

Employer-Sponsored Health Insurance

State and National Estimates

From the CENTERS FOR DISEASE CONTROL AND PREVENTION/National Center for Health Statistics



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for Health Statistics



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Centers for Disease Control and Prevention
National Center for Health Statistics

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Abstract

Objectives

This report examines the availability of employer-sponsored health insurance in the private sector, coverage levels, characteristics of coverage offered, and characteristics of employers associated with whether coverage is offered. National and State estimates are presented. State-level findings are presented to allow State health policymakers to monitor State programs as well as to compare their status with other States.

Methods

Estimates in this report are based on the National Employer Health Insurance Survey (NEHIS) conducted in 1994. NEHIS is the first federally sponsored survey designed to produce State estimates of employer-sponsored health insurance. Data are based on responses from 34,604 private establishments (business locations) obtained in computer-assisted telephone interviews. Data on the provision of health insurance and employee coverage were collected retrospectively as of the end of 1993.

Results

At the end of 1993, 52 percent of private sector establishments sponsored group health insurance and 58 percent of employees participated in their health plans. Sponsorship of health insurance increased with the firm size of establishments and this relationship held true regardless of other company characteristics examined. Hawaii had the highest prevalence of employer-sponsored health insurance in the Nation, measured in terms of employers offering and employees enrolled in health insurance. This finding is not surprising since Hawaii is the only State with an employer mandate. National and State prevalence data are presented on other related topics such as self-insurance, provision of choice in plans to employees, provision of indemnity compared with managed care plans, retiree health benefits, and employee eligibility requirements.

Keywords:

- National Employer Health Insurance Survey
- Employee coverage
- Private establishments
- State estimates

Selected highlights

Who offers health insurance?

- At the end of 1993, 52 percent of private sector establishments employing 83 percent of all private workers offered health insurance to their employees (**table A**). Of all private sector employees, 68 percent were eligible for health benefits and 58 percent participated in their employer-sponsored health plans (**figure 1**).
- Firm size was one of the most important determinants of whether a business offered health insurance. One-third of establishments that belong to firms with less than 10 employees offered health insurance compared with 96 percent of establishments in firms with 100 or more employees.
- Hawaii's employer sponsorship of health insurance—86 percent of establishments offered health insurance and 75 percent of workers enrolled—far exceeded those of other States. These high rates coupled with the lowest self-insurance rate when offering health insurance (7 percent) can be attributed to Hawaii's employer mandate, which was enacted in 1974. The next highest was the District of Columbia where 66 percent of establishments offered health insurance and 69 percent of workers enrolled.

Table A. Number and percent distribution of private establishments and percent offering health insurance, and number and percent distribution of employees and percent of employees in establishments offering health insurance by firm size: United States, 1993

Firm size ²	Private establishments ¹			Private employees		
	Number of establishments	Percent distribution	Percent offering health insurance	Number of employees	Percent distribution	Percent working in establishments that offer health insurance
Total (United States)	6,276,800	100.0	51.6	98,323,100	100.0	83.1
Less than 10	3,914,400	62.4	33.2	15,725,700	16.0	39.2
10-24	870,800	13.9	67.1	10,726,800	10.9	68.8
25-99	596,400	9.5	83.0	16,250,000	16.5	84.2
100-499	313,400	5.0	93.9	15,575,200	15.8	94.9
500-999	93,400	1.5	96.8	5,335,500	5.4	98.6
1,000 or more	488,400	7.8	96.7	34,710,000	35.3	99.3

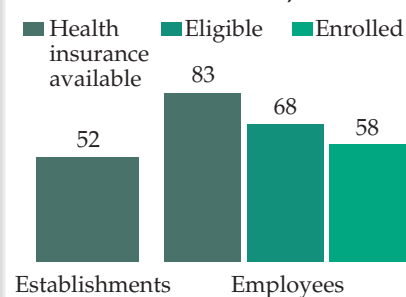
¹Establishments are defined as single business locations.

²Number of employees nationwide as reported by respondent.

NOTE: Estimates in this table are based on a December 31, 1993, reference period. Figures may not add to totals because of rounding.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey.

Figure 1. Percent of establishments offering health insurance, employees working in establishments that offer insurance, and all employees eligible and enrolled: United States, 1993



SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey.

- The percent of establishments offering health insurance at the end of 1993 varied widely by State, ranging from 40 percent in Montana to 86 percent in Hawaii (figure 2). Most of the variation across States occurred among establishments that belong to firms with less than 50 employees.

Who self-insures when offering health insurance?

- Among establishments sponsoring health insurance, 21 percent self-insured at least one of the health plans offered (figure 3). While 6 percent of establishments that belonged to firms with less than 100 employees self-insured, 64 percent of establishments in firms with 100 or more employees did so.
- The percent of establishments with health insurance that self-insured varied from 7 percent in Hawaii to 34 percent in Louisiana.

What choice and type of plans are offered?

- Four out of five establishments offering health insurance sponsored only one health plan. Among establishments with health insurance, the percent offering two or more plans increased with firm size, 12 percent in establishments with firm size less than 50 employees, and 33 percent in establishments with firm size of 50 or more employees.

Figure 2. Percent of establishments offering health insurance: United States, 1993

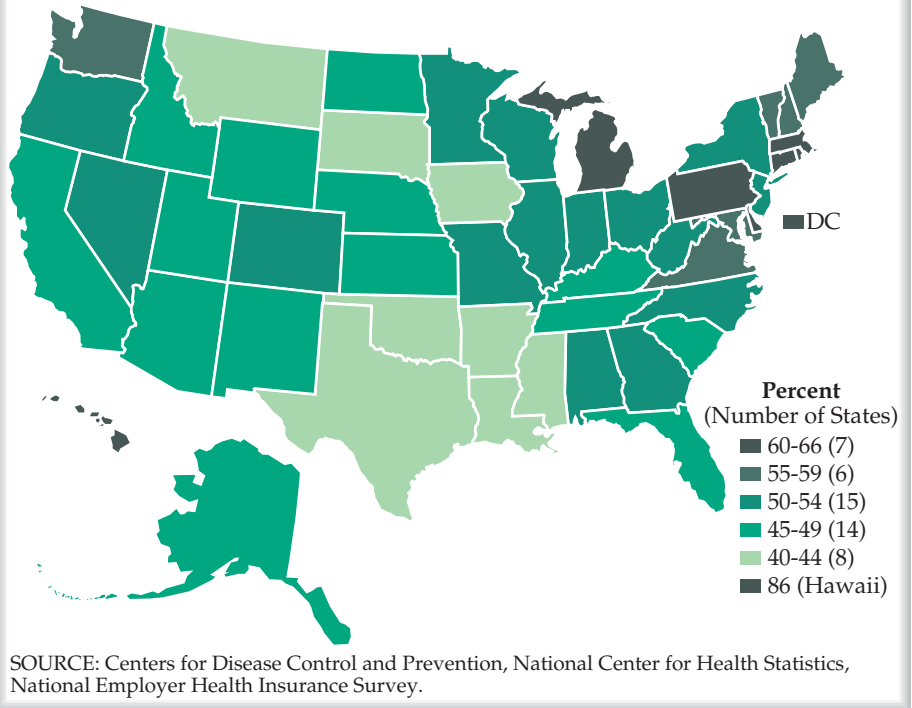
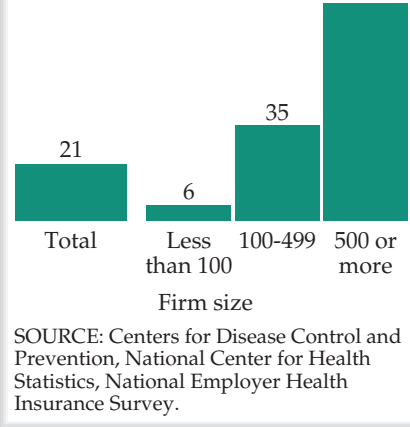


Figure 3. Percent of establishments with major health plans that self-insure at least one major plan by firm size: United States, 1993



- Although only 19 percent of establishments sponsoring health insurance offered a choice of two or more plans to employees, 43 percent of all private sector workers eligible for health insurance were in establishments that offered a choice (figure 4). Twenty percent of eligible employees were in establishments offering two health plans and 23 percent were in establishments offering three or more plans.
- More than one-half (56 percent) of establishments sponsoring health insurance offered managed care plans; 26 percent offered a health maintenance organization (HMO), and 35 percent a preferred provider organization (PPO) plan (figure 5).
- Among establishments offering health insurance, 70 percent of new businesses operating less than 2 years offered a managed care plan to employees, compared with 55 percent of businesses operating 25 years or more.
- About one-half of establishments sponsoring health insurance in Hawaii, Massachusetts, and California offered HMO's to employees compared with less than 5 percent in Alaska and Wyoming.

Figure 4. Percent distribution of establishments and employees eligible by number of major plans offered: United States, 1993

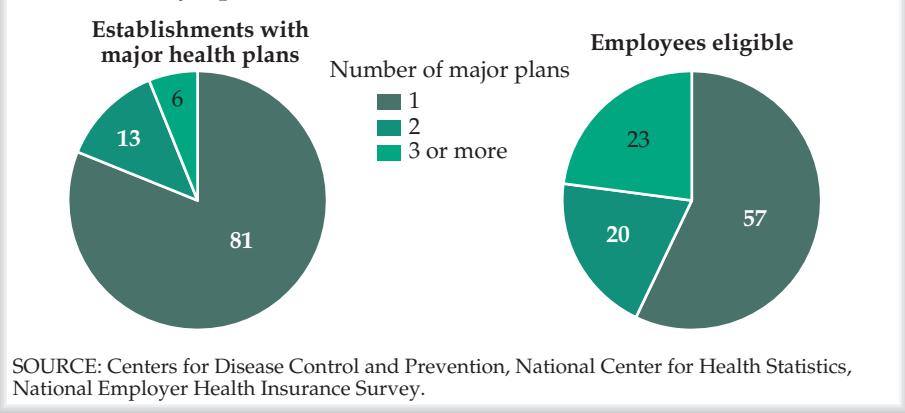
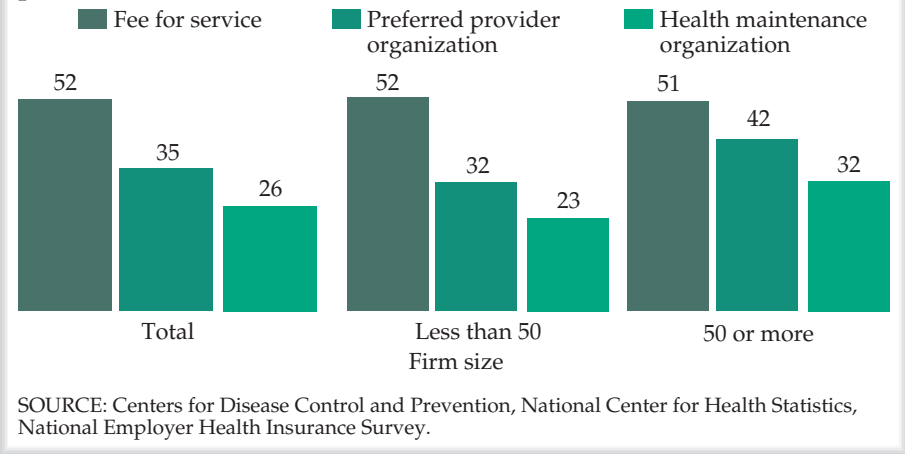


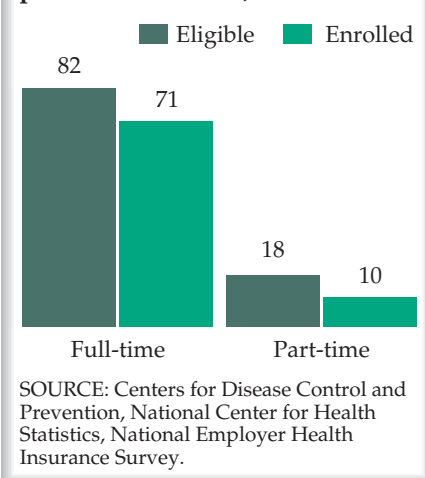
Figure 5. Percent of establishments with major health plans by types of plans offered and firm size: United States, 1993



Who are eligible and enrolled?

- Among establishments sponsoring health insurance, 20 and 23 percent offered health benefits, beyond the Consolidated Omnibus Budget Reconciliation Act of 1985 (COBRA) provisions, to retirees aged 65 or over and to retirees under 65 years of age.
- In 74 percent of private establishments that offered health insurance in the United States, there was a requirement that employees work, on average, a minimum of 32 hours per week to be eligible for health benefits.
- Although 82 percent of full-time employees were eligible for health benefits in the United States, only 18 percent of part-time employees were eligible (figure 6). Also, 71 percent of full-time workers and 10 percent of part-time workers enrolled in their employer-sponsored plan.
- The percent of employees eligible and participating in their employer-sponsored health plans ranged from 52 and 41 percent in Montana to 83 and 75 percent in Hawaii.

Figure 6. Percent of full-time and part-time employees eligible and enrolled in employer's health plan: United States, 1993



Introduction

Employer-sponsored health insurance is a major source of private health care coverage in the United States. In 1993, 69 percent of workers acquired health insurance through employers. However, not all workers have health insurance coverage through their job. In 1993 almost two-thirds of the 41 million persons without health insurance of any kind were in families headed by workers; 56 percent of the uninsured were working adults (1).

Since comprehensive reform has not been enacted at the Federal level, focus has shifted to health care reform efforts by the States and private markets. As of 1995, 45 States passed legislation regulating the small-employer health insurance market and 44 States included premium rate restrictions as part of reforms (2). Almost all reforms included portability of health insurance and preexisting condition limitations. Since passage of the 1996 Health Care Portability and Accountability Act,¹ such reforms apply to all States (3). Other State-level efforts include State-subsidized insurance to poor individuals and families not eligible for Medicaid or moving Medicaid beneficiaries into managed care plans and making these plans available to the uninsured (4).

States are hampered in implementing reforms by the lack of adequate State-specific data on small group markets for monitoring change and assessing impacts of specific health reforms (5). State policymakers have not been able to easily identify which

workers are without health insurance coverage (6).

During the development of the 1993 Health Security Act, major information gaps on employer-sponsored health insurance were identified by the President's Task Force on Health Care Reform. The National Employer Health Insurance Survey (NEHIS) was developed to provide previously unavailable data for policymakers and researchers to use in developing and evaluating alternative health care policies. The major objectives of NEHIS were to measure State and national levels of health insurance spending by employers, to describe and to provide baseline data for monitoring trends in the employment-based health insurance system, and to provide data for input in prospective policy analysis of the effects of health care reform.

This report focuses only on the private sector. NEHIS found that 99 percent of public employees had health insurance available at their jobs compared to only 83 percent in the private sector. In addition, recent legislation particularly at the State level, was designed to correct problems with the small-group health insurance market (2). Subsequent reports will present information on all employers, public and private.

This report seeks to fill gaps in employer health insurance data by presenting previously unavailable State and national estimates of private employers offering health insurance to employees, as well as estimates of employees covered by these plans. The NEHIS data add to information presented from an employer survey in 10 States (Colorado, Florida, Minnesota, New Mexico, New York, North Dakota, Oklahoma, Oregon, Vermont, and Washington) commissioned by the Robert Wood Johnson Foundation (RWJF) in 1993 (7). Most other major employer surveys, such as the Bureau of Labor Statistics Employee Benefit Survey and commercial surveys of employer health

insurance, were not designed to produce State estimates and did not collect information from employers who did not offer health insurance.

The report examines which private employers offered health insurance and which workers have employment-based health insurance coverage. The process by which employees obtain health insurance coverage on the job depends first on whether their employer offers health benefits, secondly on whether an employee is eligible for health benefits, and finally on whether the employee participates in the employer-sponsored plan. In order to examine this process, this report is organized in sections that roughly mirror this process. The first section focuses on which private businesses offer health insurance to employees. This section also examines State variations in establishments offering health insurance; the prevalence of self-insurance among establishments offering insurance, including prevalence of self-insurance by State; and the choice and types of plans offered by employers. The second section addresses constraints employers put on employee coverage. The last section examines the availability of job-based health insurance to employees working in establishments offering health insurance, including employee eligibility and enrollment at the national and State levels.

This report is the first in a series of publications planned for releasing the NEHIS data. Future reports based on NEHIS, in addition to providing information on the public sector, will compare characteristics of health insurance plans offered by different types of employers such as large compared with small businesses. Plan characteristics will include premiums and employee contributions, deductibles, coinsurance, and covered services.

¹Most uninsured workers will not be affected by the Health Care Portability and Accountability Act of 1996. This recently enacted legislation guarantees health insurance coverage for workers who switch jobs or have preexisting conditions. According to a recent study, only 1 percent of adults without health insurance are uninsured because of preexisting conditions (3).

Methods

Data source and collection

NEHIS surveyed a probability sample of all U.S. employers in each State in the private and public sectors. The sampling unit was the establishment, defined as “an economic unit, generally at a single physical location, where business is conducted or where services or industrial operations are performed” (8). A major reason that establishments rather than firms (that is, a business organization or entity consisting of one domestic establishment or more under common ownership or control) were sampled in NEHIS is that establishments are confined within State borders, enabling State estimates.

Three sample frames were used to ensure coverage of all types of employers. The Dun’s Market Identifiers file² was used to sample private establishments, the Census of Governments file, maintained by the Bureau of Census, was used for public sector entities, and the National Health Interview Survey sample was used to select self-employed individuals with no employees (SENE’s). The private sector establishments were sampled, stratified by State, and then by a cross-classification of firm and establishment size.

Data were collected by Westat, Inc., from April to December 1994. The primary mode of data collection was computer-assisted telephone interviews (CATI). Interviews were conducted with respondents identified during prescreening as the most knowledgeable about health benefits. Approximately 39,000 employers completed interviews. Of these, 34,604 interviews were obtained from private sector establishments excluding SENE’s at a response rate of 71 percent, which served as the population basis of this report.

²A national census of employment establishments maintained from a variety of public sources by Dun and Bradstreet.

Estimation

All numbers presented in this report are estimates made using the reported data from the sampled cases. Estimates were weighted to account for the complex sample design of NEHIS. In addition, weighted estimates were rounded to the nearest hundred. Because percent distribution estimates were computed on unrounded figures, they may not agree with computations made from rounded data. Weighted population estimates of establishments and employees are presented in **Technical notes tables I-IV**.

Standard error estimates, measures of sampling error, were computed directly by the SUDAAN software (9) for all estimates presented in this report. Estimates failing to meet the precision requirement of having a relative standard error of less than 30 percent are flagged with an asterisk (*) in this report. Because survey results are subject to sampling and nonsampling errors, the total error will be larger than the error due to sampling variability alone.

The z-test or t-test with a 0.05 level of significance was used in all comparisons mentioned in this report. For multiple comparisons between subdomains the Bonferroni test of simultaneous comparisons was used. Terms relating to differences such as “greater than” and “less than” indicate that the differences are statistically significant. Terms such as “similar” or “no difference” mean that no statistical significance exists at the 0.05 level between the estimates compared. Lack of comment in the text does not necessarily mean that a difference was not statistically significant.

Data reliability

Data presented in this report are subject to certain limitations that should be considered in interpretation of results. The unit of

analysis presented in this report is the *establishment* as it was the sampling unit. Estimates using the “firm” (or parent company) as the unit of analysis are not possible in this survey because they were not used as the sampling unit. However, establishment can be categorized according to the characteristics of the parent firm. In this report the terms “establishment,” “employer,” and “business” are used interchangeably.

Data were collected using two different time references. Questions on employee characteristics and the provision of health insurance were asked as of December 31, 1993, because most employers had employee information available for the end of the year. Information on health insurance plans, however, was based on the 1993 plan year. This reference period is defined as the plan year ending before April 1, 1994, during which the health plan was in effect. Information presented on health insurance plans include the number and types of plans offered and whether any of those plans were self-insured. These plan data presented in this report are limited to major health plans, defined as health insurance plans that typically cover inpatient hospital stays and outpatient physician services.

The NEHIS estimates of employees covered by their employer’s health plan refer only to those employees covered as primary enrollee and do not include those employees who get insurance coverage through a spouse. Although NEHIS attempted to collect information on number of dependents covered, it was so poorly captured in the survey that these data are not presented in this report. Such data, as well as data on the number of dependents or total lives covered by employer-sponsored health insurance, are better reported by the Current Population Survey conducted by the Bureau of Census.

All survey data are subject to two types of errors: sampling and nonsampling. These types of errors

were kept to a minimum by methods built into the survey procedures. Estimates of sampling error are available as discussed previously. There are no estimates available on nonsampling error. Potential sources of nonsampling error include: inability to identify all cases in the target population, definition and classification difficulties, differences in the interpretation of questions, error in recording or keying the data obtained, and biases due to nonresponse or incomplete response.

Establishment and item response rates for all private sector variables included in this report are shown in [tables VII and VIII](#) in the **Technical notes** section of this report. The establishment response rates for the private sector varied from 61 percent in New York to 86 percent in Montana. Establishment response rates for the private sector also varied by size of the firm containing the establishment (available on the sampling frame). For establishments in firms of less than 10 employees the response rate was 78 percent; for 10–24 employees, 76 percent; for 25–99 employees, 75 percent; for 100–999 employees, 70 percent; and for 1,000 or more employees, 55 percent. Caution should be exercised in interpreting results based on estimates with low establishment and/or item response rates. The Office of Management and Budget considers data with combined response “at the survey and item response. . . below 60 percent. . . insufficient for analysis.”³

For the total United States, item response rates for variables presented in this report were 90 percent or higher with the exception of the percent of employees by wage or salary levels (83 percent). In some States the item response was below 90 percent for some items. Data for five establishment variables presented in

this report include imputed values for missing data: number of full-time employees, number of full-time employees eligible for health insurance, number of full-time employees enrolled in their employer’s plan, total number of employees eligible for health insurance, and total number of employees enrolled in their employer’s plan. All other estimates presented in this report exclude cases with missing data for a given variable. For example, the percent of establishments that self-insured was computed by excluding missing data from the denominator.

Survey results presented in this report supplement results from a 10-State employer survey conducted by the Robert Wood Johnson Foundation (RWJF) in 1993 (7). Data presented in this report, however, cover all 50 States, as well as the District of Columbia. Comparisons of the RWJF survey results with NEHIS data in 10 States made to date are generally consistent with 1 exception (10). The percent of private establishments offering health insurance from the NEHIS (52 percent) was significantly lower than the percent found in the RWJF survey (58 percent). This difference may be due to several factors including differences in question wording, in reference period, and in survey methodology. Despite differences between the two surveys, employee estimates from the two surveys are similar. This is because differences in the percent of establishments offering health insurance involve the smallest firms, which do not contribute heavily to employee estimates.

To prevent inadvertent disclosure of respondents, in accordance with Section 308(d) of the Public Health Service Act, all cell estimates were checked to ensure adherence to established confidentiality criteria (11).

For more details on the survey design, estimation techniques, reliability of estimates, and definitions of terms, see the [Technical notes](#) section of this report.

Results

Since this report focuses on factors affecting a business decision to offer health insurance, most of the analysis that follows classifies establishments by firm size,⁴ that is, the number of employees nationwide within a firm. Analysis by firm-size characteristics reflects the purchasing power and economies of scale included in the pricing of health insurance products for large groups more accurately than establishment size. Analysis is also presented by firm-size characteristics because insurance decisions for firms with multiple locations are often made at an organizational level above individual establishments. Previous research found that firm size and establishment size influence an employer’s decision to offer health insurance (12).

Who offers employer-sponsored health insurance?

The single most important determinant for provision of employer-sponsored health insurance is firm size (13). At the end of 1993, 52 percent of private establishments offered health insurance to at least some of their employees ([table 1](#)). Provision of health insurance increased with increasing firm size; about one-third of establishments in firms with less than 10 employees offered insurance to employees compared with 96 percent of establishments in firms with 100 or more employees

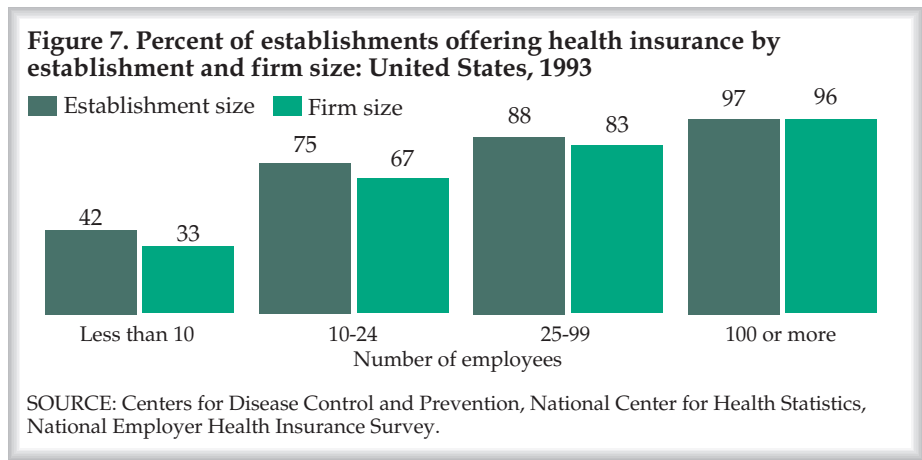
⁴Even though efforts were made to keep firm size breaks consistent from table to table, this was not always achieved. Because some tables only presented estimates on a subgroup of the sample (for example, establishments that offer health insurance), the sample size became smaller and thus the reliability of the estimates were less stable. In such situations, we adopted different firm size groups to increase the sample size for each table cell.

³Notice of Office of Management and Budget Action on OMB No. 0920–0341, 3/25/94.

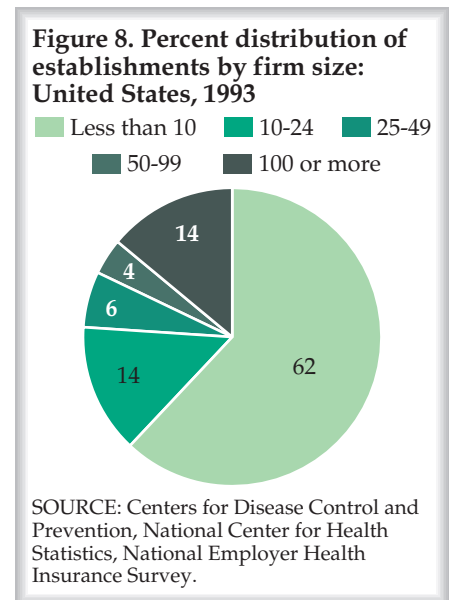
(figure 7). According to a previous study (12), the prevalence of businesses that offer health insurance changes dramatically around the firm size of 10 employees. Figure 7 supports this finding; the health insurance offer rate doubles from 33 percent of establishments in firms with fewer than 10 employees to 67 percent of establishments in firms with 10–24 employees. The figure also shows that the percent of establishments offering health insurance within any establishment size category is always higher than the percent within comparable firm-size categories (especially at small-size groups). This occurs because larger firms are more likely to offer health insurance and to comprise many establishments than do small firms (14).

The size of a firm affects the likelihood of the firm offering health benefits to employees because the number of employees enrolled in a group policy, along with other factors (type of business, employee characteristics, and State health insurance regulations), determines the employer’s premium for group health insurance (15). All other things being equal, the cost of health insurance for larger firms will be less than smaller firms because large firms can spread the risks of medical claims over a larger group of workers than small firms. Among smaller groups, costs for health care utilization is less predictable, posing more of a risk to insurers. The cost of administering health insurance plans (collecting employee share of premiums and enrolling and disenrolling workers) also declines as the size of a firm increases due to economies of scale.

Although health insurance is offered more often as firm size increases, it is important to note that small businesses dominate the private sector. In 1993, 82 percent of private establishments were in firms with less than 50 employees (figure 8), and less than one half (42 percent) of these offered health



insurance to employees (table 1).⁵ Since small businesses do not insure at the same rate as larger businesses, a larger percent of employees (83 percent) worked in establishments offering health insurance. This point will be discussed in greater detail later in this report. The discussion that follows examines how selected characteristics, such as those shown in table 1, influence large and small firms’ propensity to offer health insurance. Within each category, the propensity to insure increases with firm size. However, as firm size increases, other company characteristics appear to be less of a factor related to whether health insurance was offered.



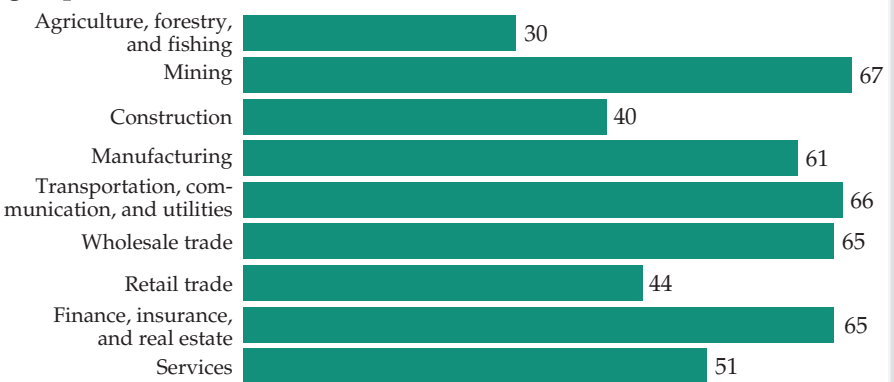
⁵According to a recent study (16), the most common reason small firms (less than 50 employees) reported not offering health insurance was because premiums were too high (90 percent). In addition, 80 percent were concerned that the firm’s profits were too variable, and three-fourths said that premium increases were too uncertain. Fifty-four percent reported that their workers preferred higher wages; a similar percentage reported their workers were already covered by a spouse or parent. One-third reported employee turnover too high to warrant providing coverage. Finally, providing insurance as an administrative burden and inability to qualify for group rates were cited as reasons of not offering by about one-half of the respondents.

Type of industry

Figure 9 shows that provision of health insurance varied by type of industry. Over 60 percent of private establishments in mining (67 percent); manufacturing (61 percent); transportation, communication, and utilities (66 percent); wholesale trade (65 percent); and finance, insurance, and real estate (65 percent) offered health benefits to workers. Employers in agriculture, forestry, and fishing (30 percent) and in construction (40 percent) were least likely to offer health benefits to employees. The seasonality of agricultural workers and the contractual nature (involving site-specific jobs) of construction workers may discourage these employers from offering health benefits (1). Agricultural and construction establishments also tended to be part of small businesses. Ninety-eight percent of establishments in agriculture, forestry, and fishing, and 95 percent of construction establishments were in firms with fewer than 50 employees (**table 2**). In contrast, 69 percent of mining establishments and establishments in transportation, communication, and utilities were in similarly sized firms. For all industry groups, however, over 90 percent of employers in firms with 100 or more employees offered health insurance benefits.

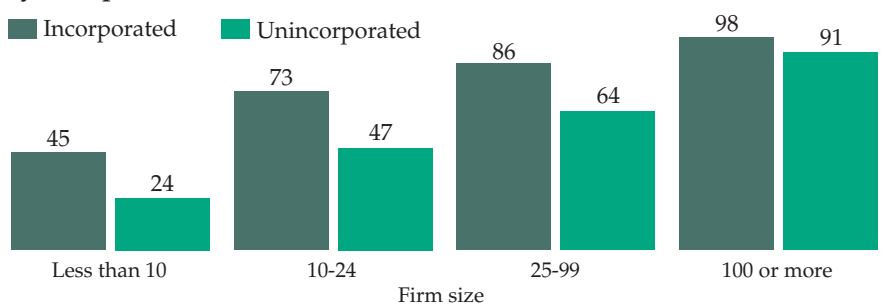
Industries with the highest health insurance offer rates (mining, manufacturing, transportation, communication and utilities, wholesale trade and finance, and insurance and real estate) represented 29 percent of private business establishments and 42 percent of employees (computed from appendix **tables I and III**). Establishments in services (36 percent) and retail trade (23 percent) represented over one-half of all private establishments and employees. Health insurance was offered by 51 percent of service establishments and 44 percent of retail trade establishments. Reasons that retail and service industries offered

Figure 9. Percent of establishments offering health insurance by industry group: United States, 1993



SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey.

Figure 10. Percent of for profit establishments offering health insurance by incorporated status and firm size: United States, 1993



SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey.

health insurance less often than the industries mentioned above (with high offer rates) may be because they tend to be smaller businesses, often employing many part-time workers and low-wage workers (1).

Corporate structure

Table 1 shows that provision of health benefits was higher among nonprofit businesses (66 percent) than among proprietary businesses (52 percent). Among proprietary businesses, two-thirds of incorporated businesses offered health benefits compared with 28 percent of unincorporated businesses.

Incorporation of a company increased the likelihood of health

insurance being offered independent of firm size. Regardless of firm size category, establishments that were part of incorporated businesses were more likely to offer health insurance than unincorporated businesses (**figure 10**). The lower percent of unincorporated businesses offering health insurance may be affected by tax provisions for unincorporated businesses. While corporate business owners may deduct all costs for employer-sponsored health insurance for tax purposes, owners of unincorporated businesses could only deduct 25 percent of health insurance costs in 1993. The majority (70 percent) of the self-employed operate unincorporated businesses (17).

Age of firm

Table 1 shows that provision of health benefits increased the longer a business was operating. New businesses were least likely to offer health insurance. About one-third of businesses operating less than 5 years offered health benefits to employees (35 percent), compared with 72 percent of businesses operating for 25 years or more. Not surprisingly, 94 percent of new business establishments operating for less than 5 years were in small firms with fewer than 50 employees (**table 2**).

Number and location of establishments in firm

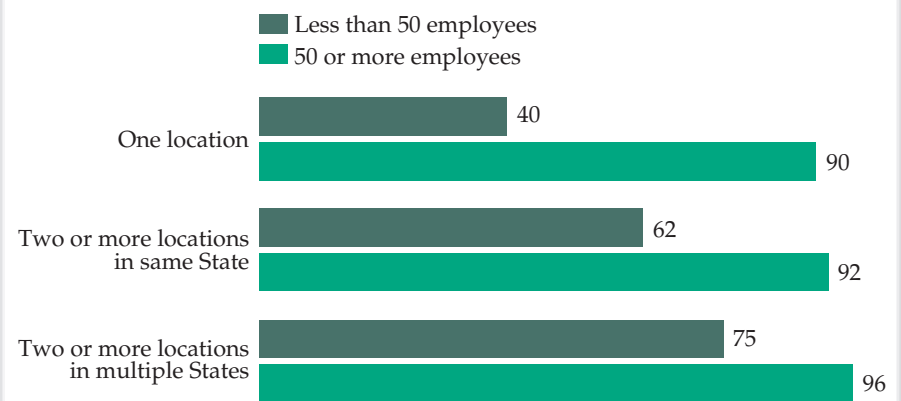
An indicator of the organizational complexity of a firm is the number and location of establishments within the firm. About three-fourths of establishments were single location firms, while 11 percent of establishments were in firms with multiple locations in the same State, and 14 percent were in firms with branches in multiple States (computed from appendix **table I**). Establishments in multiple location firms, whether all within the same State or in multiple States, were more likely to offer health insurance (74 percent and 93 percent) than firms with a single establishment location (41 percent). Also, only 3 percent of firms with one establishment location had 50 or more employees compared with 38 percent of establishments in multilocation firms in the same State and 85 percent of establishments in multi-State firms (**table 2**). **Figure 11** shows that among establishments in firms of less than 50 employees, the number of locations, whether in the same State or multiple States, increased the likelihood of an establishment offering health benefits.

Establishments located in metropolitan areas (MA) were more likely to offer health insurance (54 percent) than more rural non-MA areas (44 percent) (**table 1**).

Workforce characteristics

The propensity to offer health benefits depends not only on employer

Figure 11. Percent of establishments offering health insurance by number and location within firm and firm size: United States, 1993



SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey.

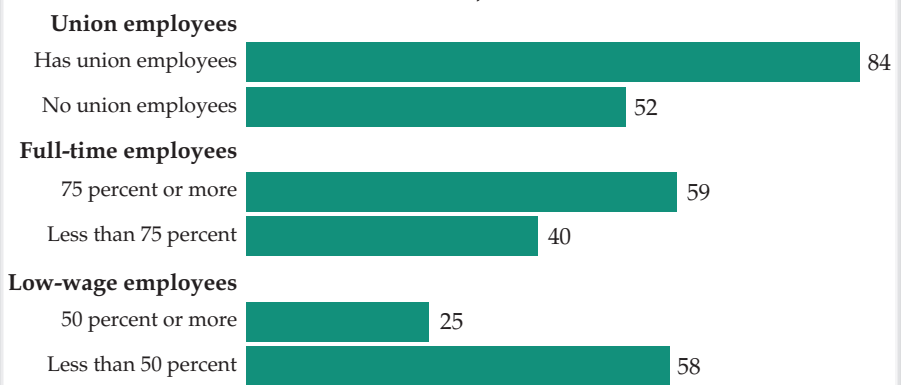
characteristics such as size, industry group, age, and corporate structure of the firm, but also on employee demand for health benefits. Some firms offer health benefits (among other employee benefits) in order to attract and retain needed workers. Employer-sponsored health insurance is attractive to employees because it is the least expensive way to obtain health insurance. Employees with lower incomes, however, may not even be able to afford to pay the employee share of the premium if their income can only support basic living expenses. Thus they may choose not to enroll in or not even demand employer-sponsored health insurance. Establishments with 50

percent or more of low-wage⁶ employees were less likely to offer health insurance to workers (25 percent) than establishments with a majority of employees earning \$10,000 or more per year (58 percent) (**figure 12**). This corroborates previous studies that found that businesses with low health insurance coverage were characterized by low-wage or temporary employees (1,12).

Lippert and Wicks (12) also found that the proportion of full-time workers increased the likelihood of a firm offering health benefits. This finding is also demonstrated in **figure 12**. Fifty-nine percent of

⁶Low-wage is defined as earning less than \$10,000 per year or less than \$5.00 per hour.

Figure 12. Percent of establishments offering health insurance by workforce characteristics: United States, 1993



SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey.

establishments with 75 percent or more of its employees working full time offered health insurance compared with 40 percent of establishments with less than 75 percent of its employees working full time.

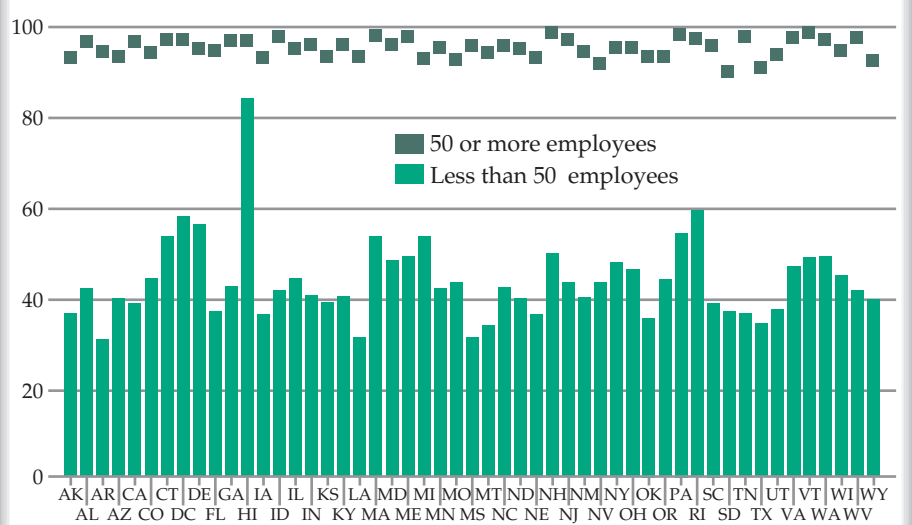
Finally, establishments with any union employees were associated with higher health insurance offer rates (84 percent) compared to establishments without union employees (52 percent) (figure 12). Establishments with any union employees were part of large firms (100 or more employees) more often than nonunionized establishments (33 percent compared with 13 percent). Health benefits are often negotiated in collective bargaining contracts of employee groups (18).

State

The percent of employers offering health insurance at the end of 1993 varied widely by State, ranging from 40 percent in Montana to 86 percent in Hawaii (table 3). Figure 13 shows that much of the variation across States is due to the variation in the health insurance offer rate among small businesses (establishments in firms with fewer than 50 employees). Table 4 shows, for each State, the percent distribution of establishments by firm size. When the firm-size distribution for the Nation is applied to each State (standardizing the distribution of firms across the States), the firm size adjusted percent of establishments offering health insurance still varied, ranging from 40 percent in Louisiana to 85 percent in Hawaii (table 3). (See Technical notes for more details on firm-size adjustments of estimates.) This reflects that there are many other factors that affect the employer’s decision to offer health insurance other than firm size.

For example, in 1993 Hawaii was the only State in the United States with a mandate (since 1974) requiring employers to provide health insurance to their full-time workers (19). As a result, Hawaii had the highest rate of employers offering health insurance among the States overall (85 percent) as well as

Figure 13. Percent of establishments offering health insurance by State and firm size: United States, 1993



SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey.

among small firms with less than 50 employees (83 percent) (table 3).

Although 45 States had enacted various small group market reforms by 1994, the proposed changes were not in effect at the reference period of this survey (December 31, 1993) for most of the States. However, laws passed in nine States that restricted premium rates for small businesses, along with guaranteed issue (open enrollment) and other reforms were in effect before December 1993 (20). For these States, the percent of employers in firms with less than 50 employees that offered health insurance were: Connecticut (53 percent), Iowa (36 percent), Maine (49 percent), Massachusetts (53 percent), New York (47 percent), North Carolina (42 percent), Oregon (44 percent), Vermont (48 percent), and Washington (48 percent). Without comparable data prior to these reforms, however, evaluating the effectiveness of these specific reforms is difficult.

The preceding discussion for the Nation indicated that multiple factors can influence whether an establishment offers health insurance. Table 5 presents a “snap shot” of State characteristics affecting State variation in provision of health insurance. For example,

establishments in three of the States with very high health insurance offer rates were entirely located in metropolitan areas (the District of Columbia, Rhode Island, and Connecticut), while Montana, which had the lowest percent of businesses offering health insurance among the States, was also the most rural of the States (23 percent of establishments were located in a metropolitan area).⁷ In order to simultaneously assess the effect of firm size, State, and other factors on the provision of health insurance, multivariate analysis is required.

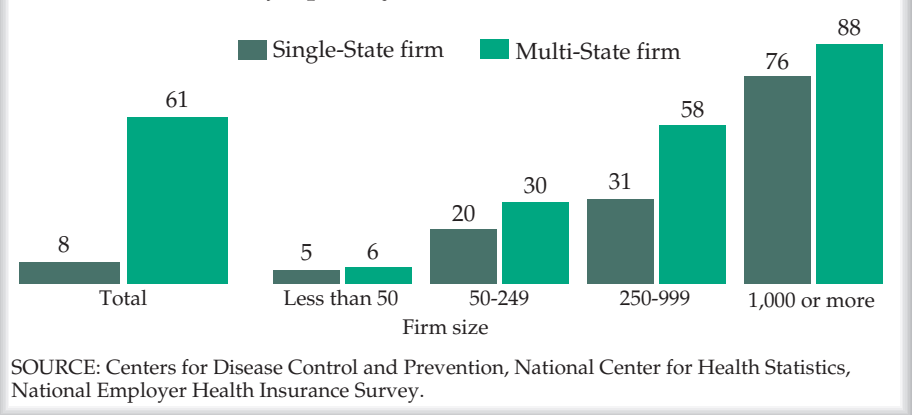
⁷It is possible that the percent of establishments located in a MA in the New England States may be overstated. The Area Resource File (ARF), September 1993 version, a reference file created from various sources by the Department of Health and Human Services, was used to assign counties to MA’s in New England, and information available from the Bureau of Census’ public access servers on the Internet was used to assign counties to MA’s outside of New England. Because MA in New England is defined at the subcounty level and the MA codes in the ARF are assigned at the county level, some misclassification of MA’s derived from ARF may have occurred for business establishments in Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.

Self-insurance among employer-sponsored health plans

Self-insurance, where the employer, as opposed to the insurer, assumes all or part of the risks of paying medical claims, has become an increasingly popular method for employers to provide health benefits to employees. This is because self-insuring health plans tend to cost less and offer greater flexibility in plan design, particularly when firms have employees in multiple States (21–23). The Employer Retirement Income Security Act (ERISA) exempts self-insured plans from providing State-mandated benefits and from paying State premium taxes. Consequently, large multi-State employers may be likely to self-insure in order to avoid compliance with varying State mandates and to avoid premium taxes. The claims experience of large firms is fairly stable from year to year due to the large employment base. Large firms also have enough financial reserve to take on the financial risk associated with self-insurance and prefer to retain the use of capital rather than accruing returns for the insurance company.

Table 6 presents the prevalence of self-insurance (that is, the percent of private establishments that self-insure entirely or partially at least one *major* health plan) among establishments that offer major health insurance to their employees. For NEHIS, major plans are those that typically cover inpatient hospital stays and outpatient physician services. For the 1993 plan year in the United States about 21 percent of the establishments with major health plans self-insured. The prevalence of self-insurance among establishments that offered health insurance increased with firm size; from less than 6 percent among establishments belonging to firms with fewer than 100 employees to 35 percent among establishments belonging to firms with 100–499

Figure 14. Percent of establishments with major health plans that self-insure at least one major plan by location and firm size: United States, 1993



employees.⁸ The pattern of increasing prevalence of self-insurance with firm size held true regardless of other selected company characteristics shown in **table 6**.

However, differences in self-insurance by other company characteristics were not always consistent across firm-size groups. For example, the establishments in retail trade self-insured at a higher rate (30 percent) than the national rate (21 percent) for all establishments. However, retail businesses belonging to firms with 100–499 employees self-insured at a lower rate (21 percent) than all establishments in that firm size group (35 percent). Even though the establishments in mining had the highest prevalence of self-insurance overall, this rate was not significantly different from the national rate.

Unincorporated establishments were less likely to self-insure (8 percent nationally) than all other ownership types and this was consistent, for the most part, across the three firm-size groups that were compared. Establishments within firms that existed for 25 years or more were more likely to self-insure

⁸Caution should be exercised in interpretation of self-insurance estimates for establishments in firms of 500 or more employees. The unit response rate for these establishments was only 56 percent nationally, while the item response rate for reported self-insurance was 94 percent.

(33 percent) than those with fewer years of business operation (11 percent or less). Establishments that belonged to firms with locations in more than one State self-insured at a higher rate (61 percent) than establishments that belonged to firms with all branches located in a single State (8 percent) (**figure 14**).

Overall, establishments in the New England, Middle Atlantic, and Pacific States were less likely to self-insure and those in the East South Central and West South Central States were more likely to self-insure than in the Nation as a whole. However, these differences were not found consistently or significantly by the three firm-size groups that were compared. Establishments that had union employees were more likely to self-insure (35 percent) than those without union employees (18 percent).

Prevalence of self-insurance by State

The ERISA preemption of State laws has implications for States implementing health care reform because self-insured plans are exempt from State laws governing health insurance. The percent of private establishments offering health insurance that self-insured at least one major health plan is presented by State in **table 7**. Hawaii had the lowest rate of self-insurance

in 1993 (7 percent) reflecting the employer mandate that preceded passage of ERISA in 1974. Louisiana had the highest rate of self-insurance at 34 percent. Since differences in the rate of self-insurance among establishments with health insurance is due in part to varying distributions of small and large firms across States, firm-size adjusted percents are also presented in [table 7](#). The adjusted rates ranged from 11 percent in Hawaii to 27 percent in Ohio.

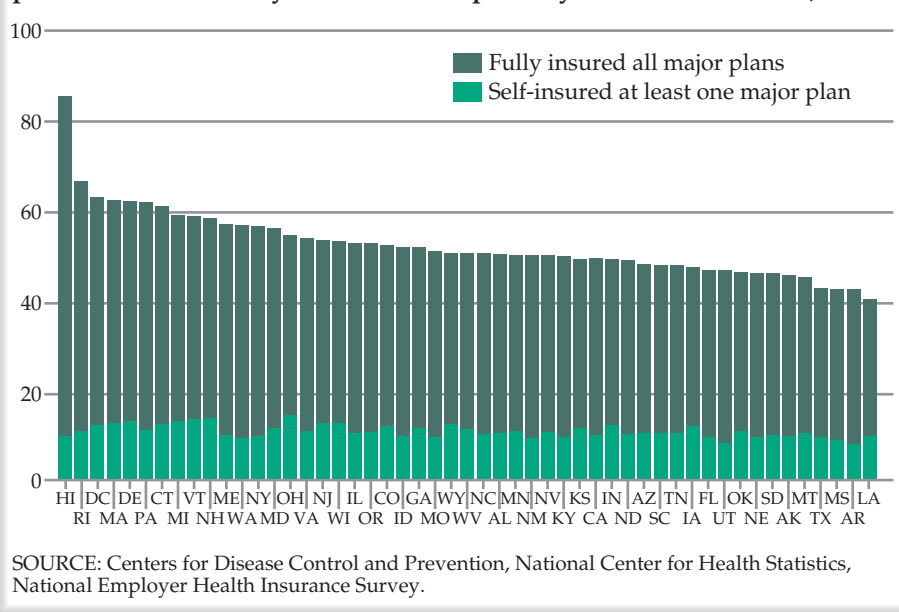
To look at the extent of self-insurance independent of whether a company offers health insurance, the percent self-insuring among all private establishments was also examined. [Figure 15](#) presents this percent, adjusted by firm size, along with the percent of establishments offering health insurance by State. This chart shows that the State variation in percent of establishments that self-insure does not parallel the State variation in percent of establishments that offer health insurance.

Types of health plans offered by employers

During the 1993 plan year, 19 percent of businesses that provided health insurance to employees offered them a choice of major plans ([table 8](#)). The percent of establishments offering a choice of at least two major plans increased with firm size—from 10 percent of establishments in firms with less than 10 employees to 26 percent among establishments in firms with 100–999 employees⁹ ([figure 16](#)).

[Table 8](#) shows that less than one-half (48 percent) of establishments in firms with fewer than 10 employees offered a type of managed care plan, while 57 to

Figure 15. Firm-size adjusted percent of establishments with major health plans that offered fully or self-insured plans by State: United States, 1993

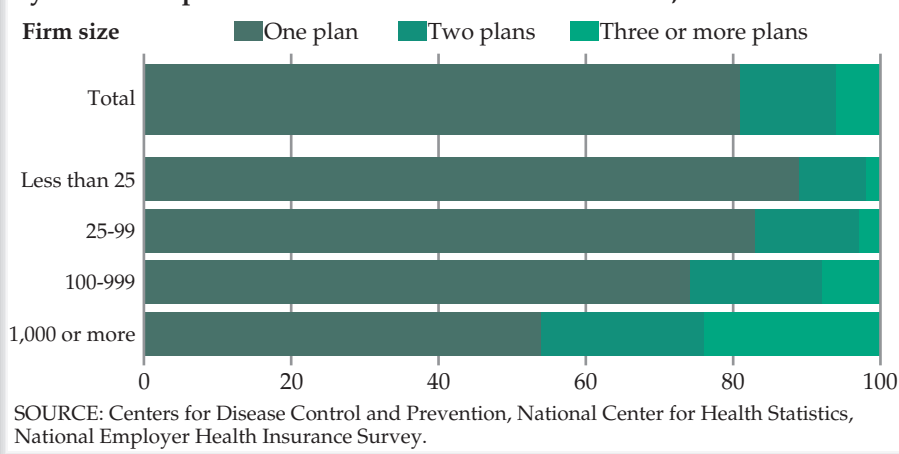


65 percent of establishments in firms with 10 or more employees offered a type of managed care plan. Managed care plans include health maintenance organizations (HMO's), preferred provider organizations (PPO's), and point of service (POS) plans. The impact managed care has on employer-sponsored health insurance in recent years is highlighted by the types of plans offered according to the number of years a firm has been in business ([figure 17](#)). Among establishments offering health insurance, 71 percent of new businesses operating less

than 2 years offered a managed care plan to employees, compared with 55 percent of businesses operating 25 years or more.

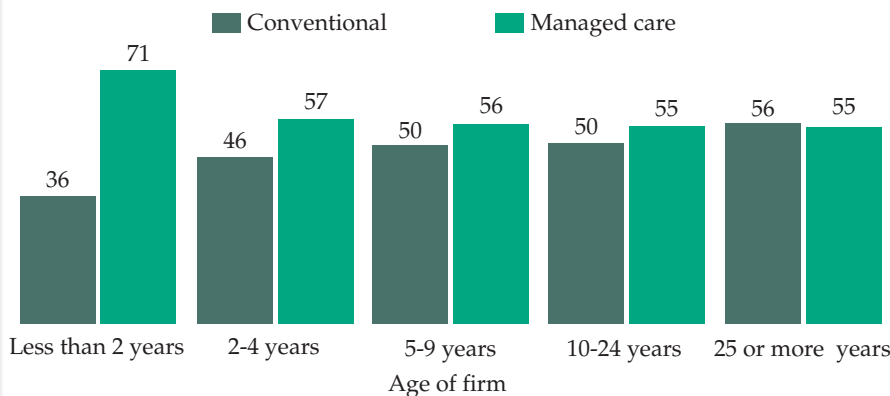
The increasing presence of managed care among employer-sponsored health insurance, however, has been largely in metropolitan areas. [Table 8](#) shows that of establishments offering a major health plan, 37 percent of those establishments located in nonmetropolitan areas offered a type of managed care plan, compared with 60 percent of establishments located in metropolitan areas.

Figure 16. Percent distribution of establishments with major health plans by number of plans offered and firm size: United States, 1993



⁹Estimates for establishments in firms with 1,000 or more employees are problematic since the unit response rate for these establishments was 55 percent nationally.

Figure 17. Percent of establishments with major health plans offering conventional and managed care plans by age of firm: United States, 1993



SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey.

Figure 18 shows among establishments offering health insurance, the percent of establishments offering at least one managed care plan, either alone or in combination with other plans, varied widely among the States. The percent of establishments offering a managed care plan ranged from 21 percent in Wyoming to 84 percent in California (**table 9**). In all of the States in the Pacific Census Division, except for Alaska, establishments that sponsored health insurance offered a managed care plan at higher rates (69 to 84 percent) than the national rate (56 percent). At least part of the State variation in employer-sponsored managed care plans is due to the State-specific urban or rural mix of business establishments and its associated HMO market penetration. For example, 29 and 25 percent of establishments in North and South Dakota offered a managed care plan. In contrast, 75 and 66 percent of establishments in the District of Columbia and Rhode Island offered a managed care plan. All sample establishments in the District of Columbia and Rhode Island were located in a metropolitan area, whereas 39 and 27 percent of North Dakota and South Dakota establishments were located in metropolitan areas (**table 5**).

Overall, 26 percent of establishments sponsoring major health plans in 1993 offered an HMO plan (including point-of-service plans) to employees, either alone or in combination with other plans. **Table 9** shows, however, that the role HMO's play in health care delivery varies considerably by State. The States with businesses that sponsored HMO's at a higher rate

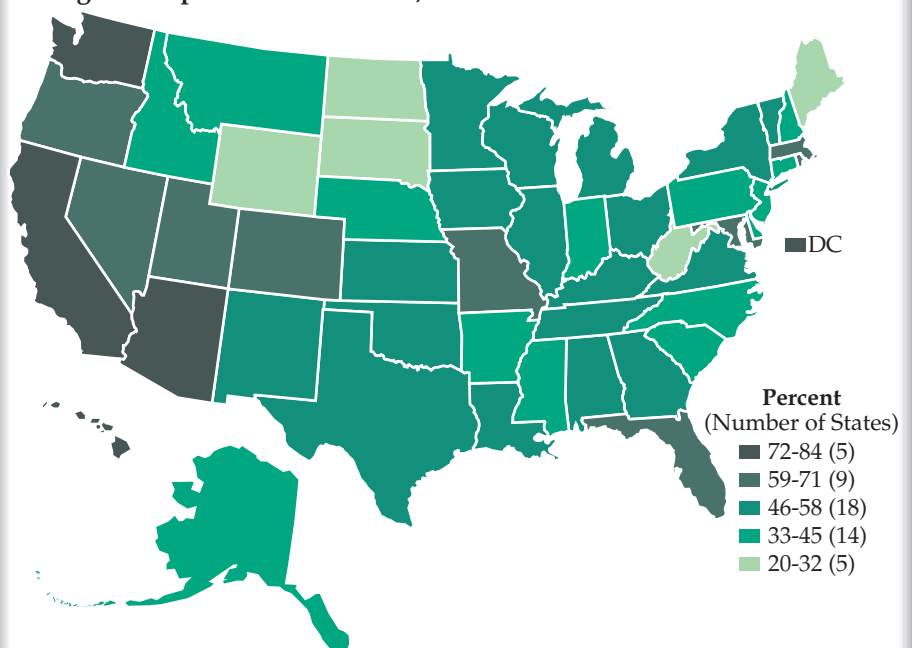
than for the Nation as a whole were Hawaii, Massachusetts, California, Rhode Island, Oregon, the District of Columbia, and New York.

Health insurance eligibility requirements

Retirees

In general, health benefits for retirees are very similar to those for current employees, although retirees eligible for Medicare have benefits from the two sources coordinated. Health benefits for retirees range from short-term, continuing, postretirement coverage, as prescribed in the 1985 Consolidated Omnibus Budget Reconciliation Act (COBRA), to lifetime coverage under an employer's group health insurance plan. Under COBRA employers are required to make health benefits available to employees who are retired, laid off, or otherwise separated from employment for a limited time after separation, usually for up to 18 months. Employees who continue

Figure 18. Percent of establishments with health insurance that offered managed care plans: United States, 1993



SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey.

such coverage usually pay the entire premium cost, but at the same group rate as the employer's plan.

Table 10 shows that most establishments do not offer retirees health benefits beyond the COBRA provisions. At the end of 1993, 23 percent of establishments offering health insurance reported that retirees under 65 years of age were eligible for health coverage, excluding COBRA or other continuation of benefits law. According to the U.S. Department of Labor, 27 percent of private sector retirees aged 55 years and over received health benefits from their employer in 1993 (24).

Table 10 shows that among establishments offering health insurance, health benefits were offered to early retirees (under 65 years of age) more often in establishments in firms of 100 or more employees (42 percent) than in smaller firms (15 to 18 percent). Early retiree health benefits were also offered more often in transportation, communication, and utilities establishments (34 percent), finance, insurance, and real estate establishments (37 percent) than for the Nation as a whole (23 percent). Establishments that were part of multi-State firms (40 percent) were more likely to offer this coverage than establishments that were part of single State firms (17 percent). Establishments in firms with any union employees were more likely to offer early retiree benefits (33 percent) than nonunionized establishments (21 percent).

At the end of 1993, 20 percent of establishments offering health insurance reported that retirees 65 years and over were eligible for health coverage, excluding COBRA or other continuations of benefits law (**table 10**). Since most people 65 years of age and over are covered by Medicare, the employer-sponsored health coverage offered is usually supplemental to Medicare insurance benefits.

Employees

In contrast to retirees, employers providing health insurance make this benefit available to most employees, with some exceptions. Traditionally, employers require employees to work full-time in order to be eligible for health benefits (25). At the end of 1993, 74 percent of private establishments that offered health insurance required employees to work, on average, a minimum of 32 work hours per week in order to be eligible for health benefits (**table 11**). Establishments offering health insurance may also require new employees to work a certain period of time before being eligible for health benefits. Nationwide, 71 percent of establishments required employees to wait before becoming eligible. The average waiting period was 3 months (**table 11**). However, absence of such eligibility requirement in a company may not mean that any employees demanding health benefits are eligible. It may simply mean that the company does not have any established rules, as suggested by the lower percents with eligibility requirements in smaller businesses.

The waiting period for agricultural, forestry, and fishery workers was longer than the national average. Longer than average waiting times also were associated with establishments in firms with less than 10 employees, and with establishments in construction and retail trade. Retail trade industries often impose waiting periods for health benefits eligibility, in part, because they employ large numbers of part-time employees and experience rapid turnover (1). Longer waiting periods, on average, were also associated with unincorporated businesses and with establishments with a majority of employees earning less than \$10,000 per year, when they impose such requirements.

Availability of health insurance to employees

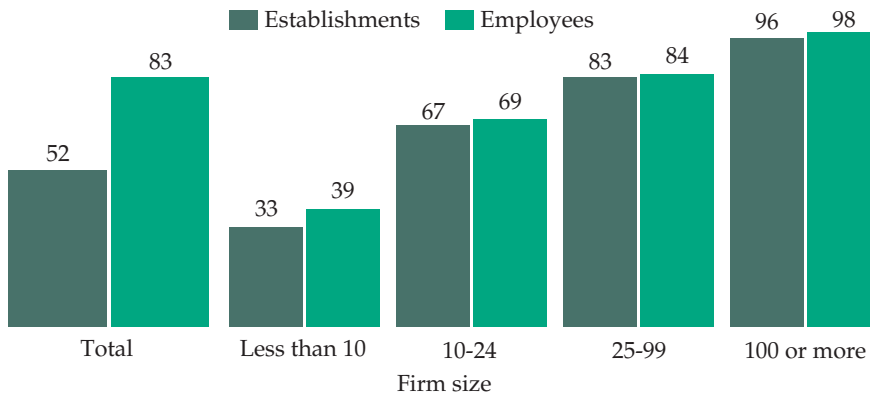
Which employees have health insurance available at their job?

At the end of 1993, 83 percent of an estimated 98 million private employees¹⁰ worked in establishments offering health insurance (**table 12** and appendix **table III**). This percent is higher than the percent of establishments offering health insurance (52 percent) because health benefits are disproportionately offered by large firms more often than smaller firms (**figure 19**). Because large firms offered health insurance more often, their employees contributed a larger share of employees to this percent than small firms did. As a result, employees working in establishments in firms with 100 or more employees comprised over one-half of employees with health insurance offered on the job (computed from **tables 12** and **13**).

Table 12 and appendix **table III** show that industries with the highest percent of employees offered health insurance tended to be large. About 72 percent of employees in mining, 74 percent of employees in manufacturing, 71 percent of employees in transportation, communication, and utilities, and 66 percent of employees in finance, insurance, and real estate worked in firms with 100 or more employees. In contrast, about one-half or fewer employees in the remaining industries worked in similarly sized firms (**table 13**). Factors that increased the chance that employees had health insurance available on

¹⁰At the end of 1993 there were an estimated 98 million private employees, including owners, in the United States. Self-employed persons with no other employees (SENE), estimated to be about 4.9 million persons, are not included in employee estimates presented in this report, but will be presented in a separate report. The number of employees reported in this survey may be overestimated to the extent that employees working multiple jobs may be reported more than once.

Figure 19. Percent of establishments offering health insurance and employees working in establishments that offer insurance by firm size: United States, 1993



SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey.

Table B. Percent of workers covered by employer-sponsored health plans: United States, 1993

Firm size	National Employer Health Insurance Survey	Current Population Survey
All private establishments	58	58
Less than 10 employees	26	24
10-24 employees	44	42
25-99 employees	54	56
100 or more employees	70	73

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey, 1993 Current Population Survey.

the job tended to be the same factors that predict whether establishments offered health insurance. That is, working in an incorporated business, working in a firm with multiple locations, working in a metropolitan area, working in establishments with any union employees, and working in establishments where 50 percent or more of employees earned \$10,000 or more annually increased the chances that employees would have insurance offered on the job.

Table 14 shows that the firm size of establishments is a major predictor of employees having health insurance available on the job in all States other than Hawaii. As expected, Hawaii had the highest percent of employees in small firms (less than 50 employees) with health insurance available on the job, as a result of Hawaii's employer mandate. **Table 15** shows the variability among the States in the distribution of employees working in small firms (less than 50 employees).

Eligibility for and enrollment in employer's plan

At the end of 1993, 68 percent of private sector employees were eligible for health benefits. **Table 16** shows that eligibility for health benefits as well as participation in employer-sponsored health plans increased with firm size. The percent of employees eligible for coverage is roughly complementary to an estimate from the April supplement to the 1993 Current Population Survey (CPS) showing that 36 percent of private employees did not participate in their employer's health plans because they were ineligible or denied coverage (26). The main reason workers were ineligible or denied coverage was that they were part-time, contract, or temporary workers (21 percent), or because they had not completed a probationary period (10 percent) (26).

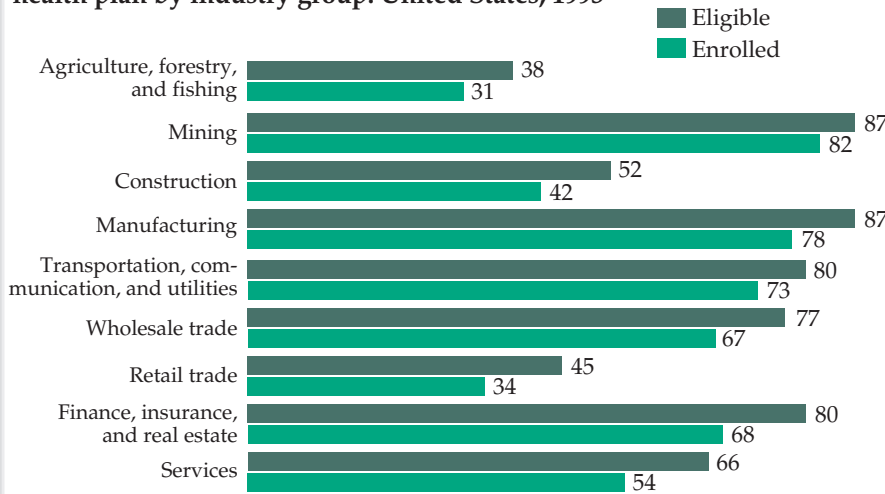
Overall, 58 percent of private employees participated in their employer's health plan (**table 16**). The percent of private workers participating in their employer's plan from NEHIS were very similar to the April Supplement to the 1993 Current Population Survey (CPS) estimates for private employees, despite differences in survey

methodology and respondents. **Table B** shows that the NEHIS estimates of workers covered by employer-sponsored health insurance were generally similar to the 1993 CPS figures, with a few exceptions.¹¹

Figure 20 shows that eligibility and enrollment varied by type of industry. Employees in mining, manufacturing, transportation, communication, utilities, wholesale trade, finance, insurance, and real estate were more likely to be eligible for health insurance coverage than for the Nation as a whole. The percent of eligible employees in agriculture, forestry and fishery, construction, retail trade, and services industries, however, were lower than for the entire Nation. Such variability may be due to the variation in the composition of full-time or part-time workers across industries. The majority of full-time employees (82 percent), but only 18 percent of part-time employees, were eligible for health coverage at the end of 1993 (**table 16**). Previous

¹¹CPS estimates presented excluded self-employed individuals, while NEHIS estimates presented included self-employed owners, if they employed at least one other worker. Sampling error and over- or under-reporting may account for other differences reported in these two surveys.

Figure 20. Percent of employees eligible and enrolled in their employer's health plan by industry group: United States, 1993



SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey.

studies found that one reason that retail and service industries offered health insurance less often than other industries is that they employed many part-time workers and experience rapid turnover (1).

Enrollment in an employer's health plan was more likely if an employee worked full-time (71 percent) rather than part-time hours (10 percent) (table 16). Furthermore, among employees eligible for health benefits, full-time employees were more likely to enroll (87 percent) in their employer's plan than were eligible part-time employees (57 percent). At least part of the lower participation of eligible part-time employees may be due to their having a lower income. Forty-nine percent of employees working in establishments with a majority of low-wage employees (earning less than \$10,000 per year) worked part-time (calculated from appendix table III). In contrast, 19 percent of employees working in establishments with a majority of employees earning \$10,000 or more per year worked part-time (calculated from appendix table III).

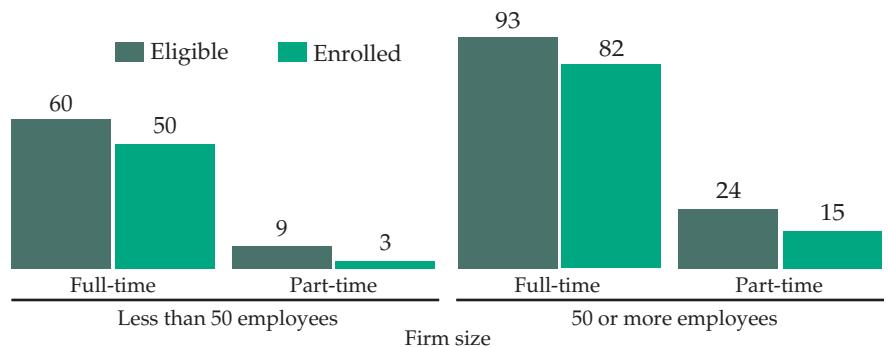
Participation of full-time and part-time employees in firms of 50

or more employees (82 and 15 percent), however, was greater than that for their counterparts in small firms (50 and 3 percent) (figure 21). This trend was also found in the percent of eligible employees participating in their employer's plan. Eighty-eight percent of eligible full-time employees working in firms of 50 or more employees participated, compared with 82 percent among their counterparts in firms with less than 50 employees. Among eligible part-time employees, the participation rates increased more dramatically with firm size; 62 percent of eligible part-time

employees in firms of 50 or more employees participated in their employer's plan, compared with 37 percent among their counterparts in firms with fewer than 50 employees. This finding may indicate that the pricing of plans offered by larger firms are more affordable than plans offered by small firms. A previous study found that the cost of selling and administering health insurance in the small group market is higher than the cost for large groups (27). As a result premiums in the small group market are believed to be higher than those for large groups for the same benefits (7). Future reports from NEHIS will examine this issue more completely by examining the cost of coverage for large and small firms, controlling for benefits covered.

The lower participation rate among eligible part-time employees (57 percent compared with 87 percent of full-time employees) could also be because they were covered by a spouse's plan or because they had another job through which they were covered. The April Supplement to the 1993 CPS found that 51 percent of private employees without direct coverage through their employer lacked coverage because they chose not to participate. Of these employees, about three-fourths did not participate because they were covered by another plan, while about 24 percent did not participate because the coverage was too costly (26).

Figure 21. Percent of full-time and part-time employees eligible and enrolled in their employer's health plan by firm size: United States, 1993



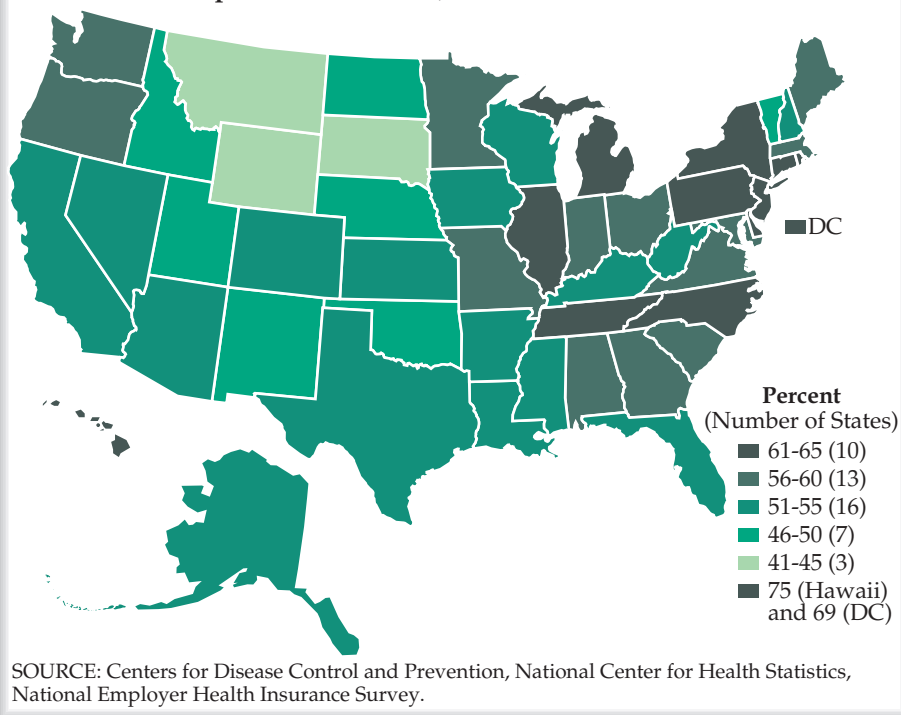
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey.

Employees working in establishments with any union employees participated more often in these plans than employees in nonunionized establishments. Eighty percent of employees in unionized establishments (those reporting any union employees) participated in their employer's plan, compared with 54 percent in establishments without union employees.

State variation in employees eligible for and enrolling in employer's plan

Table 17 shows the percent of employees eligible for health benefits by firm size and State, while **table 18** shows the percent of employees enrolled in their employer's health plan by firm size and State. Due to Hawaii's employer mandate, small business employees (firm size less than 50 employees) in this State were eligible and participated in their employer's plan more often than in any other State. Overall, employees in Hawaii had the highest percent eligible for coverage (83 percent) and enrolled in their employer's plan (75 percent), while employees in Montana had the lowest percent eligible (52 percent) and enrolled (41 percent). **Figure 22** presents the percent of employees covered by their employer's plan by State. Overall, the percent of covered employees does not vary by State as much as the percent of establishments offering health insurance (shown in **figure 2**). This occurs because employees in large firms contribute more employees to this statistic than small firms do. Generally, employee enrollment was lower for States in the western half of the Nation.¹²

Figure 22. Percent of employees enrolled in their employer-sponsored health insurance plan: United States, 1993



¹²The percent of employees enrolled in their employer's plan in Hawaii, the District of Columbia, Pennsylvania, Rhode Island, and New Jersey was higher than that for the Nation. The percent of employees enrolled in their employer's plan in Arkansas, Louisiana, Vermont, Utah, Nebraska, Oklahoma, New Mexico, Idaho, North Dakota, South Dakota, Wyoming, and Montana, however, was below that for the Nation.

References

1. Snider S, Fronstin P. Sources of health insurance and characteristics of the uninsured: Analysis of the March 1994 Current Population Survey. EBRI Special Report SR-28. Issue Brief Number 158. Employee Benefit Research Institute. 1995.
2. General Accounting Office. Health insurance regulation: Variation in recent State small employer health insurance reforms. GAO/HEHS-95-161FS. 1995.
3. Donelan K, Blendon RJ, Hill CA, et al. Whatever happened to the health insurance crisis in the United States? *JAMA* 276(16):1346-50. 1996.
4. Sparer MS. Great expectations: The limits of State health care reform. *Health Aff* 14(4):191-202. 1995.
5. Blumberg LJ, Nichols LM. First, do no harm: Developing health insurance market reform packages. *Health Aff* 15 (3): 35-53. 1996.
6. Gold M, Burnbauer L, Chu K. How adequate are State data to support health reform or monitor health system change? *Inquiry* 32: 468-75. 1995-96.
7. Cantor JC, Long SH, Marquis MS. Private employment-based health insurance in ten States. *Health Aff* 199-211. 1995.
8. Office of Management and Budget Statistical Policy Working Paper, 15. Quality in establishment surveys. OMB/PB88-232921. 1988.
9. Shah BV, Barnwell BG, Bieler GS. SUDAAN User's Manual, Release 7.0. Research Triangle Park, North Carolina: Research Triangle Institute. 1996.
10. Hing E, Euller R. Comparability of the 1994 National Employer Health Insurance Survey (NEHIS) estimates with other employer surveys. Proceedings from the section on government statistics. Chicago, Illinois: Meetings of the American Statistical Association. 1996.
11. Department of Health and Human Services. NCHS staff manual on confidentiality. DHHS/PHS-84-1224. 1984.
12. Lippert C, Wicks E. Critical distinctions: How firms that offer health benefits differ from those that do not. HIAA Policy and Research Findings. 1991.
13. Small Business Administration. The state of small business: A report of the president, 1994. Washington: 1995.
14. Zarkin GA, Garfinkle SA, Potter FJ, McNeil JJ. Employment-based health insurance: Implications of the sampling unit for policy analysis. *Inquiry* 32: 310-19. 1995.
15. General Accounting Office. Employer-based health insurance: High costs, wide variation threaten system. GAO/HRD-92-125. 1992.
16. Morrissey MA, Jensen GA, Morlock RJ. Small employers and the health insurance market. *Health Aff* 13(5): 149-61. 1994.
17. Monheit A, Harvey P. Sources of health insurance for the self-employed: Does differential taxation make a difference? *Inquiry* 30:293-305. 1993.
18. Miller M, Dial TH. Employer-sponsored health insurance in private sector firms in 1992. Policy and Research Findings. Health Insurance Association of America. Washington: 1993.
19. General Accounting Office. Health care in Hawaii. GAO/HEHS-94-68. 1994.
20. Ladenheim KE, Markus AR. Special report, community rating: States' experience. Intergovernmental health policy project. The George Washington University. 1994.
21. McDonnell P, Guttenberg A, Greenberg L, Arnett RH. Self-insured health plans. *Health Care Financing Review* 8(2): 1-16. 1986.
22. Ryan TT, Colborn CC. State regulation of self-insured employee benefit plans: The wave of the future? *HealthSpan* 4(5): 19-24. 1987.
23. Jensen GA, Gabel JR. The erosion of purchased health insurance. *Inquiry* 25:328-343. 1988.
24. Department of Labor. Pension and Welfare Benefits Administration. Retirement benefits of American workers: New findings from the September 1994 Current Population Survey. 1995.
25. Sullivan CB, Miller M, Johnson CC. Employer-sponsored health insurance in 1991. HIAA Policy and Research Findings. 1992.
26. Department of Labor. Pension and Welfare Benefits Administration. Pension and health benefits of American workers: New findings from the April 1993 Current Population Survey. 1994.
27. Congressional Research Service, Library of Congress. Effects of extending health insurance coverage. Washington: 1988.
28. Westat, Inc. National Employer Health Insurance Survey Design, a project report submitted by Westat to the National Center for Health Statistics, May 5, 1994a.
29. Marker D, Bryant E, Moriarity C. National Employer Health Insurance Survey Sample Design. ASA proceedings of the section on survey research methods; vol I, 264-9. 1994.
30. Westat, Inc. National Employer Health Insurance Survey Weighting and Estimation Plan. A project report submitted by Westat to the National Center for Health Statistics. August 1, 1994b.
31. Westat, Inc. National Employer Health Insurance Survey Plan for Estimation of Standard Errors and Design Effects. A project report submitted by Westat to the National Center for Health Statistics. 1995.
32. Wallace L, Bryant E, Chapman DW, et al. Weighting and estimation procedures for the 1994 NEHIS. ASA proceedings of the section on survey research methods: vol I, 192-7. 1995.

Table 1. Percent of private establishments offering health insurance by firm size, according to selected characteristics: United States, 1993

Establishment characteristics	Firm size ¹						
	All firm sizes	Less than 10 employees	10–24 employees	25–99 employees	100 or more employees	Less than 50 employees	50 or more employees
	Percent of establishments offering health insurance ²						
United States	51.6	33.2	67.1	83.0	95.7	42.2	94.3
Industry group							
Agriculture, forestry, and fishing	30.2	21.8	60.9	85.5	93.6	29.1	84.7
Mining	67.3	40.4	87.8	98.0	99.2	53.2	98.7
Construction	40.4	31.7	62.9	80.0	94.5	37.6	91.5
Manufacturing	60.8	36.8	75.5	89.3	99.2	49.8	97.4
Transportation, communication, and utilities	65.8	41.0	75.4	86.4	97.6	52.3	95.6
Wholesale trade	64.9	43.3	79.9	94.5	99.2	55.6	98.8
Retail trade	43.6	22.5	48.1	69.3	95.5	29.9	93.2
Finance, insurance, and real estate	64.8	38.9	85.1	96.2	97.6	49.9	97.4
Services	51.3	36.9	70.4	82.0	91.5	45.4	90.5
Ownership							
For profit	52.3	34.3	68.0	83.2	97.1	43.1	95.4
Incorporated	66.0	45.2	73.0	85.7	97.5	55.6	96.3
Unincorporated	28.4	23.6	47.2	64.1	90.8	26.2	84.5
Nonprofit	66.1	48.6	70.5	86.5	89.2	58.0	89.9
Other	65.3	37.8	76.6	94.1	89.3	52.1	91.2
Age of firm							
Less than 5 years	34.8	26.8	48.2	68.2	91.1	31.3	88.5
5–9 years	41.2	29.7	59.0	75.8	92.5	36.4	89.0
10–24 years	50.0	35.7	70.0	83.3	94.4	44.4	93.2
25 years or more	71.8	45.7	78.8	90.8	97.0	58.1	96.3
Location of establishments in firm							
1 location only	40.9	33.1	66.8	80.5	92.2	39.7	89.9
2 or more locations, all in same State	73.5	35.4	66.8	85.7	94.4	62.2	92.4
2 or more locations, multiple States	93.0	54.9	78.7	87.7	96.8	74.5	96.4
Metropolitan area indicator							
Metropolitan area	53.7	34.9	69.0	83.4	96.0	44.2	94.6
Nonmetropolitan area	43.7	27.7	59.0	81.5	94.3	35.3	92.8
Percent of employees that are full-time							
Less than 25 percent	26.6	10.7	20.0	52.5	84.7	15.6	79.9
25–49 percent	41.0	23.0	46.4	64.4	92.0	29.6	89.3
50–74 percent	43.5	27.9	63.0	78.0	95.4	34.7	94.0
75 percent or more	59.4	40.0	77.7	90.2	97.7	50.6	96.7
Presence of union employees							
No union employees	51.9	34.7	67.9	83.4	95.2	43.6	93.8
Has union employees	84.0	62.1	85.7	97.0	98.5	74.7	98.2
Percent of low-wage employees ³							
50 percent or more of employees are low-wage	25.2	15.4	26.9	49.4	83.9	18.5	79.7
50 percent or more of employees are not low-wage	58.3	40.9	74.0	88.2	96.5	50.8	95.5

¹Number of employees nationwide as reported by respondent.

²An establishment is defined as a business at a single physical location.

³Low-wage employees earned less than \$5 per hour or less than \$10,000 per year.

NOTES: Estimates in this table are based on a December 31, 1993, reference period. Denominators for the percents included in this table are provided in table I of the Technical notes.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey (NEHIS).

Table 2. Percent distribution of private establishments by firm size, according to selected characteristics: United States, 1993

Establishment characteristics	Firm size ¹					All firm sizes	Less than 50 employees	50 or more employees
	All firm sizes	Less than 10 employees	10–24 employees	25–99 employees	100 or more employees			
Percent distribution of establishments ²								
United States	100.0	62.4	13.9	9.5	14.3	100.0	82.1	17.9
Industry group								
Agriculture, forestry, and fishing	100.0	82.0	12.8	4.3	0.9	100.0	98.0	2.0
Mining	100.0	51.6	12.0	11.5	24.8	100.0	69.0	31.0
Construction	100.0	79.1	11.1	6.7	3.1	100.0	94.9	5.1
Manufacturing	100.0	53.5	15.6	13.8	17.1	100.0	77.0	23.0
Transportation, communication, and utilities	100.0	48.8	12.5	12.9	25.8	100.0	68.8	31.2
Wholesale trade	100.0	54.4	17.2	12.3	16.1	100.0	78.4	21.6
Retail trade	100.0	59.1	13.7	8.8	18.4	100.0	78.4	21.6
Finance, insurance, and real estate	100.0	53.6	9.9	10.2	26.4	100.0	68.7	31.3
Services	100.0	66.3	14.7	8.9	10.0	100.0	86.8	13.2
Ownership								
For profit	100.0	62.8	14.1	9.1	14.0	100.0	82.5	17.5
Incorporated	100.0	49.0	17.9	12.7	20.4	100.0	74.5	25.5
Unincorporated	100.0	86.9	7.5	3.0	2.7	100.0	96.4	3.6
Nonprofit	100.0	48.2	16.4	15.4	19.9	100.0	74.4	25.6
Other	100.0	44.9	12.5	15.2	27.4	100.0	66.2	33.8
Age of firm								
Less than 5 years	100.0	76.7	13.1	6.3	3.9	100.0	94.0	6.0
5–9 years	100.0	72.3	13.4	8.3	6.0	100.0	91.0	9.0
10–24 years	100.0	67.7	15.1	9.2	7.9	100.0	88.7	11.3
25 years or more	100.0	42.5	14.1	12.7	30.6	100.0	64.1	35.9
Location of establishments in firm								
1 location	100.0	79.9	13.4	5.8	0.9	100.0	97.5	2.5
2 or more locations, all in same State	100.0	18.1	27.7	29.2	25.1	100.0	62.5	37.5
2 or more locations, multiple States	100.0	3.8	5.6	13.8	76.8	100.0	15.4	84.6
Metropolitan area indicator								
Metropolitan area	100.0	60.9	14.3	9.8	15.0	100.0	81.2	18.8
Nonmetropolitan area	100.0	67.9	12.3	8.4	11.4	100.0	85.5	14.5
Percent of employees that are full-time								
Less than 25 percent	100.0	61.1	14.6	10.5	13.7	100.0	83.0	17.0
25–49 percent	100.0	60.5	15.1	8.4	15.9	100.0	80.9	19.1
50–74 percent	100.0	69.8	11.6	6.3	12.3	100.0	85.3	14.7
75 percent or more	100.0	60.0	14.4	10.7	14.8	100.0	81.0	19.0
Presence of union employees								
No union employees	100.0	63.3	14.4	9.7	12.7	100.0	83.5	16.5
Has union employees	100.0	33.9	15.0	17.7	33.4	100.0	60.6	39.4
Percent of low-wage employees ³								
50 percent or more of employees are low-wage	100.0	73.7	10.1	6.9	9.3	100.0	88.9	11.1
50 percent or more of employees are not low-wage	100.0	60.7	15.9	11.0	12.5	100.0	83.2	16.8

¹Number of employees nationwide as reported by respondent.

²An establishment is defined as a business at a single physical location.

³Low-wage employees earned less than \$5 per hour or less than \$10,000 per year.

NOTES: Estimates in this table are based on a December 31, 1993, reference period. Figures may not add to totals because of rounding. Denominators for the percents included in this table are provided in table I of the Technical notes.

SOURCE: Centers for Disease and Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey (NEHIS).

Table 3. Percent of private establishments offering health insurance by firm size, adjusted by firm size and State: United States, 1993

State	Firm size ¹						Firm-size adjusted percent ²	
	All firm sizes	Less than 10 employees	10–24 employees	25–99 employees	100 or more employees	Less than 50 employees		50 or more employees
	Percent of establishments offering health insurance ³							
United States	51.6	33.2	67.1	83.0	95.7	42.2	94.3	51.6
New England:								
Maine	56.7	41.3	69.1	87.4	99.1	48.6	98.0	56.6
New Hampshire	57.5	41.2	68.5	94.9	98.9	49.3	99.2	58.2
Vermont	55.0	38.4	81.7	99.2	99.6	48.3	99.3	58.7
Massachusetts	60.4	44.5	80.0	95.5	98.4	53.0	98.3	62.2
Rhode Island	64.5	50.4	82.8	99.4	97.0	58.5	97.4	66.4
Connecticut	60.4	45.0	78.1	88.1	98.4	53.0	97.1	60.8
Middle Atlantic:								
New York	54.6	40.0	69.1	86.8	95.4	47.3	94.3	56.2
New Jersey	52.0	35.0	70.1	80.9	98.3	42.9	97.0	53.3
Pennsylvania	61.0	44.6	79.8	90.4	99.7	53.5	98.8	61.7
East North Central:								
Ohio	54.7	34.3	79.0	84.4	94.9	45.7	94.3	54.2
Indiana	50.3	28.3	66.0	87.7	97.8	39.8	95.3	48.9
Illinois	53.2	33.2	75.8	80.6	96.6	43.6	94.2	52.6
Michigan	60.1	44.6	70.7	87.8	91.3	52.9	90.8	58.7
Wisconsin	52.6	35.2	68.7	86.9	94.5	44.4	93.4	53.1
West North Central:								
Minnesota	51.1	30.5	65.4	83.7	97.3	41.4	94.5	49.8
Iowa	44.0	26.9	53.4	88.8	94.5	35.7	91.1	47.1
Missouri	52.2	32.4	67.3	81.7	93.3	42.8	90.3	50.8
North Dakota	49.1	32.5	62.7	71.8	94.5	39.3	94.1	48.8
South Dakota	44.7	30.8	54.1	74.1	86.3	36.4	86.6	45.8
Nebraska	46.2	25.2	62.3	86.2	93.2	35.7	91.2	45.8
Kansas	48.3	29.3	66.7	81.2	90.9	38.4	91.3	49.0
South Atlantic:								
Delaware	64.2	48.5	75.3	91.4	94.1	55.5	94.2	61.9
Maryland	56.8	37.8	72.1	88.0	96.6	47.7	95.4	56.0
District of Columbia	66.0	46.6	74.1	96.6	98.1	57.3	97.0	62.7
Virginia	55.7	36.9	68.8	81.9	97.7	46.3	97.8	53.7
West Virginia	51.9	34.2	60.5	73.8	97.9	41.0	97.7	50.4
North Carolina	51.9	32.9	63.7	80.8	97.2	41.6	95.2	50.4
South Carolina	48.8	30.9	56.4	79.0	96.6	38.3	94.9	47.7
Georgia	54.8	34.5	57.1	87.4	97.0	41.9	96.8	51.5
Florida	47.5	28.4	62.4	69.8	97.1	36.4	93.5	46.6
East South Central:								
Kentucky	49.5	29.9	61.7	94.1	96.0	39.8	95.4	49.7
Tennessee	48.2	27.8	62.4	79.1	98.8	35.9	98.0	47.6
Alabama	52.0	30.3	66.4	85.9	97.0	41.3	96.5	50.0
Mississippi	43.3	24.2	46.3	74.5	96.0	30.7	94.9	42.3
West South Central:								
Arkansas	40.3	19.6	61.5	79.2	96.1	30.1	93.3	42.3
Louisiana	43.9	19.6	58.2	76.7	94.5	30.7	91.6	40.1
Oklahoma	43.9	30.0	50.9	69.4	92.7	35.0	91.3	46.2
Texas	44.7	24.4	57.9	77.6	88.3	33.6	87.8	42.5
Mountain:								
Montana	40.0	26.0	51.8	79.3	96.9	33.3	92.8	45.0
Idaho	49.9	31.5	65.0	87.8	98.9	41.1	98.2	51.6
Wyoming	47.3	30.5	74.3	72.0	96.5	39.0	90.2	50.4
Colorado	53.1	30.9	79.9	88.3	94.8	43.7	92.7	52.1
New Mexico	49.4	29.7	67.2	85.4	94.3	39.5	93.1	49.8
Arizona	49.7	30.0	61.9	77.7	93.5	39.2	91.3	48.0
Utah	47.3	29.8	50.3	75.8	96.7	36.5	92.4	46.6
Nevada	52.1	35.8	51.9	80.1	93.7	42.8	89.2	49.8
Pacific:								
Washington	56.4	39.3	68.8	90.6	97.6	48.3	97.2	56.5
Oregon	51.6	36.3	63.1	84.7	92.5	43.5	91.3	52.5
California	47.0	28.5	67.8	80.4	97.6	38.1	96.3	49.0
Alaska	46.2	27.7	57.9	78.9	92.3	36.2	89.1	45.3
Hawaii	85.8	78.5	97.2	98.4	97.3	83.3	96.8	85.2

¹Number of employees nationwide as reported by respondent.

²See the [Technical notes](#) for a description of the procedure used to calculate the firm-size adjusted percents.

³An establishment is defined as a business at a single physical location.

NOTES: Estimates in this table are based on a December 31, 1993, reference period. Denominators for the percents included in this table are provided in [table II](#) of the Technical notes.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey (NEHIS).

Table 4. Percent distribution of private establishments by firm size and State: United States, 1993

State	Firm size ¹					All firm sizes	Less than 50 employees	50 or more employees
	All firm sizes	Less than 10 employees	10–24 employees	25–99 employees	100 or more employees			
United States	100.0	62.4	13.9	9.5	14.3	100.0	82.1	17.9
Percent distribution of establishments ²								
New England:								
Maine	100.0	63.8	15.3	8.4	12.5	100.0	83.6	16.4
New Hampshire	100.0	64.1	13.2	10.2	12.6	100.0	83.5	16.5
Vermont	100.0	68.7	14.2	7.4	9.7	100.0	86.9	13.1
Massachusetts	100.0	65.9	12.5	8.8	12.9	100.0	83.8	16.2
Rhode Island	100.0	65.5	15.6	7.1	11.8	100.0	84.7	15.3
Connecticut	100.0	64.1	13.9	8.7	13.3	100.0	83.2	16.8
Middle Atlantic:								
New York	100.0	66.0	13.3	8.1	12.5	100.0	84.3	15.7
New Jersey	100.0	65.4	12.4	8.3	13.9	100.0	83.2	16.8
Pennsylvania	100.0	63.8	13.5	9.3	13.3	100.0	83.5	16.5
East North Central:								
Ohio	100.0	60.8	14.7	9.6	14.9	100.0	81.6	18.4
Indiana	100.0	60.3	14.8	9.7	15.2	100.0	81.2	18.8
Illinois	100.0	61.4	14.3	9.2	15.1	100.0	81.0	19.0
Michigan	100.0	60.1	13.1	12.3	14.5	100.0	80.9	19.1
Wisconsin	100.0	63.4	13.4	11.1	12.1	100.0	83.1	16.9
West North Central:								
Minnesota	100.0	59.3	16.4	9.6	14.7	100.0	81.7	18.3
Iowa	100.0	65.8	13.2	9.9	11.0	100.0	84.9	15.1
Missouri	100.0	58.6	16.1	10.6	14.7	100.0	80.3	19.7
North Dakota	100.0	62.3	14.6	9.6	13.5	100.0	82.1	17.9
South Dakota	100.0	64.5	14.1	10.8	10.7	100.0	83.5	16.5
Nebraska	100.0	61.8	13.9	9.6	14.7	100.0	80.9	19.1
Kansas	100.0	62.3	14.2	8.4	15.1	100.0	81.3	18.7
South Atlantic:								
Delaware	100.0	60.3	11.1	9.9	18.7	100.0	77.3	22.7
Maryland	100.0	59.9	14.8	11.0	14.3	100.0	81.0	19.0
District of Columbia	100.0	54.1	17.1	11.5	17.3	100.0	78.1	21.9
Virginia	100.0	58.9	15.5	10.6	15.0	100.0	81.7	18.3
West Virginia	100.0	60.9	12.5	10.3	16.3	100.0	80.8	19.2
North Carolina	100.0	60.3	14.2	10.4	15.0	100.0	80.7	19.3
South Carolina	100.0	60.9	15.9	8.0	15.2	100.0	81.5	18.5
Georgia	100.0	57.2	14.1	9.2	19.5	100.0	76.5	23.5
Florida	100.0	61.5	13.8	9.5	15.2	100.0	80.6	19.4
East South Central:								
Kentucky	100.0	63.1	13.5	9.0	14.4	100.0	82.5	17.5
Tennessee	100.0	62.0	14.1	7.5	16.4	100.0	80.3	19.7
Alabama	100.0	59.1	14.7	9.1	17.1	100.0	80.5	19.5
Mississippi	100.0	61.1	14.7	7.4	16.8	100.0	80.5	19.5
West South Central:								
Arkansas	100.0	64.3	14.9	8.6	12.2	100.0	83.8	16.2
Louisiana	100.0	58.4	13.7	10.3	17.6	100.0	78.3	21.7
Oklahoma	100.0	66.2	12.7	8.3	12.8	100.0	84.1	15.9
Texas	100.0	60.4	13.0	9.6	17.0	100.0	79.5	20.5
Mountain:								
Montana	100.0	69.3	14.4	7.7	8.6	100.0	88.8	11.2
Idaho	100.0	62.9	16.8	8.0	12.3	100.0	84.6	15.4
Wyoming	100.0	67.8	12.6	6.8	12.8	100.0	83.7	16.3
Colorado	100.0	61.1	12.9	11.1	15.0	100.0	80.8	19.2
New Mexico	100.0	63.2	12.2	8.8	15.9	100.0	81.6	18.4
Arizona	100.0	59.1	14.6	10.2	16.0	100.0	79.9	20.1
Utah	100.0	61.2	13.5	10.6	14.7	100.0	80.7	19.3
Nevada	100.0	57.9	15.0	13.2	14.0	100.0	79.9	20.1
Pacific:								
Washington	100.0	62.4	13.8	11.0	12.8	100.0	83.4	16.6
Oregon	100.0	65.0	12.1	10.6	12.3	100.0	83.0	17.0
California	100.0	65.0	13.7	9.2	12.0	100.0	84.8	15.2
Alaska	100.0	63.3	11.4	10.2	15.2	100.0	81.1	18.9
Hawaii	100.0	61.6	12.2	10.7	15.5	100.0	81.2	18.8

¹Number of employees nationwide as reported by respondent.

²An establishment is defined as a business at a single physical location.

NOTES: Estimates in this table are based on a December 31, 1993, reference period. Figures may not add to totals because of rounding. Denominators for the percents included in this table are provided in table II of the Technical notes.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey (NEHIS).

Table 5. Number of private establishments, percent offering health insurance, and percent with other selected characteristics by State: United States, 1993

State	Number of establishments	Establishment characteristics									
		Percent offering health insurance	Percent with 50 percent or more employees that are low-wage ¹	Percent unincorporated ²	Percent in business less than 5 years ²	Percent in retail	Percent with 75 percent or more employees that are full-time	Percent in manufacturing	Percent in multi-State firm ²	Percent with union employees ²	Percent in metropolitan area
United States	6,276,800	51.6	16.0	33.2	12.4	23.2	60.3	8.1	13.8	3.2	78.7
Hawaii	29,300	85.8	10.6	21.6	11.1	23.5	68.2	4.2	9.8	5.9	69.9
District of Columbia	19,300	66.0	6.7	24.4	12.3	18.0	67.1	*2.2	27.1	2.9	100.0
Rhode Island	25,300	64.5	10.6	20.9	14.8	23.0	55.4	11.8	11.8	4.2	100.0
Delaware	16,000	64.2	10.5	20.0	11.7	25.9	56.9	6.2	20.7	*2.5	80.7
Pennsylvania	259,500	61.0	16.9	39.6	10.1	22.5	60.5	8.1	12.5	4.9	83.6
Massachusetts	149,800	60.4	9.9	26.9	10.4	21.2	53.3	9.8	12.4	2.9	99.1
Connecticut	84,200	60.4	10.7	35.4	11.3	19.0	52.6	11.1	12.6	2.2	100.0
Michigan	189,100	60.1	17.7	28.0	10.2	23.5	58.2	11.0	11.4	5.7	80.6
New Hampshire	33,300	57.5	12.0	37.7	13.6	30.4	56.1	8.3	13.3	0.9	69.1
Maryland	114,900	56.8	8.9	25.0	17.0	21.4	57.7	5.5	16.6	2.6	89.3
Maine	34,900	56.7	13.9	33.1	11.4	27.3	57.9	7.4	10.6	*1.5	59.5
Washington	144,700	56.4	9.3	36.5	12.5	22.4	57.5	7.2	12.4	5.4	78.4
Virginia	152,600	55.7	14.2	26.9	13.6	23.3	59.0	7.8	15.7	*0.6	74.9
Vermont	20,400	55.0	14.0	32.2	11.7	25.1	52.9	6.9	10.6	*1.3	29.9
Georgia	166,000	54.8	15.8	27.1	11.7	26.0	68.2	7.3	20.6	*2.0	69.8
Ohio	247,800	54.7	18.3	31.2	12.5	23.7	60.1	8.8	13.5	4.6	83.6
New York	411,900	54.6	13.9	24.8	13.5	24.3	61.0	6.6	12.6	5.2	90.8
Illinois	261,600	53.2	16.1	32.9	13.2	23.2	55.0	9.7	13.8	7.1	80.0
Colorado	104,100	53.1	15.2	29.5	13.2	21.8	58.0	6.9	17.5	*1.1	78.4
Wisconsin	125,400	52.6	16.1	37.1	9.1	24.7	48.6	8.3	10.9	4.4	65.7
Missouri	138,000	52.2	20.3	31.1	10.2	24.9	61.8	8.8	15.9	4.6	67.9
Nevada	33,900	52.1	8.1	34.8	13.4	23.6	67.5	5.4	18.9	3.4	83.5
Alabama	94,900	52.0	18.7	31.7	11.4	26.3	69.5	9.2	16.5	3.2	73.9
New Jersey	178,700	52.0	6.9	27.1	14.5	23.7	55.9	7.7	14.3	5.1	100.0
North Carolina	168,000	51.9	14.5	29.1	10.0	23.9	63.7	10.6	15.6	*0.8	68.7
West Virginia	37,300	51.9	24.1	34.8	8.9	28.1	64.0	7.1	17.4	3.3	48.2
Oregon	91,700	51.6	13.3	41.4	13.4	23.5	56.2	8.8	13.4	2.3	69.5
Minnesota	128,500	51.1	15.2	35.0	9.0	22.8	53.6	8.8	14.1	4.0	62.2
Indiana	137,900	50.3	19.0	31.1	12.1	23.8	57.3	8.3	13.6	3.9	72.2
Idaho	33,800	49.9	17.8	44.7	13.6	24.4	56.9	5.6	13.6	*1.1	28.0
Arizona	93,900	49.7	20.2	28.4	13.9	22.8	63.0	8.0	16.3	*1.1	85.5
Kentucky	86,400	49.5	26.8	32.0	12.4	25.6	63.8	8.2	13.7	2.0	53.2
New Mexico	42,600	49.4	17.0	39.0	12.2	23.5	67.8	4.3	17.2	*0.7	57.0
North Dakota	20,700	49.1	16.4	34.9	7.4	22.9	53.5	5.1	16.5	3.0	39.4
South Carolina	82,200	48.8	18.0	34.1	10.2	28.7	65.6	8.9	16.2	*0.2	70.1
Kansas	72,200	48.3	19.5	36.5	10.7	22.7	53.4	5.2	16.1	2.7	50.1
Tennessee	111,500	48.2	16.6	39.4	10.0	26.8	65.0	8.2	16.1	*1.6	71.4
Florida	352,500	47.5	15.8	19.0	17.3	23.0	68.4	5.9	13.8	*0.9	94.4
Utah	44,900	47.3	17.4	30.7	13.9	21.2	54.0	7.9	16.3	*1.8	72.7
Wyoming	16,900	47.3	24.1	35.9	12.6	20.9	59.6	5.2	15.1	*1.1	30.7
California	804,300	47.0	15.9	45.2	13.5	21.7	58.9	10.1	11.0	3.8	95.7
Nebraska	48,000	46.2	18.8	35.1	12.0	26.6	54.8	5.4	15.2	*2.1	46.5
Alaska	15,200	46.2	8.3	31.3	9.1	22.1	59.0	*3.9	15.1	*3.5	47.6
South Dakota	23,700	44.7	20.5	45.8	12.0	25.3	56.1	5.0	13.0	*1.2	27.3
Texas	409,600	44.7	16.9	36.6	13.1	19.2	67.0	7.7	15.5	*1.1	81.4
Iowa	93,300	44.0	23.5	42.6	7.7	25.4	50.2	5.6	10.1	3.0	36.4
Oklahoma	84,800	43.9	21.9	37.5	12.7	22.1	62.0	9.1	11.6	*1.3	59.5
Louisiana	91,400	43.9	22.3	27.4	9.9	24.3	67.4	6.9	15.5	*1.8	77.3
Mississippi	56,900	43.3	22.1	39.0	8.6	28.6	65.7	8.1	15.7	0.6	29.2
Arkansas	63,600	40.3	21.4	34.6	13.2	25.7	64.6	7.0	10.8	*1.5	52.1
Montana	29,400	40.0	23.4	40.1	11.8	27.7	54.6	6.1	9.9	4.2	23.2

* Figure does not meet standard of reliability or precision.

¹Low-wage employees earned less than \$5 per hour or less than \$10,000 per year. Denominators exclude cases with any missing data in wage and salary categories.

²Denominators exclude cases with missing data.

³An establishment is defined as a business at a single physical location.

NOTES: Estimates in this table are based on a December 31, 1993, reference period. Figures may not add to totals because of rounding.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey (NEHIS).

Table 6. Number of private establishments offering 1 or more major health plans, and percent self-insuring at least 1 plan by firm size and selected characteristics: United States, 1993

Establishment characteristics	Number of establishments offering one or more major plans ^{1,2}	Firm size ³				
		All firm sizes	Less than 100 employees	100–499 employees	500 or more employees	Less than 50 employees
Percent self-insuring at least 1 major plan ^{4,5}						
United States	3,244,700	20.9	5.7	35.0	80.1	4.5
Industry group						
Agriculture, forestry, and fishing	65,600	6.5	*5.0	*29.5	82.0	*4.2
Mining	21,800	33.2	*18.1	*36.9	71.7	*15.1
Construction	213,600	8.6	4.6	52.4	64.9	4.1
Manufacturing	310,500	23.5	7.2	46.0	85.1	5.4
Transportation, communication, and utilities	168,200	31.2	3.4	55.0	86.5	*2.0
Wholesale trade	329,500	21.9	6.0	47.2	88.6	4.2
Retail trade	637,000	30.0	4.8	21.1	83.6	3.9
Finance, insurance, and real estate	351,600	29.6	7.4	30.8	82.9	5.2
Services	1,146,900	13.5	5.6	31.7	65.3	4.8
Ownership						
For profit	2,803,500	21.0	5.2	35.9	83.4	4.1
Incorporated	2,249,900	24.3	5.7	37.2	84.1	4.2
Unincorporated	553,600	7.5	3.8	24.9	69.0	3.6
Nonprofit	345,000	18.5	9.4	28.3	55.3	8.4
Other	60,700	23.4	*4.6	45.4	58.7	*4.7
Age of firm						
Less than 5 years	254,900	8.4	3.9	36.7	60.1	3.2
5–9 years	460,000	11.1	5.2	29.8	71.5	4.4
10–24 years	1,100,700	10.9	4.5	29.7	70.3	3.6
25 years or more	1,366,900	33.2	7.5	38.3	82.9	6.0
Location of establishments in firm						
1 location only	1,917,800	5.4	4.8	31.3	71.7	4.4
2 or more locations, all in same State	500,900	16.0	6.9	25.8	57.3	4.7
2 or more locations, multiple States	800,400	60.9	11.7	43.5	82.7	5.6
Geographic division						
New England	207,300	16.6	4.7	35.0	80.2	4.0
Middle Atlantic	479,900	16.6	4.7	27.9	76.9	4.5
East North Central	524,200	22.9	6.5	48.9	84.1	5.1
West North Central	256,500	21.2	6.6	37.8	79.9	5.0
South Atlantic	579,900	23.0	5.3	36.0	82.1	4.0
East South Central	169,500	24.0	5.5	28.6	80.3	4.8
West South Central	288,800	26.8	8.9	31.6	77.0	6.6
Mountain	198,100	21.6	5.7	33.1	84.0	4.7
Pacific	540,500	17.4	4.7	30.1	76.4	3.6
Presence of union employees						
No union employees	2,981,800	18.0	5.5	34.8	77.0	4.4
Has union employees	158,700	34.9	12.1	38.2	79.1	10.9
Percent of low-wage employees ⁶						
50 percent or more of employees are low-wage	224,200	19.6	4.6	21.6	66.6	4.3
50 percent or more of employees are not low-wage	2,710,600	16.1	5.7	35.8	75.0	4.5

* Figure does not meet standard of reliability or precision.

¹An establishment is defined as a business at a single physical location.

²Major health plans typically cover hospital care and doctor visits.

³Number of employees nationwide as reported by respondent.

⁴Denominators exclude cases with unknown self-insurance status.

⁵Includes establishments that self-insure one or more plans entirely themselves and those that partially self-insure one or more plans (that is, with stop-loss or reinsurance).

⁶Low-wage employees earned less than \$5 per hour or less than \$10,000 per year.

NOTES: Estimates in this table are based on plans offered during the 1993 benefit year. Figures may not add to totals because of rounding. Totals by ownership, age of firm, location of establishment, presence of union employees, or percent of low-wage employees do not sum to the U.S. estimate since unknowns for each of these categories are not included.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey (NEHIS).

Table 7. Percent of private establishments offering 1 or more major health plans that self-insure at least 1 major plan by firm size, adjusted by firm size and State: United States, 1993

State	Firm size ¹						Firm-size-adjusted percentage ²
	All firm sizes	Less than 100 employees	100–499 employees	500 or more employees	50 or more employees	100 or more employees	
	Percent self-insuring at least 1 major plan ³⁻⁵						
United States	20.9	5.7	35.0	80.1	55.3	64.3	20.9
New England:							
Maine	13.2	*1.0	41.6	74.9	47.8	58.5	17.2
New Hampshire	20.6	9.0	39.7	76.7	55.3	66.3	23.7
Vermont	16.8	7.5	43.9	75.9	55.9	60.8	22.9
Massachusetts	17.5	4.6	30.3	85.1	53.7	66.2	20.4
Rhode Island	12.0	*3.9	*21.0	64.5	37.6	48.3	16.2
Connecticut	16.4	4.1	39.4	79.6	55.5	64.6	20.4
Middle Atlantic:							
New York	14.5	4.6	21.0	72.2	41.1	49.6	17.1
New Jersey	23.2	8.0	42.8	82.3	59.8	69.2	23.6
Pennsylvania	15.7	*3.0	31.1	78.9	52.9	63.0	17.9
East North Central:							
Ohio	25.7	9.7	55.7	85.5	65.8	73.5	26.5
Indiana	27.8	6.3	57.8	90.1	70.4	79.0	24.6
Illinois	20.5	4.8	39.8	77.2	54.6	63.7	19.7
Michigan	20.5	5.1	35.1	88.9	60.7	73.7	22.0
Wisconsin	20.7	6.4	61.3	80.1	57.8	74.0	23.7
West North Central:							
Minnesota	20.8	6.4	44.6	77.0	53.0	61.6	21.7
Iowa	24.0	10.8	39.9	84.1	61.5	67.7	25.2
Missouri	18.6	*3.8	31.3	76.0	48.2	61.2	18.4
North Dakota	19.9	*7.7	*26.5	74.1	44.4	55.9	20.7
South Dakota	17.3	*5.8	40.9	83.6	47.5	63.0	21.5
Nebraska	23.0	*5.6	41.6	80.3	57.1	64.6	20.7
Kansas	24.4	7.9	29.4	88.2	62.1	68.3	23.3
South Atlantic:							
Delaware	22.5	*7.3	*23.2	80.9	55.0	64.8	21.2
Maryland	20.2	6.0	33.3	78.4	52.7	64.5	20.5
District of Columbia	15.6	*6.2	*23.6	63.3	38.1	45.4	19.3
Virginia	20.7	5.5	26.7	82.4	57.6	65.9	20.2
West Virginia	24.0	*6.3	34.3	87.4	58.4	63.9	22.4
North Carolina	20.9	4.9	34.6	81.8	54.1	63.9	20.2
South Carolina	25.6	*4.6	43.7	88.7	68.8	76.0	21.7
Georgia	28.8	6.2	41.3	84.9	63.6	72.3	22.2
Florida	23.1	*4.6	38.5	80.3	56.6	66.5	20.3
East South Central:							
Kentucky	20.0	*4.5	22.0	83.1	52.7	59.8	19.2
Tennessee	26.0	*6.1	32.4	80.6	57.4	66.9	21.4
Alabama	23.7	6.3	28.7	75.6	57.3	62.5	20.6
Mississippi	27.1	*4.7	32.0	84.7	59.0	66.7	20.6
West South Central:							
Arkansas	19.4	*4.7	*20.5	74.8	46.9	55.5	18.7
Louisiana	34.3	9.4	60.7	79.4	67.1	75.0	24.0
Oklahoma	24.1	*7.3	46.3	80.5	62.2	71.5	23.7
Texas	26.7	9.7	25.6	76.0	56.2	60.5	22.3
Mountain:							
Montana	19.3	*7.5	*26.2	90.0	55.1	63.7	23.0
Idaho	17.0	*5.4	*30.4	69.0	48.1	54.8	18.6
Wyoming	23.9	*7.4	*38.9	89.4	65.7	72.6	24.5
Colorado	23.4	6.3	42.8	87.6	60.6	70.4	22.8
New Mexico	21.8	*5.4	*13.4	78.0	55.1	61.2	18.5
Arizona	21.9	*5.9	28.8	88.3	50.3	59.9	21.6
Utah	20.6	*2.0	*22.0	83.4	52.5	64.4	17.4
Nevada	21.2	*6.0	56.0	79.5	53.7	70.1	21.3
Pacific:							
Washington	12.7	*1.7	27.5	69.5	43.4	55.0	16.2
Oregon	17.5	*5.6	*21.4	82.6	46.3	60.4	20.1
California	19.0	5.5	32.4	78.3	52.7	61.4	20.1
Alaska	25.2	*9.3	*25.5	75.0	56.9	61.5	21.2
Hawaii	6.7	*0.6	*14.7	49.2	30.5	35.9	11.3

* Figure does not meet standard of reliability or precision.

¹Number of employees nationwide as reported by respondent.

²See the [Technical notes](#) for a description of the procedure used to calculate the firm-size-adjusted percent.

³Major health plans typically cover hospital care and doctor visits.

⁴Denominators exclude cases with unknown self-insurance status.

⁵Includes establishments that self-insure one or more plans entirely themselves and those that partially self-insure one or more plans (that is, with stop-loss or reinsurance).

NOTES: Estimates in this table are based on plans offered during the 1993 benefit year.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey (NEHIS).

Table 8. Number of private establishments offering 1 or more major health plans, percent of establishments offering a choice of major plans, and percent offering a type of plan by selected characteristics: United States, 1993

Establishment characteristics	Number of establishments offering one or more major plans ^{1,2}	Percent offering:				
		2 or more major plans	Conventional/indemnity plan	Any managed care plan ³	Health maintenance organization ³	Preferred provider organization
United States	3,244,700	18.6	52.0	55.5	25.9	35.0
Firm size ⁴						
Less than 50 employees	2,184,200	11.5	52.3	52.1	22.9	31.6
50 or more employees	1,060,500	33.3	51.4	62.6	32.1	42.0
Less than 10 employees	1,311,100	10.1	56.0	47.5	20.5	28.7
10–24 employees	582,500	11.7	47.9	56.9	25.3	34.7
25–99 employees	492,900	17.3	43.4	63.6	29.6	39.6
100–499 employees	294,500	24.1	44.1	64.8	31.5	43.3
500–999 employees	90,200	29.3	53.0	59.1	27.0	42.6
1,000 or more employees	473,300	46.4	59.9	61.1	33.9	41.7
Industry group						
Agriculture, forestry, and fishing	65,600	8.7	55.4	47.1	16.3	32.8
Mining	21,800	21.4	64.7	41.4	11.6	34.9
Construction	213,600	20.6	57.1	51.6	23.5	30.8
Manufacturing	310,500	19.1	50.2	58.8	29.6	34.3
Transportation, communication, and utilities	168,200	23.2	49.9	60.7	27.0	40.1
Wholesale trade	329,500	17.1	52.0	56.1	23.3	37.0
Retail trade	637,000	19.3	54.6	52.7	25.2	33.2
Finance, insurance, and real estate	351,600	26.6	50.6	59.2	30.8	38.2
Services	1,146,900	15.6	50.5	55.6	25.5	34.8
Ownership						
For profit	2,803,500	18.2	52.4	55.1	25.1	35.1
Incorporated	2,249,900	20.0	52.3	56.1	25.6	36.1
Unincorporated	553,600	11.0	52.5	51.1	22.9	31.0
Nonprofit	345,000	20.3	50.9	56.5	30.3	33.4
Other	60,700	24.2	46.2	62.7	33.7	39.5
Age of firm						
Less than 5 years	254,900	11.5	45.0	58.8	25.0	37.4
5–9 years	460,000	13.4	49.8	55.7	25.4	33.8
10–24 years	1,100,700	14.0	50.2	55.2	24.7	34.4
25 years or more	1,366,900	24.9	55.8	54.8	27.3	35.0
Location of establishments in firm						
1 location only	1,917,800	12.8	52.5	52.4	24.0	31.4
2 or more locations, all in same State	500,900	19.0	45.5	61.9	30.5	38.8
2 or more locations, multiple States	800,400	32.0	55.3	58.8	27.5	41.0
Metropolitan area indicator						
Metropolitan area	2,660,200	20.0	48.8	59.6	29.4	36.5
Nonmetropolitan area	584,500	12.2	66.8	36.8	9.9	28.1
Percent of employees that are full-time						
Less than 25 percent	127,300	17.4	50.9	55.5	26.4	34.3
25–49 percent	255,700	16.1	57.4	48.9	22.4	31.5
50–74 percent	616,700	20.3	54.5	53.8	27.1	31.9
75 percent or more	2,245,000	18.5	50.8	56.8	25.9	36.3
Presence of union employees						
No union employees	2,981,800	15.8	50.8	55.3	25.1	35.0
Has union employees	158,700	51.5	61.6	62.9	34.9	38.8
Percent of low-wage employees ⁵						
50 percent or more of employees are low-wage	224,200	12.6	55.0	48.6	19.2	32.0
50 percent or more of employees are not low-wage	2,710,600	17.0	50.8	55.9	25.9	35.0

¹An establishment is defined as a business at a single physical location. ²Major health plans typically cover hospital care and doctor visits.

³In this report, point of service (POS) plans are included with HMO's. ⁴Number of employees nationwide as reported by respondent.

⁵Low-wage employees earned less than \$5 per hour or less than \$10,000 per year.

NOTES: Estimates in this table are based on plans offered during the 1993 benefit year. Figures may not add to totals because of rounding. Totals by ownership, age of firm, location of establishment, presence of union employees, or percent of low-wage employees do not sum to the U.S. estimate since unknowns for each of these categories are not included.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey (NEHIS).

Table 9. Number of private establishments offering 1 or more major health plans, percent of establishments offering a choice of major plans, and percent offering a type of plan by State: United States, 1993

State	Number of establishments offering 1 or more major plans ^{1,2}	Percent offering:				
		2 or more major plans	Conventional/indemnity plan	Any managed care plan ³	Health maintenance organization ³	Preferred provider organization
United States	3,244,700	18.6	52.0	55.5	25.9	35.0
New England:						
Maine	19,800	9.3	73.5	31.1	17.2	15.0
New Hampshire	19,500	11.5	68.9	36.9	16.3	24.7
Vermont	11,100	17.5	62.8	47.3	28.5	21.0
Massachusetts	89,700	25.1	46.3	65.3	51.1	20.7
Rhode Island	16,200	32.1	49.9	65.9	44.9	28.3
Connecticut	50,900	22.2	71.5	40.1	27.5	16.3
Middle Atlantic:						
New York	227,100	31.2	64.7	50.9	36.5	19.8
New Jersey	94,000	21.4	69.3	41.5	23.1	23.5
Pennsylvania	158,700	21.9	76.5	37.1	22.2	18.6
East North Central:						
Ohio	135,600	18.2	61.6	48.1	22.4	30.1
Indiana	69,000	11.5	61.8	42.9	10.9	33.7
Illinois	139,400	18.6	50.3	54.7	16.5	42.2
Michigan	114,000	19.2	62.2	48.2	21.9	32.0
Wisconsin	66,200	14.5	55.0	50.3	24.7	29.3
West North Central:						
Minnesota	65,800	14.0	46.6	57.3	23.5	36.1
Iowa	41,700	6.8	54.3	48.6	10.7	38.9
Missouri	71,200	14.5	40.0	64.8	18.5	51.9
North Dakota	10,100	10.9	76.1	29.0	8.2	21.0
South Dakota	10,500	*5.7	77.5	24.6	10.0	14.5
Nebraska	22,200	11.1	68.1	36.6	10.1	28.1
Kansas	34,900	12.8	55.4	48.3	18.2	32.9
South Atlantic:						
Delaware	10,100	22.7	69.9	45.5	31.0	18.7
Maryland	65,000	18.7	44.4	63.5	34.1	36.1
District of Columbia	12,700	25.4	35.4	74.7	43.2	42.6
Virginia	85,100	12.4	53.7	51.6	20.7	35.0
West Virginia	19,300	11.3	75.3	26.9	8.4	19.4
North Carolina	86,600	11.7	66.3	37.5	11.0	29.6
South Carolina	40,100	12.5	69.5	34.9	10.4	25.8
Georgia	91,100	13.1	56.5	47.9	12.2	37.6
Florida	169,900	16.9	44.9	61.5	24.8	42.6
East South Central:						
Kentucky	43,000	11.5	57.3	46.3	17.9	30.7
Tennessee	53,500	12.6	47.1	57.1	11.5	47.6
Alabama	48,500	12.8	47.2	57.5	16.0	43.6
Mississippi	24,600	12.2	64.1	38.6	9.2	29.7
West South Central:						
Arkansas	25,900	10.9	66.5	37.2	14.8	23.0
Louisiana	39,700	15.4	57.0	48.0	7.9	41.1
Oklahoma	36,700	13.8	47.2	57.1	15.4	43.9
Texas	186,500	13.2	58.1	48.6	13.5	39.0
Mountain:						
Montana	11,700	14.7	62.6	40.7	17.9	25.0
Idaho	17,000	8.9	66.3	36.6	10.2	27.5
Wyoming	8,000	6.9	81.0	20.6	*2.9	17.8
Colorado	54,600	13.2	38.4	67.2	28.6	42.5
New Mexico	21,300	14.4	53.5	54.9	32.1	26.6
Arizona	46,800	14.5	27.8	75.5	33.9	47.9
Utah	21,300	20.7	46.1	61.6	25.2	44.3
Nevada	17,400	16.1	34.2	71.0	20.4	55.7
Pacific:						
Washington	81,900	19.0	34.3	75.0	27.3	55.9
Oregon	47,000	20.8	38.5	69.3	44.3	32.7
California	379,800	27.2	22.6	84.2	50.2	47.8
Alaska	7,000	11.9	66.6	36.1	*4.6	31.6
Hawaii	24,800	34.7	27.9	81.2	52.2	48.3

* Figure does not meet standard of reliability or precision.

¹An establishment is defined as a business at a single physical location.

²Major health plans typically cover hospital care and doctor visits.

³In this report, point of service (POS) plans are included with HMO's.

NOTES: Figures may not add to totals because of rounding. Estimates in this table are based on plans offered during the 1993 benefit year.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey (NEHIS).

Table 10. Number of private establishments offering health insurance and percent offering health insurance to retirees, according to selected characteristics: United States, 1993

Establishment characteristics	Number of establishments offering health insurance ^{1,2}	Percent offering health insurance to:	
		Retirees 65 years and over ³	Retirees under 65 years of age ³
United States	3,236,500	19.6	22.6
Firm size ⁴			
Less than 50 employees	2,176,200	12.5	15.5
50 or more employees	1,060,300	34.3	37.0
Less than 10 employees	1,300,600	10.4	14.7
10–24 employees	584,100	14.9	15.9
25–99 employees	495,100	17.5	17.9
100 or more employees	856,800	38.3	41.8
100–499 employees	294,100	20.2	21.7
500–999 employees	90,400	29.3	30.3
1,000 or more employees	472,200	51.3	56.6
Industry group			
Agriculture, forestry, and fishing	65,200	11.3	12.6
Mining	21,800	27.7	29.3
Construction	214,300	10.9	16.1
Manufacturing	310,400	18.4	18.9
Transportation, communication, and utilities	166,900	28.7	34.2
Wholesale trade	328,500	21.8	25.3
Retail trade	635,500	21.4	24.0
Finance, insurance, and real estate	351,300	33.2	37.2
Services	1,142,600	14.8	17.4
Age of firm			
Less than 5 years	256,400	10.5	14.9
5–9 years	456,400	10.7	15.9
10–24 years	1,095,100	10.6	13.9
25 years or more	1,366,600	30.9	32.5
Multi-State firm indicator			
Single State firm	2,412,200	14.0	16.7
Multi-State firm	799,200	36.5	39.9
Percent of employees that are full-time			
Less than 25 percent	124,100	21.0	22.0
25–49 percent	250,900	16.9	20.3
50–74 percent	614,500	21.1	24.2
75 percent or more	2,247,000	19.5	22.4
Presence of union employees			
No union employees	2,974,500	17.7	20.6
Has union employees	158,200	29.1	32.6
Percent of low-wage employees ⁵			
50 percent or more of employees are low-wage	223,600	14.1	17.8
50 percent or more of employees are not low-wage	2,704,000	17.3	20.0

¹An establishment is defined as a business at a single physical location.

²Includes establishments with no retirees.

³Denominators exclude unknowns.

⁴Number of employees nationwide as reported by respondent.

⁵Low-wage employees earned less than \$5 per hour or less than \$10,000 per year.

NOTES: Estimates in this table are based on a December 31, 1993, reference period. Figures may not add to totals because of rounding. Totals by multi-State firm, age of firm, presence of union employees, or percent of low-wage employees do not sum to the U.S. estimate since unknowns for each of these categories are not included.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey (NEHIS).

Table 11. Number of private establishments offering health insurance and percent with employee requirements for health benefits eligibility, according to selected characteristics: United States, 1993

Establishment characteristics	Number of establishments offering health insurance ¹	Eligibility requirements for employees		
		Percent with minimum work hours required for eligibility ²	Percent with waiting period for new employees ²	Average waiting period in days ²
United States	3,236,500	73.5	70.6	91
Firm size ³				
Less than 50 employees	2,176,200	66.6	65.1	99
50 or more employees	1,060,300	87.4	81.5	78
Less than 10 employees	1,300,600	60.4	55.2	107
10–24 employees	584,100	74.7	78.6	95
25–99 employees	493,000	79.3	82.0	82
100 or more employees	856,800	88.8	80.8	77
Industry group				
Agriculture, forestry, and fishing	65,200	61.6	66.1	191
Mining	21,800	72.6	64.9	84
Construction	214,300	54.5	64.7	111
Manufacturing	310,400	69.0	79.8	79
Transportation, communication, and utilities	166,900	75.4	75.7	93
Wholesale trade	328,500	72.0	74.1	82
Retail trade	635,500	78.2	77.6	102
Finance, insurance, and real estate	351,300	81.3	68.3	78
Services	1,142,600	74.0	64.5	86
Ownership				
For profit	2,799,500	72.9	72.3	93
Incorporated	2,246,300	75.5	75.7	89
Unincorporated	553,300	62.4	58.2	115
Nonprofit	340,300	77.4	54.7	79
Other	60,900	76.1	73.5	83
Age of firm				
Less than 5 years	256,400	69.8	64.1	90
5–9 years	456,400	68.4	70.0	97
10–24 years	1,095,100	70.6	71.5	95
25 years or more	1,366,600	77.7	70.7	87
Multi-State firm indicator				
Single State firm	2,412,200	69.0	67.3	97
Multi-State firm	799,200	86.8	80.1	76
Metropolitan area indicator				
Metropolitan area	2,653,100	74.3	71.6	91
Nonmetropolitan area	583,400	70.1	65.8	92
Percent of employees that are full-time				
Less than 25 percent	124,100	76.2	65.2	112
25–49 percent	250,900	77.2	67.0	99
50–74 percent	614,500	78.3	68.3	100
75 percent or more	2,247,000	71.6	71.9	87
Presence of union employees				
No union employees	2,974,500	73.0	70.3	93
Has union employees	158,200	71.1	74.7	75
Percent of low-wage employees ⁴				
50 percent or more of employees are low-wage	223,600	64.6	60.8	115
50 percent or more of employees are not low-wage	2,704,000	72.8	71.0	91

¹An establishment is defined as a business at a single physical location.

²Denominators exclude unknowns.

³Number of employees nationwide as reported by respondent.

⁴Low-wage employees earned less than \$5 per hour or less than \$10,000 per year.

NOTES: Estimates in this table are based on a December 31, 1993, reference period. Figures may not add to totals because of rounding. Totals by ownership, multi-State firm, age of firm, presence of union employees, or percent of low-wage employees do not sum to the U.S. estimate since unknowns for each of these categories are not included.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey (NEHIS).

Table 12. Percent of private sector employees working in establishments offering health insurance by firm size, according to selected characteristics: United States, 1993

Establishment characteristics	Firm size ¹							
	All firm sizes	Less than 10 employees	10–24 employees	25–99 employees	100–999 employees	1,000 or more employees	Less than 50 employees	50 or more employees
	Percent of employees working in establishments offering health insurance							
United States	83.1	39.2	68.8	84.2	95.8	99.3	58.3	96.8
Industry group								
Agriculture, forestry, and fishing	54.7	26.5	61.0	84.0	82.6	85.1	47.0	81.1
Mining	91.9	38.1	88.1	94.2	94.9	100.0	70.8	97.2
Construction	63.1	38.1	66.9	78.2	87.6	99.8	53.1	87.6
Manufacturing	93.3	43.9	76.3	89.6	98.6	100.0	69.2	98.7
Transportation, communication, and utilities	91.2	46.1	72.2	84.5	98.8	99.9	66.0	98.3
Wholesale trade	86.9	52.1	81.6	93.7	96.4	100.0	72.3	98.2
Retail trade	72.1	27.1	49.5	73.2	90.1	98.6	43.1	94.2
Finance, insurance, and real estate	91.3	46.4	89.6	93.9	99.8	99.6	69.8	99.0
Services	82.8	42.8	72.3	85.1	95.3	98.7	60.9	96.3
Ownership								
For profit	82.7	40.4	69.9	84.5	95.6	99.3	59.0	96.9
Incorporated	88.2	50.8	74.7	86.7	95.6	99.4	68.5	97.3
Unincorporated	52.6	27.4	48.5	65.8	95.9	96.3	35.4	91.7
Nonprofit	91.7	52.5	71.7	89.3	98.8	99.2	70.1	98.5
Other	91.5	41.3	82.1	92.4	96.4	98.7	69.8	97.8
Age of firm								
Less than 5 years	59.9	32.0	48.8	70.2	89.0	97.6	42.0	90.9
5–9 years	68.8	34.6	61.2	78.2	91.0	97.7	50.4	91.6
10–24 years	76.0	41.3	72.0	85.1	95.4	98.0	59.9	94.9
25 years or more	93.9	52.3	80.3	91.3	98.4	99.7	73.6	98.8
Location of establishments in firm								
1 location only	68.6	39.1	68.6	83.0	93.9	99.1	56.2	93.2
2 or more locations, all in same State	90.3	41.4	69.0	87.4	95.2	99.8	72.9	95.6
2 or more locations, multiple States	98.5	65.9	86.6	91.3	98.4	99.3	86.7	98.9
Metropolitan area indicator								
Metropolitan area	84.6	40.8	70.7	84.8	96.1	99.3	60.1	97.1
Nonmetropolitan area	75.3	33.7	60.7	81.7	94.5	98.9	51.1	95.1
Percent of employees that are full-time								
Less than 25 percent	61.8	13.2	22.0	57.9	86.2	95.9	26.6	88.7
25–49 percent	69.5	26.0	49.6	70.1	87.5	98.1	41.5	92.0
50–74 percent	77.1	34.4	64.3	76.7	94.2	98.7	49.1	96.0
75 percent or more	88.5	46.9	79.4	91.0	97.8	99.8	68.4	98.2
Presence of union employees								
No union employees	80.7	40.6	69.5	84.4	95.8	98.8	59.0	96.2
Has union employees	98.3	69.8	90.8	98.1	98.9	99.9	89.4	99.5
Percent of low-wage employees ²								
50 percent or more of employees are low-wage	49.3	16.5	27.1	51.8	78.4	92.7	27.1	80.2
50 percent or more of employees are not low-wage	84.7	46.4	76.1	89.2	97.6	99.3	65.9	97.5

¹Number of employees nationwide as reported by respondent.

²Low-wage employees earned less than \$5 per hour or less than \$10,000 per year.

NOTES: Estimates in this table are based on a December 31, 1993, reference period. Denominators for the percents included in this table are provided in [table III](#) of the Technical notes.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey (NEHIS).

Table 13. Percent distribution of private sector employees by firm size, according to selected characteristics: United States, 1993

Establishment characteristics	Firm size ¹						All firm sizes	Less than 50 employees	50 or more employees
	All firm sizes	Less than 10 employees	10–24 employees	25–99 employees	100–999 employees	1,000 or more employees			
	Percent distribution								
United States	100.0	16.0	10.9	16.5	21.3	35.3	100.0	35.6	64.4
Industry group									
Agriculture, forestry, and fishing	100.0	42.7	20.5	19.5	9.9	*7.5	100.0	77.4	22.6
Mining	100.0	8.0	*7.0	12.7	30.2	42.1	100.0	19.9	80.1
Construction	100.0	38.0	18.2	26.2	13.0	4.5	100.0	71.2	28.8
Manufacturing	100.0	6.1	6.1	13.7	26.2	47.9	100.0	18.2	81.8
Transportation, communication, and utilities	100.0	8.6	6.1	14.0	17.9	53.4	100.0	21.8	78.2
Wholesale trade	100.0	17.2	15.1	21.4	20.7	25.6	100.0	43.5	56.5
Retail trade	100.0	19.6	13.2	18.4	15.4	33.4	100.0	43.3	56.7
Finance, insurance, and real estate	100.0	12.7	7.4	13.9	27.3	38.7	100.0	26.3	73.7
Services	100.0	17.5	12.0	16.0	22.3	32.2	100.0	38.2	61.8
Ownership									
For profit	100.0	17.0	11.6	16.6	19.6	35.2	100.0	37.4	62.6
Incorporated	100.0	11.2	11.2	17.6	20.2	39.9	100.0	31.5	68.5
Unincorporated	100.0	49.0	13.6	11.1	16.6	9.6	100.0	69.5	30.5
Nonprofit	100.0	7.7	7.9	16.7	30.2	37.6	100.0	24.1	75.9
Other	100.0	7.5	6.6	17.9	25.4	42.5	100.0	22.3	77.7
Age of firm									
Less than 5 years	100.0	32.9	18.7	20.4	16.7	11.3	100.0	63.5	36.5
5–9 years	100.0	28.0	15.5	21.8	18.9	15.8	100.0	55.2	44.8
10–24 years	100.0	24.8	16.9	22.4	21.9	13.9	100.0	53.9	46.1
25 years or more	100.0	6.7	6.4	12.8	22.6	51.4	100.0	19.5	80.5
Location of establishments in firm									
1 location only	100.0	32.7	19.6	24.9	16.7	6.1	100.0	66.4	33.6
2 or more locations, all in same State	100.0	2.9	9.7	22.6	42.2	22.5	100.0	23.1	76.9
2 or more locations, multiple States	100.0	0.3	0.8	4.4	19.7	74.9	100.0	2.7	97.3
Metropolitan area indicator									
Metropolitan area	100.0	14.7	10.6	16.3	21.3	37.1	100.0	33.8	66.2
Nonmetropolitan area	100.0	22.5	12.8	17.8	21.0	25.9	100.0	45.0	55.0
Percent of employees that are full-time									
Less than 25 percent	100.0	17.7	12.9	21.0	20.6	27.8	100.0	43.4	56.6
25–49 percent	100.0	20.5	14.4	17.8	17.7	29.6	100.0	44.7	55.3
50–74 percent	100.0	21.8	11.3	13.3	17.8	35.8	100.0	40.3	59.7
75 percent or more	100.0	13.7	10.2	16.8	22.7	36.6	100.0	32.4	67.6
Presence of union employees									
No union employees	100.0	18.8	12.9	18.9	22.5	26.9	100.0	41.7	58.3
Has union employees	100.0	2.5	3.6	11.4	28.4	54.0	100.0	12.0	88.0
Percent of low-wage employees ²									
50 percent or more of employees are low-wage	100.0	29.1	14.8	21.0	20.5	14.6	100.0	58.2	41.8
50 percent or more of employees are not low-wage	100.0	17.2	13.0	20.0	24.2	25.6	100.0	40.5	59.5

* Figure does not meet standard of reliability or precision.

¹Number of employees nationwide as reported by respondent.

²Low-wage employees earned less than \$5 per hour or less than \$10,000 per year.

NOTES: Estimates in this table are based on a December 31, 1993, reference period. Figures may not add to totals because of rounding. Denominators for the percents included in this table are provided in [table III](#) of the Technical notes.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey (NEHIS).

Table 14. Percent of private sector employees working in establishments offering health insurance by firm size and State: United States, 1993

State	Firm size ¹						
	All firm sizes	Less than 10 employees	10–24 employees	25–99 employees	100 or more employees	Less than 50 employees	50 or more employees
	Percent of employees working in establishments offering health insurance						
United States	83.1	39.2	68.8	84.2	98.0	58.3	96.8
New England:							
Maine	82.3	50.4	71.3	80.8	98.7	61.2	97.4
New Hampshire	84.7	44.7	66.4	96.4	99.9	64.3	99.9
Vermont	82.7	43.6	82.0	97.6	99.7	65.5	99.1
Massachusetts	90.3	52.0	83.9	96.6	99.6	72.5	99.1
Rhode Island	89.4	56.6	80.9	98.8	99.8	73.2	99.5
Connecticut	87.9	52.8	78.6	86.5	99.6	68.7	98.1
Middle Atlantic:							
New York	85.2	47.1	70.5	85.7	98.7	63.7	97.0
New Jersey	85.6	41.8	73.8	84.5	99.6	59.6	99.2
Pennsylvania	89.4	52.6	78.0	90.8	99.8	69.7	99.4
East North Central:							
Ohio	86.8	39.3	85.2	85.1	98.2	64.6	97.5
Indiana	85.8	33.6	70.0	91.2	99.7	61.2	98.4
Illinois	85.9	39.7	77.2	82.5	98.0	60.8	96.7
Michigan	86.8	51.0	72.2	88.0	96.5	66.5	96.3
Wisconsin	84.5	40.0	69.5	90.6	97.6	61.3	97.2
West North Central:							
Minnesota	82.4	33.7	66.2	85.9	98.2	57.3	97.2
Iowa	79.0	34.9	58.0	87.6	98.9	55.4	96.2
Missouri	81.9	39.8	71.3	81.1	96.5	59.9	94.3
North Dakota	73.0	39.7	69.0	63.9	95.9	50.9	93.6
South Dakota	73.3	37.4	55.1	78.9	95.5	49.4	93.5
Nebraska	78.6	32.1	63.3	75.7	98.6	53.6	93.8
Kansas	79.5	35.9	68.1	82.6	96.1	53.1	95.6
South Atlantic:							
Delaware	88.8	49.2	77.8	88.0	99.0	65.5	98.4
Maryland	85.9	44.4	74.1	92.2	98.0	64.6	97.8
District of Columbia	91.9	53.1	77.3	98.3	99.4	74.2	99.3
Virginia	86.1	44.4	71.2	90.7	99.3	63.2	99.4
West Virginia	79.8	40.0	64.5	78.3	97.7	55.6	97.1
North Carolina	84.9	40.9	68.6	83.4	99.2	59.1	97.5
South Carolina	81.7	36.8	57.9	79.9	99.0	51.7	96.9
Georgia	85.0	40.6	58.0	88.4	98.5	56.8	97.8
Florida	78.4	33.5	60.1	71.0	97.8	47.5	95.4
East South Central:							
Kentucky	82.6	35.5	65.8	91.4	97.3	58.7	96.3
Tennessee	85.0	34.8	64.4	83.4	99.3	52.1	98.7
Alabama	82.6	35.5	67.1	80.9	98.6	57.0	97.5
Mississippi	76.2	27.8	46.5	77.7	95.8	41.3	94.8
West South Central:							
Arkansas	76.6	22.4	60.1	75.1	98.2	42.5	96.1
Louisiana	75.4	22.6	61.4	80.2	92.8	48.1	92.2
Oklahoma	73.1	36.8	55.4	73.1	92.1	49.8	89.6
Texas	78.9	29.1	61.8	79.3	94.9	49.0	93.6
Mountain:							
Montana	68.4	30.7	55.1	84.4	97.9	49.1	95.4
Idaho	78.0	36.1	66.9	85.0	99.8	56.3	98.6
Wyoming	72.6	36.7	70.9	74.9	97.2	53.5	93.0
Colorado	83.5	36.5	79.6	87.2	98.5	61.7	96.9
New Mexico	75.8	33.1	67.5	79.9	93.3	54.8	91.2
Arizona	83.2	38.3	68.4	79.4	97.6	57.3	95.6
Utah	80.3	34.8	49.6	83.6	99.2	49.8	98.2
Nevada	82.0	40.5	54.3	78.1	96.4	53.7	93.9
Pacific:							
Washington	84.5	46.2	67.6	90.9	99.6	64.6	98.3
Oregon	79.6	45.0	65.2	85.8	95.8	59.7	95.0
California	79.7	32.8	67.8	80.8	98.1	53.1	97.4
Alaska	75.2	35.7	49.7	80.8	96.0	46.6	95.8
Hawaii	95.2	85.6	97.9	95.9	97.3	93.4	96.3

¹Number of employees nationwide as reported by respondent.

NOTES: Estimates in this table are based on a December 31, 1993, reference period. Denominators for the percents included in this table can be found in [table IV](#) of the Technical notes.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey (NEHIS).

Table 15. Percent distribution of private sector employees by firm size and State: United States, 1993

State	Firm size ¹					All firm sizes	Less than 50 employees	50 or more employees
	All firm sizes	Less than 10 employees	10–24 employees	25–99 employees	100 or more employees			
United States	100.0	16.0	10.9	16.5	56.6	100.0	35.6	64.4
Percent distribution								
New England:								
Maine	100.0	19.9	15.2	14.6	50.4	100.0	41.7	58.3
New Hampshire	100.0	18.7	12.2	20.8	48.3	100.0	42.6	57.4
Vermont	100.0	24.1	17.9	14.5	43.5	100.0	48.6	51.4
Massachusetts	100.0	15.3	9.4	18.2	57.1	100.0	33.3	66.7
Rhode Island	100.0	17.7	13.9	16.5	51.9	100.0	38.5	61.5
Connecticut	100.0	16.1	10.6	15.3	58.0	100.0	34.7	65.3
Middle Atlantic:								
New York	100.0	16.8	9.6	15.9	57.8	100.0	35.3	64.7
New Jersey	100.0	15.9	9.8	15.4	59.0	100.0	34.4	65.6
Pennsylvania	100.0	14.4	9.5	16.2	59.8	100.0	33.6	66.4
East North Central:								
Ohio	100.0	13.6	10.3	16.2	59.9	100.0	32.7	67.3
Indiana	100.0	14.1	10.6	16.9	58.4	100.0	34.0	66.0
Illinois	100.0	13.4	10.3	13.7	62.7	100.0	30.0	70.0
Michigan	100.0	13.3	9.3	15.9	61.5	100.0	31.8	68.2
Wisconsin	100.0	15.0	10.9	19.8	54.4	100.0	35.3	64.7
West North Central:								
Minnesota	100.0	14.7	13.5	16.5	55.3	100.0	37.1	62.9
Iowa	100.0	19.3	13.5	17.5	49.6	100.0	42.1	57.9
Missouri	100.0	15.2	12.9	17.9	54.0	100.0	36.1	63.9
North Dakota	100.0	22.3	14.5	20.0	43.2	100.0	48.2	51.8
South Dakota	100.0	21.9	14.1	22.7	41.3	100.0	45.8	54.2
Nebraska	100.0	17.9	12.2	16.4	53.5	100.0	37.8	62.2
Kansas	100.0	18.6	12.0	15.4	54.0	100.0	38.1	61.9
South Atlantic:								
Delaware	100.0	13.5	8.4	15.2	62.9	100.0	29.1	70.9
Maryland	100.0	15.4	12.1	15.9	56.5	100.0	35.7	64.3
District of Columbia	100.0	10.9	10.2	15.5	63.5	100.0	29.4	70.6
Virginia	100.0	15.6	11.9	14.6	57.8	100.0	36.6	63.4
West Virginia	100.0	17.9	11.8	18.7	51.5	100.0	41.7	58.3
North Carolina	100.0	14.4	10.6	16.9	58.1	100.0	32.8	67.2
South Carolina	100.0	15.5	12.4	13.1	58.9	100.0	33.5	66.5
Georgia	100.0	13.9	9.5	16.3	60.3	100.0	31.2	68.8
Florida	100.0	16.7	10.9	17.2	55.2	100.0	35.6	64.4
East South Central:								
Kentucky	100.0	16.7	10.7	16.6	55.9	100.0	36.4	63.6
Tennessee	100.0	13.6	9.8	13.2	63.4	100.0	29.4	70.6
Alabama	100.0	15.5	11.5	14.9	58.1	100.0	36.9	63.1
Mississippi	100.0	16.8	12.0	12.4	58.8	100.0	34.7	65.3
West South Central:								
Arkansas	100.0	18.1	12.7	12.9	56.3	100.0	36.3	63.7
Louisiana	100.0	16.4	12.5	16.1	55.0	100.0	38.2	61.8
Oklahoma	100.0	19.5	12.4	19.5	48.7	100.0	41.4	58.6
Texas	100.0	15.7	9.8	15.0	59.5	100.0	32.8	67.2
Mountain:								
Montana	100.0	28.4	17.7	21.4	32.6	100.0	58.3	41.7
Idaho	100.0	21.3	16.7	18.5	43.5	100.0	48.8	51.2
Wyoming	100.0	27.0	16.2	18.3	38.5	100.0	51.8	48.2
Colorado	100.0	17.5	10.2	20.0	52.3	100.0	38.2	61.8
New Mexico	100.0	20.4	11.3	17.6	50.7	100.0	42.4	57.6
Arizona	100.0	14.2	11.2	15.0	59.7	100.0	32.4	67.6
Utah	100.0	16.2	11.2	18.4	54.2	100.0	37.0	63.0
Nevada	100.0	12.9	9.3	18.2	59.6	100.0	29.7	70.3
Pacific:								
Washington	100.0	17.9	11.5	21.5	49.2	100.0	40.9	59.1
Oregon	100.0	20.0	11.4	25.4	43.1	100.0	43.8	56.2
California	100.0	18.1	11.8	17.4	52.7	100.0	39.9	60.1
Alaska	100.0	21.6	10.9	17.3	50.1	100.0	41.8	58.2
Hawaii	100.0	16.3	10.4	18.7	54.6	100.0	39.1	60.9

¹Number of employees nationwide as reported by respondent.

NOTES: Estimates in this table are based on a December 31, 1993, reference period. Figures may not add to totals because of rounding. Denominators for the percents included in this table are provided in table IV of the Technical notes.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey (NEHIS).

Table 16. Number of private sector employees, and percent eligible and enrolled in employer's plan by work schedule and selected establishment characteristics: United States, 1993

Establishment characteristics	All employees				Employees that are full-time				Employees that are part-time			
	Number of employees	Percent eligible for health benefits	Percent enrolled in employer's plan	Percent of eligible employees that enroll	Number of employees	Percent eligible for health benefits	Percent enrolled in employer's plan	Percent of eligible employees that enroll	Number of employees	Percent eligible for health benefits	Percent enrolled in employer's plan	Percent of eligible employees that enroll
United States	98,323,100	67.9	57.6	84.8	76,861,400	81.9	70.8	86.5	21,461,700	17.9	10.2	56.9
Firm size ¹												
Less than 50 employees	34,985,500	47.0	37.6	80.0	25,982,600	60.2	49.5	82.3	9,002,900	9.0	3.3	37.0
50 or more employees	63,337,600	79.4	68.6	86.3	50,878,800	92.9	81.7	87.9	12,458,900	24.4	15.2	62.2
Less than 25 employees	26,452,500	41.7	33.3	79.9	19,493,500	53.4	43.9	82.2	6,959,100	8.8	3.5	39.6
25–99 employees	16,250,000	66.6	53.8	80.8	12,633,700	82.5	68.2	82.6	3,616,200	10.9	3.5	32.0
100–999 employees	20,910,600	77.2	65.0	84.1	16,892,000	92.1	78.7	85.5	4,018,600	14.8	7.1	48.2
1,000 or more employees	34,710,000	82.9	73.4	88.5	27,842,200	95.3	86.0	90.3	6,867,800	32.7	22.3	68.3
Industry group												
Agriculture, forestry, and fishing	1,589,600	38.1	30.8	81.0	1,139,500	50.6	42.2	83.4	450,100	6.4	2.0	31.6
Mining	771,000	87.3	82.1	94.0	723,100	92.1	86.8	94.3	47,800	*13.8	*9.8	71.3
Construction	4,545,000	51.9	42.4	81.7	4,053,000	56.7	46.6	82.2	492,000	12.4	7.8	62.8
Manufacturing	19,211,400	86.5	78.3	90.5	18,080,100	90.7	82.4	90.8	1,131,300	19.3	13.1	68.0
Transportation, communication, and utilities	6,230,500	80.2	72.5	90.3	5,251,400	89.3	81.5	91.3	979,000	31.7	24.0	75.7
Wholesale trade	6,589,500	77.2	67.2	87.0	5,787,600	85.6	75.2	87.9	801,900	16.7	9.3	55.8
Retail trade	17,842,500	45.2	34.3	75.9	10,480,900	68.3	54.2	79.4	7,361,600	12.2	5.9	48.5
Finance, insurance, and real estate	8,034,700	80.2	67.9	84.7	6,850,400	90.2	77.3	85.7	1,184,300	22.1	13.6	61.5
Services	33,508,900	65.5	53.7	82.0	24,495,200	81.7	69.0	84.5	9,013,700	21.4	12.0	56.1
Age of firm												
Less than 5 years	6,234,700	45.5	36.3	79.8	4,404,800	60.9	50.3	82.5	1,829,900	8.2	2.5	30.8
5–9 years	11,462,200	54.3	42.6	78.5	8,618,500	68.9	55.4	80.4	2,843,700	10.3	4.0	39.3
10–24 years	24,458,800	60.4	48.9	81.0	18,829,000	74.5	61.8	83.0	5,629,900	13.3	5.8	43.5
25 years or more	51,962,400	78.2	68.4	87.4	41,844,400	91.1	81.0	88.9	10,118,000	24.9	16.1	64.5
Percent of employees that are full-time												
Less than 25 percent	6,356,000	19.8	13.3	67.3	758,500	68.0	55.4	81.5	5,597,400	13.3	7.6	57.5
25–49 percent	8,573,700	34.0	24.7	72.5	3,138,000	66.5	53.5	80.4	5,435,700	15.2	8.0	52.7
50–74 percent	17,369,000	53.0	41.3	78.0	10,631,100	73.1	59.6	81.5	6,737,900	21.2	12.4	58.7
75 percent or more	66,024,400	80.9	70.4	87.0	62,333,800	84.3	73.8	87.5	3,690,700	23.0	13.3	57.5
Presence of union employees												
No union employees	77,922,200	64.8	53.7	82.9	59,899,500	79.8	67.7	84.9	18,022,700	14.9	7.2	48.2
Has union employees	11,102,400	87.4	80.2	91.7	9,661,100	93.8	86.7	92.4	1,441,300	44.6	36.6	82.0
Percent of low-wage employees ²												
50 percent or more of employees are low-wage	7,366,200	25.0	15.6	62.4	3,735,300	42.8	29.4	68.6	3,630,900	6.6	1.4	21.1
50 percent or more of employees are not low-wage	69,621,200	70.4	59.5	84.5	56,367,900	82.7	71.2	86.1	13,253,300	18.1	9.8	54.3

* Figure does not meet standard of reliability or precision.

¹Number of employees nationwide as reported by respondent.

²Low-wage employees earned less than \$5 per hour or less than \$10,000 per year.

NOTES: Estimates in this table are based on a December 31, 1993, reference period. See Technical notes under [Estimation](#) for discussion on comparability of employee count estimates with those of other data sources. Figures may not add to totals because of rounding. Totals by age of firm, percent of full-time employees, presence of union employees, and percent of low-wage employees do not sum to the U.S. estimates since unknowns for each of these categories are not included.

SOURCE: Centers for Disease Control and Prevention, National Centers for Health Statistics, National Employer Health Insurance Survey (NEHIS).

Table 17. Percent of private sector employees eligible for employer's health plan by firm size and State: United States, 1993

State	Firm size ¹						Less than 50 employees	50 or more employees	
	All firm sizes	Less than 10 employees	10–24 employees	25–99 employees	100 or more employees				
	Percent eligible for employer's health plan								
United States	67.9	32.1	55.7	66.6	80.8	47.0	79.4		
New England:									
Maine	68.9	38.8	59.3	65.8	84.5	50.1	82.4		
New Hampshire	68.4	37.0	55.4	72.3	82.1	54.0	79.0		
Vermont	63.6	34.6	63.7	82.5	73.3	52.2	74.4		
Massachusetts	74.8	40.1	68.6	77.5	84.3	58.6	82.9		
Rhode Island	76.0	47.1	66.8	88.3	84.3	62.7	84.2		
Connecticut	71.3	40.9	60.9	66.3	83.0	52.4	81.4		
Middle Atlantic:									
New York	70.1	39.4	57.5	66.7	82.0	51.7	80.1		
New Jersey	70.8	34.3	56.8	70.0	83.1	48.0	82.7		
Pennsylvania	74.5	43.4	63.4	69.9	85.0	55.8	83.9		
East North Central:									
Ohio	73.2	31.6	67.4	71.2	84.2	51.4	83.9		
Indiana	71.7	27.1	58.9	72.6	84.5	49.6	83.0		
Illinois	71.2	31.4	59.6	67.8	82.3	48.0	81.1		
Michigan	70.8	39.9	54.9	70.2	80.0	52.0	79.6		
Wisconsin	66.5	32.7	46.8	67.2	79.6	45.7	77.9		
West North Central:									
Minnesota	66.2	27.0	51.6	61.8	81.5	43.0	79.9		
Iowa	64.8	27.1	45.8	68.0	83.4	43.9	79.9		
Missouri	66.4	33.3	56.9	61.5	79.6	48.6	76.5		
North Dakota	58.2	32.5	51.1	51.1	77.2	39.9	75.2		
South Dakota	56.8	29.4	41.8	58.6	75.5	37.2	73.4		
Nebraska	60.6	24.9	44.6	57.3	77.2	41.0	72.5		
Kansas	66.4	29.0	60.6	63.7	81.3	44.4	79.9		
South Atlantic:									
Delaware	73.2	41.8	50.8	68.3	84.0	50.4	82.5		
Maryland	71.3	35.9	59.0	74.9	82.6	52.1	82.0		
District of Columbia	80.4	46.8	67.9	83.9	87.3	64.4	87.1		
Virginia	71.0	36.5	60.4	74.7	81.5	51.9	82.0		
West Virginia	66.3	32.8	55.1	61.2	82.3	46.7	80.2		
North Carolina	71.9	34.4	53.3	67.9	85.7	48.7	83.2		
South Carolina	68.1	30.5	49.6	63.6	83.0	42.8	80.9		
Georgia	70.8	32.4	47.6	66.4	84.5	46.7	81.7		
Florida	62.6	28.1	48.3	56.4	77.8	39.5	75.4		
East South Central:									
Kentucky	68.1	29.3	56.1	72.6	80.7	48.8	79.1		
Tennessee	72.4	29.0	54.5	67.0	85.6	44.1	84.2		
Alabama	70.8	31.2	56.0	68.3	84.9	48.3	83.9		
Mississippi	64.2	23.2	40.4	64.9	80.6	35.1	79.7		
West South Central:									
Arkansas	62.9	18.6	55.3	54.3	80.8	36.7	77.8		
Louisiana	62.0	19.2	49.8	63.8	77.0	38.1	76.8		
Oklahoma	56.4	33.2	44.6	57.6	68.1	43.1	65.8		
Texas	64.7	24.1	55.4	63.2	77.4	41.5	76.0		
Mountain:									
Montana	52.4	22.9	46.6	61.3	75.5	38.9	71.3		
Idaho	58.8	28.4	51.0	63.0	74.9	43.9	73.0		
Wyoming	55.6	28.2	54.5	60.6	72.9	40.3	72.0		
Colorado	66.4	29.8	65.7	70.6	77.1	49.9	76.6		
New Mexico	58.4	27.6	50.1	62.3	71.3	43.3	69.5		
Arizona	65.2	31.6	50.1	58.6	77.7	44.4	75.3		
Utah	62.4	25.5	34.0	65.8	78.2	37.9	76.8		
Nevada	62.0	32.3	42.4	60.5	71.9	43.1	70.0		
Pacific:									
Washington	67.5	38.4	54.1	74.8	78.1	52.7	77.8		
Oregon	64.8	34.5	52.3	68.3	80.1	46.7	78.8		
California	62.7	27.8	56.5	62.6	76.1	42.1	76.3		
Alaska	61.2	27.0	45.2	59.9	80.0	37.4	78.4		
Hawaii	83.3	75.7	83.5	77.9	87.3	80.0	85.4		

¹Number of employees nationwide as reported by respondent.

NOTES: Estimates in this table are based on a December 31, 1993, reference period. Denominators for the percents included in this table can be found in table IV of the Technical notes.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey (NEHIS).

Table 18. Percent of private sector employees enrolled in employer's health plan by firm size and State: United States, 1993

State	Firm size ¹						Less than 50 employees	50 or more employees	
	All firm sizes	Less than 10 employees	10–24 employees	25–99 employees	100 or more employees				
	Percent enrolled in employer's health plan								
United States	57.6	25.8	44.3	53.8	70.2	37.6	68.6		
New England:									
Maine	59.0	34.4	45.7	54.3	74.1	41.1	71.9		
New Hampshire	55.0	28.3	37.4	56.5	69.3	40.3	66.0		
Vermont	50.6	25.5	45.8	65.0	61.7	38.2	62.4		
Massachusetts	60.5	30.2	52.4	57.6	70.9	43.7	68.9		
Rhode Island	63.9	39.2	54.8	72.0	72.2	51.1	71.9		
Connecticut	62.9	32.4	52.3	54.7	75.4	42.9	73.5		
Middle Atlantic:									
New York	61.3	31.2	46.1	54.5	74.4	40.9	72.4		
New Jersey	62.5	29.9	49.4	57.9	74.7	40.8	73.9		
Pennsylvania	64.1	36.5	53.7	56.3	74.5	45.3	73.6		
East North Central:									
Ohio	60.8	25.0	50.3	56.4	71.9	40.5	70.6		
Indiana	59.9	21.5	39.7	55.5	74.1	36.7	71.9		
Illinois	62.5	25.8	48.6	57.5	73.7	39.8	72.2		
Michigan	61.9	33.1	43.1	57.7	72.1	43.5	70.6		
Wisconsin	54.8	24.8	32.1	54.9	67.5	34.3	65.9		
West North Central:									
Minnesota	56.1	21.7	40.7	50.7	70.7	34.2	69.1		
Iowa	53.2	22.6	37.9	55.2	68.5	36.8	65.1		
Missouri	56.7	27.3	45.7	49.7	70.0	39.5	66.5		
North Dakota	46.1	26.4	38.5	38.4	62.4	31.3	59.8		
South Dakota	44.7	22.7	32.3	38.9	63.8	29.0	57.9		
Nebraska	47.8	18.2	36.5	44.2	61.4	32.5	57.2		
Kansas	53.6	22.7	43.5	47.8	68.2	32.6	66.5		
South Atlantic:									
Delaware	62.2	33.9	43.3	50.2	73.7	41.3	70.8		
Maryland	57.6	26.3	43.0	58.1	69.2	38.3	68.4		
District of Columbia	68.7	37.4	48.6	68.9	77.2	48.2	77.2		
Virginia	57.6	26.2	44.5	57.4	68.9	38.6	68.6		
West Virginia	54.0	25.6	36.8	49.3	69.4	35.1	67.5		
North Carolina	62.6	27.2	43.9	58.2	76.1	39.8	73.8		
South Carolina	59.7	24.9	43.0	53.4	73.8	35.8	71.7		
Georgia	60.6	26.8	37.3	53.2	74.1	36.8	71.5		
Florida	52.8	22.0	39.2	43.2	67.9	30.9	64.9		
East South Central:									
Kentucky	54.9	23.5	41.6	55.4	66.6	37.0	65.1		
Tennessee	61.5	22.5	40.5	55.5	74.3	33.7	73.0		
Alabama	57.2	22.6	44.5	52.9	70.1	36.8	69.2		
Mississippi	55.0	17.7	30.6	51.9	71.2	26.6	70.1		
West South Central:									
Arkansas	51.8	14.0	41.8	41.2	68.5	27.6	65.6		
Louisiana	51.1	14.7	38.6	48.2	65.6	28.5	65.0		
Oklahoma	47.4	26.9	37.4	47.7	58.1	35.4	55.9		
Texas	53.3	19.9	44.5	50.2	64.4	33.7	62.9		
Mountain:									
Montana	41.2	20.0	37.2	42.2	61.1	30.2	56.5		
Idaho	46.2	23.7	38.7	47.0	59.9	34.8	57.2		
Wyoming	44.4	22.7	43.2	41.7	61.5	31.7	58.2		
Colorado	54.2	22.5	52.9	54.9	64.8	38.9	63.7		
New Mexico	46.7	21.2	40.2	44.1	59.2	33.2	56.6		
Arizona	53.7	24.8	35.7	45.3	66.0	32.3	63.9		
Utah	48.4	18.8	27.0	47.3	62.0	26.6	61.1		
Nevada	53.4	26.5	35.6	49.2	63.3	34.5	61.4		
Pacific:									
Washington	58.4	32.0	45.4	64.5	68.4	44.8	67.9		
Oregon	57.2	28.2	41.5	61.2	72.6	38.8	71.6		
California	54.4	23.2	47.3	53.5	67.1	36.0	66.7		
Alaska	51.7	23.2	43.0	45.7	68.1	32.9	65.3		
Hawaii	74.9	65.5	75.8	68.2	79.8	70.3	77.8		

¹Number of employees nationwide as reported by respondent.

NOTES: Estimates in this table are based on a December 31, 1993, reference period. Denominators for the percents included in this table can be found in [table IV](#) of the Technical notes.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey (NEHIS).

Technical notes

Sample design

NEHIS was a sample survey of business establishments (specific locations), governments, and self-employed individuals with no employees and no other locations. This section summarizes the statistical design for the survey. Additional details are provided in previously released documents on the NEHIS survey design (28,29).

Business establishments were sampled from the Dun's Market Identifiers file, a commercially available file maintained by the Dun and Bradstreet Corporation. This file is updated frequently. The version used to select the sample was the one available as of late November 1993. Governments were sampled from the 1992 Census of Governments. The Census of Governments is conducted every 5 years by the Bureau of the Census. The sample of self-employed individuals with no other employees or locations was identified through a screening of respondents, in the second half of the 1993 National Health Interview Survey, who indicated that they were primarily self-employed. The National Health Interview Survey (NHIS) is conducted by the Bureau of the Census for the National Center for Health Statistics.

The sample stratification and allocation were designed to support reliable State-level estimates of characteristics related to employers (for example, the percent of businesses or governments that offer health insurance to their employees) and employees (for example, the percent of employees that work in businesses or governments that offer health insurance to their employees).

The stratification in the private and public sectors was similar. Both sectors used State (the District of Columbia was treated as a "State equivalent") as a major stratifier. Within State, sampling units were classified into strata

defined by a two-way cross-classification.

In the private sector, the two-way cross-classification of establishments was by *firm size* and *establishment size*, where "size" was the number of employees reported on the Dun and Bradstreet Dun's Market Identifiers file. Business establishments with a missing establishment size, about 12 of the frame total, initially were placed in a separate stratum. "Firm" was defined as the entire parent "company" or "enterprise" for most companies; however, some variation in this procedure occurred for large companies with subsidiaries. First- and second-level subsidiaries of large companies were split off from the parent company and treated as separate "firms" for assignment of *firm size*. The construction of *firm size* used number of employees and corporate linkage information on the Dun and Bradstreet Dun's Market Identifiers file.

Three *firm size* classifications were used: less than 50, 50-999, and 1000 or more. Eight initial *establishment size* classifications were used: "missing," "1 no other," 1-5, 6-24, 25-49, 50-249, 250-999, and 1000 or more. The "1 no other" establishments were indicated in the sampling frame as having only one employee and one business location; these were put in a separate stratum because of the potential for overlap with "self-employed with no employees and no other locations." (Any business establishment selected from the Dun's Market Identifiers file with one employee and one company location was excluded from the sample since these were covered by the NHIS frame.) Before sampling, within each *firm size*, the "missing" classification for *establishment size* was combined with the size category with the largest number of establishments. Also, some strata with a small number of sampling units were combined with similar strata in the same State.

The basic allocation procedure was to first allocate the national sample to the States, then to sector within State, and then to individual strata within State or sector. Details of each step are given below.

The allocation to States was initially made on the basis of a target of completing 51,000 interviews. However, this sample size had to be reduced to 40,000 as a cost-cutting measure. The description here focuses on describing the allocation process in general terms, rather than providing an exact chronology.

The national sample was allocated to the States, proportional to the 0.3 power of State employment. This was a compromise between equal allocation to States, which would tend to favor State-level estimates at the expense of national estimates, and allocation proportional to State employment, which would tend to favor national estimates at the expense of estimates for many of the smaller States.

Each State sample was then allocated to the private and public sectors in proportion to State employment, except that the public sector employment was reduced by multiplying it by a factor of two-thirds. This reduction was based on the expectation that the variability of survey characteristics within the public sector in a State would be less than the corresponding variability within the private sector.

Within a State/sector, the overall strategy was to allocate the sample as a compromise between employee-type estimates and establishment-type estimates. This compromise was reached by allocating the sample to strata in proportion to the square root of the number of employees. However, a variety of factors and size adjustments were employed as part of the allocation process at this stage.

Estimation

This section provides a summary of the construction of survey weights, and computation of variance estimates. Additional details are provided in previously released documents on the 1994 NEHIS estimation process (30–32).

All survey estimates that appear in this report were computed using survey weights. The survey weight that has been constructed for each 1994 NEHIS sample respondent reflects differential probabilities of selection and includes nonresponse adjustments. The survey weights for a few business establishments and governments were “trimmed,” or reduced. The survey weights in the private sector were ratio adjusted so survey estimates of total employment would agree with independent totals provided by the Bureau of Labor Statistics.

The fundamental component of a sampled establishment’s weight, the *base weight*, is the reciprocal of the probability of selection. The base weight would provide unbiased estimates of population totals in the absence of nonresponse. The variation in base weights reflects the fact that not all sample units in the 1994 NEHIS had the same selection probability.

Several types of nonresponse adjustments were done sequentially. Each of these adjustments was calculated by computing separate adjustment factors within cells, as follows:

$$\frac{\sum_{\text{eligible cases}} w_i}{\sum_{\text{respondents}} w_i}$$

where w_i is the weight of the i^{th} member of the nonresponse cell.

In effect, this adjustment “weights up” the respondent sample to the total eligible sample in each cell. The intent in creating nonresponse adjustment cells is to define them in such a way that the survey characteristics of the respondents and nonrespondents in the same cell will be similar. Since

that is also the goal of defining sampling strata, each nonresponse cell was generally defined as a sampling stratum, or some group of strata.

The types of nonresponse adjustments that were made include an adjustment to account for potential eligible cases that were not contacted during prescreening, an adjustment for eligible nonrespondents where it was unknown whether the nonrespondent offered health insurance, and an adjustment for those eligible nonrespondents where it was known whether the nonrespondent offered health insurance.

A general strategy that was followed during the nonresponse adjustment process was to collapse nonresponse cells to keep a minimum number of responding units in each cell that needed adjustment, and to control the maximum overall nonresponse adjustment factor to be approximately 2. These procedures were used to help control the effects the nonresponse adjustments would have on the variances of survey estimates.

A relatively small number of weights (127 in the private sector, 4 in the public sector) were “trimmed,” or reduced, to reduce the mean square error of survey estimates. These were cases that had such large weights that they would have had a substantial impact on the variances of survey estimates if they had not been reduced. Two types of characteristics were present for cases with excessive weights. First, the number of employees reported at the establishment or government during the NEHIS interview was far greater than the number of employees that was provided by the sampling frame. Second, these cases tended to fall in sampling strata with smaller sampling rates and therefore with relatively large assigned base weights. The combination of these factors generated a small number of sample cases where the weighted *difference*

between reported and expected size for the case would contribute a substantial percentage of the State estimate of the total number of employees in the sector (8 percent or more in the private sector and 5 percent or more in the public sector). For a case where weight trimming occurred, the base weight assigned was the same as if it had been in the stratum corresponding to the number of employees actually reported in the NEHIS interview.

Weights were ratio-adjusted in the private sector so that estimates of total employment would agree with independent totals provided by the Bureau of Labor Statistics. The independent totals were total employment by state (51), by broad Standard Industrial Classification Code groupings (2), and by four establishment size ranges, for a total of 408 cells. A few of the cells were collapsed to give a final total of 404 ratio adjustment cells.

Weighted estimates of the number of private establishments and their employees are presented in [Tables I–IV](#). In spite of the ratio adjustments that were made, these estimates may differ somewhat from estimates from the ES-202 program from the Bureau of Labor Statistics (BLS) and estimates from the County Business Patterns (CBP) from the Bureau of Census. The NEHIS estimates of total establishments and employees agree reasonably well with estimates from these sources except for some specific subdomains. For example, the estimated number of establishments by nine standard industrial classification (SIC) groups (shown in [table I](#)) does not always match estimates from other government sources. Possible reasons for discrepancies include:

- Differences in employees excluded or reported: ES-202 excludes self-employed individuals whereas NEHIS included them; CBP excludes agricultural production workers while they are included in ES-202 and NEHIS. (The BLS counts used in the ratio adjustments were modified to

Table I. Number of private establishments by firm size, according to selected characteristics: United States, 1993

Establishment characteristics	Firm size ¹						
	All firm sizes	Less than 10 employees	10–24 employees	25–99 employees	100 or more employees	Less than 50 employees	50 or more employees
	Number of establishments ²						
United States	6,276,800	3,914,400	870,800	596,400	895,200	5,152,000	1,124,800
Industry group							
Agriculture, forestry, and fishing	215,800	176,800	27,600	9,300	2,000	211,500	4,300
Mining	32,400	16,700	3,900	3,700	8,000	22,300	10,000
Construction	530,800	419,700	59,100	35,600	16,400	503,800	26,900
Manufacturing	510,900	273,400	79,600	70,700	87,100	393,300	117,600
Transportation, communication, and utilities	253,700	123,800	31,700	32,800	65,300	174,600	79,100
Wholesale trade	506,200	275,200	87,000	62,400	81,600	397,100	109,100
Retail trade	1,459,200	861,700	200,200	128,600	268,700	1,144,200	315,000
Finance, insurance, and real estate	542,400	290,700	53,500	55,100	143,100	372,800	169,600
Services	2,225,600	1,476,400	328,200	198,000	222,900	1,932,500	293,100
Ownership							
For profit	5,354,500	3,363,400	753,500	488,800	748,700	4,415,800	938,600
Incorporated	3,403,400	1,669,000	608,000	431,000	695,400	2,535,800	867,600
Unincorporated	1,951,000	1,694,500	145,500	57,800	53,300	1,880,000	71,000
Nonprofit	514,400	248,100	84,400	79,400	102,400	382,700	131,700
Other	93,200	41,800	11,700	14,200	25,500	61,700	31,500
Age of firm							
Less than 5 years	737,600	565,500	96,800	46,600	28,700	693,200	44,400
5–9 years	1,108,100	801,300	148,400	92,100	66,300	1,007,800	100,300
10–24 years	2,191,700	1,483,600	331,700	202,600	173,800	1,943,300	248,400
25 years or more	1,902,900	809,400	268,100	242,300	583,100	1,219,100	683,800
Location of establishments in firm							
1 location only	4,676,300	3,737,000	625,900	271,500	41,900	4,560,000	116,200
2 or more locations, all in same State	679,200	122,900	188,100	198,000	170,200	424,600	254,600
2 or more locations, multiple States	859,500	32,300	48,500	118,600	660,100	132,700	726,800
Metropolitan area indicator							
Metropolitan area	4,940,900	3,007,100	705,800	484,800	743,100	4,009,600	931,300
Nonmetropolitan area	1,336,000	907,300	165,000	111,600	152,100	1,142,500	193,500
Percent of employees that are full-time							
Less than 25 percent	466,700	285,300	68,400	49,200	63,900	387,200	79,600
25–49 percent	611,700	370,100	92,600	51,500	97,500	494,900	116,800
50–74 percent	1,413,400	986,200	163,800	89,600	173,800	1,205,200	208,200
75 percent or more	3,785,000	2,272,800	546,000	406,100	560,000	3,064,700	720,200
Presence of union employees							
No union employees	5,735,900	3,629,700	823,200	553,900	729,100	4,791,900	944,100
Has union employees	188,400	63,900	28,300	33,300	62,900	114,200	74,200
Percent of low-wage employees ³							
50 percent or more of employees are low-wage	886,100	653,400	89,900	60,700	82,100	788,000	98,100
50 percent or more of employees are not low-wage	4,637,600	2,813,600	736,100	510,100	577,900	3,856,800	780,800

¹Number of employees nationwide as reported by respondent.

²An establishment is defined as a business at a single physical location.

³Low-wage employees earned less than \$5 per hour or less than \$10,000 per year.

NOTES: Estimates in this table are based on a December 31, 1993, reference period. See Technical notes under [Estimation](#) for discussion on comparability of these estimates with those of other data sources. Totals by ownership, age of firm, location of establishment, percent of full-time employees, and presence of union employees, or percent of low-wage employees do not sum to the U.S. estimates since unknowns for each of these categories are not included.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey (NEHIS).

Table II. Number of private establishments by firm size and State: United States, 1993

State	Firm size ¹						
	All firm sizes	Less than 10 employees	10–24 employees	25–99 employees	100 or more employees	Less than 50 employees	50 or more employees
United States	6,276,800	3,914,400	870,800	596,400	895,200	5,152,000	1,124,800
New England:	Number of establishments ²						
Maine	34,900	22,200	5,300	2,900	4,400	29,200	5,700
New Hampshire	33,300	21,400	4,400	3,400	4,200	27,800	5,500
Vermont	20,400	14,000	2,900	1,500	2,000	17,700	2,700
Massachusetts	149,800	98,700	18,700	13,200	19,300	125,600	24,200
Rhode Island	25,300	16,600	4,000	1,800	3,000	21,500	3,900
Connecticut	84,200	54,000	11,700	7,300	11,200	70,100	14,200
Middle Atlantic:							
New York	411,900	272,100	54,600	33,600	51,700	347,400	64,500
New Jersey	178,700	116,900	22,100	14,900	24,800	148,700	30,100
Pennsylvania	259,500	165,700	35,000	24,200	34,600	216,700	42,700
East North Central:							
Ohio	247,800	150,700	36,500	23,700	36,800	202,100	45,700
Indiana	137,900	83,100	20,400	13,400	21,000	111,900	26,000
Illinois	261,600	160,600	37,400	24,000	39,600	211,800	49,800
Michigan	189,100	113,700	24,700	23,200	27,500	153,100	36,000
Wisconsin	125,400	79,500	16,800	14,000	15,200	104,300	21,200
West North Central:							
Minnesota	128,500	76,200	21,000	12,400	18,900	105,000	23,500
Iowa	93,300	61,400	12,300	9,300	10,300	79,300	14,100
Missouri	138,000	80,800	22,200	14,600	20,300	110,800	27,200
North Dakota	20,700	12,900	3,000	2,000	2,800	17,000	3,700
South Dakota	23,700	15,300	3,300	2,600	2,500	19,800	3,900
Nebraska	48,000	29,700	6,700	4,600	7,100	38,800	9,100
Kansas	72,200	45,000	10,200	6,100	10,900	58,700	13,500
South Atlantic:							
Delaware	16,000	9,600	1,800	1,600	3,000	12,400	3,600
Maryland	114,900	68,800	17,000	12,600	16,400	93,000	21,900
District of Columbia	19,300	10,500	3,300	2,200	3,400	15,100	4,200
Virginia	152,600	89,900	23,700	16,200	22,800	124,700	27,900
West Virginia	37,300	22,700	4,700	3,800	6,100	30,100	7,200
North Carolina	168,000	101,300	23,900	17,500	25,300	135,600	32,400
South Carolina	82,200	50,100	13,100	6,600	12,500	67,000	15,200
Georgia	166,000	95,000	23,400	15,300	32,300	127,100	38,900
Florida	352,500	216,700	48,600	33,500	53,700	284,300	68,200
East South Central:							
Kentucky	86,400	54,500	11,700	7,700	12,500	71,300	15,100
Tennessee	111,500	69,200	15,700	8,400	18,300	89,600	22,000
Alabama	94,900	56,100	14,000	8,700	16,200	76,400	18,500
Mississippi	56,900	34,800	8,400	4,200	9,600	45,800	11,100
West South Central:							
Arkansas	63,600	40,900	9,500	5,500	7,800	53,300	10,300
Louisiana	91,400	53,400	12,500	9,400	16,100	71,600	19,800
Oklahoma	84,800	56,100	10,800	7,100	10,900	71,300	13,500
Texas	409,600	247,500	53,300	39,300	69,500	325,400	84,100
Mountain:							
Montana	29,400	20,400	4,200	2,300	2,500	26,100	3,300
Idaho	33,800	21,300	5,700	2,700	4,200	28,600	5,200
Wyoming	16,900	11,500	2,100	1,100	2,200	14,200	2,800
Colorado	104,100	63,600	13,400	11,500	15,600	84,200	19,900
New Mexico	42,600	26,900	5,200	3,700	6,800	34,800	7,800
Arizona	93,900	55,500	13,700	9,600	15,100	75,100	18,900
Utah	44,900	27,500	6,100	4,800	6,600	36,200	8,700
Nevada	33,900	19,600	5,100	4,500	4,700	27,100	6,800
Pacific:							
Washington	144,700	90,300	20,000	15,900	18,500	120,700	24,000
Oregon	91,700	59,600	11,100	9,700	11,300	76,200	15,500
California	804,300	523,200	110,200	74,000	96,900	681,900	122,400
Alaska	15,200	9,600	1,700	1,500	2,300	12,300	2,900
Hawaii	29,300	18,000	3,600	3,100	4,500	23,800	5,500

¹Number of employees nationwide as reported by respondent. ²An establishment is defined as a business at a single physical location.

NOTES: Estimates in this table are based on a December 31, 1993, reference period. See Technical notes under [Estimation](#) for discussion on comparability of these estimates with those of other data sources. Figures may not add to totals because of rounding.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey (NEHIS).

Table III. Number of private sector employees by firm size, according to selected characteristics: United States, 1993

Establishment characteristics	Firm size ¹							
	All firm sizes	Less than 10 employees	10–24 employees	25–99 employees	100–999 employees	1,000 or more employees	Less than 50 employees	50 or more employees
	Number of employees							
United States	98,323,100	15,725,700	10,726,800	16,250,000	20,910,600	34,710,000	34,985,500	63,337,600
Industry group								
Agriculture, forestry, and fishing	1,589,600	678,600	325,200	309,700	157,500	118,700	1,230,100	359,500
Mining	771,000	61,800	53,900	97,900	233,000	324,400	153,100	617,800
Construction	4,545,000	1,729,200	827,800	1,193,000	590,600	204,400	3,235,600	1,309,400
Manufacturing	19,211,400	1,179,000	1,175,700	2,625,300	5,030,500	9,200,800	3,503,700	15,707,700
Transportation, communication, and utilities	6,230,500	537,200	381,000	870,600	1,115,400	3,326,200	1,359,000	4,871,500
Wholesale trade	6,589,500	1,135,200	991,900	1,409,200	1,363,700	1,689,500	2,866,500	3,723,000
Retail trade	17,842,500	3,504,600	2,353,700	3,274,600	2,750,100	5,959,400	7,717,300	10,125,200
Finance, insurance, and real estate	8,034,700	1,022,800	596,600	1,115,000	2,190,600	3,109,700	2,116,800	5,918,000
Services	33,508,900	5,877,200	4,021,000	5,354,600	7,479,300	10,776,800	12,803,400	20,705,500
Ownership								
For profit	79,742,500	13,590,100	9,213,500	13,225,300	15,656,200	28,057,500	29,815,600	49,926,900
Incorporated	67,360,500	7,524,300	7,526,000	11,848,300	13,597,700	26,864,300	21,216,200	46,144,300
Unincorporated	12,382,000	6,065,800	1,687,500	1,377,000	2,058,500	1,193,200	8,599,400	3,782,600
Nonprofit	13,888,200	1,064,300	1,090,900	2,313,200	4,195,500	5,224,400	3,341,700	10,546,600
Other	2,196,800	165,700	146,000	394,200	557,800	933,100	489,600	1,707,200
Age of firm								
Less than 5 years	6,234,700	2,052,600	1,163,200	1,273,200	1,038,600	707,100	3,958,300	2,276,400
5–9 years	11,462,200	3,214,500	1,773,200	2,495,600	2,166,000	1,812,900	6,326,800	5,135,400
10–24 years	24,458,800	6,071,300	4,139,000	5,486,000	5,365,400	3,397,100	13,179,000	11,279,800
25 years or more	51,962,400	3,501,800	3,340,200	6,671,400	11,719,800	26,729,200	10,158,600	41,803,800
Location of establishments in firm								
1 location only	46,399,200	15,174,000	9,095,200	11,540,700	7,748,900	2,840,400	30,824,700	15,574,400
2 or more locations, all in same State	12,905,800	378,700	1,258,100	2,913,800	5,450,600	2,904,700	2,974,900	9,930,900
2 or more locations, multiple States	37,821,900	98,100	305,000	1,654,400	7,436,300	28,328,100	1,011,100	36,810,900
Metropolitan area indicator								
Metropolitan area	82,530,300	12,169,700	8,707,300	13,432,200	17,602,000	30,619,000	27,882,800	54,647,500
Nonmetropolitan area	15,792,800	3,556,000	2,019,500	2,817,800	3,308,600	4,091,000	7,102,700	8,690,100
Percent of employees that are full-time								
Less than 25 percent	6,356,000	1,121,900	820,900	1,337,800	1,308,400	1,766,900	2,760,500	3,595,500
25–49 percent	8,573,700	1,760,800	1,231,000	1,525,100	1,515,800	2,540,900	3,832,200	4,741,500
50–74 percent	17,369,000	3,788,100	1,956,300	2,308,600	3,090,100	6,226,000	6,997,100	10,371,900
75 percent or more	66,024,400	9,054,900	6,718,600	11,078,400	14,996,300	24,176,200	21,395,700	44,628,800
Presence of union employees								
No union employees	77,922,200	14,663,400	10,072,700	14,702,000	17,504,300	20,979,700	32,490,300	45,431,900
Has union employees	11,102,400	282,800	400,300	1,261,500	3,157,500	6,000,300	1,327,600	9,774,700
Percent of low-wage employees ²								
50 percent or more of employees are low-wage	7,366,200	2,144,100	1,092,600	1,544,500	1,512,000	1,073,100	4,286,800	3,079,500
50 percent or more of employees are not low-wage	69,621,200	11,998,500	9,055,700	13,913,000	16,843,600	17,810,400	28,169,900	41,451,300

¹Number of employees nationwide as reported by respondent.

²Low-wage employees earned less than \$5 per hour or less than \$10,000 per year.

NOTES: Estimates in this table are based on a December 31, 1993, reference period. See Technical notes under [Estimation](#) for discussion on comparability of these estimates with those of other data sources. Figures may not add to totals because of rounding. Totals by ownership, age of firm, location of establishment, and presence of union employees, or percent of low-wage employees do not sum to the U.S. estimates since unknowns for each of these categories are not included.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey (NEHIS).

Table IV. Number of private sector employees by firm size and State: United States, 1993

State	Firm size ¹						
	All firm sizes	Less than 10 employees	10–24 employees	25–99 employees	100 or more employees	Less than 50 employees	50 or more employees
	Number of employees						
United States	98,323,100	15,725,700	10,726,800	16,250,000	55,620,600	34,985,500	63,337,600
New England:							
Maine	452,000	89,800	68,700	65,900	227,700	188,600	263,400
New Hampshire	456,800	85,500	55,800	95,000	220,500	194,600	262,300
Vermont	235,700	56,800	42,200	34,100	102,600	114,700	121,100
Massachusetts	2,543,900	390,200	239,900	461,900	1,451,900	845,900	1,697,900
Rhode Island	380,100	67,200	52,800	62,900	197,300	146,300	233,900
Connecticut	1,385,700	223,000	147,200	212,100	803,300	480,600	905,000
Middle Atlantic:							
New York	6,598,300	1,111,300	630,300	1,046,000	3,810,700	2,326,600	4,271,700
New Jersey	2,994,900	475,400	292,100	461,700	1,765,700	1,029,300	1,965,600
Pennsylvania	4,540,100	655,900	432,000	736,600	2,715,700	1,527,600	3,012,500
East North Central:							
Ohio	4,375,500	593,800	452,800	708,900	2,620,000	1,429,200	2,946,300
Indiana	2,345,400	331,000	249,200	395,300	1,369,900	796,400	1,549,000
Illinois	4,763,700	637,300	489,400	652,400	2,984,500	1,428,600	3,335,000
Michigan	3,554,800	471,100	331,300	566,500	2,185,900	1,131,600	2,423,100
Wisconsin	2,159,100	323,500	234,800	427,100	1,173,700	762,500	1,396,600
West North Central:							
Minnesota	2,020,800	297,200	273,500	333,400	1,116,700	750,600	1,270,200
Iowa	1,146,500	221,400	155,100	201,100	569,000	482,900	663,600
Missouri	2,115,200	321,300	272,900	379,100	1,142,000	764,500	1,350,800
North Dakota	240,800	53,800	34,900	48,200	103,900	116,000	124,800
South Dakota	279,300	61,200	39,300	63,400	115,300	127,900	151,400
Nebraska	671,100	120,300	81,700	110,000	359,100	253,900	417,200
Kansas	983,000	183,000	117,700	151,800	530,600	374,100	608,900
South Atlantic:							
Delaware	305,800	41,200	25,700	46,400	192,400	88,800	216,900
Maryland	1,773,700	273,500	214,800	282,500	1,003,000	633,600	1,140,100
District of Columbia	382,500	41,600	38,900	59,200	242,800	112,300	270,200
Virginia	2,443,700	381,500	291,200	357,400	1,413,700	893,900	1,549,800
West Virginia	527,900	94,700	62,500	98,900	271,800	220,100	307,800
North Carolina	2,902,400	417,300	308,400	489,700	1,687,000	953,100	1,949,300
South Carolina	1,333,300	207,200	165,300	174,800	785,900	446,200	887,100
Georgia	2,767,600	384,000	264,100	451,500	1,668,000	864,500	1,903,100
Florida	5,208,300	869,900	568,900	894,100	2,875,400	1,853,800	3,354,500
East South Central:							
Kentucky	1,348,600	225,700	144,000	224,500	754,400	491,100	857,500
Tennessee	2,073,200	281,900	203,300	273,800	1,314,200	608,800	1,464,400
Alabama	1,457,600	226,300	167,600	217,400	846,300	537,800	919,700
Mississippi	869,800	146,000	104,400	108,300	511,200	302,100	567,700
West South Central:							
Arkansas	889,900	160,900	113,400	114,500	501,100	323,300	566,600
Louisiana	1,403,200	229,600	175,200	226,200	772,200	536,000	867,100
Oklahoma	1,073,500	208,800	132,700	209,600	522,400	444,300	629,200
Texas	6,561,900	1,033,000	640,400	984,000	3,904,600	2,153,100	4,408,900
Mountain:							
Montana	287,100	81,400	50,800	61,300	93,600	167,300	119,800
Idaho	387,300	82,600	64,700	71,700	168,400	189,200	198,100
Wyoming	161,100	43,500	26,000	29,400	62,100	83,500	77,600
Colorado	1,515,300	265,500	153,900	302,800	793,100	579,200	936,100
New Mexico	526,900	107,500	59,300	92,800	267,300	223,500	303,400
Arizona	1,480,300	209,800	165,300	221,700	883,500	480,100	1,000,200
Utah	691,300	112,200	77,300	127,000	374,800	255,600	435,700
Nevada	650,800	84,200	60,200	118,500	387,800	193,000	457,800
Pacific:							
Washington	2,007,700	358,700	230,600	430,800	987,600	821,000	1,186,700
Oregon	1,185,100	237,500	135,300	301,300	510,900	518,700	666,400
California	11,219,500	2,035,000	1,321,000	1,948,000	5,915,500	4,482,200	6,737,300
Alaska	182,600	39,500	20,000	31,700	91,400	76,300	106,300
Hawaii	462,400	75,200	48,100	86,700	252,400	180,700	281,700

¹Number of employees nationwide as reported by respondent.

NOTES: Estimates in this table are based on a December 31, 1993, reference period. Figures may not add to totals because of rounding.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey (NEHIS).

account for self-employed individuals.)

- Differences in definitions of establishments: In ES-202, if a single physical location has two or more distinct and significant activities, each activity is counted as a separate establishment; and also in ES-202, small nonprofit organizations, certain religious organizations, and church-chartered schools are excluded.
- Possible differences in coverage of the establishment universe between the NEHIS sampling frame and those used for the other government sources.
- Differential response rates among subdomains, not adjusted for separately in the nonresponse weight adjustments in NEHIS.
- Possible differences in reporting errors between NEHIS respondents, and respondents or administrative records used for the other two.

Thus, when comparing employment and establishment estimates shown in this report with those compiled by other data sources, the user should keep in mind definitional, coverage, and methodological differences that affect the comparison of data items.

Firm-size adjustment of estimates

Since firm size (number of employees nationwide) is a strong determinant of the establishment's likelihood of offering health insurance and of self-insuring health plans, a fair comparison of "health insurance offer rate" or "self-insurance rate" by State should take into account the varying firm-size distribution among the 50 States and the District of Columbia. In order to remove the influence of firm-size, a method of controlling for firm-size distribution was employed in computing the adjusted rates of "offering health insurance" and of "self-insurance." Basically, the

adjustment computes new estimates that would result if the firm-size distributions were the same among all States that are being compared. The weighted national distribution of establishments serves as the "standard" distribution. All private establishments in the United States were distributed into 10 firm-size groups as follows:

Weighted percent distribution of establishments by firm size

Firm size	Weighted total number and percent distribution of all private establishments	Weighted total number and percent distribution of private establishments that offered major health insurance*
	6,276,810	3,062,878
2-5	46.8	25.7
6-9	15.6	15.3
10-19	11.2	14.1
20-29	4.5	6.6
30-49	4.0	6.2
50-99	3.7	6.3
100-499	5.0	9.0
500-999	1.5	2.8
1,000-4,999	3.0	5.5
5,000 or more	4.7	8.5
Total	100%	100%

* Cases with unknown self-insurance status are excluded.

The first set of percent distributions (in the second column) was used in computing adjusted percents of offer health insurance and the second set of percents was used in computing adjusted percents of establishments with major plans that self-insure. For each State, the percent of establishments that have some characteristic (for example, offers health insurance) was multiplied by the "standard" distribution percent to compute the expected proportion of percent offering for that firm-size group among all firm-size groups. These 10 expected proportions for individual firm-size groups were then summed to produce the adjusted percent for the whole State.

Reliability of the estimates

All survey data are subject to two types of errors: sampling error and the nonsampling error. The sampling error consists of the error

in a survey estimate that is attributed to the fact that a sample, rather than a complete census, was used to compute the estimates in this report. The standard error measures the variation that a survey estimate would have over repeated samples selected the same way, but does not include estimates of any systematic biases that may be in the data.

For example, if a large enough sample (typically, 30 or more cases) has been selected so that estimates of means, totals, etc. can be assumed to have a distribution that is approximately "normal," the chance is 68 in 100 that an estimate from the sample would differ from a complete census by less than the standard error. The chances are 95 in 100 that the difference would be less than twice the standard error. These types of statements cannot be made when sample sizes are too small to make the assumption that statistics have a "normal" distribution. Some estimates that appear in this report are based on small sample sizes and hence should not be assumed to have a "normal" distribution.

The relative standard error (RSE) of an estimate is obtained by dividing the standard error by the estimate itself and is expressed as a percent of the estimate. In this report, an asterisk (*) is used to indicate any estimate with more than a 30-percent relative standard error.

Estimation of standard errors

The SUDAAN software package was used to directly compute estimates of standard errors for all estimates that appear in this report. The SUDAAN procedures derive estimates of standard errors through a first-order Taylor series approximation of the deviation of estimates from their expected values. A description of this software package and the approach it uses has been published (9). Some directly estimated standard errors

are presented in [tables V and VI](#). [Table V](#) contains standard errors associated with firm-size adjusted percent estimates and [table VI](#) contains standard errors associated with the average waiting period in days. For all other estimates, a method of approximating standard errors is described below instead of providing direct estimates of standard errors due to space constraints of the report.

Standard error approximations

The SUDAAN procedures can be used to compute standard error estimates for estimates from a complex survey design, such as the NEHIS, given sufficient sample design information. Standard errors were computed, using SUDAAN, for all estimates presented in this report. However, to conserve space in the report, a generalized procedure for approximating the standard errors for most NEHIS estimates was developed.

After obtaining standard error estimates using SUDAAN, regression techniques were then used to produce equations from which a standard error for any estimate of total or percent could be approximated. Separate variance functions were fit for total estimates of establishments and employees, as well as for percents of these statistics. These regression equations are discussed below. Parameters included in these equations by type of estimate are presented in [table VII](#).

For a percent p , an approximate standard error, $SE(p)$, may be computed using the formula

$$SE(p) = \frac{a \sqrt{p(100-p)}}{(\text{denominator})^b}$$

where

a, b are variance function parameters, given in [table VII](#); denominator is the denominator of the percent.

Table V. Standard errors for firm size, adjusted percent of private establishments offering health insurance, and for firm-size adjusted percent of establishments that self-insure when offering health insurance

State	Standard errors for firm-size adjusted percent of establishments offering health insurance ¹	Standard errors for firm-size adjusted percent of establishments that self-insure when offering health insurance ²
	Percent	
United States	0.4	0.3
New England:		
Maine	2.4	1.2
New Hampshire	2.5	2.2
Vermont	2.1	2.0
Massachusetts	1.9	1.3
Rhode Island	2.5	1.9
Connecticut	2.2	1.6
Middle Atlantic:		
New York	1.7	1.3
New Jersey	2.0	1.7
Pennsylvania	1.8	1.1
East North Central:		
Ohio	1.8	1.5
Indiana	1.8	1.3
Illinois	1.9	1.3
Michigan	2.0	1.2
Wisconsin	1.9	1.5
West North Central:		
Minnesota	2.1	1.7
Iowa	2.1	1.9
Missouri	2.0	1.5
North Dakota	2.5	2.2
South Dakota	2.4	1.8
Nebraska	2.1	1.6
Kansas	2.1	1.8
South Atlantic:		
Delaware	2.9	2.0
Maryland	2.1	1.7
District of Columbia	2.9	2.0
Virginia	2.0	1.4
West Virginia	2.4	1.7
North Carolina	2.0	1.5
South Carolina	2.2	1.4
Georgia	2.0	1.4
Florida	1.9	1.4
East South Central:		
Kentucky	2.1	1.5
Tennessee	1.9	1.8
Alabama	2.1	1.7
Mississippi	2.2	1.7
West South Central:		
Arkansas	2.0	1.9
Louisiana	1.9	2.0
Oklahoma	2.2	2.1
Texas	1.8	1.9
Mountain:		
Montana	2.3	2.2
Idaho	2.3	2.2
Wyoming	2.3	2.2
Colorado	2.0	1.7
New Mexico	2.3	1.6
Arizona	2.2	1.9
Utah	2.3	1.2
Nevada	2.6	1.8
Pacific:		
Washington	2.0	1.2
Oregon	2.1	1.5
California	1.6	1.4
Alaska	2.5	2.2
Hawaii	2.2	1.4

¹The corresponding percent estimates are presented in [table 3](#). ²The corresponding percent estimates are presented in [table 7](#). SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey (NEHIS).

Table VI. Standard errors for average waiting days required for an employee to be eligible for health insurance in establishments with such requirement, according to selected characteristics: United States, 1993

Establishment characteristics	Standard errors for average waiting period in days ¹
	Days
United States	1.5
Firm size ²	
Less than 50 employees	2.2
50 or more employees	1.0
Less than 10 employees	2.9
10–24 employees	5.0
25–99 employees	1.8
100 or more employees	1.0
Industry group	
Agriculture, forestry, and fishing	47.3
Mining	17.9
Construction	5.6
Manufacturing	2.2
Transportation, communication, and utilities	5.2
Wholesale trade	4.2
Retail trade	2.8
Finance, insurance, and real estate	3.2
Services	1.8
Ownership	
For profit	1.6
Incorporated	1.2
Unincorporated	7.7
Nonprofit	3.3
Other	5.3
Age of firm	
Less than 5 years	3.9
5–9 years	3.7
10–24 years	2.2
25 years and more	2.7
Multi-State firm indicator	
Single State firm	2.0
Multi-State firm	1.3
Metropolitan area indicator	
Metropolitan area	1.7
Nonmetropolitan area	2.2
Percent of employees that are full-time	
Less than 25 percent	7.5
25–49 percent	4.1
50–74 percent	2.9
75 percent or more	1.9
Presence of union employees	
No union employees	1.6
Has union employees	5.1
Percent of low-wage employees ³	
50 percent or more of employees are low-wage	5.8
50 percent or more of employees are not low-wage	1.6

¹The estimates of average waiting period are presented in table 11.

²Number of employees nationwide as reported by respondent.

³Low-wage employees earned less than \$5 per hour or less than \$10,000 per year.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey (NEHIS).

Employee-related percent example:

Table 12, row 2, and column 1 show an estimate of $p = 54.7$ percent for the percent of private sector employees working in establishments offering health insurance in the industry groups agriculture, forestry, and fishing. The denominator of the percent can be found in **table III**, row 2, column 1: 1,589,600. The generalized variance function gives an estimated standard error (to the nearest 10th of a percent) of

$$SE(p) = \frac{3.651 \sqrt{54.7 (45.3)}}{(1,589,600)^{0.313}} = 2.1\%$$

Establishment-related percent example:

Table 1, row 2, and column 1 show an estimate of $p = 30.2$ percent for the percent of establishments offering health insurance in the industry groups agriculture, forestry, and fishing. The denominator of the percentage can be found in **table I**, row 2, and column 1: 215,800. The generalized variance function gives an estimated standard error (to the nearest 10th of a percent) of

$$SE(p) = \frac{2.298 \sqrt{30.2 (69.8)}}{(215,800)^{0.345}} = 1.5\%$$

For a total “x,” an approximate standard error, $SE(x)$, may be computed using the formula

$$SE(x) = (ax^2 + bx)^{2/3}$$

where

a, b are variance function parameters, given in **table VII**.

For establishment-related totals of 4.7 million or less, the variance function parameters given in the table on **page 46** should be used. However, for establishment-related totals of more than 4.7 million, a value of 20,000 should be used for the estimated standard error.

Employee-related total example:

Table III, row 1, and column 1 shows an estimate of $x = 98,323,100$

employees. The generalized variance function gives a estimated standard error (to the nearest 100) of

$$SE(x) = [(-0.000000132)(98323100)^2 + \sim 19.553)(98323100)]^{2/3} = 747,600$$

Establishment-related total examples:

Table I, row 1, and column 1 shows an estimate of $x = 6,276,800$ establishments. Since x is greater than 4.7 million, an estimated standard error of 20,000 should be used.

Table I, row 2, and column 1 shows an estimate of $x = 215,800$ establishments in the industry group agriculture, forestry, and fishing. Since x is less than 4.7 million, the generalized variance function should be used. The function gives a estimated standard error (to the nearest 100) of

$$SE(x) = [(-0.000000483)(215800)^2 + (2.878)(215800)]^{2/3} = 7,100$$

Graphical displays of the estimated standard errors for total estimates of establishments and employees are given in **figures I and II**. A logarithmic scale is used for both axes in the graphical displays in order to show additional detail for small estimates while displaying the full range of estimates.

Hypothesis testing

Some hypothesis testing was done using standard error estimates produced by SUDAAN. The general form of the statistic used for the hypothesis test was:

$$\frac{|X_1 - X_2|}{\sqrt{\hat{v}(X_1) + \hat{v}(X_2)}}$$

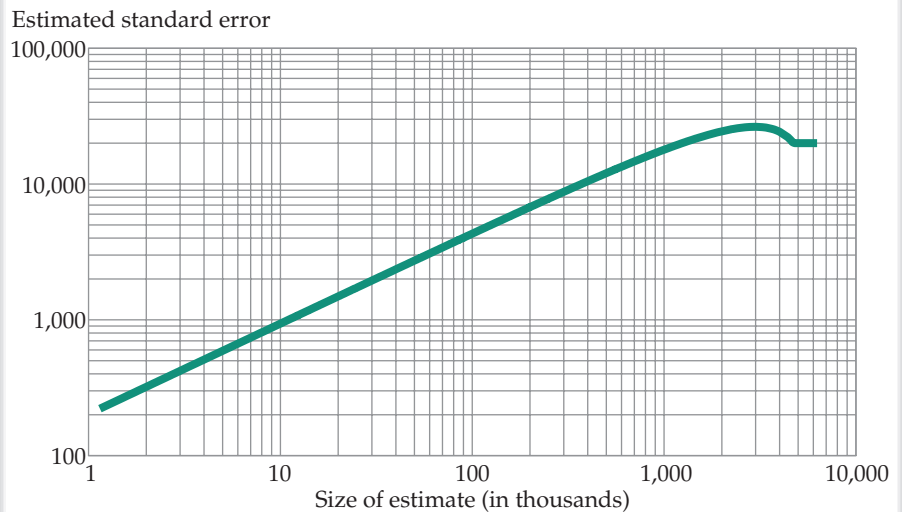
The denominator of this statistic approximates the variance of the difference with the sum of the individual variances, omitting the subtraction of a covariance term. The covariance term is likely to be positive, resulting in an overestimate of the variance of the difference. Additionally, a Bonferroni-type

Table VII. Coefficients for use in the approximate standard error equations for establishment and employee estimates from the National Employer Health Insurance Survey by type of estimate: United States, 1993

Type of estimate	Coefficients for percentages percents		Coefficients for weighted totals	
	a	b	a	b
Establishments	2.298	0.345	-0.000000483*	2.878*
Employees	3.651	0.313	-0.000000132	19.553

*These should not be used for establishment-related estimates of 4.7 million or more; see text for more details.

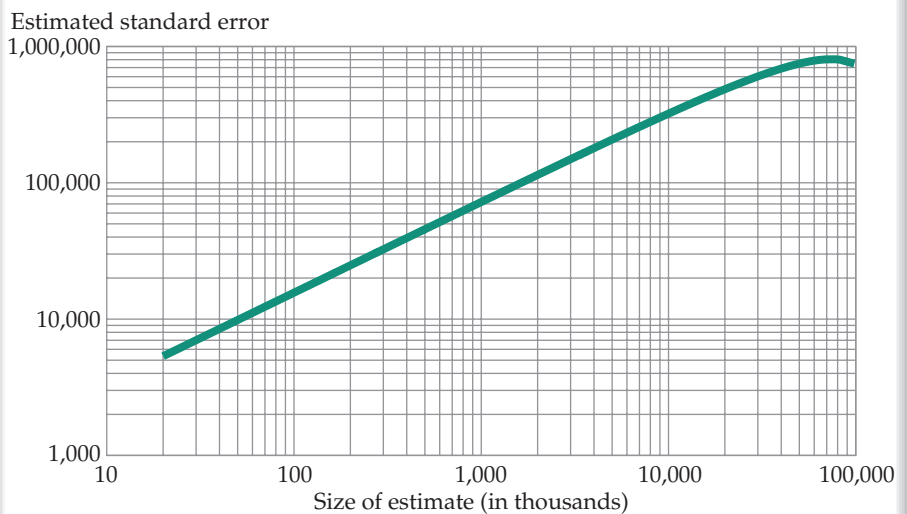
Figure I. Standard errors for establishment-related totals



Example of use of chart: An estimate of 1,000,000 establishments offering health insurance has a standard error of about 18,000.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey.

Figure II. Standard errors for employee-related totals



Example of use of chart: An estimate of 5,000,000 employees enrolled in an employer-sponsored health plan has a standard error of 200,000.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Employer Health Insurance Survey.

Table VIII. Private sector establishment unit response rates by firm size and State: National Employer Health Insurance Survey

State	All firm sizes	Firm size ¹										
		Less than 100 employees				100 or more employees						
		Total	Less than 10 employees	10–24 employees	25–99 employees	Total	100–499 employees	500 or more employees	100–999 employees	1,000 or more employees	Less than 50 employees	50 or more employees
United States	70.5	77.3	78.1	76.3	74.9	60.2	70.8	56.1	70.3	54.6	77.6	63.0
Alabama	70.8	78.1	78.2	73.3	80.8	61.8	71.7	58.7	72.2	56.9	77.9	64.6
Alaska	74.8	78.9	78.3	72.5	87.1	66.3	67.0	66.0	72.8	61.4	78.3	69.5
Arizona	70.3	78.8	79.8	70.4	79.7	58.5	74.9	52.4	71.0	52.0	78.9	62.2
Arkansas	75.7	82.3	82.9	83.8	79.5	65.4	78.2	61.4	82.3	57.4	82.1	68.7
California	66.0	73.8	76.2	69.3	68.6	54.2	65.7	49.8	64.0	48.5	74.6	57.2
Colorado	70.8	78.9	79.4	81.1	76.1	57.6	73.3	51.8	73.5	49.2	79.3	61.0
Connecticut	64.4	70.5	71.1	69.6	69.1	55.1	72.0	47.8	70.6	46.1	70.6	57.8
Delaware	63.3	73.7	72.7	75.1	75.6	49.6	56.9	47.7	55.2	47.3	73.2	53.7
District of Columbia	67.8	71.9	70.2	73.0	75.5	62.1	74.8	56.8	69.1	57.1	70.1	66.0
Florida	63.7	70.7	70.8	68.6	71.3	53.6	63.1	50.6	62.9	49.1	71.2	56.5
Georgia	67.3	75.4	76.9	70.9	74.7	59.2	70.5	55.7	67.7	55.4	75.2	61.5
Hawaii	66.1	71.4	67.9	74.9	76.4	59.3	65.9	55.9	66.5	53.7	69.8	63.1
Idaho	75.5	83.6	84.2	83.4	81.1	58.1	75.8	52.0	75.9	49.0	83.5	63.2
Illinois	68.9	74.5	74.5	77.4	72.6	60.9	71.2	56.8	69.2	56.3	74.7	63.4
Indiana	70.6	78.8	80.1	73.6	78.1	59.7	67.9	56.0	68.6	53.9	78.2	63.8
Iowa	80.9	86.0	86.3	91.6	80.3	70.8	78.1	68.3	78.4	67.1	86.7	72.9
Kansas	77.7	81.6	81.0	80.8	83.9	71.3	75.7	69.6	75.7	68.9	81.6	73.2
Kentucky	71.1	79.6	82.6	77.3	72.0	59.7	71.4	55.2	70.3	53.7	80.9	62.0
Louisiana	69.0	74.3	76.4	71.3	71.0	61.9	67.6	59.9	69.5	58.1	75.6	63.1
Maine	78.4	82.6	83.7	85.2	76.9	69.4	81.4	63.5	82.1	59.2	83.6	71.1
Maryland	66.2	70.8	73.3	66.9	65.3	59.3	63.3	57.4	65.3	55.7	71.2	61.1
Massachusetts	65.3	71.6	72.6	70.3	69.6	55.9	67.2	51.2	66.0	49.8	71.4	59.3
Michigan	68.9	73.8	75.2	73.3	69.3	61.1	76.6	55.3	74.4	53.5	74.5	62.8
Minnesota	74.5	83.3	83.6	81.9	82.0	60.4	70.2	55.9	68.8	54.7	83.6	64.8
Mississippi	72.1	79.5	80.5	71.9	80.7	62.2	70.6	59.2	69.3	58.3	79.1	65.4
Missouri	70.3	79.4	79.7	83.6	74.7	57.7	71.2	53.0	69.8	51.9	80.5	60.7
Montana	85.7	89.9	89.9	94.4	86.1	74.0	85.1	69.2	81.4	69.6	90.2	77.7
Nebraska	78.0	84.4	83.7	82.4	87.4	66.3	75.4	63.1	75.6	61.0	84.1	70.4
Nevada	68.4	73.7	74.1	74.8	72.7	61.0	72.3	57.2	71.8	55.7	73.8	63.4
New Hampshire	73.7	78.2	77.9	78.0	78.6	65.0	63.0	65.8	67.7	62.9	77.7	68.4
New Jersey	65.3	67.9	67.3	65.9	71.3	61.6	66.4	59.6	66.9	58.4	67.2	63.5
New Mexico	78.0	80.8	79.2	85.5	83.0	73.1	86.5	68.7	87.6	65.1	80.6	74.6
New York	61.1	66.1	66.8	62.4	65.1	53.4	58.9	50.6	61.3	48.0	66.2	55.7
North Carolina	67.8	76.5	76.7	78.4	74.2	58.3	73.2	53.2	71.7	52.2	76.5	61.1
North Dakota	80.3	85.9	85.3	90.7	83.8	68.3	75.7	64.3	74.4	64.1	86.6	71.0
Ohio	69.0	77.1	79.3	78.7	69.4	58.7	72.4	53.3	71.9	51.5	78.0	60.9
Oklahoma	71.7	78.6	80.0	71.7	77.3	58.9	70.0	54.0	69.4	52.9	79.3	62.0
Oregon	75.9	82.8	82.5	76.6	87.0	62.9	78.2	56.0	76.4	54.0	81.9	68.4
Pennsylvania	70.1	77.1	77.4	77.1	76.5	59.8	70.3	55.4	66.7	55.5	77.4	62.8
Rhode Island	68.1	71.7	73.9	67.8	65.3	61.1	64.9	58.9	68.3	55.4	72.0	63.0
South Carolina	66.8	75.3	76.8	78.0	68.9	57.2	70.3	53.8	69.1	52.6	76.7	58.7
South Dakota	82.3	88.2	88.8	87.2	85.1	66.6	83.8	57.4	85.1	53.3	88.7	71.4
Tennessee	70.0	79.0	82.8	73.8	72.4	60.0	63.8	58.7	67.6	56.2	80.1	62.1
Texas	67.3	73.2	74.4	73.3	68.5	59.7	77.3	54.0	74.4	52.6	74.4	60.6
Utah	74.2	82.8	87.2	80.9	71.0	62.7	76.9	57.5	77.0	55.0	85.4	63.4
Vermont	77.9	82.7	83.1	88.7	76.9	64.2	78.2	54.4	75.7	52.7	83.7	66.8
Virginia	65.8	74.1	75.8	75.4	68.0	54.7	60.4	52.8	60.3	52.0	75.2	57.1
Washington	73.0	79.8	80.0	80.7	77.5	61.4	79.1	54.8	76.6	52.6	80.5	63.8
West Virginia	71.5	81.6	83.1	79.1	77.3	57.6	66.1	54.6	66.9	53.1	81.9	61.1
Wisconsin	74.8	81.4	81.5	82.2	80.8	64.5	79.1	57.2	72.4	58.5	81.7	67.8
Wyoming	80.5	86.6	85.2	92.8	89.8	67.0	68.2	66.6	70.3	65.3	85.9	71.7

¹Firm size available from the Dun's Marker Identifiers file and adjusted by Westat, used for sample selection. See Technical notes under [Sample design](#) for details.

Table IX. Private sector item response rates for selected establishment variables: National Employer Health Insurance Survey

Establishment variable	Item response rate
Number of full-time employees	93.0
Number of part-time employees	93.0
Total number of employees eligible	95.1
Number of full-time employees eligible	94.4
Number of part-time employees eligible	94.2
Are retirees 65 years of age and over eligible for health insurance?	98.3
Are retirees under 65 years of age eligible for health insurance?	97.8
Total number of employees covered	94.4
Number of full-time employees covered	93.3
Number of part-time employees covered	94.0
Waiting period of new employees for eligibility	90.0
Minimum work hours required per week for eligibility	98.1
Type of ownership	96.8
Age of firm	95.7
Location of establishments in firm	98.9
Percent of low-wage employees ¹	82.9
Establishment self-insures at least one plan	94.3

¹Low-wage employees earned less than \$5 per hour or less than \$10,000 per year.

multiple comparison procedure was used when a related group of hypothesis tests were done.

Nonsampling error

There are many potential sources of nonsampling errors including: inability to identify all cases in the target population, definition and classification errors due to differences in interpretation of questions, reporting and processing errors, and biases due to nonresponse or incomplete response. To the extent possible, these types of errors were kept to a minimum by methods built into the survey procedures.

Undercoverage of business establishments by the Dun's Market Identifiers file is known to exist, especially for smaller establishments, but has not been reliably estimated. One concern is the lag between the time an establishment is initiated and the time it is included in the file.

Unit and item response rate tables appear in this Technical notes (see [tables VIII](#) and [IX](#)). Item response rates were computed as the percent of respondents reporting a survey item. Item nonresponse was low for most of the estimates presented in this report (about

10 percent or less). Unit nonresponse rates were high for some subgroups of the private sector (for example, establishments in large firms).

Unit response rates were calculated as the ratio of the total number of survey respondents to the estimated number of sample establishments eligible for the survey. The estimate of the number of sample establishments eligible for the survey consists of four components: (a) the number of survey respondents, (b) the number of nonrespondents that provided enough survey information so that it was known that they were eligible, (c) an estimate of the number of eligible cases among those that could not be located during screening, and (d) an estimate of the number of eligible cases among those that were located during screening, but were nonrespondents to screening.

In order to minimize the potential for bias in survey estimates, and to allow for more complete data for analysis, missing responses were imputed for five important variables: (a) number of full-time employees, (b) number of full-time employees eligible for health insurance, (c) number of full-time employees enrolled in a health insurance plan, (d) total

number of employees eligible for health insurance, and (e) total number of employees enrolled in a health insurance plan. For these five variables, the item response rate varied from 93 percent to 95 percent.

A "hot deck" imputation procedure was used to impute missing values for these five variables. With this procedure, missing values were replaced by corresponding values obtained from a donor (for example, a randomly selected establishment that reported all five of these variables). The process was set up to select donors with survey characteristics similar to those of the establishments with missing responses (donees). This was done by creating imputation cells defined by cross-classifications of variables that were identified as being correlated to survey measures. Potential donors and donees were both placed into imputation cells based on their characteristics. For each donee, a donor was then selected at random from the potential donors in the same imputation cell.

Since the total number of employees was available for all responding establishments in the survey, imputations were based on donor ratios of the five imputation variables to the total number of employees. For example, if the number of full-time employees enrolled in health insurance is missing for an establishment, it would be imputed by multiplying the number of employees in the donee establishment by the donor ratio of the number of enrolled full-time employees to the total number of employees. If more than one of the five imputation variables was missing from a donee, all would be imputed from ratios derived from the same donor.

As part of the imputation process, care was taken to impute values that were consistent with reported values. For example, when imputing the number of full-time employees enrolled in health insurance, steps were taken to be sure that the imputed number

would not be larger than the reported number of eligible full-time employees. Avoiding inconsistencies required some variation from the basic approach of imputing based strictly on ratios.

Definitions

Conventional or indemnity plan—A plan in which the covered person seeks care from his or her own choice of providers on a fee-for-service basis. Either the patient or the provider submits the claims. Plans reported as fee-for-service with PPO riders were counted as PPO plans.

Employee—Person on the payroll on December 31, 1993. Excludes employees under personal service contracts and persons hired from a temporary agency. For this report, the number of employees at an establishment includes the owner if he or she worked at the location of the establishment.

Establishment—An economic unit, at a single physical location, where business is conducted or services or industrial operations are performed. Self-employed persons with no employees and no other locations are excluded in this report.

Firm—Business organization or entity consisting of one domestic establishment (location) or more under common ownership or control.

Firm size—Number of employees at all locations of the business nationwide, as reported by the survey respondent.

Government—A Federal, State, or local government. Unlike an establishment, a government may have more than one location.

Health insurance—Includes basic, major medical, single service such as dental, and special plans such as long-term care insurance that the employer offered as of December 31, 1993.

Health maintenance organization (HMO)—Offers comprehensive health care from a specified set of providers for fixed periodic payments. HMO providers may be employees or under contract to the HMO. Care from providers outside the HMO is only covered in emergencies or when the patient is referred by an HMO provider. For this report, Open-ended HMO's and Point of Service (POS) plans that include some HMO-like features but allow patients to use providers outside the HMO with higher patient costs, have been combined with HMO's. Exclusive Provider Organizations (EPO) are also combined with HMO's.

Industry group—Major activity of the establishment as classified by the Standard Industrial Classification (SIC) system.

Major health plan—Plans that typically cover both inpatient hospital stays and outpatient physician services. In this report, these plans were classified as one of the following: health maintenance organization, preferred provider organization, or conventional or indemnity plan. Excludes single service plans such as dental only, long-term care, dread disease, hospital indemnity, and disability plans.

Managed care plan—In this report, refers to plans classified as preferred provider organizations (PPO's) or health maintenance organizations (HMO's). Excludes plans classified as conventional or indemnity.

Offer health insurance—An employer is considered to offer health insurance if one or more employees receive, or have the option to receive, their health insurance through that employer. The employer may pay all, part, or none of the cost of the insurance. Plans obtained through unions or associations are included if contributed to by the employer. *Offer health insurance* is essentially equivalent to "offer major health plan" as only 0.1 percent of all private establishments offered single service or special plans only.

Preferred provider organization (PPO) plan—Fee-for-service plan in which the covered person may seek care from a provider associated with the plan (preferred provider) or a provider outside the plan (nonpreferred provider). Typically the patient pays more when he or she sees a nonpreferred provider.

Self-insured plan—A plan is considered self-insured by the employer when the financial risk for medical claims is borne partially or entirely by the employer.

Work schedule—Full-time compared with part-time were respondent defined.

How to obtain the data

Requests for additional information concerning this survey and the availability of NCHS products and services should be directed to the Data Dissemination Branch. This Branch provides information about NCHS publications, electronic microdata files, and unpublished tabulations. At the time this publication went to press, microdata files were unavailable due to confidentiality issues relating to data release; however, work in this area was continuing.

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