐ Yes 2 ☐ No *(Skip to Q.6a)*

b. HOW MANY BEDS ARE IN THE ENTIRE FACILITY INCLUDING THE NURSING HOME UNIT?

└┴┴┴┘

READ: FOR THE REMAINDER OF THE INTERVIEW, THE QUESTIONS REFER ONLY TO THE NURSING HOME UNIT.

6a. *Show Flashcard #1* **WHAT IS THE TYPE OF OWNERSHIP WHICH OPERATES THIS FACILITY?**

01 ☐ Individual
02 ☐ Partnership
03 ☐ Corporation
} **For profit**
04 ☐ Church related
05 ☐ Nonprofit corporation
06 ☐ Other nonprofit ownership
07 ☐ State
08 ☐ County
09 ☐ City
10 ☐ City-County
11 ☐ Hospital District
12 ☐ U.S. Public Health Service
13 ☐ Armed Forces
14 ☐ Veterans Administration
15 ☐ Other Federal Agency, Specify _____

b. IS THIS FACILITY A MEMBER OF A GROUP OF FACILITIES OPERATING UNDER ONE GENERAL AUTHORITY OR GENERAL OWNERSHIP?

1 ☐ Yes 2 ☐ No

7a. DOES YOUR FACILITY ACCEPT BOTH MALES AND FEMALES?

1 ☐ Yes *(Skip to Q.8a)* 2 ☐ No

b. DOES IT ACCEPT ONLY MALES OR ONLY FEMALES?

1 ☐ Only males

2 ☐ Only females

8a. HAS YOUR FACILITY SET A MINIMUM AGE BELOW WHICH NO ONE IS ACCEPTED?

1 ☐ Yes 2 ☐ No *(Skip to Q.8c)*

b. WHAT IS THAT MINIMUM AGE?

└┴┘ Years

c. HAS YOUR FACILITY SET A MAXIMUM AGE ABOVE WHICH NO ONE IS ACCEPTED?

1 ☐ Yes 2 ☐ No *(Skip to Q.9)*

d. WHAT IS THAT MAXIMUM AGE?

└┴┘ Years

9. DOES YOUR FACILITY ACCEPT PERSONS WHO ARE PRIMARILY DIAGNOSED AS:

a. **MENTALLY ILL OR EMOTIONALLY DISTURBED?** . . . . . 1 ☐ Yes 2 ☐ No

b. **MENTALLY RETARDED?** . . . . . 1 ☐ Yes 2 ☐ No

c. **ALCOHOLICS?** . . . . . 1 ☐ Yes 2 ☐ No

d. **DRUG ADDICTS?** . . . . . 1 ☐ Yes 2 ☐ No

e. **SENILE?** . . . . . 1 ☐ Yes 2 ☐ No

10. WHAT IS THE TOTAL NUMBER OF BEDS REGULARLY MAINTAINED FOR RESIDENTS?

INCLUDE ALL BEDS SET UP AND STAFFED FOR USE WHETHER OR NOT THEY ARE IN USE BY RESIDENTS AT THE PRESENT TIME. DO NOT INCLUDE BEDS USED BY STAFF OR OWNERS OR BEDS USED EXCLUSIVELY FOR EMERGENCY PURPOSES, SOLELY DAY CARE, OR SOLELY NIGHT CARE.

Total beds [ ]

11. WHAT IS THE NUMBER OF BEDS IN THIS FACILITY THAT ARE LICENSED BY THE HEALTH DEPARTMENT OR OTHER RESPONSIBLE AGENCY?

Total licensed beds [ ]

12a. WAS THERE A CHANGE IN THE TOTAL NUMBER OF BEDS REGULARLY MAINTAINED DURING 1976?

1 ☐ Yes 2 ☐ No *(Skip to Q.13)*

b. **IN WHICH MONTHS WAS THE NUMBER OF BEDS CHANGED?**

c. *(Ask for each change:)* **IN** *(month)*, **WAS THAT AN INCREASE OR DECREASE?**

d. *(Ask for each change:)* **HOW MANY BEDS?**

Month	Increase (Number added)	Decrease (Number eliminated)
[ ]	[ ]	[ ]
[ ]	[ ]	[ ]
[ ]	[ ]	[ ]

13. IS THIS FACILITY CERTIFIED BY BOTH MEDICARE AND MEDICAID, MEDICARE ONLY, MEDICAID ONLY, OR NEITHER?

1 ☐ Both Medicare and Medicaid

2 ☐ Medicare only

3 ☐ Medicaid only *(Skip to Q.16)*

4 ☐ Neither *(Skip to Q.24)*

14a. HOW MANY BEDS ARE CERTIFIED UNDER MEDICARE? [ ] beds

b. ARE THESE BEDS A PHYSICALLY DISTINCT UNIT FROM THE REST OF THE FACILITY? 1 ☐ Yes 2 ☐ No

15. *Show Flashcard #2* **WHICH OF THE REIMBURSEMENT METHODS AUTHORIZED BY MEDICARE IS USED BY THIS FACILITY?**

1 ☐ RCCAC Method (Departmental-Relationship of Charges to Charges Applied to Cost Method; i.e., costs are apportioned by applying a percentage representing the beneficiaries' share of total charges, on departmental basis, to total costs for the respective departments.)

2 ☐ Combination Method (For routine services such as room, board, and nursing services the providers total allowable costs are apportioned on the basis of the relative number of patient days for beneficiaries and for other patients. For non-routine or ancillary services, the providers allowable costs are apportioned on the basis of a percentage representing the beneficiaries' share of the total charges to all patients for these services.)

3 ☐ Other, Specify _____

_____

9 ☐ Don't Know

INTERVIEWER NOTE: Skip to Q.23a if "Medicare only" in Q.13.

16. IS THIS FACILITY CERTIFIED AS AN SNF, THAT IS A SKILLED NURSING FACILITY, BY THE MEDICAID PROGRAM?

1 ☐ Yes 2 ☐ No *(Skip to Q.19)*

17a. HOW MANY BEDS ARE CERTIFIED UNDER MEDICAID AS SNF BEDS? [ ] beds

b. ARE THESE BEDS A PHYSICALLY DISTINCT UNIT FROM THE REST OF THE FACILITY?

1 ☐ Yes 2 ☐ No

18a. *Show Flashcard #3* **WHICH OF THE FOLLOWING REIMBURSEMENT METHODS FOR SNF-MEDICAID PATIENTS IS USED BY THE FACILITY?**

1 ☐ Flat Rate Only ⟶ **b. WHAT IS THE FLAT RATE?** $ [ ] **c.** per 1 ☐ day
per 2 ☐ week
per 3 ☐ month
per 4 ☐ other, specify _____

2 ☐ Flat Rate Plus Point System for Ancillary Services ⟶ **d. WHAT IS THE FLAT RATE PORTION?**

3 ☐ Cost Plus Allowable Profit $ [ ] **e.** per 1 ☐ day
per 2 ☐ week
per 3 ☐ month
per 4 ☐ other, specify _____

4 ☐ Other, Specify _____

9 ☐ Don't Know

19. IS THIS FACILITY CERTIFIED AS AN ICF, THAT IS AN INTERMEDIATE CARE FACILITY, BY THE MEDICAID PROGRAM?

1 ☐ Yes 2 ☐ No *(Skip to Note above Q.22)*

20a. HOW MANY BEDS ARE CERTIFIED UNDER MEDICAID AS ICF BEDS? ☐☐☐☐ beds

b. ARE THESE BEDS A PHYSICALLY DISTINCT UNIT FROM THE REST OF THE FACILITY? 1 ☐ Yes 2 ☐ No

21a. *Show Flashcard #3* **WHICH OF THE FOLLOWING REIMBURSEMENT METHODS FOR ICF-MEDICAID PATIENTS IS USED BY THE FACILITY?**

1 ☐ Flat Rate Only ——→ **b. WHAT IS THE FLAT RATE?** $ ☐☐☐☐☐.☐ **c.** per 1 ☐ day
per 2 ☐ week
per 3 ☐ month
per 4 ☐ other, specify _____

2 ☐ Flat Rate Plus Point System for Ancillary Services ——→ **d. WHAT IS THE FLAT RATE PORTION?**

3 ☐ Cost Plus Allowable Profit $ ☐☐☐☐☐.☐ **e.** per 1 ☐ day
per 2 ☐ week
per 3 ☐ month
per 4 ☐ other, specify _____

4 ☐ Other, Specify _____

9 ☐ Don't Know

INTERVIEWER NOTE: Skip to Q.23a if the facility is certified by only one program and at only one level of care.

22. SOMETIMES THE SAME BED IS CERTIFIED BY MORE THAN ONE PROGRAM. WITH REGARD TO THESE SO CALLED "SWING BEDS", HOW MANY BEDS IN YOUR FACILITY ARE CERTIFIED:

a. AS SNF BEDS UNDER BOTH MEDICARE AND MEDICAID? ☐☐☐☐

b. AS BOTH ICF AND SNF BEDS UNDER MEDICAID? ☐☐☐☐

c. AS MEDICAID-ICF AND MEDICARE-SNF BEDS? ☐☐☐☐

d. UNDER ALL THREE PROGRAMS THAT IS, MEDICARE-SNF, MEDICAID-SNF, AND MEDICAID-ICF? ☐☐☐☐

23a. DO YOU HAVE ANY BEDS NOT CERTIFIED BY EITHER MEDICAID OR MEDICARE?

1 ☐ Yes 2 ☐ No *(Skip to Q.24)*

b. HOW MANY OF THESE BEDS DOES YOUR FACILITY HAVE?

☐☐☐☐ Beds

24. HOW MANY PERSONS WERE ADMITTED TO THIS FACILITY DURING 1976?

☐☐☐☐☐ admissions none ☐

25a. DOES THIS FACILITY ACCEPT TEMPORARY ADMISSIONS OF PERSONS WHOSE USUAL CARETAKERS ARE ILL, ON VACATION, OR OTHERWISE UNAVAILABLE?

1 ☐ Yes 2 ☐ No *(Skip to Q.26)*

b. HOW MANY TEMPORARY RESIDENTS WERE ADMITTED TO THIS FACILITY DURING 1976?

[ ] temporary admissions none ☐

26a. WE WOULD LIKE TO OBTAIN INFORMATION ON DAYS OF CARE PROVIDED BY THE FACILITY FOR YOUR MOST RECENTLY COMPLETED FISCAL YEAR, THAT IS, THE TWELVE MONTH PERIOD ON WHICH YOU COMPUTE THE FACILITY'S EXPENSES. IS THIS INFORMATION AVAILABLE FOR A FISCAL YEAR?

1 ☐ Yes 2 ☐ No *(Skip to Q.26c)*

b. WHAT WAS THIS TIME PERIOD?

	Mo.	Year		Mo.	Year
from	[ ]	[ ]	through	[ ]	[ ]

(If this is less than a twelve month period, please record the number of months in this box.) [ ]

Skip to Q.26d

c. FOR WHAT TIME PERIOD IS THIS INFORMATION AVAILABLE?

	Mo.	Year		Mo.	Year
from	[ ]	[ ]	through	[ ]	[ ]

(If this is less than a twelve month period, please record the number of months in this box.) [ ]

d. FOR THIS PERIOD, WHAT WERE THE TOTAL INPATIENT DAYS OF CARE PROVIDED, THAT IS THE SUM OF THE DAILY PATIENT CENSUS COUNT BY TYPE OF CERTIFICATION? DO NOT INCLUDE CASES THAT ARE DAY CARE ONLY.

(1)	Total Days:	[ ] days	☐ Mark (X) if estimated		
(2)	SNF-Medicare	[ ] days	☐ Mark (X) if estimated	☐ not applicable	
(3)	SNF-Medicaid	[ ] days	☐ Mark (X) if estimated	☐ not applicable	
(4)	ICF-Medicaid	[ ] days	☐ Mark (X) if estimated	☐ not applicable	
(5)	All Other Days	[ ] days	☐ Mark (X) if estimated	☐ not applicable	

Confidential Information

Interviewer, Read: **Information contained on this form which would permit identification of any individual or establishment has been collected with a guarantee that it will be held in strict confidence, will be used only for purposes stated for this study, and will not be disclosed or released to others without the consent of the individual or the establishment in accordance with Section 308(d) of the Public Health Service Act (42 USC 242m).**

27a. COUNTING FROM THE TIME IT WAS ORIGINALLY CONSTRUCTED, HOW OLD IS THIS BUILDING? *(Interviewer: Round fractions to nearest whole year. If interval is given, record mid-point and mark "if estimated" box.)*

[ ][ ] Years *(Mark (X) box ☐ if estimated)* ☐ Don't Know

b. WAS THIS BUILDING ORIGINALLY CONSTRUCTED SPECIFICALLY FOR USE AS A NURSING HOME? *(Interviewer: Other terms for nursing homes are rest home, home for the aged, mentally ill, or mentally retarded.)*

1 ☐ Yes *(Skip to Q.27d)* 2 ☐ No 9 ☐ Don't know *(Skip to Q.27d)*

c. WHAT WAS THE ORIGINAL PURPOSE OR USE OF THIS BUILDING?

1 ☐ Private home, apartment, hotel/motel
2 ☐ Hospital, sanitarium, or other health related building
3 ☐ Other, Specify _____

d. NOT COUNTING PAINTING OR PAPERING, HAS THE STRUCTURE OF THIS BUILDING EVER BEEN RENOVATED OR REMODELED?

1 ☐ Yes 2 ☐ No *(Skip to Q.28)* 9 ☐ Don't know *(Skip to Q.28)*

e. *Show Flashcard #4* **WHICH OF THE FOLLOWING CHANGES WERE MADE?** *(Mark (X) all that apply; then ask 27f for each change.)*

f. IN WHAT YEAR WAS THE MOST RECENT *(change)*?

			Year	In Process	Don't Know
(1)	Addition to the building constructed	☐	[ ][ ]	☐	☐
(2)	Fire safety equipment/construction added or changed	☐	[ ][ ]	☐	☐
(3)	Interior remodeling	☐	[ ][ ]	☐	☐
(4)	Other, Specify _____	☐	[ ][ ]	☐	☐

28. HOW MANY ROOMS FOR RESIDENTS DOES THIS FACILITY HAVE THAT CONTAIN:

a. 1 BED ONLY? [ ][ ][ ] rooms None ☐

b. 2 BEDS? [ ][ ][ ] rooms None ☐

c. 3 BEDS? [ ][ ][ ] rooms None ☐

d. 4 OR MORE BEDS? [ ][ ][ ] rooms None ☐

29a. FOR THE DAY SHIFT YESTERDAY, WAS THE PERSON IN CHARGE OF NURSING CARE FOR THE ENTIRE FACILITY ON CALL OR ON DUTY, THAT IS AWAKE, DRESSED, AND SERVING THE RESIDENTS?

1 ☐ On Call *(Skip to Q.30a)*

2 ☐ On Duty

b. WHAT IS THE LEVEL OF SKILL OF THIS PERSON?

1 ☐ Registered Nurse

2 ☐ Licensed Practical Nurse

3 ☐ Nurse's Aide or Orderly

4 ☐ Other (Specify Occupation) _____

c. WHAT HOURS DID THIS PERSON ACTUALLY WORK YESTERDAY? *(Mark (X) am or pm)*

from ☐☐ : ☐☐ 1 ☐ am 2 ☐ pm to ☐☐ : ☐☐ 1 ☐ am 2 ☐ pm

30a. FOR THE EVENING SHIFT YESTERDAY, WAS THE PERSON IN CHARGE OF NURSING CARE FOR THE ENTIRE FACILITY ON CALL OR ON DUTY?

1 ☐ On Call *(Skip to Q.31a)*

2. ☐ On Duty

3 ☐ No Such Shift *(Skip to Q.31a)*

b. WHAT IS THE LEVEL OF SKILL OF THIS PERSON?

1 ☐ Registered Nurse

2 ☐ Licensed Practical Nurse

3 ☐ Nurse's Aide or Orderly

4 ☐ Other (Specify Occupation) _____

c. WHAT HOURS DID THIS PERSON ACTUALLY WORK YESTERDAY? *(Mark (X) am or pm)*

from ☐☐ : ☐☐ 1 ☐ am 2 ☐ pm to ☐☐ : ☐☐ 1 ☐ am 2 ☐ pm

31a. FOR THE NIGHT SHIFT YESTERDAY, WAS THE PERSON IN CHARGE OF NURSING CARE FOR THE ENTIRE FACILITY ON CALL OR ON DUTY?

1 ☐ On Call *(Skip to Q.32)*
2 ☐ On Duty
3 ☐ No Such Shift *(Skip to Q.32)*

b. WHAT IS THE LEVEL OF SKILL OF THIS PERSON?

1 ☐ Registered Nurse
2 ☐ Licensed Practical Nurse
3 ☐ Nurse's Aide or Orderly
4 ☐ Other (Specify Occupation) _____

c. WHAT HOURS DID THIS PERSON ACTUALLY WORK YESTERDAY? *(Mark (X) am or pm)*

from [ ] : [ ] 1 ☐ am 2 ☐ pm to [ ] : [ ] 1 ☐ am 2 ☐ pm

32. HOW MANY DIFFERENT PHYSICIANS CURRENTLY ATTEND THEIR OWN PRIVATE PATIENTS IN THIS FACILITY?
(Do not count physicians who are on the staff of the facility or are employed under contract.)

[ ][ ][ ] Physicians or ☐ none

33a. DOES THE FACILITY HAVE A MEDICAL DIRECTOR?

1 ☐ Yes 2 ☐ No *(Skip to Q.34)*

b. *Show Flashcard #5* **UNDER WHICH OF THESE TYPES OF ARRANGEMENTS IS THE MEDICAL DIRECTION OF THIS FACILITY PROVIDED?**

1 ☐ An individual physician
2 ☐ A physician partnership or group practice
3 ☐ Several individual physicians
4 ☐ An H.M.O., medical school, or medical society
5 ☐ Hospital Staff
6 ☐ Other, Specify _____

34. DOES THIS FACILITY ROUTINELY PROVIDE ON THE PREMISES ANY OF THE FOLLOWING THERAPIES BY A LICENSED, REGISTERED, OR PROFESSIONALLY TRAINED THERAPIST:

a. PHYSICAL THERAPY? . . . . . 1 ☐ Yes 2 ☐ No

b. OCCUPATIONAL THERAPY? . . . . . 1 ☐ Yes 2 ☐ No

c. RECREATIONAL THERAPY? . . . . . 1 ☐ Yes 2 ☐ No

d. SPEECH AND HEARING THERAPY? . . . . . 1 ☐ Yes 2 ☐ No

e. COUNSELING/THERAPY BY PSYCHIATRIST, PSYCHOLOGIST, OR MENTAL HEALTH WORKER? 1 ☐ Yes 2 ☐ No

f. COUNSELING BY SOCIAL WORKER? . . . . . 1 ☐ Yes 2 ☐ No

g. OTHER REHABILITATION THERAPIES? Specify _____ 1 ☐ Yes 2 ☐ No

35a. DOES THIS FACILITY KEEP A WAITING LIST OF PERSONS TO BE ADMITTED WHEN A BED BECOMES AVAILABLE?

1 ☐ Yes 2 ☐ No *(Skip to Q.36a)*

b. HOW MANY PEOPLE ARE PRESENTLY ON THIS WAITING LIST?

|_|_|_| people or ☐ None

36a. DOES THIS FACILITY PROVIDE ANY SERVICES TO PERSONS WHO ARE NOT RESIDENTS OF THE FACILITY?

1 ☐ Yes 2 ☐ No *(Skip to Q.38)*

b. FOR WHICH OF THE FOLLOWING CATEGORIES OF NON-RESIDENTS DO YOU PROVIDE SERVICES:

(1) *(If appropriate)* **PERSONS ON THE WAITING LIST?** . . . . . 1 ☐ Yes 2 ☐ No

(2) **DISCHARGED RESIDENTS?** . . . . . 1 ☐ Yes 2 ☐ No

(3) **ANY PERSON WHO APPLIES?** . . . . . 1 ☐ Yes 2 ☐ No

(4) **ANY OTHER TYPE OF NON-RESIDENT? Specify** _____ 1 ☐ Yes 2 ☐ No

37. *Show Flashcard #6* **WHICH OF THE FOLLOWING SERVICES DO YOU PROVIDE TO NON-RESIDENTS?** *(Mark (X) all that apply.)*

a. ☐ Day care (services provided during the day to persons who do not sleep in the facility overnight.)
b. ☐ Physical therapy
c. ☐ Occupational, recreational, or speech and hearing therapy
d. ☐ Psychiatric care
e. ☐ Home health care services
f. ☐ Meals either home delivered or in a group setting
g. ☐ Transportation and/or escort services
h. ☐ Homemaker or chore services
i. ☐ Information and/or referral for health needs
j. ☐ Friendly visiting
k. ☐ Daily telephone checking service
l. ☐ Arrangement or provision of recreational activities
m. ☐ Laundry service
n. ☐ Other, Specify _____

38. DOES THIS FACILITY HAVE ANY VACANT STAFF POSITIONS IN ITS BUDGET THAT IT IS CURRENTLY TRYING TO FILL?

1 ☐ Yes 2 ☐ No *(Skip to Note below Q.39)*

39. *Show Flashcard #7* **HOW MANY VACANT FULL TIME AND PART TIME STAFF POSITIONS ARE IN THE BUDGET FOR THE FOLLOWING OCCUPATIONS? FULL TIME IS DEFINED AS 35 HOURS OR MORE PER WEEK.**

	Full Time	Part Time	
a. Administrator/Asst. Administrator	☐☐	☐☐	☐ None
b. Physician (M.D. or D.O.), Residents and Interns	☐☐	☐☐	☐ None
c. Dentists	☐☐	☐☐	☐ None
d. Pharmacists	☐☐	☐☐	☐ None
e. Registered Occupational Therapists	☐☐	☐☐	☐ None
f. Registered Physical Therapists	☐☐	☐☐	☐ None
g. Speech Pathologist and/or Audiologists	☐☐	☐☐	☐ None
h. Activities Directors	☐☐	☐☐	☐ None
i. Dieticians or Nutritionists	☐☐	☐☐	☐ None
j. Registered Medical Records Administrators	☐☐	☐☐	☐ None
k. Social Workers	☐☐	☐☐	☐ None
l. Other Professional Occupations	☐☐	☐☐	☐ None
m. Registered Nurses (R.N.)	☐☐	☐☐	☐ None
n. Licensed Practical Nurses (L.P.N.) or Licensed Vocational Nurses (L.V.N.)	☐☐	☐☐	☐ None
o. Nurses Aides/Orderlies	☐☐	☐☐	☐ None
p. Office Staff	☐☐	☐☐	☐ None
q. Food Service Personnel	☐☐	☐☐	☐ None
r. Housekeeping/Maintenance Personnel	☐☐	☐☐	☐ None
s. Other, Specify _____	☐☐	☐☐	☐ None

Name of the Respondent _____ **Title** _____

E. End Time _____ 1 ☐ **am** 2 ☐ **pm**	**F. Time Elapsed** ☐☐☐ **Minutes**

THANK YOU FOR YOUR TIME AND COOPERATION

INTERVIEWER NOTE: *After completing the above items and thanking the respondent, continue the interviewing process with Prompt Card #3.*

☆ U.S. GOVERNMENT PRINTING OFFICE: 1977—724-674/669 3-1

Letter to accountant

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
HEALTH RESOURCES ADMINISTRATION
ROCKVILLE, MARYLAND 20857

NATIONAL CENTER FOR
HEALTH STATISTICS

Dear Accountant:

As part of its continuing program to provide information on the health of the Nation and the utilization of its health resources, the National Center for Health Statistics (part of the U.S. Public Health Service) is conducting a nationwide survey of nursing homes and similar facilities. The survey is authorized under Section 306 (42 USC 242K) of the Public Health Service Act. One of the purposes is to obtain financial information about nursing facilities in order to learn more about the amount and type of resources being devoted to this rapidly expanding segment of the health care delivery system. From this information, statistical reports will present the financial and operating characteristics of the Nation's nursing facilities. These reports will be useful in promoting effective long-term health care planning and efficient use of the Nation's health resources.

The information you supply will be used solely for statistical research and reporting purposes. No information collected under the authority of Section 306 (42 USC 242K) of the Public Health Service Act may be used for any purpose other than the purpose for which it was supplied, and such information may not be published or released in other form if the individual or establishment is identifiable unless the individual or establishment has consented to such release.

This survey includes a small, randomly selected, nationwide sample of nursing facilities, each of which represents a number of similar factilities. Although your participation is voluntary and there are no penalties for refusing to answer any question, it is essential that we obtain data from all sample homes in order to achieve accurate and complete statistics.

Please note that on Page 1 of the questionnaire, authorization is given for you to release the requested information. Please read the instructions on Page 1 and complete the Expense Questionnaire by using the enclosed definition booklet, which provides account descriptions of the categories in the questionnaire. There is an accountant whose services are available free of charge (telephone 301/770-2048 collect and ask for the National Nursing Home Survey accountant) to answer those questions which are not answered by the instructions or the definition booklet.

Please complete this questionnaire and return within five working days in the enclosed postage-paid envelope. I greatly appreciate your cooperation in this survey.

Sincerely yours,

Dorothy P. Rice

Dorothy P. Rice
Director

Enclosures

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
Health Resources Administration
National Center for Health Statistics
1977 National Nursing Home Survey

EXPENSE QUESTIONNAIRE

OMB # 68-S75025
APPROVAL EXPIRES 12-31-77

CONTROL NO. | | | | |

Confidential Information

Information contained on this form which would permit identification of any individual or establishment has been collected with a guarantee that it will be held in strict confidence, will be used only for purposes stated for this study, and will not be disclosed or released to others without the consent of the individual or the establishment in accordance with Section 308(d) of the Public Health Service Act (42 USC 242m).

I hereby authorize _____ of _____
(Accountant's Name) (Accountant's Address)

_____ _____
(Accountant's Telephone)

to list for the most recently completed fiscal year the following financial data for the facility:

Date _____ _____ _____
(Signature) (Title)

PLEASE READ THESE INSTRUCTIONS CAREFULLY BEFORE YOU BEGIN TO ANSWER THE EXPENSE QUESTIONNAIRE.

The definition booklet highlights the substance of each cost grouping, as well as related groupings of expenses to be excluded from specific cost definitions. Since the intent of this questionnaire is to obtain information that is comparable among facilities, it is important that you read each of the definitions before answering the questions to which they apply.

The cost categories in the questionnaire are aimed at the total cost of care for patients. To capture all costs incident to providing health care in a home, those services and supplies specifically purchased for sale to patients should also be included in the relevant cost categories.

Since the financial data requested in this questionnaire are to be used with other survey information, it is necessary to provide data which have comparable time periods. Therefore, please give the financial data for the most recently completed fiscal year (calendar year or other 12 month period) and specify that time period in Box A on page 2 of this questionnaire. If for some reason, the twelve months of data are not available, specify in Box A the time period to which the data apply. The data may be reported on either a cash or accrual basis as long as there is consistency in the system applied throughout the entire period under report.

In general, it is essential that all recorded expenses incurred by the facility be included in the expense categories. Excluded from costs, however, are any losses sustained in the sale or disposition of fixed assets and other extraordinary losses not related to the current cost of providing health care.

USE OF FINANCIAL STATEMENTS: If the financial data requested in this questionnaire are available in a Statement of Income and Expenses from the financial report of the home, you may elect to submit such a statement rather than complete this questionnaire. However, to facilitate the follow-up of any questionable items, please indicate your name, telephone number, and title in the spaces provided at the end of the questionnaire. Forward the blank questionnaire and the Statement of Income and Expenses to the National Nursing Home Survey, Informatics, Inc., 6000 Executive Blvd., Rockville, Maryland 20852, in the postage paid envelope provided.

AFFILIATED FACILITIES: If a home is an affiliate of another facility, such as a hospital, the records of only the nursing home unit should be used in this survey. Where the records of a home are part of the total accounting system, allocation techniques may be required to identify certain of the costs such as payroll, rent, supplies, and insurance. This is acceptable providing a sound basis is established for the allocation.

HRA-190-2 (3-77)

A. PLEASE LIST THE DATES OF THE FACILITY'S MOST RECENTLY COMPLETED FISCAL YEAR IN THE BOXES PROVIDED AND SUPPLY THE REQUESTED FINANCIAL DATA FOR THAT TIME PERIOD BELOW.

Mo.	Year	TO	Mo.	Year

B. IF YOUR ACCOUNTING SYSTEM DOES NOT GENERATE COST ITEMS AS CATEGORIZED BELOW, PLEASE USE YOUR BEST ESTIMATE OF ALLOCATIONS AMONG THE LINE ITEMS. IF FURTHER CLARIFICATION IS NEEDED ON ANY POINT, PLEASE CALL COLLECT INFORMATICS, INC. AT 301–770-2048 AND ASK FOR THE NATIONAL NURSING HOME SURVEY ACCOUNTANT. ROUND AMOUNTS TO THE NEAREST WHOLE DOLLAR.

EXPENSES (Please refer to Definition Booklet)	DOLLAR AMOUNTS (If none, Please enter "0".)
1. Payroll Expense (Do not include contract services);	
a. Wages and Salaries (gross amount including employees' vacation and sick pay, taxes, etc.):	
(1) Nursing staff payroll expense (include RN's, LPN's, practical nurses, aides, orderlies, student nurses, and other nursing staff)	$_____
(2) Physicians, other professionals and semi-professionals payroll expense (include only those employees who provide health care services)	$_____
(3) All other staff payroll expense (All employees not listed in (1) and (2), i.e., those not providing health care services)	$_____
(4) Subtotal of wages and salaries (add lines a(1), a(2), and a(3))	$_____
b. Payroll Taxes and Fringe Benefits (employer share of payroll taxes, state unemployment, group health and life insurance and all other payroll and non-payroll benefits paid by employer)	$_____
c. Total Payroll Expense (add line 1a(4) and 1b)	$_____
2. Health Care Services purchased from outside sources:	
a. Nursing Services	$_____
b. Other Health Care Services (Physicians, Therapists, Laboratory services, and other services that provide health care)	$_____
c. Total expense of Health Care Services purchased from Outside Sources (add lines 2a and 2b)	$_____
3. Equipment Rent	$_____
4. Insurance (include professional public liability and other insurance)	$_____
5. Taxes and licenses (include franchise tax)	$_____
6. Interest and Financing Charges	$_____
7. Rent on Building and Land	$_____
8. Amortization of Leasehold Improvements	$_____
9. Depreciation Charges (Buildings and Equipment)	$_____
10. Food and other dietary items (include cost of services purchased from outside sources)	$_____

(CONTINUE)

11. Drug Expenses (include cost of drugs purchased for patients and sold directly to them) $_____

12. Supplies and Equipment (include cost of supplies and equipment purchased for patients and sold directly to them) $_____

13. Purchased Maintenance of buildings, grounds and equipment $_____

14. Purchased Laundry and Linen services $_____

15. Utilities (telephone, gas, water and electricity) $_____

16. Other and Miscellaneous Expense (include dues, subscriptions, travel, automobile, advertising, other services not included elsewhere, medical and non-medical fees, unclassified). See Note 1 below. $_____

17. TOTAL EXPENSES (add expense category line items 1 through 16) $_____

REVENUES (Please refer to Definition Booklet.)	DOLLAR AMOUNTS (If none, Please enter "0".)
18. Total Revenue:	
a. Patient Care Revenues (include all public and private payments for routine and ancillary health care services.)	$_____
b. Non-Patient Revenues (include all sources of non-patient revenues such as contributions for general operating purposes, payment for services not directly related to patient care, interest, dividends and capital gains.)	$_____
c. TOTAL REVENUES (add subtotal 18a and subtotal 18b)	$_____

NOTE 1: If Other and Miscellaneous Expense (item 16) comprise 10 percent or more of the total expenses (item 17), please give details below of major amounts which constitute 20 percent or more of item 16.

Description	Amount
_____	$_____
_____	$_____

PLEASE CHECK THE ADDITION OF SUBTOTALS AND TOTALS.

FOR THE PURPOSES OF FOLLOWING UP ON ANY DIFFICULTIES ENCOUNTERED IN THE ANALYSIS OF THIS INFORMATION, PLEASE INDICATE YOUR NAME, PHONE NUMBER, YOUR TITLE (ACCOUNTANT, ADMINISTRATOR, ETC.), AND THE DATE YOU COMPLETED THIS QUESTIONNAIRE.

NAME _____ PHONE NO. (_____) – (_____)

TITLE _____ COMPLETION DATE _____

THANK YOU FOR YOUR TIME AND COOPERATION IN FILLING OUT THIS QUESTIONNAIRE. PLEASE FOLD AND SEAL IT IN THE ENCLOSED POSTAGE PAID ENVELOPE AND MAIL IT TO:

NATIONAL NURSING HOME SURVEY
INFORMATICS, INC.
6000 EXECUTIVE BLVD.
ROCKVILLE, MARYLAND 20852

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
Health Resources Administration
National Center for Health Statistics
1977 National Nursing Home Survey

DEFINITION BOOKLET FOR COMPLETING THE EXPENSE QUESTIONNAIRE

OMB # 68-S75025
APPROVAL EXPIRES 12-31-77

1. PAYROLL EXPENSE

a. Wages and Salaries

Wages and salaries are generally defined as gross earnings paid an employee including payment for annual and sick leave, overtime, bonuses and other remuneration of a payment nature received by the employee. The wages and salaries represent the amount earned and reported to the Internal Revenue Service on his or her W-2 statement. Self-employed proprietors, while not salaried as employees, are to be included in this definition in the amount reported on the tax return as self-employed salary.

Employee salaries and wages, by the above definition, exclude payments for professional or non-professional services obtained under contract, or fees paid doctors on a fee-for-service basis. Also excluded from Wages and Salaries are Fringe Benefits as defined in 1b (Payroll Expense - Fringe Benefits) on the next page.

Non-funded employee benefits such as meals and living quarters, if provided an employee, and considered a part of the gross salary received, are to be included in gross wages and salaries.

Wages and salaries are to be reported on the gross basis, without deductions for employee's contribution to FICA, Federal and State taxes, and other deductions from an employee's gross wages and salaries.

Any employee who spends 75 percent or more of his time in any one of the three areas mentioned below should have all of the wage and salary compensations charged to that expense category. Further allocation is acceptable if it is a feature of your accounting system.

a(1) Nursing Staff Payroll Expense

Nursing staff payroll expense is defined as the total wage and salary compensation given those employees who administer nursing care to patients.

This category includes registered nurses, licensed practical nurses, practical nurses, nurses' aides, orderlies, and student nurses.

a(2) Physicians, Other Professionals, and Semi-Professionals Payroll Expense

Physicians, other professionals, and semi-professional payroll expense is defined as wage and salary compensation given those professional and semi-professional employees who provide health care services to patients.

This category includes physicians, psychiatrists, dentists, pharmacists, optometrists, therapists, dieticians, psychologists, podiatrists, audiologists, medical social workers, medical record administrators, medical and dental technicians, X-ray and laboratory assistants, and all others providing health care services to patients.

a(3) All Other Staff Payroll Expense

All other staff payroll expense is defined as wage and salary compensation given all employees not specifically categorized in (1), or (2) above, (i.e., those not involved in providing health care services to patients.)

This category includes the administrator and assistant administrators as well as clerical, bookkeeping, and other office staff; food service, housekeeping, and maintenance personnel.

b. Payroll Taxes and Fringe Benefits

Payroll taxes and fringe benefits are expenses incurred by the facility for the current and future benefit of facility employees. These expenses, not added to the wages and salaries of the employees, include such items as group health insurance, hospitalization, employer's portion of FICA, Federal and State Unemployment Insurance, and life insurance premiums (exclusive of premiums paid (a) where the facility is the beneficiary or (b) on the life insurance of the proprietor owner).

Excluded from this cos ate ry are payments for vacation, maternity and sick pay, terminal payments, employee's share of FICA, and liv ıacilities provided employees where such facilities are established for the benefit of the home.

2. HEALTH CARE SERVICES PURCHASED FROM OUTSIDE SOURCES

a. Nursing Services

This category includes the cost of those services provided by RN's, LPN's, practical nurses, aides, orderlies, student nurses, and other nursing personnel which were purchased by the facility from outside sources by contract or other arrangements.

Exclude those nursing services purchased directly by the resident from outside sources.

b. Other Health Care Services

This category includes the cost of those services provided by medical professionals and semi-professionals (definition 1.a.(2)) purchased by the facility from outside sources by contract or other arrangements.

Exclude the cost of those professional and semi-professional health care services purchased directly by the resident from outside sources.

3. EQUIPMENT RENT

Charges to this category include the rental or leasing of furniture, typewriters, computers, X-ray machines or other forms of equipment. Exclude from this category all lease-purchase agreements and deferred payment plans on the purchase of equipment. These latter type purchases will be treated through the Depreciation Cost Category (expense category 9).

4. INSURANCE

Insurance is defined as the cost of premiums for policies necessary to the normal operation of nursing homes.

These charges include fidelity bonds, fire and extended coverage, malpractice, property and bodily injury liability, and automobile insurance where transportation is included as a service of the facility.

Exclude insurance paid for the benefit of employees, such as employee life or group hospitalization, as well as key man life insurance. See definition of expense category 1(b) for distribution of employee benefit insurance paid. If the home's accounting system is on the accrual basis, exclude any prepaid costs and include only the premiums on the current year's portion.

5. TAXES AND LICENSES

This category includes licenses obtained for the right to do business and taxes on real estate, personal property, excise and business franchise taxes.

All federal and state taxes on the income of the facility are to be included as tax and license expenses. Amounts remitted to Federal, state, county, and local governments for income taxes withheld from wages and salaries must be excluded.

6. INTEREST AND FINANCING CHARGES

These charges include amounts of interest on notes payable, mortgages payable, long-term purchase agreements, or other forms of indebtedness. The initial cost of financing or refinancing a loan, however, is to be excluded as an extraordinary cost not related to the normal cost of providing health service. Also to be excluded from this expense category are placement fees on loans and costs related to penalty clauses on early retirement of mortgages or other loans.

Penalties paid to Federal, state, county, or local governments for improper filing of tax or information returns should be excluded.

7. RENT ON BUILDING AND LAND

Rent on building and land is defined as all costs incurred for space occupied pursuant to leases or rental agreements.

Included in this category is the cost of all buildings or real estate rented or leased by the home.

Charges to this category should exclude lease-purchase agreements and payments made on a mortgage covering the building or land.

8. AMORTIZATION OF LEASEHOLD IMPROVEMENTS

Amortization of leasehold improvements is defined as the writeoff of improvements to leased premises over the remaining life of the lease or the useful life of the improvement, whichever is shorter.

Improvements to leased premises which have a remaining lease or useful life of one year or less should be expensed directly when incurred.

Included in this category are improvements to leased premises such as wall partitions, permanent counters and cabinets, tile floors and wall coverings, and plumbing fixtures.

9. DEPRECIATION CHARGES

Depreciation is defined as the distribution of the cost of tangible capital assets, less salvage (if any), over the estimated life of the asset.

Charges to this category should exclude amortization as defined in expense category 8.

Tangible capital assets, currently being purchased under a lease-purchase agreement, are to be depreciated rather than treated as a rental payment. Exclude from this category any equipment of a nominal amount expensed in Equipment (Cost category 12.).

10. FOOD AND OTHER DIETARY ITEMS

This account includes food and other dietary items purchased for preparation on the home's premises as well as the cost of meals purchased from hospitals or other outside services whether or not under contract.

Where food inventories are maintained, the cost of food consumed will be the basis for the recording of cost (inventory at beginning of year plus purchases, less ending inventory.) Freight and sales taxes, whether included in the purchase, or as a separate item (freight only), are to be charged to the cost of food and dietary items, rather than to be charged to "Taxes and Licenses" (sales tax) or "Other and Miscellaneous Expense" (freight).

This cost category excludes costs related to the serving of meals, such as food and menu preparation (wages) and kitchenware and dishes (supplies). It also excludes the cost of meals which are non-funded employee benefits and were included as part of the gross salaries in Item 1.

11. DRUG EXPENSES

Drug expenses represent the cost of drugs consumed out of inventory or purchased for patients and resold to them. Drugs not under inventory control will be considered expensed when purchased.

For purposes of this definition, drugs include both prescription type medicines as well as non-prescription items such as aspirin, laxatives, and vitamins. Excluded from this definition are such non-medicine items as cotton, bandages, syringes, and other items which do not meet the common definition of drugs, and are categorized under supplies, item 12, below.

Recognizing that medical supplies may be co-mingled in the cost account with drug items, an allocation technique may be adopted for the purposes of determining the separate cost of drug expenses.

The cost of drugs includes freight costs as well as sales taxes added to the purchase price of drugs.

Drug cost is not to be reduced by revenues from patients whether sold out of the nursing home inventory or purchased specifically for their use.

12. SUPPLIES AND EQUIPMENT

a. Supplies

Includes the purchase of all supplies exclusive of drug supplies (see 11.) and food and other dietary items (see 10.).

Supplies include, but are not limited to, supplies used in food preparation and serving (dishes, kitchen ware, paper supplies, etc.), office supplies, medical supplies such as bandages, laundry, linen and blanket supplies, uniforms, the purchase of minor equipment (staplers, ash trays, etc.) classified as supplies, and repair and maintenance supplies and parts (cleaning supplies, light bulbs, small tools, etc.).

Usually, supplies of the nature of those classified for inclusion in this cost category are not maintained under inventory control except as a minimum level which may be used as a re-order point. The accounting system of the home will dictate whether these costs will be developed on a "delivery basis" or on an "issued" basis. Either method is acceptable.

b. Equipment

Includes the purchase of items classified as equipment, but because of the nominal cost or nature of the items, they are not capitalized.

Equipment in this grouping include, but are not limited to medical equipment, furniture and fixtures of a nominal value not maintained under asset control, repair and maintenance equipment, kitchen equipment, and administrative equipment.

All equipment purchased specifically for sale to a patient, regardless of the cost or nature of the purchase, is to be included in this category. The revenues derived from the sale of the equipment to the patients will not be credited as an offset to the cost recorded in Supplies and Equipment.

Exclude from this category any equipment which is being depreciated in cost category 9.

13. PURCHASED MAINTENANCE OF BUILDING, GROUNDS, AND EQUIPMENT

This cost grouping includes the costs of purchasing from outside sources; elevator maintenance, equipment or appliance maintenance, ground maintenance, plumbing maintenance, electrical systems maintenance, and similar type services. Also included are the costs of trash removal, exterminator services, cleaning services, and other housekeeping services when purchased from outside sources.

Purchased maintenance of building, grounds, and equipment, as classified in this cost category, excludes services for this function provided by the home's staff. The home's personnel costs for these services are to be charged to 1.a.(3), Wages and Salaries - All Other Staff Payroll Expense.

14. PURCHASED LAUNDRY AND LINEN SERVICES

This account relates to the cost of outside service only, rather than the cost of purchasing linens, towels, blankets, uniforms, etc. This cost may or may not be under a service contract and may include the rental cost of the supplies provided under a contract.

Laundry and linen expense, as classified in this cost category, excludes services for this function provided by nursing home staff. Personnel costs for this service are to be charged to 1.a.(3), Wages and Salaries – All Other Staff Payroll Expense.

Charges for laundry or linen lost or damaged by the nursing home under a service-rental agreement are to be reflected in this grouping.

15. UTILITIES

Utilities are defined as charges for telephone and telegraph, gas, fuel, oil, water, and electricity.

Charges to this category should exclude any utility charges, such as telephone, that are paid directly by patients or employees or charges that are paid by the lessor under the lease agreement.

16. OTHER AND MISCELLANEOUS EXPENSES

This expense category is a catchall to record all costs not classified in 1 through 15 above. Costs included in this grouping are dues and subscriptions, printing costs, advertisements, travel costs, automobile expenses, non-classified medical and non-medical fees (example - audit and legal fees), postage and casual labor not charged to other expense categories.

17. TOTAL EXPENSES

This is the total of all expense categories 1 through 16.

18. TOTAL REVENUES

a. Total Patient Care Revenues

This group includes payments from Medicare, Medicaid, other public assistance or welfare programs and private sources, as well as other patient revenues for routine or ancillary health care services.

b. Total Nonpatient Revenues

This group includes financial contributions, grants and subsidies received from churches, foundations, voluntary agencies, government agencies, and similar groups for general operating purposes. It also includes all other sources of revenue not directly related to patient health care such as beautician/barber services, vending machine concessions, charges for services rendered to guests (e.g., room and board), luncheonettes, etc., as well as any revenues received in the form of interest, dividends and capital gains.

☆ U.S. GOVERNMENT PRINTING OFFICE: 1977—724-705 3-1

Staff Classification Card

WHICH OF THE FOLLOWING JOB CATEGORIES BEST FITS THE JOB WHICH THIS EMPLOYEE DOES IN THIS FACILITY? *(If the employee performs more than one job, select the job for which the employee spends the most time.)*

01. Administrator, Assistant Administrator
02. Physician (M.D. or D.O.)
03. Residents and Interns
04. Dentist
05. Pharmacist
06. Registered Occupational Therapist
07. Other Occupational Therapist or Assistant
08. Registered Physical Therapist
09. Other Physical Therapist or Assistant
10. Activities Director (Recreational Therapist)
11. Dietician or Nutritionist
12. Social Worker
13. Social Work Technician/Assistant
14. Speech Pathologist and/or Audiologist
15. Registered Medical Records Administrator
16. Other Medical Records Administrator or Technician
17. Registered Nurse (R.N.)
18. Licensed Practical Nurse (L.P.N.) or Licensed Vocational Nurse (L.V.N.)
19. Nurse's Aide/Orderly
20. Other Professional Occupations (Including Psychologist, X-Ray Technicians, etc.)

Letter to staff member

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
HEALTH RESOURCES ADMINISTRATION
ROCKVILLE, MARYLAND 20857

NATIONAL CENTER FOR
HEALTH STATISTICS

Dear Staff Member:

As part of its continuing program to provide information on the health of the Nation and the utilization of its health resources, the National Center for Health Statistics (part of the U.S. Public Health Service) is conducting a nationwide survey of nursing homes and similar facilities. The survey, the second in a series, is authorized under Section 306 (42 USC 242K) of the Public Health Service Act. One of its purposes is to obtain basic information about the staff employed in nursing homes. The published statistics based on this survey will describe the services performed by nursing home staff, their education, special training, work experience, workload, and salary. This information will be useful in developing specialized education and training programs for health manpower.

The information you supply will be used solely for statistical research and reporting purposes. No information collected under the authority of Section 306 (42 USC 242K) of the Public Health Service Act may be used for any purpose other than the purpose for which it was supplied, and such information may not be published or released in other form if the individual or establishment is identifiable unless the individual or establishment has consented to such release.

As a sampled staff member, you were randomly selected to represent others in your particular occupational group. Although your participation is voluntary and there are no penalties for refusing to answer any question, it is essential that all sampled staff members respond so that information about each occupational group is accurate and complete. The questionnaire will require only a few minutes of your time. Please seal your completed questionnaire in the postage-paid envelope provided and either return it to the interviewer or drop it in the mail. If you have any questions about the survey or the questionnaire, you may ask the interviewer or call the national survey collect at the following number: 301/770-2048.

I greatly appreciate your cooperation in this survey.

Sincerely yours,

Dorothy P. Rice

Dorothy P. Rice
Director

Enclosure

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
Health Resources Administration
National Center for Health Statistics
1977 National Nursing Home Survey

STAFF QUESTIONNAIRE

OMB # 68-S75025
APPROVAL EXPIRES 12-31-77

CONTROL NO. [| | | |]

A. LINE NO. [			]	B. OCCUPATION CODE [	]	C. _____ (Occupational Title)

Confidential Information

Information contained on this form which would permit identification of any individual or establishment has been collected with a guarantee that it will be held in strict confidence, will be used only for purposes stated for this study, and will not be disclosed or released to others without the consent of the individual or the establishment in accordance with Section 308(d) of the Public Health Service Act (42 USC 242m).

PLEASE READ THESE INSTRUCTIONS BEFORE YOU BEGIN TO ANSWER THE STAFF QUESTIONNAIRE.

The letter accompanying this questionnaire explains the purposes of the survey, the uses of the information, and the confidentiality of the data. Please read this letter carefully before completing the questionnaire.

The occupation for which you were sampled is cited in Item C above. All questions about your work refer to that occupation and you should keep that in mind as you complete this instrument.

Most of the questions have detailed instructions printed in italics after them. The instructions were put there to help you to give the most accurate answer possible to the questions. If you have any questions regarding items on the questionnaire or how you should complete it, please call COLLECT 301-770-2048 and a National Nursing Home Survey employee will be available to help you.

Your cooperation in carefully completing the questionnaire is greatly appreciated. It should take only a few minutes of your time and the information that you provide is very important. As stressed in the letter, these data are held in strictest confidence. When you have completed the questionnaire, please seal it in the postage-paid envelope provided. You may return it to the interviewer if he is still in the facility or drop it in the mail to the address cited on the bottom of page 4.

1. HOW LONG HAVE YOU WORKED IN THE OCCUPATION SPECIFIED IN ITEM C ON THE FRONT OF THIS QUESTIONNAIRE:

(Please be sure that both years and months are filled in. If less than one year, enter "00" in Yrs. box; if less than one month, enter "00" in Mos. box.)

a. IN THIS FACILITY? ☐☐ Yrs. ☐☐ Mos.

b. IN OTHER NURSING HOMES, HOMES FOR THE AGED, HOSPITALS, OR SIMILAR FACILITIES? (Only count work experience before your employment in this facility.) ☐☐ Yrs. ☐☐ Mos. OR Mark this box if you have never worked in any other nursing or hospital facility. ☐

2. ARE YOU A MEMBER OF THE STAFF OF THIS FACILITY OR EMPLOYED UNDER CONTRACT?
(Mark only one box)

1 ☐ Staff member (Part Time or Full Time) 2 ☐ Under contract (Part Time or Full Time)

3 ☐ Other arrangement, Specify _____

3. DO YOU USUALLY PERFORM ANY OF THE FOLLOWING SERVICES IN THIS FACILITY?
(Mark the Yes or No box for each line)

a. Administration of the facility	1 ☐ Yes	2 ☐ No
b. Screening persons for admission	1 ☐ Yes	2 ☐ No
c. Nursing care	1 ☐ Yes	2 ☐ No
d. Medical and dental care	1 ☐ Yes	2 ☐ No
e. Physical therapy	1 ☐ Yes	2 ☐ No
f. Occupational therapy	1 ☐ Yes	2 ☐ No
g. Recreational therapy	1 ☐ Yes	2 ☐ No
h. Speech and hearing therapy	1 ☐ Yes	2 ☐ No
i. Social work, counseling (religious, etc.)	1 ☐ Yes	2 ☐ No
j. Training of staff	1 ☐ Yes	2 ☐ No
k. Supervision of staff	1 ☐ Yes	2 ☐ No
l. Clerical work, medical and social record keeping	1 ☐ Yes	2 ☐ No
m. Kitchen/dietary work, grocery shopping	1 ☐ Yes	2 ☐ No
n. Housekeeping services, maintenance, care of grounds	1 ☐ Yes	2 ☐ No
o. Other, Specify _____	1 ☐ Yes	2 ☐ No

4. HOW MANY HOURS PER WEEK DO YOU USUALLY WORK IN THIS FACILITY?

☐☐ hours per 1 ☐ week
2 ☐ other time period, Specify _____

5a. DO YOU USUALLY WORK ANY ADDITIONAL HOURS IN YOUR PROFESSION BESIDES THE HOURS WORKED IN THIS FACILITY?

2 ☐ No *(Skip to Question 6.)*

1 ☐ Yes ——▶ **b. HOW MANY?** ☐☐ hours per 1 ☐ week
2 ☐ other time period, Specify _____

6a. WHAT IS THE HIGHEST YEAR OF EDUCATION YOU HAVE COMPLETED?

(Please circle only the highest completed year; include whatever professional training you have had.)

0 1 2 3 4 5 6 7 8	9 10 11 12	13 14 15 16	17 18+
Elementary	High School	College and/or Other Training	More Than Four Years of College and/or Other Training

If your highest year of completed education is less than 14 years, skip to Question 7.

b. DO YOU HAVE AN ASSOCIATE, BACHELOR'S, MASTER'S, OR DOCTORATE DEGREE?

1 ☐ Yes 2 ☐ No *(Skip to Question 7)*

c. WHICH OF THE FOLLOWING DO YOU HOLD?		d. SPECIFY MAJOR FIELD OF STUDY FOR EACH DEGREE.	e. SPECIFY YEAR COMPLETED
(1) Associate	☐	(1) _____	19____
(2) Bachelor's	☐	(2) _____	19____
(3) Master's	☐	(3) _____	19____
(4) Doctorate	☐	(4) _____	19____

7. DURING THE LAST TWELVE MONTHS, HAVE YOU TAKEN A NON-DEGREE TRAINING COURSE IN ANY OF THE FOLLOWING AREAS?

(Training courses include class sessions and seminars. Do not include any courses you have taken for a degree. Mark the Yes or No box for each line.)

a. Nursing care of the aged or chronically ill	2 ☐ No	1 ☐ Yes	→ How many courses? _____
b. Medical or dental care of the aged or chronically ill	2 ☐ No	1 ☐ Yes	→ How many courses? _____
c. Mental or social problems of the aged or chronically ill	2 ☐ No	1 ☐ Yes	→ How many courses? _____
d. Physical therapy or rehabilitation	2 ☐ No	1 ☐ Yes	→ How many courses? _____
e. Occupational therapy	2 ☐ No	1 ☐ Yes	→ How many courses? _____
f. Nutrition or food services	2 ☐ No	1 ☐ Yes	→ How many courses? _____
g. Nursing home administration or management	2 ☐ No	1 ☐ Yes	→ How many courses? _____
h. Inservice education	2 ☐ No	1 ☐ Yes	→ How many courses? _____
i. Medical records	2 ☐ No	1 ☐ Yes	→ How many courses? _____
j. Activity programs for the aged or chronically ill	2 ☐ No	1 ☐ Yes	→ How many courses? _____
k. Social services for the aged or chronically ill	2 ☐ No	1 ☐ Yes	→ How many courses? _____
l. Pharmacology and care of drugs	2 ☐ No	1 ☐ Yes	→ How many courses? _____
m. Other courses related to your work, Specify _____	2 ☐ No	1 ☐ Yes	→ How many courses? _____

8. ARE YOU 2 ☐ Female? OR 1 ☐ Male?

9. WHAT IS YOUR DATE OF BIRTH? ☐☐ Mo. ☐☐ Day ☐☐ Yr.

10. WHICH ONE OF THESE GROUPS BEST DESCRIBES YOUR ETHNIC ORIGIN OR ANCESTRY?

1 ☐ White (Not of Hispanic Origin)
2 ☐ Black (Not of Hispanic Origin)
3 ☐ American Indian or Alaska Native
4 ☐ Asian or Pacific Islander
5 ☐ Hispanic

11. BEFORE DEDUCTIONS WHAT IS YOUR SALARY FOR THE WORK YOU PERFORM IN THIS FACILITY ONLY?

(Mark only one box)

Dollars $ ____ • Cents ____ per
1 ☐ hour
2 ☐ day
3 ☐ week
4 ☐ two weeks
5 ☐ one month
6 ☐ year
7 ☐ other time period, specify _____

OR

☐ I donate my services *(Skip to Question 13)*

12. IN ADDITION TO THIS SALARY, DO YOU RECEIVE:
(Mark the Yes or No box for each line)

a. Paid vacation, and/or paid holidays, and/or paid sick leave? . . . . . 1 ☐ Yes 2 ☐ No
b. Pension plan in addition to Social Security? . . . . . 1 ☐ Yes 2 ☐ No
c. Health insurance? . . . . . 1 ☐ Yes 2 ☐ No
d. Life insurance? . . . . . 1 ☐ Yes 2 ☐ No
e. Direct medical benefits? . . . . . 1 ☐ Yes 2 ☐ No
f. Release time for attending training institutes? . . . . . 1 ☐ Yes 2 ☐ No
g. Civic or personal leave (such as leave for jury duty, military reserves, voting, funerals)? . . . . . 1 ☐ Yes 2 ☐ No
h. Room? . . . . . 1 ☐ Yes 2 ☐ No
i. Meals? . . . . . 1 ☐ Yes 2 ☐ No
j. Other? Specify _____ 1 ☐ Yes 2 ☐ No

13. ARE YOU A PHYSICIAN? 2 ☐ No *(Skip to the message after Question 20.)*
1 ☐ Yes *(Go to Question 14. Questions 14 through 20 apply only to physicians.)*

14a. DO YOU ATTEND YOUR OWN PRIVATE PATIENTS IN THIS HOME? 1 ☐ Yes 2 ☐ No *(Skip to Question 15)*

b. HOW MANY OF YOUR OWN PRIVATE PATIENTS DO YOU CURRENTLY ATTEND IN THIS FACILITY? ____ patients

15. ARE YOU TEMPORARILY ATTENDING PATIENTS IN THIS FACILITY TO COVER FOR THE PATIENT'S OWN PHYSICIAN?

1 ☐ Yes 2 ☐ No

16. DO YOU TAKE EMERGENCY CALLS FOR ALL PATIENTS IN THIS HOME? 1 ☐ Yes 2 ☐ No

17. DO YOU PROVIDE OTHER DIRECT PATIENT SERVICE IN BEHALF OF THE FACILITY'S RESPONSIBILITY FOR SECURING SUCH COVERAGES *(e.g., Admission exams, pronouncing deaths, securing medication and diet orders, etc.)?*

1 ☐ Yes 2 ☐ No

18. DO YOU PROVIDE FORMAL INSERVICE TRAINING TO THE FACILITY'S PERSONNEL? 1 ☐ Yes 2 ☐ No

19. ARE YOU THE MEDICAL DIRECTOR FOR THIS FACILITY? 1 ☐ Yes 2 ☐ No

20. FOR HOW MANY RESIDENTS IN THIS HOME DO YOU PROVIDE MEDICAL CARE? ____ residents

THANK YOU FOR YOUR COOPERATION. PLEASE RETURN THE QUESTIONNAIRE TO THE INTERVIEWER IN THE POSTAGE PAID ENVELOPE PROVIDED OR DROP IT IN THE MAIL TO:

NATIONAL NURSING HOME SURVEY
INFORMATICS, INC.
6000 EXECUTIVE BLVD.
ROCKVILLE, MD. 20852

GPO 914-878

Appendix IV. Criteria for classifying nursing homes according to level of nursing care

The criteria for classifying facilities are based on several factors: (1) the number of persons receiving nursing care during the week prior to the day of the survey; (2) administration of medications and treatments according to physician's orders; (3) supervision over medications that may be self-administered; (4) the routine provision of the following criterion personal services: rub and massage, help with tub bath or shower, help with dressing, correspondence, shopping, walking or getting about, and help with eating; and (5) the employment of registered professional or licensed practical nurses. On the basis of these factors, four types of facilities were distinguished and are defined as follows.

Nursing care home.—A facility is a nursing care home if nursing care is its primary and predominant function. Those meeting the following criteria are classified as nursing care homes in this report.

1. One or more registered nurses or licensed practical nurses were employed.
2. 50 percent or more of the residents received nursing care during the week prior to the survey. (Nursing care is defined as the provision of one or more of the following services: nasal feeding, catheterization, irrigation, oxygen therapy, full bed bath, enema, hypodermic injection, intravenous injection, temperature-pulse-respiration check, blood pressure reading, application of dressings or bandages, and bowel and bladder retraining.)

Personal care home with nursing.—A facility is a personal care home with nursing if personal care is its primary and predominant function, but some nursing care is also provided. If a facility met either of the following criteria, it was classified as a personal care home with nursing.

1. Some but less than 50 percent of the residents received nursing care during the week prior to the survey, and one registered professional or licensed practical nurse or more was on the staff.
2. Some of the residents received nursing care during the week prior to the survey, no registered nurses or licensed practical nurses were on the staff, but one or more of the following conditions were met.
   a. Medications and treatments were administered according to physician's orders.
   b. Supervision over self-administered medications was provided.
   c. Three or more personal services were routinely provided.

Personal care home.—A facility is a personal care home if its primary and predominant function is personal care and no residents received nursing care during the week prior to the survey. Places in which one or both of the following criteria were met are classified as personal care homes in this report whether or not they employed registered nurses or licensed practical nurses.

1. Medications and treatments were administered in accordance with physician's orders, or supervision over medications that may be self-administered was provided.
2. Three or more of the criterion personal services were routinely provided.

Domiciliary care home.—A facility is a domiciliary care home if its primary and predominant function is domiciliary care but the facility has a responsibility for providing some personal care. If the criteria for a nursing care home or personal care home are not met but one or two of the criterion personal services are routinely provided, the facility is classified in this report as a "domiciliary care home."

In the classification process, a criterion was considered as not having been met if the necessary information for that criterion was unknown. For instance, if the type of nursing staff was unknown for a particular place, it was considered as not having met the criterion of having one or more registered nurses or licensed practical nurses on the staff. Establishments

indicating that some nursing care was provided but not giving the number of persons to whom this care was provided were considered as facilities providing nursing care to some but less than 50 percent of their patients or residents. Table XIX shows in detail the classification of the facilities.

Table XIX. Classification of facilities by type of service

Classification variable	*Classification criteria*												
Percent of total residents who received nursing care during the week prior to the day of survey	50 percent or more				Some but less than 50 percent					None			
Number of registered or licensed practical nurses	1+		None		1+		None			None			
Does the facility provide: (a) Administration of medicine or treatments according to doctor's orders	...	Yes	No		...	Yes	No			Yes	No		
or (b) Supervision over self-administered medicine?													
Does the facility offer assistance with three activities or more for daily living?	...	...	Yes	No	...	...	Yes	No		...	Yes	No	
Does the facility offer assistance with one or two activities for daily living?	...	...	...	Yes	...	...	...	Yes	No	...	...	Yes	No
Does the facility offer room and/or board as its only service?	...	...	...	...	...	...	...	...	Yes	...	...	...	Yes
Facility[1]	Nc	Pcn	Pcn	Pc	Pcn	Pcn	Pcn	Pc	D	Pc	Pc	D	B

[1] Nc = Nursing care home.
Pcn = Personal care with nursing home.
Pc = Personal care home.
D = Domiciliary care home.
B = Boarding or rooming house (out of scope).

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